

## **Australia: Report on the Observance of Standards and Codes—Data Module**

This Report on the Observance of Standards and Codes on Data Module for Australia was prepared by a staff team from the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on November 18, 2010. The views expressed in this document, as well as in the full assessment report, are those of the staff team and do not necessarily reflect the views of the government of Australia or the Executive Board of the IMF.

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

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AUSTRALIA

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

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November 18, 2010

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

The datasets covered in this report are national accounts, consumer and producer price indices, government finance, monetary, and balance of payments and international investment position statistics. The agencies that compile the datasets assessed in this report are the Australian Bureau of Statistics, the Australian Department of Finance and Deregulation, and the Reserve Bank of Australia.

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

Australian Bureau of Statistics (<http://www.abs.gov.au>)  
Department of Finance and Deregulation (<http://www.finance.gov.au>)  
Reserve Bank of Australia ([www.rba.gov.au](http://www.rba.gov.au))

Some datasets are also available in print, although the Reserve Bank of Australia ceased print publication of statistics in January 2010.

This report is based on information provided prior to and during a staff mission from March 17-31, 2010 and publicly available information. The mission team comprised Charles Enoch, Sagé de Clerck, Pierre Papadacci, Mark Van Wersch (all IMF's Statistics Department, STA), David Fenwick and Cor Gorter (Experts), and Janice Irving (Senior Administrative Assistant, STA).

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## ACRONYMS

<i>1993 SNA</i>	<i>System of National Accounts, 1993</i>
<i>2008 SNA</i>	<i>System of National Accounts, 2008</i>
ABS	Australian Bureau of Statistics
<i>ABSA</i>	<i>Australian Bureau of Statistics Act, 1975</i>
ANZSIC06	Australian and New Zealand Standard Industrial Classification, 2006 edition
AOFM	Australian Office of Financial Management
APRA	Australian Prudential Regulation Authority
BOP/IIP	Balance of Payments and International Investment Position Statistics
<i>BPM6</i>	<i>Balance of Payments and International Investment Position Manual,</i> sixth edition
<i>BPM5</i>	<i>Balance of Payments Manual,</i> fifth edition
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption According to Purpose
CPI	Consumer Price Index
CPICC	Consumer Price Index Commodity Classification
CSA	<i>Census and Statistics Act, 1905</i>
DoFD	Department of Finance and Deregulation
DQAF	Data Quality Assessment Framework
DSBB	Dissemination Standards Bulletin Board
FISIM	Financial Intermediation Services Indirectly Measured
f.o.b.	Free on board
GDP	Gross Domestic Product
GFC	Global Financial Crisis
GFS	Government Finance Statistics
<i>GFSM 2001</i>	<i>Government Finance Statistics Manual, 2001</i>
GST	Goods and Services Tax
HES	Household Expenditure Survey
ISIC	International Standard Industrial Classification
IMF	International Monetary Fund
<i>MFSM 2000</i>	<i>Monetary and Financial Statistics Manual, 2000</i>
MoU	Memorandum of Understanding
ODC	Other Depository Corporation
OECD	Organisation for Economic Cooperation and Development
PPI	Producer Price Index
QNA	Quarterly National Accounts
RBA	Reserve Bank of Australia
<i>RBAA</i>	<i>Reserve Bank of Australia Act</i>
ROSC	Report on the Observance of Standards and Codes
SDDS	Special Data Dissemination Standard
STA	IMF's Statistics Department

## I. OVERALL ASSESSMENT

1. Australia's statistics are generally of a high quality. The Australian Bureau of Statistics (ABS) has been among the pace-setters in the development and adoption of cutting-edge methodologies. The institutional framework for the provision of statistics is long standing, with the *Census and Statistics Act, 1905* providing the legal basis for statistical compilation and the *Australian Bureau of Statistics Act, 1975* establishing the institutional arrangements. The ABS is the central statistical agency. Its responsibilities include the compilation and dissemination of national accounts, the consumer price index (CPI), the producer price index (PPI), government finance statistics (GFS), and balance of payments and international investment position statistics (BOP/IIP). Commonwealth financial statements are compiled by the Department of Finance and Deregulation (DoFD), while the Reserve Bank of Australia (RBA) is responsible for monetary statistics.

2. Australia has been a subscriber to the Special Data Dissemination Standard (SDDS) since April 1996, and started posting its metadata on the Dissemination Standards Bulletin Board (DSBB) in September 1998, meeting the SDDS specifications in July 2001. Australia is in observance of the SDDS, meeting the specifications for coverage, periodicity, timeliness, and the dissemination of advance release calendars.

3. Australia is availing itself of flexibility options for:

- The periodicity of the production index data category (Australia compiles and disseminates quarterly data and not monthly data as required);
- The timeliness of the production index category (Australia disseminates the index no later than one quarter after the reference quarter and not within six weeks as required);
- The periodicity of the consumer and producer prices data categories (Australia compiles and disseminates quarterly data and not monthly data as required).

4. Australia is also availing itself of a targeted flexibility option for the timeliness of central government operations, where a three-month lag is allowed for the last month of the old fiscal year and a two-month lag for the first month of the new fiscal year, provided that quarterly general government data are disseminated with a one-quarter lag.

5. As Australia has migrated to the newest versions of the statistical manuals—the *System of National Accounts, 2008 (2008 SNA)*, the sixth edition of the *Balance of Payments and International Investment Position Manual (BPM6)*, as well as the more established *Government Finance Statistics Manual, 2001 (GFSM 2001)*, and the *Monetary and Financial Statistics Manual, 2000 (MFSM 2000)*—this Data Module of the Report on the Observance of Standards and Codes (Data ROSC) assesses Australia against the prescriptions of these methodologies. As a result, comparisons of this Data ROSC against such exercises for other countries in the past need to be treated with caution. The 2003 Data Quality Assessment Framework (DQAF), which underpins the Data ROSC, permits assessment against the prior international methodology in several of these topical areas. Thus Australia has arguably set

itself a higher bar for this assessment than have other countries. On the other hand, as additional countries migrate to the new methodologies, this Data ROSC for Australia may come to be the new benchmark.

6. The Data ROSC assessment is taking place at a time when the ABS in particular is facing challenges. The migration to the new methodologies has been a multi-year undertaking, and has been largely successfully achieved. It has involved substantial efforts to introduce fundamental changes across much of the institution's macroeconomic statistical activities. All Commonwealth agencies are subject to a 1.5 percent annual efficiency dividend and the ABS is no different. However, in terms of its funding relative to other agencies, the ABS' position has improved as it is exempt from the additional whole-of-government departmental efficiencies savings (which apply to most other agencies) over the four years FY 2010 to FY 2013; the ABS has also suffered an unusual level of loss of expertise, with the retirement of a cohort of highly experienced staff and a salary scale that is below the median for public institutions in Canberra. Added to this has been the global financial crisis (GFC), which seems to have led to statistical outcomes that are difficult to interpret. To achieve cost savings, the ABS introduced, among other measures, a 24 percent cut in the sample size for the labor force survey. User concern to accurately track the impact of the GFC on employment subsequently led to the restoration of the sample. After an external review by the DoFD, the ABS was given some replenishment of funding, but continued to have to find savings through reducing staffing at all levels to provide resources to increase ABS salaries in line with public service wage movements. The September 2009 Quarterly National Accounts (QNA) had to be rereleased to correct compilation errors, with some loss of credibility amongst the user community. At this stage the worst of the transitional problems may be behind: the December QNA was issued successfully. However, a number of issues continue to defy analytical explanation—for instance, the divergent paths of the various estimates for GDP. Some users have also suggested a disconnect between growth in employment and that in the production based estimate of GDP; however growth in hours worked in this period is in line with growth in production and seems to reconcile the two series. Meanwhile, wage and other cost pressures are expected to continue, as the ABS strives to maintain its reputation for statistical excellence. While some of this is outside its control, careful management of its staff resources—including succession planning—will be important for its work program for the future.

7. As noted above, Australia's statistics overall are of a high quality. Insofar as issues are identified in this Report, they seem in large part related to one or more of three factors: first, the short-term legacies of the recent methodological transitions, where a number of "loose ends" remain to be tidied up; second, the continuing resource pressures, under which the ABS feels itself unable to introduce any initiatives without being provided with additional funding; and third, an emphasis on meeting domestic information requirements where the view is that domestic requirements demand data that are on bases that differ from the relevant international standards. This last factor is naturally a particular focus of this ROSC exercise. Deviations from international standards, where material, may cause problems, not so much because after careful consideration Australian statisticians adopt an approach different from that mandated by the international methodologies, but because in such an event lower priority seems to be given to mapping, or providing other means to ensure that Australia's figures can be interpreted on the same basis as those of the rest of the

world. Also, with Australia's statistics at the forefront of methodological innovation, the wider statistical community would hope to be able to draw on the lessons of Australia's statistical transition; this would be assisted if any deviations were explained and quantified. Studies of the GFC have recognized the importance of data, and the need for harmonized statistics in order to interpret international economic developments. Achieving international comparability is made more difficult by Australia implementing the *2008 SNA* and *BPM6* standards ahead of other countries. It is therefore problematic if Australia does not release figures in accordance with international standards as still applied elsewhere, and also does not provide the means to convert or link its data to the *2003 SNA* and *BPM5* basis. As regards monetary statistics, the RBA recently made the move towards the adoption of the *MFSM* and implemented the underlying standardized report forms developed by the IMF. As a result, monetary statistics are now posted on the RBA website in formats that allow for easy international comparisons. Nonetheless, there is still room for improvement in the accuracy of source data and institutional coverage.

8. Section III of this report provides summary recommendations. Some of the recommendations can be implemented very quickly, without needing significant additional resources, while others may require staff and financial resources.

9. In applying the IMF's DQAF, the remainder of this section presents the mission's main findings. The findings are presented at the level of the DQAF's quality dimensions, by agency for the first two dimensions, and across datasets for the remaining four.

10. **Pre-requisites of quality and assurances of integrity.**

- National accounts, CPI, PPI, GFS, and BOP/IIP statistics are compiled by the **Australian Bureau of Statistics** in accordance with the *Census and Statistics Act, 1905*, which states (Part III, paragraph 9), that the Statistician ... "may from time to time collect such statistical information...as he or she considers appropriate." The *Australian Bureau of Statistics Act, 1975 (ABSA)* establishes the ABS as the central statistical agency in the country, and provides the Statistician, as the head of the ABS, with substantial independence, as well as discretion over all aspects of the collection and dissemination of statistics. The Statistician cannot be dismissed except on grounds of misbehavior, incapacity, or bankruptcy, and even then only on the vote in the same session of both houses of parliament. The *Statistics Determination Act, 1983* sets out confidentiality provisions, and conditions for disclosure of information. There is limited prior access to data in a lock-up, and any prior access is fully disclosed to the public. The ABS has traditionally been at the cutting edge of methodological development, and at the present time is the only major statistical agency in the world that has essentially fully migrated to the new methodologies in all the main macroeconomic datasets. It has traditionally been well resourced but has not been immune from budgetary pressures faced by all Commonwealth agencies. However, despite receiving some additional funding in the past year, the ABS undertook some staff downsizing, and has also lost significant expertise through retirements. The existence of diverse statistical interests and objectives has made it difficult for the ABS to undertake short-term reprioritization of statistical programs to achieve

economies; it is dependent on securing earmarked funding to take on additional statistical commitments.

- Commonwealth monthly and annual financial statements are compiled by the **Department of Finance and Deregulation**, under provisions of the *Financial Management and Accountability Act, 1997*. The integrity of GFS compilation is further strengthened by the *Charter of Budget Honesty Act, 1998*, which requires among others things, regular fiscal reporting based on external reporting standards, defined as Australian GFS, and public sector accounting standards developed by the Australian Accounting Standards Board. From 2008-2009 onwards the Australian government also adopted the *Australian Accounting Standards Board 1049* which requires the adoption of ABS GFS across the face of financial statements for the whole of the government and general government sectors, where it does not conflict with Australian accounting standards. Where differences exist, the reconciliation of accounting with key GFS aggregates is required.
- Monetary statistics are disseminated by the **Reserve Bank of Australia**—albeit the *Reserve Bank of Australia Act, 1959* does not include specific provision in this regard—with data from the banking sector collected by the Australian Prudential Regulation Agency under the *Australian Prudential Regulation Authority Act, 1998*. The RBA does not carry out users’ surveys beyond the circle of its correspondents in the financial sector.

11. All agencies seek to maintain a high level of professionalism, and transparency. All follow a *Code of Conduct*, which staff are made aware of at induction and periodically thereafter. Staff in all agencies follow the precepts of the Australian Public Service, which stresses professionalism and integrity. In all cases, choice of techniques is based solely on statistical considerations. There is no pre-release of information, except for limited lock-up access by the ABS that is explained to the public.

12. The **methodological soundness** of Australia’s statistics has been for many years amongst the highest in the world. Australia continues in this lead position, being the first country to essentially fully adopt the *2008 SNA* and the *BPM6*, as well as the more established *GFS 2001* and the *MFSM 2000*. Most practices are in line with these new, and hence demanding, standards, but there are some deviations, no doubt at least in part because the full transition is not yet complete. Annual and quarterly national accounts are essentially on the new basis, but a few categories of data are not yet worked out: these include the value of growing crops, databases, valuables, and illegal activities. As regards the CPI, the treatment of deposits and loans is an issue, but international guidelines in this area are not prescriptive and the practical problems of compilation faced by the ABS are common to other countries. Coverage embraces household final monetary consumption, with minor departures, such as the exclusion of second hand cars. However, for the CPI, the target population is restricted to the six State capitals plus Darwin and Canberra, which together cover only 64 percent of the population, far fewer than in other developed countries. The Household Expenditure Survey (HES) covers all households, but use of expenditure data for the weights is restricted to the main cities. The same geographic restriction applies to price collection. Published PPIs cover the minimum requirements for manufacturing, construction



and mining, but not for services. The use of ANZSIC06 for the PPI allows a closer concordance with International Standard Industrial Classification (ISIC) than its predecessor and there are no conceptual differences. The classifications are broadly consistent at higher levels of aggregation. The latter is also the case, but to a more limited extent, for the Consumer Price Index Commodity Classification (CPICC) used for the CPI. Despite differences between the CPICC and Classification of Individual Consumption According to Purpose (COICOP), including conceptual differences, there is a reasonable concordance at a higher level which, with some manipulation of the lower-level data facilitates international comparisons on a comparable basis. The GFS are produced on nationally derived concepts, definitions, and presentational framework; where differences exist from *GFSM 2001*, source data are sufficiently detailed to allow linkage to *GFSM 2001*. The scope of GFS is consistent with *GFSM 2001*, but a stocks-and-flows data breakdown between domestic and foreign financial assets and liabilities, and between banks and nonbanks, is lacking. Recently, the RBA adopted the *MFSM* methodology for the compilation of monetary statistics. Nevertheless, the institutional coverage of monetary statistics—currently central bank, banks, credit unions, and building societies—could be further improved to include money-market corporations and cash management trusts as they already are in other financial aggregates disseminated by the RBA. In the BOP/IIP statistics the recording of repos is not in line with the recommendations of the *BPM6* and *2008 SNA*, as is the use of the creditor approach for interest on debt securities, as well as the use of fair value for debt other than securities.

13. Australia's statistics generally demonstrate **accuracy and reliability**, with sound practices regarding source data, assessment of source data, statistical techniques, and revision studies. All agencies conduct periodic reviews on the various elements of accuracy and reliability. However, there are some areas, particularly as regards source data, where enhancements should be considered. As regards national accounts, many source statistics are good, but the Annual Integrated Collection suffers from a small sample size and limited product detail. The HES is now conducted only every six years, as against an international guideline of five years; past empirical evidence suggests that this may not be a big issue in terms of measured inflation. The ABS is reviewing the frequency of weights updating as part of its ongoing 16<sup>th</sup> Series review and is considering a number of options for updating weights more frequently. For monetary statistics, source data lack accuracy as the split between transactions in national currency and transactions in foreign currency is not available at the requested level of detail. Also, holdings of certificates of deposits issued by banks are not sectorized; consequently the total outstanding amount is allocated to broad money.

14. The **serviceability** of Australia's statistics is in many cases excellent, as a result of the Australian agencies making considerable efforts to meet users' needs. As noted above, the ABS is currently undertaking a major review of the CPI—formally the 16<sup>th</sup> Series review—soliciting users' views. On the other hand, Australia maintains five flexibility options within the SDDS—more than most countries—and has made no progress in addressing the country's need for them since Australia first subscribed to the SDDS more than a decade ago. As regards periodicity, for a number of series Australia disseminates on a quarterly basis while the SDDS mandate is for monthly. This seems particularly problematic as regards the CPI, which was by some distance the category for which the users in the informal survey expressed most dissatisfaction. The RBA and some sector users contend that a monthly CPI would serve to enhance the central bank's ability to operate monetary policy

because of better timeliness; also greater availability of data points would enable better analysis on, for instance, turning points, and could thus help avoid mistakes in economic management. The ABS is one of only two OECD country statistical institutions that do not compile a monthly index: this is one of the issues being considered in the 16<sup>th</sup> Series review. Overall, timeliness of Australia's statistics is good, in some cases significantly exceeding SDDS requirements. However, as noted above, Australia still maintains flexibility options on timeliness. The production index is disseminated not later than one quarter after the reference period, as against the six-weekly requirement with one month encouraged. Also, Australia uses the option of less timely dissemination of central government operations at year end that is available to countries using the *GFSM 2001* methodology. Consistency checks are not always applied appropriately across datasets.

15. Australia's statistics have generally exemplary **accessibility**. All the disseminating agencies have put considerable efforts into developing their websites and making them user friendly. The ABS provides substantial amounts of free data on its website for the areas that it covers. Requests for customized additional data are charged. Publications also include abundant metadata, although these seem not always well customized for different types of user, and not for all data categories. Data releases also include analytic descriptions of developments. National accounts data are available on the website with series available back to September 1959. The CPI release covers a range of indices, with explanation of the factors contributing to inflation. The PPI release covers the headline figure and a range of sub-indices. Contact persons for assistance are identified at the front of most ABS data releases. For GFS, consistent data series on an accrual basis are available from 1998-1999, while some cash-based data are available from the ABS from 1961-1962. The DoFD provides a contact point for further assistance. The RBA ceased its hard-copy statistical publication in January 2010. It provides a wide range of monetary data covering a long time period on its website. Metadata are provided in an accompanying methodological note. The RBA does not identify a contact person for further assistance, but has a general contact point for users. All agencies provide a catalog of publications concerning the data. All disseminate information about future data release dates, although the DoFD on occasion has not released data on the specified date as administrative and internal clearance procedures determine the actual release date.

16. Section II provides a summary assessment by agency and dataset based on a four-part scale. This is followed by staff recommendations in Section III. Practices compared to the SDDS are summarized in Appendix I. The authorities' response to this report and a volume of detailed assessments are presented in separate documents.

## II. ASSESSMENT BY AGENCY AND DATASET

17. An assessment of the quality of six macroeconomic datasets—national accounts, the consumer price index, the producer price index, and government finance, monetary, and BOP/IIP statistics—was conducted using the DQAF, July 2003. In this section, the results are presented at the level of the DQAF elements and using a four-point rating scale (Table 1). Assessments of the prerequisites of data quality and the assurances of integrity (Dimensions "0" and "1" of the DQAF) are presented in Tables 2a–c. For the various datasets, the assessment of methodological soundness, accuracy and reliability, serviceability, and

accessibility (Dimensions “2” to “5” of the DQAF) is shown in Tables 3a–f. The analysis was carried out on the basis of a self-assessment by the compiling agencies, discussions during the mission, and an informal users’ survey.

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

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

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

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

**Table 2a. Assessment of Data Quality—Dimensions 0 and 1—Australian Bureau of Statistics**

0. Prerequisites of quality	1. Assurances of integrity
<p><b>Legal and institutional environment.</b> The ABS is established as the central statistics agency of Australia under the <i>Australian Bureau of Statistics Act, 1975 (ABSA)</i>. The <i>Census and Statistics Act, (1905)</i> provides the Statistician (the head of the ABS) with the authority to collect and disseminate statistics in a wide range of areas including national accounts, consumer price index, producer price index, government finance statistics, balance of payments and international investment position statistics, and monetary statistics. Section 6 of the <i>ABSA</i> mentions amongst the functions of the ABS “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” While the Statistician has wide authority over the collection of statistics, he/she is required to appear before the Senate Estimates Committee roughly twice a year, and to answer questions publicly on anything to do with the work of the ABS.</p> <p><b>Resources.</b> Human, computing, and financing resources would in general be adequate for the compilation and dissemination of the macroeconomic statistics, but the present environment is imposing strains. In particular, loss of expertise, recruitment and retention issues, the ambitious program to adopt new methodologies, and issues arising with regard to the GFC mean that the ABS has to make difficult choices as regards management of its program. Introduction of new statistical activities requiring resources is linked by the ABS to obtaining earmarked funding.</p> <p><b>Relevance.</b> The ABS has in place a number of arrangements that provide priorities and feedback. The Australian Statistics Advisory Council is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback is provided by the Economic Statistics User Group that represents key economic constituents.</p> <p><b>Other quality management.</b> The ABS mission statement mentions explicitly various dimensions of quality. The ABS Corporate Plan also sets values and objectives that are highly relevant from a quality management point of view.</p>	<p><b>Professionalism</b> Under the <i>ABSA</i> the Statistician and the ABS form an independent statutory authority for the purposes of the <i>Australian Public Services Act, 1999</i>. All appointments are based on merit, and are competitive, in line with the policies of the Australian public sector. Professional qualifications and professional enhancement are encouraged. The Statistician is appointed for seven years (with eligibility for reappointment) and cannot be removed, other than on grounds of misbehavior, incapacity, or bankruptcy.</p> <p><b>Transparency.</b> The terms and conditions under which statistics are collected, processed, and disseminated are made widely available to the public, in particular through the Internet, most completely on the website of the ABS, which includes also documents such as the ABS work program and corporate plan. Statistics are available free of charge to users through the Internet. All statistics are made available simultaneously at 11:30 a.m. on the day of their release. Pre-embargo access is given to a small number of ABS publications by authorized staff for up to two hours under “lock-up” arrangements. National accounts are provided to designated officials in the Treasury, under similar lock-up arrangements the day prior to release. These arrangements are well publicized.</p> <p><b>Ethical standards.</b> All staff are subject to the <i>Code of Conduct</i> as set out in section 13 of the <i>Australian Public Service Act</i>. In addition, the ABS Corporate Plan includes obligations employees have to the ABS. Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of ethical standards, for instance through in-house webpage announcements.</p>

**Table 2b. Assessment of Data Quality—Dimensions 0 and 1—Department of Finance and Deregulation**

0. Prerequisites of quality	1. Assurances of integrity
<p><b>Legal and institutional environment.</b> The Department of Finance and Deregulation (DoFD) is responsible for the compilation and dissemination of monthly and annual financial statements of the Commonwealth Government, while the Australian Office of Financial Management (AOFM), which is part of the Treasury portfolio, is responsible for the management and dissemination of monthly securities debt data of the Commonwealth. These data, disseminated as independent reports and serving as source data for the GFS compilation, are largely governed by the <i>Financial Management and Accountability Act, 1975</i>, which is available on the DoFD website. It sets requirements for the annual preparation and audit of Commonwealth financial statements. The <i>Charter of Budget Honesty Act, 1998</i>, requires, among others things, regular fiscal reporting. From 2008-2009 onwards the Australian government also adopted the <i>Australian Accounting Standard Board 1049</i>, which requires the adoption of ABS GFS across the face of financial statements for the whole of government and general government sector, where it does not conflict with Australian accounting. Where differences exist, reconciliation of accounting with key GFS aggregates is required. Procedures are in place to ensure adequate coordination and working arrangements among the Commonwealth agencies, and with the ABS. Data provided by individual reporters are held in confidence and not released to the public.</p> <p><b>Resources.</b> Staff, computing, and financing resources are deemed to be broadly commensurate with the needs of data compilation. A program of in-house training is in place, and the involvement of contractual accounting professionals support the work program. Staff are appraised twice a year. The budget of the area producing statistics is subject to an efficiency dividend each year, so that exclusive of other changes, marginal reductions are applied each year to promote increased efficiency.</p> <p><b>Relevance.</b> The DoFD maintains a high level of ongoing contacts with key users of GFS statistics both internally (reporting agencies of the Commonwealth, National Accounts and GFS at the ABS) and externally (the Commonwealth Treasury, and Commonwealth Grants Commission, etc.).</p> <p><b>Other quality management.</b> There is focus on quality at the DoFD. Staff are aware of the importance of maintaining high standards, and accounting systems have imbedded quality controls.</p>	<p><b>Professionalism.</b> There is a high level of professionalism throughout the Australian public service. All appointments are competitive and in line with the policies of the Australian public sector. Staff at the DoFD are subject to the Australian Public Service Code of Conduct. This requires, amongst other things, that staff do not make improper use of inside information. Decisions about dissemination of data are informed by legal requirements and statistical considerations.</p> <p><b>Transparency.</b> Detailed information on the concepts, sources, and methods used in compiling GFS can be found in <i>Australian System of Government Finance Statistics: Concepts, Sources, and Methods</i>, which is available on the ABS website. The accounting standards, financial statements, annual reports, and other publications also disseminate information on the methods underlying the compilation and dissemination of the financial statements. There is no pre-release of the data. Data releases are subject to internal clearance processes.</p> <p><b>Ethical standards.</b> All staff are subject to the Australian Public Service Values and <i>Code of Conduct</i>, as set out in Sections 10(1) and 13 respectively of the <i>Australian Public Service Act</i>. Staff are made aware of the <i>Code of Conduct</i> at induction, and are reminded of it periodically.</p>

**Table 2c. Assessment of Data Quality—Dimensions 0 and 1—Reserve Bank of Australia**

0. Prerequisites of quality	1. Assurances of integrity
<p><b>Legal and institutional environment.</b> The <i>Reserve Bank of Australia Act, 1959 (RBAA)</i> does not include a specific mandate for the dissemination of official monetary statistics for Australia, although the RBA has performed this role for many years. The Australian Prudential Regulation Authority (APRA) has responsibility for supervision, and authority under <i>The Financial Sector (Collection of Data) Act, 2001</i> to collect data from the sector. The <i>Australian Prudential Regulation Authority Act, 1998 (APRA Act)</i> provides APRA with the legal authority to provide protected data collected under the <i>Financial Sector (Collection of Data) Act, 2001</i> to the RBA. A <i>Memorandum of Understanding</i>, (1998 between the RBA and APRA sets out the respective responsibilities of the two agencies, and mandates the sharing of information pursuant to their objectives. Under the <i>RBAA</i> and the <i>Banking Act</i>, (1959 data are published by the RBA only at an aggregate level. Confidentiality of data is protected at all times by the RBA in accordance with the provisions of the <i>APRA Act</i>, with access to individual banks’ data only given to staff with specific need to know for their statistical duties.</p> <p><b>Resources.</b> Human, computing, and financing resources are adequate to collect, compile, and disseminate monetary statistics. Significant amounts of training are provided to new staff. Salaries are adequate, and staff turnover is manageable. The RBA has an annual performance management program. Resources used to compile the statistics are routinely assessed, at least once a year, and evaluated against alternatives.</p> <p><b>Relevance.</b> Data users have detailed information on developments and changes to the monetary statistics through the RBA website. Feedback is encouraged through publicized communications, such as the RBA media office. The RBA meets with APRA and the ABS on a six-monthly basis to discuss data issues such as new reporting forms and response burden. The RBA is in regular contact with industry groups and companies across the country to gain feedback and information on economic issues, but users outside the industry are not surveyed or consulted. The RBA is actively involved in identifying potential new data requirements and evolving its data provision to meet its needs.</p> <p><b>Other quality management.</b> All staff are aware of the emphasis on achieving the highest level of quality. The importance of quality is emphasized, and management is responsible for achieving quality.</p>	<p><b>Professionalism.</b> There is a high emphasis on professionalism at the RBA. Most staff have university degrees in economics. Recruitment is open and competitive. Extensive on-the-job training is provided to new staff. The compilation of monetary statistics relies on comprehensive accounting data for all transactions and positions by reporting institutions. Staff are encouraged to undertake research and analysis. Staff contributions to speeches and publications are recognized.</p> <p><b>Transparency.</b> All legal documents constituting the basis of the RBA’s statistical activities are available from the RBA website. Information on statistical sources is also available on the website. Major methodological changes are announced prior to their implementation and in the media release when the relevant dataset is posted on the website. There is a biweekly briefing of the Treasury on recent credit developments; this briefing sometimes involves unpublished preliminary estimates.</p> <p><b>Ethical standards.</b> The RBA <i>Code of Conduct</i> provides strict guidelines for all staff, mandating honesty and integrity in all dealings. Staff are required to be mindful of the confidentiality and sensitivity of the information that they handle, and to avoid any conflict of interest. Staff are made aware of the <i>Code of Conduct</i> upon recruitment and thereafter at least annually. The <i>Code of Conduct</i> is encapsulated in the form used as a support for the discussion of goals during the annual performance appraisal cycle.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p><b>Concepts and definitions.</b> The overall structure of the national accounts follows the <i>2008 SNA</i>.</p> <p><b>Scope.</b> Annual and quarterly GDP are compiled at current prices and in chain volume measures. Sector accounts are published annually and financial accounts are published quarterly. Input-output tables are released about 3½ years after the reference year. Detailed estimates are not available for all categories: including the value of growing crops, databases, valuables, and illegal activities, but information on these categories is included in higher level GDP aggregates.</p> <p><b>Classification/sectorization.</b> Economic activities are classified according to the ANZSIC06, which is consistent with the International Standard Industrial Classification (ISIC) rev4 at the divisional level. COICOP and Classification of Functions of Government (COFOG) are used to classify household and government final expenditure, respectively. Nonprofit institutions are included in the household sector. Interest on securities is recorded on the basis of the creditor approach.</p> <p><b>Basis for recording.</b> The valuation of GDP, expenditure, and imports and exports is in accordance with the <i>SNA</i>. Transactions are recorded on an accrual basis as far as possible. However, the accrual of interest and the valuation of debt instruments other than securities deviate from the <i>2008 SNA</i> standards. Gross recording is generally followed, but intrasectoral property income, financial flows, and financial stocks are consolidated in the sector accounts.</p>	<p><b>Source data.</b> Annual GDP is estimated according to the income, expenditure, and production approaches. The business register that produces survey frames for most economic collections is built up from units known to the Australian Tax Office and a population maintained by the ABS. Many source statistics are good, but the Annual Integrated Collection suffers from a small sample size and limited product detail. The HES is conducted with six-year intervals. The Quarterly Business Indicators Survey provides useful information. Source data approximate national accounts definitions and are generally timely.</p> <p><b>Assessment of source data.</b> Appropriate measures are used to validate source data.</p> <p><b>Statistical techniques.</b> The estimates are compiled at a sufficient level of detail. Double deflation is used for about a third of the activities. Headline GDP is calculated as the average of the three independent measures. Quarterly data are benchmarked on the annual data. Quarterly series are seasonally adjusted.</p> <p><b>Assessment and validation of intermediate data and statistical outputs.</b> Supply-and-use tables are used to verify the independent data sources. Discrepancies are followed up if material.</p> <p><b>Revision studies.</b> Revision analysis is carried out as part of the regular quality assessment of published data.</p>	<p><b>Periodicity and timeliness.</b> Periodicity and timeliness of the national accounts follow the SDDS requirements.</p> <p><b>Consistency.</b> Various statistical discrepancies are shown, thus giving an indication of the inconsistency of the estimates. Movements in analytical series such as productivity measures and average compensation per employee can also be used to check the reasonableness of the accounts. Consistent time series for key aggregates are maintained back to 1959. Consistency is maintained between the quarterly and annual series. The national accounts statistics are reconcilable with the BOP and GFS. Banking and insurance data are reconcilable with prudential supervision data.</p> <p><b>Revision policy and practice.</b> Revisions to previously published data can be made with each issue of the quarterly national income, expenditure and product accounts following fixed procedures. Long-term revisions to the level of chain volume measures are made in the September quarter issue when all chain volume series are rereferenced to the new financial year. Periodic formal studies of revisions are conducted and published.</p>	<p><b>Data accessibility.</b> Data are published on the Internet. The ABS website gives free access to a wide range of information, including all ABS publications from 1998 onwards in Adobe Acrobat, and partially in spreadsheet or database formats. Requests for customized data may incur a charge. Data are accompanied by analysis and are presented clearly. Publications provide the dates on which the next two issues will be published. The data are made available to all users at the same time. Strict embargo procedures are in place.</p> <p><b>Metadata accessibility.</b> Publications include notes with metadata. Many stand-alone detailed metadata publications are released. No publication covers the current methodology of the quarterly estimates. The revisable character of data is not clearly indicated.</p> <p><b>Assistance to users.</b> Client contact details are included on the front page of publications. A referral service channels enquiries to relevant officers. The ABS website contains links to all data releases together with the terms and conditions of supply.</p>



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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p><b>Concepts and definitions</b> The CPI follows an acquisitions approach.</p> <p>Some analytical living cost indices based on an outlays approach for subpopulation groups such as pensioner households are also published.</p> <p>The treatment of deposits and loans is an issue for some users, but international guidelines are not prescriptive and the measurement issues are not unique.</p> <p><b>Scope</b> The CPI is restricted to six State capitals plus Canberra and Darwin (representing 64 percent of households). More minor departures include the exclusion of second-hand goods, tourist expenditures, and institutional households.</p> <p><b>Classification/sectorization</b> The Australian CPI Commodity Classification (CPICC) groups items together that are substitutable. It is conceptually different to the COICOP but there is a broad correlation which facilitates international comparisons.</p> <p><b>Basis for recording</b> Recording follows international best practice. Consumption expenditures are measured and purchaser prices collected, net of discounts but including Goods and Services Tax (GST) and any additional charges, such as delivery costs.</p> <p>Purchase price relates to the price at time of acquisition.</p>	<p><b>Source data</b> The HES is now conducted only every six years. The current weights will thus be seven years old before being updated. However, studies suggest that the potential upward bias in the CPI may not be significant. The ABS is considering the frequency of updating of weights as part of its 16<sup>th</sup> Series review.</p> <p>Price collection is also restricted to the main cities.</p> <p><b>Assessment of source data</b> The HES is reconciled with other data and adjusted for underreporting. There is interactive editing in the field using hand-held computers and ongoing sample maintenance for outlets and items.</p> <p><b>Statistical techniques</b> A Laspeyres-type index is computed mostly using the geometric mean elementary aggregates. Appropriate techniques are used for quality adjustment and for the imputation of missing prices.</p> <p><b>Assessment and validation of intermediate data and statistical outputs</b> Internal consistency checks and comparative analysis with selected PPI items and market expectations are regularly conducted.</p> <p><b>Revision studies</b> The CPI would only be revised in “exceptional” circumstances, i.e., when “significant” errors are found, although such circumstances have so far never occurred.</p>	<p><b>Periodicity and timeliness</b> The CPI does not conform to the SDDS requirement for periodicity. It is published quarterly although some users have expressed a strong preference for a monthly series. The periodicity of the CPI is one of the issues under consideration in the 16<sup>th</sup> Series review.</p> <p>The CPI is released within a calendar month of the end of the reference period.</p> <p><b>Consistency</b> The CPI is part of a family of indices within a national accounts framework.</p> <p>Aggregation at any level leads to the same result.</p> <p>A consistent all-items series goes back to 1948.</p> <p><b>Revision policy and practice</b> Revisions are rare and are only made when a “significant” error occurs, although such circumstances have so far never occurred. In view of their incidental occurrence, no written procedures exist.</p>	<p><b>Data accessibility</b> All data which are of publishable quality are available free of charge from the easily navigable ABS website together with the associated metadata.</p> <p>The CPI release is available to all at time of first publication in electronic and paper form. It gives all the main indices and an explanation of the main factors contributing to inflation. It also includes a number of analytical series e.g., a series excluding volatile items. Back-series are also available to users. Each quarterly CPI publication announces the publication dates for the subsequent four quarters.</p> <p>Pre-release embargoed access for two hours under lock-up conditions is given to selective government officials. This arrangement is publicized.</p> <p><b>Metadata accessibility</b> The ABS puts all CPI methodology on its website and in detailed technical notes accompanying the release of statistics. The metadata are extensive and cater to a wide variety of audiences.</p> <p><b>Assistance to users.</b> Client contact details are included on the front page of publications. A referral service channels enquiries to relevant officers. The ABS website contains links to all data releases together with the terms and conditions of supply.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p><b>Concepts and definitions</b> The ABS publishes quarterly input and output PPIs for selected industries plus economy-wide indices using a stage of production framework. Indices generally conform to international standards.</p> <p><b>Scope</b> Published PPIs cover the minimum requirements of manufacturing, construction and mining but PPIs for some services are not available.</p> <p><b>Classification/sectorization</b> ANZSIC06 results in some loss of international comparability, but ANZSIC and ISIC broadly correspond and there are no conceptual differences. Different versions of ANZSIC are used for the component indices versus the economy-wide indices. Once suitable weighting data are available all indices will be on the same basis. There is a broad correspondence to ISIC.</p> <p><b>Basis for recording</b> Specification pricing at market prices is used. Ex-factory prices are used for output indices and prices including nondeductable taxes, transport and trade margins are used for input indices. GST is excluded.</p> <p>Purchase price relates to the price at time of collection—where this is no production period, producers are asked the current production cost.</p> <p>All PPIs are produced on a gross basis.</p>	<p><b>Source data</b> Indices are reviewed periodically. More regular input-output data will lead to more frequent updates. New products are introduced independent of the timing of weight updates. There are no PPIs for a significant proportion of services.</p> <p><b>Assessment of source data</b> Judgmental sampling is used. There is some continuous sample maintenance based on industry feedback.</p> <p><b>Statistical techniques</b> A Laspeyres-type index is computed. Elementary aggregates use the weighted average of price relatives and, for some services, the geometric mean. Appropriate quality adjustments and imputations are used, e.g., using valuation data from manufacturers and price movements for similar specifications.</p> <p><b>Assessment and validation of intermediate data and statistical outputs</b> Results are assessed against other price indices and industry sources, also, coherence with national accounts.</p> <p><b>Revision studies</b> Revisions are rare. The index is corrected and the publication is reissued as soon as is practical.</p>	<p><b>Periodicity and timeliness</b> PPIs are produced quarterly, as against the SDDS requirement for monthly indices.</p> <p>Quarterly indices fulfill the needs of national accounts deflators. Users do not seem to be pressing strongly for monthly data.</p> <p>The indices are published within four weeks of the end of the reference period.</p> <p><b>Consistency</b> The all items PPI is consistent internally when aggregated from different levels of the classification.</p> <p><b>Revision policy and practice</b> Revisions are published in the next available press notice.</p> <p>Revised figures are given an appropriate label (R = revision).</p>	<p><b>Data accessibility</b> All publishable PPIs and related material are put on the website free of charge.</p> <p>The PPI release gives the headline figure, sub-indices, and commentary. It also provides methodological notes. Hard and electronic copies of the release are available at the time of first publication. The next four publication dates are given in the press release.</p> <p>Prerelease embargoed access for half an hour under lock-up conditions is given to selected government officials for briefing purposes. This arrangement is publicized.</p> <p><b>Metadata accessibility</b> PPI methodology is put in the public domain via the ABS website and various paper publications. Different publications, going into differing levels of detail, address the differing needs of different users</p> <p><b>Assistance to users.</b> Client contact details are included on the front page of publications. A referral service channels enquiries to relevant officers. The ABS website contains links to all data releases together with the terms and conditions of supply.</p> <p>The complete catalog of PPI and related publications is on the ABS website.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p><b>Concepts and definitions.</b> The overall structure of GFS follows nationally developed concepts, definitions, and presentational frameworks, based on <i>1993 SNA</i> and harmonized with <i>GFSM 2001</i>. Differences are fully reconciled.</p> <p><b>Scope.</b> The GFS scope is consistent with <i>GFSM 2001</i>, but some components of the statements are incomplete due to the lack of a breakdown between domestic and foreign financial assets. A breakdown between holding gains and volume changes for State and local governments is also not available.</p> <p><b>Classification/sectorization.</b> Sectorization is in accordance with the <i>GFSM 2001</i>. Full data are compiled for the public sector and sub-sectors. National aggregates are broadly classified consistent with the <i>GFSM 2001</i>. Some terminology differences in detailed classifications exist; these can be moved to the <i>GFSM 2001</i> at the detailed level.</p> <p><b>Basis for recording.</b> Flows generally follow market prices, stock data are valued according to accounting standards, indicating market prices for traded instruments and nominal value for nontraded. Accrual accounting, and appropriate grossing/netting is used.</p>	<p><b>Source data.</b> Annual data are now sourced from accounting records harmonized with GFS reporting requirements. Full institutional and geographical coverage is reached. For quarterly data, sample surveys supplement these data sources, primarily for local governments and public nonfinancial corporations.</p> <p><b>Assessment of source data.</b> Source data are routinely assessed against other sources. Automated procedures monitor and validate data, while staff assess data for trend deviations, misreporting, and consistency.</p> <p><b>Statistical techniques.</b> Statistical techniques for aggregation and consolidation are embedded in the electronic system. Sound statistical techniques are used to estimate missing data. Quarterly data are annually benchmarked to final outcomes, but the focus is only on the data most important from a national accounts perspective. Preliminary data are replaced with more accurate data when these become available. Processes and procedures are well organized and documented.</p> <p><b>Assessment and validation of intermediate data and statistical outputs</b> Regular assessments and validations against entity level financial statements, annual reports, budget documentation, and mid-year reviews take place. The media are monitored.</p> <p><b>Revision studies.</b> The annual data are not subject to major revisions. Revisions to quarterly data are documented as part of the output clearance process.</p>	<p><b>Periodicity and timeliness.</b> Quarterly and annual GFS meet SDDS periodicity requirements. Quarterly general government data exceed SDDS timeliness requirements. For central government operations, Australia avails itself of a targeted flexibility option. Monthly central government debt data exceed the SDDS requirements.</p> <p><b>Consistency.</b> Annual GFS are consistent within the dataset and over time. Quarterly GFS data as published do not sum to the annual data. Consistency with the national accounts is compromised due to some documented differences in concepts and methodology between national accounts and GFS. Since GFS do not distinguish between domestic and foreign, and bank-nonbank financing, assessment of consistency with BOP and monetary data cannot be made. Reconciliations with national accounts and financial statements are routinely made.</p> <p><b>Revision policy and practice.</b> Revisions to quarterly data are made as required. Quarterly data for previous years are benchmarked to final annual data for national accounts purposes. Although available in the database, the revised benchmarked quarterly data are not disseminated.</p>	<p><b>Data accessibility.</b> ABS GFS data for the latest reference period are released in quarterly and annual publications. Ten-year consistent time series are disseminated. Historic data starting in 1962 are available on request. Monthly financial statements for the Commonwealth are released for the latest period. These data are not available in a time series, comparable data are available to the public in archived publications, albeit not in time series format.</p> <p><b>Metadata accessibility.</b> Comprehensive sources and methods documents, and SDDS summary methodologies, are published and updated regularly. All data publications provide brief notes on the data. Metadata are appropriately cross referenced and well publicized. Metadata are highly technical and could benefit from summaries adapted to needs of various audiences (e.g., journalists).</p> <p><b>Assistance to users.</b> Client contact details are included on the front page of publications. A referral service channels enquiries to relevant officers. The ABS website contains links to all data releases together with the terms and conditions of supply.</p>

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

2. Methodological soundness	3. Accuracy and reliability	4. Serviceability	5. Accessibility
<p><b>Concepts and definitions</b>                      Monetary statistics broadly follow the main principles of the <i>MFSM 2000</i>. Monetary statistics include a central bank survey, an Other Depository Corporations (ODC) survey, and a (total) depository corporations survey. A survey for financial corporations other than depository corporations is not available.</p> <p><b>Scope</b>                      Monetary statistics coverage includes central bank (RBA), domestically conducted transactions with residents and nonresidents of commercial banks, building societies, and credit unions. Data on money-market corporations and cash management trusts are not included in monetary statistics, although they are included in other financial aggregates disseminated by the RBA.                      Issuance of coins and some of the transactions with the IMF are recorded in Treasury books.</p> <p><b>Classification/sectorization</b>                      The sectorization and classification available for most items are completely aligned with the <i>MFSM 2000</i>.</p> <p><b>Basis for recording</b>                      Items denominated in foreign currency are converted in national currency at the end of period spot exchange rate. Credit and loans data are gross. Repurchase transactions are recorded as loans and not as transactions on securities. Both practices are in line with the <i>MFSM 2000</i>. Market or fair value is extensively applied, but not systematically as valuation practices are those provided for by the Australian Accounting Standards 139.</p>	<p><b>Source data</b>                      Data on RBA and ODCs are based on their end-of-month comprehensive balance sheets. The national currency/foreign currency split is not available at the requested level of detail for most of the items. All certificates of deposit are allocated to broad money in the absence of proper sectorization of holdings.</p> <p><b>Assessment of source data</b>                      Source data from ODCs are carefully reviewed by APRA when lodged. At a second stage, the RBA runs macros on source data to detect abnormalities. Requests for clarifications are sent out to individual respondents via APRA.</p> <p><b>Statistical techniques</b>                      There are no imputation processes for missing data. Instead, adjustments are applied and advertised to the public when calculating growth rates.</p> <p><b>Assessment and validation of intermediate data and statistical outputs</b>                      The main monetary aggregates are cross checked with other financial aggregates prepared by the RBA and with quarterly flows of funds compiled by the ABS.</p> <p><b>Revision studies</b>                      There is no revision cycle and, consequently, no revision studies for monetary statistics as they are deemed final when disseminated. More up-to-date information from data providers are incorporated as soon as possible.</p>	<p><b>Periodicity and timeliness</b>                      Monetary statistics are disseminated monthly, on the last business day of the following month (SDDS requirement: one month). In the RBA weekly balance sheet—the same format as the end-of-month balance sheet—is prepared for each Wednesday and published within two working days. (SDDS requirement: two weeks).</p> <p><b>Consistency</b>                      Consistency is met within the dataset. Since bank financing is not available in GFS, the consistency with net claims on the government cannot be assessed. The consistency check between “net foreign assets” in the monetary statistics and the corresponding measures in external sector data is not conducted at this stage.</p> <p><b>Revision policy and practice</b>                      Monetary statistics are deemed final when first released. The data are revised only when respondents submit updated source data, when errors in the treatment are detected, or when methodological minor change is applied. Revision of data is only reported at the same time the data are released. Important methodological changes are advertised before data produced under the new methodology are released.</p>	<p><b>Data accessibility</b>                      Monetary statistics were published in the RBA <i>Monthly Bulletin</i>, but this publication has been discontinued as of January 2010. Monetary statistics tables can be downloaded from the RBA website in Excel format. This functionality is user friendly. Each table includes one spreadsheet with long-term data series, one spreadsheet with methodological notes, and one spreadsheet with indications on breaks in data series. Monetary statistics are posted on the RBA website together with a media release. A perpetual “Publication Schedule” is posted on the RBA website. There is no privileged early access to the data. The press is not briefed in advance of the data release.</p> <p><b>Metadata accessibility</b>                      Detailed methodological notes come along with data series table automatically (see above).</p> <p><b>Assistance to users</b>                      Information on a contact point is not provided along with the tables. All requests on statistics must be submitted to RBA “Contact Us – General” email address and are forwarded by the Media Office to the relevant expert for follow up.</p>

**Table 3f. Assessment of Data Quality—Dimensions 2 to 5—Balance of Payments and International Investment Position Statistics**

<b>2. Methodological soundness</b>	<b>3. Accuracy and reliability</b>	<b>4. Serviceability</b>	<b>5. Accessibility</b>
<p><b>Concepts and definitions</b> The ABS compiles BOP/IIP statistics on the basis of <i>BPM6</i>.</p> <p><b>Scope</b> All quantitatively relevant resident-nonresident transactions and positions are broadly covered in the BOP/IIP.</p> <p><b>Classification/sectorization</b> The ABS diverges from international standards in a number of areas; securities collateralized under repo arrangements are treated as outright purchases/sales; transactions between residents in foreign securities and between nonresidents in domestic securities are included in the BOP; the sign convention differs from <i>BPM6</i>; holding companies are classified to the sector representing the major economic activities; the treatment of repos in reserve assets is not fully in line with the international standards. Asian Bond Funds are recorded differently between the reserve template (which is in line with IMF recommendations) and the BOP/IIP. In one instance an asset that was rightly taken from the reserve template was not properly reclassified in the BOP/IIP.</p> <p><b>Basis for recording</b> Basis for recording is generally in line with <i>BPM6</i>. Other investment debt is recorded at fair value. Interest on securities is recorded on the basis of the creditor approach.</p>	<p><b>Source data</b> The source data for BOP/IIP statistics generally come from comprehensive data collection systems based primarily on surveys and administrative data. Maintenance of survey frames is conducted on an ongoing basis. Source data for some <i>BPM6</i> standard components and memorandum items are not available. As a consequence, all receipts of portfolio equity income is attributed to investment fund shareholders.</p> <p><b>Assessment of source data</b> Extensive consistency checks are undertaken, including self verification by the reporting agents, within the BOP/IIP datasets, and in relation with other ABS information.</p> <p><b>Statistical techniques</b> The ABS uses sound compilation procedures to compile BOP/IIP data.</p> <p><b>Assessment and validation of intermediate data and statistical outputs</b> Intermediate results and outputs are routinely assessed, validated, and improved.</p> <p><b>Revision studies</b> The ABS publishes data on revisions in ad hoc papers and maintains explanatory metadata.</p>	<p><b>Periodicity and timeliness</b> Periodicity and timeliness of the BOP/IIP data exceed the SDDS requirements.</p> <p><b>Consistency</b> BOP/IIP data are consistent over time. A full reconciliation between BOP and IIP is available quarterly. BOP/IIP data are fully consistent with the rest-of-the-world sector of the national accounts. Consistency between BOP/IIP and monetary statistics is checked regularly. Comparison with international data is hindered where the ABS data diverge from international standards and data presentations.</p> <p><b>Revision policy and practice</b> As explained in the ABS publications, data are provisional when first released. The ABS aims at incorporating more accurate data in the estimates for each period. Summary revision tables are included in the quarterly BOP/IIP publication.</p>	<p><b>Data accessibility</b> Disseminated data are in principle based on <i>BPM6</i>, but there are significant divergences. Data are published in hard-copy and in electronic form. All information can be downloaded free of charge from the ABS website. Each issue of the quarterly BOP/IIP publication announces the release dates for the following three issues. Data are released simultaneously to all parties.</p> <p><b>Metadata accessibility</b> A publication on BOP/IIP concepts, sources, and methods is available free of charge at the ABS website. It currently covers <i>BPM5</i> methodology and is being updated in the course of 2010. Additionally, an information paper is available with extensive information on the implementation of <i>BPM6</i>.</p> <p><b>Assistance to users.</b> Client contact details are included on the front page of publications. A referral service channels enquiries to relevant officers. The ABS website contains links to all data releases together with the terms and conditions of supply.</p>

### III. STAFF'S RECOMMENDATIONS

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

#### Cross-cutting recommendations

- Review deviations from current international standards, recognizing the broader benefits of international comparability, with a view at least to providing mapping to enable internationally comparable estimates to be derived.
- Review the periodicity of data categories, particularly those where flexibility options have been taken under the SDDS. Especially, with the uncertainties in economic developments since the outbreak of the GFC, early discernment of turning points and of changes in trends could significantly help economic management.
- Ensure staff management and succession planning so that the agencies providing official statistics can respond effectively to the needs of a rapidly changing external environment.

#### National accounts

- Make (as an alternative presentation) national accounts series available that strictly follow the *2008 SNA* in matters as the accrual of interest and valuation of loans.
- Improve the sample size and product detail of the Annual Integrated Collection. Update the HES more frequently and review the PPI with the objective to improve its usability for national accounts compilation (see also below).

#### Consumer Price Index

- Examine the costs and benefits of producing a national consumer price index and associated sub-indices on a monthly basis.
- Examine the costs and benefits of conducting a HES on a more regular basis to facilitate the more frequent updating of CPI weights. This would include re-examining the potential bias in the CPI from out-of-date weights and how the bias would be mitigated with increases in the frequency of updating weights.

- Assess the impact on the CPI of restricting the expenditure weights and CPI price collection to the six State capital cities plus Darwin and Canberra, and examine the options for compiling a CPI covering all the domestic territory of Australia.
- Consider the costs and benefits of replacing the Australian expenditure classification CPICC with the internationally standard COICOP. Investigate options including a move to COICOP, further correspondence between CPICC and COICOP, or a classification system which is structured to deliver both. The implications for the coding of the HES also need to be considered.

### **Producer Price Index**

- Assess user needs for monthly data. Examine the costs and benefits of producing a limited number of key producer price indices on a monthly basis to meet the ROSC requirement for monthly indices and the needs of users.
- Examine the costs and benefits of producing the outstanding PPIs for services, taking into account the added value from the gain in coverage, the methodological and data issues that would arise from developing PPIS for each service industry, and user needs.
- Review the compilation of deflators in the national accounts. This review should cover both conceptual issues and issues of practical measurement. The aim would be to make better use of the data collected by Prices Branch.

### **Government finance statistics**

- Extend the transactional coverage of GFS data to include a breakdown of domestic/foreign and bank/nonbank stocks and flows of financial assets and liabilities, available in the quarterly financial accounts dataset.
- Improve the timeliness of the monthly GFS data (Central Government Operations) dissemination, so as to eliminate the need for the targeted flexibility option.
- Review deviations from *GFSM 2001*, and consider adopting the classifications and concepts fully so as to further increase consistency with other macroeconomic datasets, and attain international comparability.
- Consider the costs and benefits of additional work to re-disseminate quarterly data for general government after benchmarking so as to attain a publicly disseminated time series consistent with annual data.

**Monetary statistics**

- Obtain, from APRA, source data presenting systematically the split between transactions in national currency and those in foreign currency.
- Collect data for a proper sectorization of holders of certificates of deposit issued by banks. Such sectorization can be obtained through a survey of money market operators. A first step would be to identify all holdings by financial corporations reporting to APRA.
- Conduct consultations outside the financial sector with the view to better identify the needs of academics, media, international investors, etc.
- Expand the institutional coverage of monetary statistics to money market corporations and cash management trusts.

**Balance of payments and international investment position statistics**

- Consider publishing additional datasets that fully comply with the international standards for classification/sectorization as well as data that allow conversion to the *BPM5* presentation format to serve international users.
- Enhance consultations between the ABS and RBA to avoid differences in classification. Consider bringing the reserves data in the BOP/IIP and the reserve template in line with international standards regarding the recording of repos.
- Publish or reclassify data that are currently available but not published or erroneously classified in the prescribed manner of *BPM6*.
- Investigate the assumption that all portfolio equity investment abroad is through investment funds, with a view to showing separately dividends on equity excluding investment fund shares and obtaining a better estimation of reinvested earnings attributable to investment fund shareholders.
- Consider using the sign convention as required under the *BPM6* standards.
- Even though this is not a requirement in the international data standards, it is recommended that the ABS start publishing remaining maturity of external debt by sector in view of the high international demand for these data.



**Appendix Table 4. Practices Compared to the SDDS Coverage, Periodicity, and Timeliness of Data**

SDDS Data Category	Coverage (meets SDDS requirement)	Periodicity		Timeliness		Comments
		SDDS	Australia	SDDS	Australia	
<b>Real Sector</b>						
National accounts	Yes	Q	Q	1Q	NLT 1Q	
Production index/indices	Yes	M	Q	6W <i>(1M encouraged)</i>	NLT 1Q	Periodicity flexibility, timeliness flexibility
<i>Forward-looking indicators</i>	<i>(encouraged data category)</i>	<i>M or Q</i>		<i>M or Q</i>		
Employment	Yes	Q	M	1Q	31D	
Unemployment	Yes	Q	M	1Q	31D	
Wages/earnings	Yes	Q	Q	1Q	7W	
Consumer price index	Yes	M	Q	1M	NLT 1M	Periodicity flexibility
Producer price index	Yes	M	Q	1M	NLT 1M	Periodicity flexibility
<b>Fiscal Sector</b>						
General government operations	Yes	A	Q	2Q	3M	
Central government operations	Yes	M	M	1M	4W	Targeted timeliness
Central government debt	Yes	Q	M	1Q	3W	
<b>Financial Sector</b>						
Analytical accounts of the banking sector	Yes	M	M	1M	1M	
Analytical accounts of the central bank	Yes	M <i>(1W recommended)</i>	W	2W <i>(1W encouraged)</i>	NLT 1W	
Interest rates	Yes	D	D	<sup>1/</sup>	D	
Stock market: share price index	Yes	D	D	<sup>1/</sup>	D	
<b>External Sector</b>						
Balance of payments	Yes	Q	Q	1Q	NLT 1Q	
Official reserve assets	Yes	M <i>(W recommended)</i>	M	1W	1W	
Reserves template	Yes	M	M	1M <i>(1W encouraged)</i>	1M	
Merchandise trade	Yes	M	M	8W <i>(4-6W encouraged)</i>	NLT 1M	
International investment position	Yes	A <i>(Q recommended)</i>	Q	3Q <i>(1Q encouraged)</i>	NLT 1Q	
External debt	Yes	Q	Q	1Q	MLT 1Q	
Exchange rates	Yes	D	D	<sup>1/</sup>	D	
<b>Addendum: Population</b>	Yes	A	Q	...	6M	

**Note:** Periodicity and timeliness: (D) daily; (W) weekly or with a lag of ## week(s) from the reference date; (WD) working days, or business days; (M) monthly or with a lag of ## month(s); (NLT) not later than; (Q) quarterly or with a lag of ## quarter(s); (A) annually; (SA) semiannual; and (...) not applicable.

*Italics indicate encouraged categories.*

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

INTERNATIONAL MONETARY FUND

AUSTRALIA

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

**Response by the Authorities**

November 18, 2010

This document contains the authorities' response to the IMF's data quality assessment (Volumes I and III).

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## I. INTRODUCTION

Thank you for the invitation to provide a response to the IMF on the recent Volume I and Volume III reports on the *Report on the Observance of Standards and Codes (ROSC)—Data Module* for Australia.

Australia found the ROSC exercise useful. It provided one way of assessing the quality and suitability of each field of macroeconomic statistics and the relevant priorities of the fields of statistics.

The conduct and processes of the ROSC were appropriate for obtaining and reviewing the information needed. This was the first data ROSC in which Australia has participated and participants have gained insights which will position Australia well for participation in similar exercises in the future.

Australia notes the high quality of the staff employed by the IMF on the mission and thanks the staff for their professionalism.

The report recommends a number of changes and improvements for Australian macroeconomic statistics. Set out below is Australia's response to the IMF's recommendations. Before implementing any changes, Australia will continue its usual practice of consulting users on how best to improve its statistics.

## II. GENERAL COMMENTS

The report recommends a number of changes and improvements for Australian macroeconomic statistics. Australia agrees that most of the recommendations will result in improvements, and work regarding several of these improvements is already included in work programs. For example, the recommendations about frequency, coverage and methods for the Consumer Price Index (CPI) are under active consideration as part of the Australian Bureau of Statistics' (ABS') 16th Series Review of the Consumer Price Index (the 16<sup>th</sup> Series Review).

Australia notes that implementing these recommendations would represent a significant cost and thus would need to be considered on a cost/benefit basis, along with broader Government priorities within the constrained fiscal environment.

While the Data Quality Assessment Framework (DQAF) and Special Data Dissemination Standard (SDDS) frameworks provide useful approaches to assessment, some of the elements of these frameworks need review. In several cases the IMF mission identified data not provided in the narrowly defined contexts of Government Finance Statistics (GFS) and monetary statistics, when in fact the data are provided under the full set of System of National Accounts (SNA) produced by Australia. This suggests that the IMF framework should take into account the full span of the SNA standards, and not just a selected portion. Australia believes that compiling an aggregate in the appropriate part of the integrated SNA produces a superior result to compiling it in isolation.

### III. CROSS-CUTTING RECOMMENDATIONS

**Review deviations from current international standards, recognizing the broader benefits of international comparability, with a view at least to providing mapping to enable internationally comparable estimates to be derived.**

As the first adopter of the new standards for national accounts and balance of payments statistics an issue has emerged as to the comparability of Australian national accounts and balance of payment statistics with other countries, which are not yet using the new standards.

Some of the recommendations are aimed solely at facilitating international comparability, and it is not clear that all of these are improvements. Australia believes that, in a small number of cases, adoption of the international standards does not produce statistics which are useful for domestic policy purposes. For example, the market-oriented creditor approach to interest and debt measurement has served Australia well during the global financial crisis. Providing an inferior alternative view solely for the purposes of international comparability as the report recommends would be complex and costly.

Australia will continue to work with the international community to improve the standards.

**Review the periodicity of data categories, particularly those where flexibility options have been taken under the SDDS. Especially, with the uncertainties in economic developments since the outbreak of the GFC, early discernment of turning points and of changes in trends could significantly help economic management.**

Discussion during the ROSC process, and parts of the report comment on a lack of progress on reducing Australia's use of flexibility options in reporting under the SDDS. This is based on the view, put by the IMF team, that the flexibility options are transitional arrangements and that there should be work in place to ensure they are not needed in the future. This does not accord with Australia's understanding or the written material available on the SDDS, which indicate that the SDDS regime allows both transitional and permanent flexibility options. It is likely that Australia will continue to exercise permanent flexibility options for low priority/high cost reporting.

For instance, it is likely the Department of Finance and Deregulation (DoFD) will keep using the central government operations (CGO) flexibility option for some time because accrual data takes longer to process than cash data and the Australian Government does not release June and July monthly data until it releases the Final Budget Outcome in September each year. Australia suggests that the IMF should review reporting timelines for countries on full accrual systems.

**Ensure staff management and succession planning so that the agencies providing official statistics can respond effectively to the needs of a rapidly changing external environment.**

Australia will continue to apply best practice human resource management consistent with funding and priorities constraints.

#### IV. NATIONAL ACCOUNTS

**Make (as an alternative presentation) national accounts series available that strictly follow the 2008 SNA in matters as the accrual of interest and valuation of loans.**

As raised above, Australia considers that the market-oriented creditor approach to interest and debt measurement has served Australia well during the global financial crisis. Providing what is considered as an inferior alternative view solely for the purposes of international comparability would be complex and costly. The resources that would be devoted to providing an inferior alternative view would be better deployed on other quality issues.

However, Australia, through the ABS, will continue to publish supplementary memoranda for nominal values of loans.

**Improve the sample size and product detail of the Annual Integrated Collection. Update the HES more frequently and review the PPI with the objective to improve its usability for national accounts compilation (see also below).**

Improvements to sampling method and content of the Annual Integrated Collection (AIC) are under review. Australia agrees that these recommendations would enhance the reliability of macro-economic statistics. An option currently being explored is to make enhanced use of tax record data as a cost-effective alternative to an expanded AIC sample. For comments on the Household Expenditure Survey (HES) and Producer Price Index (PPI) see below.

#### V. CONSUMER PRICE INDEX

##### General response

Australia agrees that most of the CPI recommendations will result in improvements, and work on many of these improvements is already on work programs. Recommendations about frequency and changes to the coverage and methods used to produce the CPI are under active consideration as part of the ABS's 16<sup>th</sup> Series Review. Australia notes that implementing these recommendations would represent a significant cost and thus would need to be considered on a cost/benefit basis, along with broader Government priorities within the constrained fiscal environment.

We note that there is no recommendation relating to the deposit and loan facilities index, even though concerns about this item are expressed in the text (see Volume III, p57). Australia will give some consideration to improving the methodology and implementation of the deposit and loan facilities price index.

**Examine the costs and benefits of producing a national consumer price index and associated sub-indices on a monthly basis.**

Australia acknowledges the potential benefits of a monthly CPI to the efficient operation of the Australian economy through the more timely data for monetary policy. Additionally, user demand for a monthly CPI of equivalent quality to the existing quarterly is very strong.

However, the case for a change to a monthly CPI must be carefully weighed against costs, including any additional production costs and/or reductions in data quality.

**Examine the costs and benefits of conducting a HES on a more regular basis to facilitate the more frequent updating of CPI weights. This would include re-examining the potential bias in the CPI from out-of-date weights and how the bias would be mitigated with increases in the frequency of updating weights.**

The ABS has attempted to quantify the likely reduction in bias arising in the CPI from more frequent reweighting and has concluded that optimum benefit would be gained from reweighting on a four yearly cycle. Therefore, the benefits from reweighting the CPI on wage and benefit indexation are considered to outweigh the costs of conducting HES on a more frequent four yearly cycle (currently HES is undertaken every six years). It should be noted that a more frequent HES also has benefits to users of statistics other than the CPI, including to the national accounts, see above.

**Assess the impact on the CPI of restricting the expenditure weights and CPI price collection to the six State capital cities plus Darwin and Canberra, and examine the options for compiling a CPI covering all the domestic territory of Australia.**

The 16th Series Review has identified two potential methods of improving geographic coverage of the CPI pricing sample. Refinement of these alternatives will result in a decision about geographic coverage within the context of the outcomes to be implemented from the review.

**Consider the costs and benefits of replacing the Australian expenditure classification CPICC with the internationally standard COICOP. Investigate options including a move to COICOP, further correspondence between CPICC and COICOP, or a classification system which is structured to deliver both. The implications for the coding of the HES also need to be considered.**

The 16th Series Review has examined the role of the Classification of Individual Consumption According to Purpose (COICOP), its relationship with HES, the Consumer Price Index Commodity Classification (CPICC), the commodity classification used in supply/use tables in the national accounts, the version of COICOP used in the national accounts and the use of COICOP internationally.

The conclusion is that COICOP falls short of the ideal as a general purpose classification, as manifest by many local variations in Australia and internationally. Australia will work with

the international statistical community to improve the characteristics of COICOP. In the meantime, the ABS intends to harmonise the use of a 'standard Australian variation' of COICOP to be applied in Australian statistics, and concordances to the SNA COICOP.

## VI. PRODUCER PRICE INDEX

**Assess user needs for monthly data. Examine the costs and benefits of producing a limited number of key producer price indices on a monthly basis to meet the ROSC requirement for monthly indices and the needs of users.**

As the ABS has no evidence of user demand for a monthly PPI, Australia is not convinced of the need for monthly PPI data and does not consider this recommendation as a priority, given competing statistical priorities.

Priority for any resources available for PPI development will be given to expansion of the quarterly range of indexes, see below. Under these circumstances, the ABS will continue to exercise a SDDS flexibility option for periodicity of the PPI.

**Examine the costs and benefits of producing the outstanding PPIs for services, taking into account the added value from the gain in coverage, the methodological and data issues that would arise from developing PPIS for each service industry, and user needs.**

The ABS will accord this recommendation high priority after the conclusion of work on the 16<sup>th</sup> Series Review of the CPI. See also the next recommendation.

**Review the compilation of deflators in the national accounts. This review should cover both conceptual issues and issues of practical measurement. The aim would be to make better use of the data collected by Prices Branch.**

The ABS will accord this recommendation high priority after the conclusion of work on the 16<sup>th</sup> Series Review of the CPI.

## VII. GOVERNMENT FINANCE STATISTICS

### General response

The ROSC report demonstrates that Australian Government Finance Statistics (Australian GFS) have a high degree of compliance with the IMF's requirements. The deviations from GFS2001 identified in the report result from the Australian GFS being implemented ahead of the release of the current international standard. Despite this early implementation there is a high level of consistency with the international standard. The ABS will review the Australian GFS, including any current deviations, in implementing the next update to the international standard. The ABS understands the new standard is scheduled for release during 2012.

**Extend the transactional coverage of GFS data to include a breakdown of domestic/foreign and bank/nonbank stocks and flows of financial assets and liabilities, available in the quarterly financial accounts dataset.**

The breakdown referred to is available in the Australian Financial Accounts. Including this breakdown in Australian GFS will be investigated during the implementation of the next update to the international standard. The availability of the breakdown from Treasury reporting systems will be considered in the investigation. In addition, it should be recognized that as a result of the ROSC, additional financing data provided by DoFD is now loaded monthly by the ABS on the SDDS website.

**Improve the timeliness of the monthly GFS data (Central Government Operations) dissemination, so as to eliminate the need for the targeted flexibility option.**

Processing of accrual data takes longer than the processing of cash data and the Australian Government does not release June and July monthly data until it releases the Final Budget Outcome in September each year. Under these circumstances, it is unrealistic to assume that changes can be made to improve the timeliness of the monthly GFS data so as to eliminate the need for the targeted flexibility option.

**Review deviations from *GFSM 2001*, and consider adopting the classifications and concepts fully so as to further increase consistency with other macroeconomic datasets, and attain international comparability.**

No action will be taken to review deviations from *GFSM 2001*. However, the ABS will review the Australian GFS, including any current deviations, in implementing the next update to the international standard.

**Consider the costs and benefits of additional work to re-disseminate quarterly data for general government after benchmarking so as to attain a publicly disseminated time series consistent with annual data.**

The cost and benefit of disseminating benchmarked quarterly data will be investigated during the implementation of the next update to the international standard. However, there is no known domestic demand for the benchmarked data and this will be considered against other demands on the ABS budget.

## VIII. MONETARY STATISTICS

**Obtain, from APRA, source data presenting systematically the split between transactions in national currency and those in foreign currency.**

The Australian Prudential Regulation Authority (APRA) source data separately identifies Australian dollar and foreign currency items for the major components of both the asset and liability sides of the balance sheet. Foreign currency denominated items are approximately three per cent of total assets and liabilities of authorized deposit taking institutions. The level of detail provided in the APRA balance sheet data is sufficient for calculating the definition of broad money that is published on the Reserve Bank of Australia (RBA) website as part of the Financial Aggregates. It has been traditional practice in Australia to exclude deposits in foreign currency from broad money. This is consistent with the IMF manual, which suggests



including foreign currency deposits in broad money only when it is widely accepted as a medium of exchange within a country.

**Collect data for a proper sectorization of holders of certificates of deposit issued by banks. Such sectorization can be obtained through a survey of money market operators. A first step would be to identify all holdings by financial corporations reporting to APRA.**

APRA source data are available regarding debt securities held by financial institutions that have been issued by other institutions (such as the level of sectorization in banks, other authorized deposit taking institutions, registered finance companies, insurance corporations, non-financial corporations, non-residents). These data are for all debt securities, without identification by type of security (that is, certificates of deposit, promissory notes, commercial paper are collectively reported). The level of detail currently provided in the APRA reporting forms is sufficient for calculating the definition of broad money that is published on the RBA website as part of the monthly Financial Aggregates release.

This recommendation is in respect to the detailed IMF Monetary Statistics Survey which requires a greater level of detail than is currently collected on the APRA reporting forms. In the event of a redesign of the APRA reporting forms, this issue could be considered. For those particularly interested in the supply and demand for certificates of deposits (including holdings by type of institution), this information is available from the quarterly ABS release of the Financial Accounts (ABS Catalogue Number 5232.0).

**Conduct consultations outside the financial sector with the view to better identify the needs of academics, media, international investors, etc.**

The RBA conferences and workshops currently provide academics and other users with a forum for providing feedback.

**Expand the institutional coverage of monetary statistics to money market corporations and cash management trusts.**

The RBA has a long-standing practice of publishing monthly measures of the supply of money and credit, referred to on the RBA website as Financial Aggregates. These measures include data on money market corporations, finance companies and cash management trusts. Money market corporations and finance companies currently have assets equivalent to six per cent of the assets of authorized deposit taking institutions, while assets of cash management trusts are equivalent to one per cent of assets held by authorized deposit taking institutions.

However, this recommendation is in respect to expanding the scope for Australia's reporting of the detailed IMF Monetary Statistics Survey. In the medium term, the RBA intends to expand the reporting to included money market corporations and finance companies in the IMF Monetary Statistics Survey. However, given the magnitude of cash management trusts, this component is not a high priority.

## IX. BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION STATISTICS

**Consider publishing additional datasets that fully comply with the international standards for classification/sectorization as well as data that allow conversion to the *BPM5* presentation format to serve international users.**

The ABS will consider publishing additional datasets that fully comply with the new international standards for classification/sectorization except, in a small number of cases, where it has been decided that the international standards do not provide a useful view for domestic policy purposes. It will be necessary to assess the likely requirement for cells to be closed to prevent the series identifying individual businesses.

The second part of this recommendation is that Australia, as an early adopter of the *BPM6* standard, should maintain parallel series that allows conversion to the *BPM5* standard until international agencies convert to the new standards. Australia has some concerns with this approach as it would create additional complexity and costs for the compiling agencies as well as result in different versions of important official statistics, such as the balance on current account, being readily available. This may result in confusion for users. Australia would be pleased to work with the IMF to develop acceptable presentation strategies to enable comparability.

**Enhance consultations between the ABS and RBA to avoid differences in classification. Consider bringing the reserves data in the BOP/IIP and the reserve template in line with international standards regarding the recording of repos.**

Consultations between the ABS and RBA will be enhanced to avoid differences in classification.

The treatment of repos is one of the areas where it has been decided that the international standards do not provide a useful view for domestic policy purposes. The ABS and RBA will work together to ensure a consistent treatment.

**Publish or reclassify data that are currently available but not published or erroneously classified in the prescribed manner of *BPM6*;**

**Investigate the assumption that all portfolio equity investment abroad is through investment funds, with a view to showing separately dividends on equity excluding investment fund shares and obtaining a better estimation of reinvested earnings attributable to investment fund shareholders;**

**Consider using the sign convention as required under the *BPM6* standards; and**

**Even though this is not a requirement in the international data standards, it is recommended that the ABS start publishing remaining maturity of external debt by sector in view of the high international demand for these data.**

All four recommendations above are included on the ABS work plan and will be investigated as resources become available.

The investigations will consider, amongst other things, data quality, the likely requirement for cells to be closed to prevent the series identifying individual businesses and the impact on time series. The investigations will include, as appropriate, consultation with the user community, assessment of implementation costs, consideration of the risk of creating confusion with domestic users and consideration of the possible timing for implementing any changes.

INTERNATIONAL MONETARY FUND

AUSTRALIA

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

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

Prepared by the Statistics Department

Approved by Adelheid Burgi-Schmelz and Anoop Singh

November 18, 2010

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

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

This report is based on information provided prior to and during a staff mission from March 17-31, 2010 and publicly available information. The mission team comprised Charles Enoch, Sagé de Clerck, Pierre Papadacci, Mark Van Wersch (all IMF's Statistics Department, STA), David Fenwick and Cor Gorter (Experts), and Janice Irving (Senior Administrative Assistant, STA).

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## ACRONYMS

<i>1993 SNA</i>	<i>System of National Accounts, 1993</i>
<i>2008 SNA</i>	<i>System of National Accounts, 2008</i>
AASB	Australian Accounting Standards Board
ABARE	Australian Bureau of Agricultural and Resource Economics
ABN	Australian Business Number
ABS	Australian Bureau of Statistics
<i>ABSA</i>	<i>Australian Bureau of Statistics Act, 1975</i>
ACS	Australian Customs Service
AIC	Annual Integrated Collection
ANZSIC06	Australian and New Zealand Standard Industrial Classification, 2006 edition
APRA	Australian Prudential Regulation Authority
ASAC	Australian Statistics Advisory Council
ATO	Australian Tax Office
<i>BPM5</i>	<i>Balance of Payments Manual, fifth edition</i>
<i>BPM6</i>	<i>Balance of Payments and International Investment Position Manual, Sixth edition</i>
CGC	Commonwealth Grants Commission
c.i.f.	cost, insurance and freight
COFOG	Classification of Functions of Government
COICOP	Classification of Individual Consumption According to Purpose
CPI	Consumer Price Index
CPICC	Australian Commodity Classification
<i>CPI Manual</i>	<i>Consumer Price Index Manual</i>
<i>CSA</i>	<i>Census and Statistics Act, 1905</i>
CUBS	Credit Unions and Building Societies
DFAT	Department of Foreign Affairs and Trade
DoFD	Department of Finance and Deregulation
DQAF	Data Quality Assessment Framework
ESSCC	Economic Statistics Strategy Co-ordination Committee
ETF	Economic Type Framework
FISIM	Financial Intermediation Services Indirectly Measured
f.o.b.	free on board
GC/DLGs	Grants Commissions/Departments of Local Governments
GDP	Gross Domestic Product
GFS	Government Finance Statistics
GPC	Government Purpose Classification
GST	Goods and Services Tax
HES	Household Expenditure Survey
HFCE	Household Final Consumption Expenditure
IIS	Quarterly International Investments Survey
IOPC	Input-Output Product Classification
ISIC	International Standard Industrial Classification (ISIC)
ISWGNA	Inter-Secretariat Working Group on National Accounts
IT	Information Technology

ITPI	International Trade Price Indices
JPDA	Joint Petroleum Development Area
LME	London Metal Exchange
<i>MFSM 2000</i>	<i>Monetary and Financial Statistics Manual, 2000</i>
MoU	Memorandum of Understanding
NIRS	National Information and Referral Service
ODC	Other Depository Corporation
OECD	Organisation for Economic Cooperation and Development
PNFC	Public Non-Financial Corporation
PPI	Producer Price Index
QESTRC	Quarterly Economic Statistics Technical Review Committee
RBA	Reserve Bank of Australia
R&D	Research and Development
RDP	Research Discussion Paper
ROSC	Report on the Observance of Standards and Codes
SAFFI	System of APRA Forms for Financial Institutions
SDDS	Special Data Dissemination Standard
SDR	Special Drawing Right
SFI	Quarterly Survey of Financial Information
SITC	Standard International Trade Classification
SLA	Statistical Local Area
<i>SNA</i>	<i>System of National Accounts</i>
SOP	Stage of Production

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

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

### I. NATIONAL ACCOUNTS

#### 0. Prerequisites of quality

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

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

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the *Census and Statistics Act, (1905 (CSA))*, the *Australian Bureau of Statistics Act, 1975 (ABSA)* and associated ministerial determinations. These documents are widely available to the public, including from the ABS website <http://www.abs.gov.au/>; <http://www.comlaw.gov.au/>; and <http://www.publications.gov.au/>.

With two exceptions (the requirement to conduct a Census every five years and to compile statistics on the number of people in each State at the end of each quarter), the *CSA* entitles the Statistician (the head of the ABS) to determine what statistical information is to be collected (within the bounds of broad-ranging subject matters specified in the Statistics Regulations). The Assistant Treasurer, the Minister responsible for the ABS, can direct the Statistician, in writing, to collect statistical information relating to a particular matter specified in the Statistics Regulations. However, the Minister cannot direct the Statistician to cease a particular collection nor instruct the Statistician on how to go about collecting statistical information.

Section 6 of the *ABSA* mentions among the functions of the ABS: “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” The Australian statistical system thus is characterized by a plurality of data providers. The ABS is the largest collector of official statistics, but there is no mandate that official bodies must source statistics from it. Some statistical work is done by State governments, some by other government agencies undertaking their own collections. Specific agencies such as the Australian Institute of Health and Welfare and the Australian Bureau of Agricultural Research Economics also undertake statistical collection and analysis work. The *ABSA* gives the ABS the role to ensure coordination of the operations of official bodies in the collection, compilation, and dissemination of statistics and related information to avoid



duplication between collections, attain compatibility between collections, and ensure the maximum utilization of statistics.

The overall legal framework is considered to work well, and there are no plans to revise it.

There are no legal provisions applying specifically to the compilation of national accounts statistics apart from the general terms applying to all statistical areas. The ABS has assumed the task of compiling the national accounts in accordance with its central position in the Australian statistical system. No other institution challenges the ABS's responsibilities in this respect.

The Statistician is obliged to appear before the Senate Estimates Committee roughly twice a year, and to answer questions publicly on anything to do with the work of the ABS. The Committee can also call for follow-up responses, and call on other agencies such as the Audit Office for further information.

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

The ABS compiles many source statistics for the national accounts itself. For instance, periodic business surveys, price statistics, statistics on external relations, government finance statistics, and labor market statistics are all conducted or compiled by relevant ABS departments. Internal processes ensure coordination between the various activities. However, in some cases external sources are being used, in particular administrative datasets. Provisions in taxation, customs, and prudential supervision legislation are in place requiring the relevant agencies to provide access to these datasets.

Given the high level of demand for statistics, and the multiplicity of sources, a focus for the ABS in providing statistical leadership is to support the development of information plans for different topic areas. The aim of this work is to achieve an understanding of user priorities for data development and for improved access, and to establish an agreed set of strategies among the partner producing agencies to optimize data development.

The ABS seeks to ensure coordination among data-producing agencies through a series of committees, as well as informal contacts with staff producing the statistics in other agencies. Changes in the production of statistics are preceded by extensive consultations.

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

The *CSA* protects confidentiality by requiring that information not be published in a manner likely to enable the identification of a particular person or organization. The *Act* states specifically that a statistical officer cannot be required to divulge or communicate to a court or tribunal any information contained in a Census form.

Notwithstanding this, the *CSA* provides for the Minister to make determinations providing for the release of certain classes of information which would not otherwise be permitted to

be released under the Act. Still, under the provisions of a determination, personal or domestic information may not be disclosed in a manner that is likely to enable the identification of a person.

The determination currently in force under Section 13 of the *CSA* enables the Statistician to disclose:

- Certain classes of statistics (including foreign trade statistics derived from Customs documents), unless a person or organization can show that such disclosure would be likely to enable the identification of that particular person or organization;
- Statistics relating to a business or organization that are already available to the public;
- Published information relating to an official body;
- Information with consent, either on a confidential basis or on a general basis;
- Lists of names and addresses of businesses and organizations to departments or authorities for specified nonregulatory purposes;
- Unidentifiable individual statistical records; and
- Information to enable the Statistician to perform relevant statistical functions.

The ABS has a strong culture of adhering to the principles of confidentiality irrespective of the legal provisions because of the trust this builds with data providers and the related benefits for data quality. It has on occasion declined requests for data from other parts of government where it has felt this might jeopardize confidence in the confidentiality of its statistics. Respondents to surveys are informed as to the confidentiality of their responses in order to give assurance.

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

The *CSA* enables the Statistician to request or direct a person to complete a form or answer a question and it sets penalties on failure to answer questions.

In practice, directives are applied only rarely, and the ABS has not often needed to apply penalties, since responses are good and the ABS seeks to maintain positive relations. In 2008-2009, for instance, there were no prosecutions in connection with the business survey. The response rate for surveys is high, usually around 90 percent. The response rate for the retail business survey in 2008-2009, for instance, was 96 percent. The ABS is aware of response burden, and makes clear that it seeks to minimize duplication and effort.

## 0.2 Resources

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

The national accounts program has 67 people deployed directly; a large percentage of the ABS economic statistics effort is aimed at data collection activities within a *System of National Accounts (SNA)* framework.

The skills base is maintained through internal and international formal training, on-the-job training, appropriate recruitment policies, exchange of staff with other countries and international agencies. The ABS encourages program staff to attend and present papers at domestic and international conferences and to exchange experiences with other countries. Office accommodation and the working environment conform to mandated Australian Public Service standards.

IT resourcing and support and training are ensured through local deployment of specialists to the national accounts program and more generally by ABS corporate systems support. Funding for the individual work programs in the ABS is set centrally. New work needs to be externally funded or offset by savings. More resourcing would be useful as disclosed by strains imposed by both changing to new standards and coping with the global financial crisis. There is in addition some user-funded work; a certain amount is accepted, on the basis that it will cover all costs including overheads. The Statistician accepts only a limited amount of such work, in part because its continuation is not guaranteed.

The ABS is not the sole supplier of official statistics: when the Statistician turns down a request from an official agency, that agency sometimes decides to produce the statistics itself. In such cases the ABS works with the other agency to ensure that the new data are generated in a way that fits in the Australian statistical system. On the other hand, the ABS does not seek to adopt the role of an inspector of official statistics.

Many professional staff have at least one degree, usually in statistics or a related social science. Several have advanced degrees.

Staff turnover has increased recently, in part because of a generational shift towards a group more accustomed to job moves. Together with recent retirements and a resource-imposed downsizing in recent years, there has been a significant loss of expertise. Salaries have been below the median for public sector positions. Management stress work-life balance issues, and make continuing efforts to improve job satisfaction and retain staff. With turnover as high as 30 percent, for instance, for household survey interviewers, significant amounts of staff time in some Sections are being devoted to training, thereby adding to resource pressures. Management is committed to succession planning and rotation of staff, to avoid such pressure periods in the future.

The ABS follows the Australian Public Service provisions in the management of its staff, and also has its own principles of conduct.

While overall resources are considered to be roughly commensurate with the needs of the present programs, there is no headroom for additional commitments. The ABS argues strongly that any further commitments that it is given be fully funded. A review of IT capacity found that there would be no room to increase support in the event of additional demands unless there was specific funding.

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

The ABS budget is subject to an efficiency dividend so that, exclusive of other changes, marginal reductions are applied each year to promote increased efficiency. This is a government requirement affecting all Commonwealth agencies. While the ABS has managed within its overall budgetary framework, in recent years wage disparities have emerged between ABS salaries and those paid in other Commonwealth agencies for staff with comparable skills. Cost pressures and other funding constraints have prevented the ABS from addressing this gap. The consequence has been higher rates of staff turnover especially among staff with qualifications and experience in economics, statistics and analysis, which has to some degree eroded capability.

In 2009 the ABS undertook the retrenchment of 90 middle-management staff, as well as allowing attrition of more junior staff in order to fund a pay increase in an attempt to match increases paid in other agencies. This increase “held the line” but did not address the underlying problem of wage disparities.

A cutback in activities, which led among other things to a 24 percent reduction in the size of sample of the labor force survey, was required for the ABS to meet both cumulative internal cost pressures and the imposition by the Government of an additional one-off efficiency dividend applied to all Commonwealth agencies. Public concern about the state of ABS funding, including representation by the Australian Statistics Advisory Council (ASAC), led to an external review by the Department of Finance and Deregulation (DoFD) of the ABS budget position on the basis of which the Government agreed to provide the ABS with additional funding to offset some of the effects of cost pressures, allowing most program cuts to be reinstated. However, the efficiency requirement remained in place. Going forward the ABS, like all Government agencies, continues to face requirements to achieve efficiency targets and meet wage and other costs.

The ABS has an office in each Australian State and has redistributed certain activities from its Canberra head office to the State offices depending on local expertise and/or lower staff turnover.

On the financial side, the ABS has a Memorandum of Understanding (MoU) with the Australian Prudential Regulation Authority (APRA) regarding the provision of statistics. In this instance the ABS pays APRA to add some lines for statistical purposes to the forms that APRA uses to collect its prudential information. A MoU with the DoFD is under preparation.

All staff in the ABS have a performance discussion every six months.

The Economic Statistics Strategy Co-ordination Committee (ESSCC) reviews the operation of the national accounts program periodically.

### **0.3    *Relevance***

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

The ABS has in place a number of arrangements that provide priorities and feedback both generally and for national accounts specifically. The ASAC is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback are provided by the Economic Statistics User Group that represents key economic constituents.

External contacts exist at a senior level to discuss issues specific to National Accounts. Briefings and discussions at a working level take place with individual agencies and users. Media coverage and commentary on national accounts releases provide continuous feedback.

A number of other user groups and reference groups concerning productivity, government finance, trade in services, financial statistics, and price indices, while not specifically directed at national accounts, monitor important components of the data feeding into the national accounts.

Major decisions, such as the migration to the *System of National Accounts, 2008* (2008 SNA), involve discussions with a range of advisory bodies. In particular, the decision to move simultaneously across the range of new methodologies reflected the guidance of the advisory bodies.

### **0.4    *Other quality management***

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

The ABS Mission Statement (“We assist and encourage informed decision-making, research and discussion within governments and the community, by leading a high quality, objective and responsive national statistical service”) mentions explicitly various dimensions of quality.

The ABS Corporate Plan also sets values and objectives that are highly relevant from a quality management point of view. The ABS values include integrity, relevance, service, access for all, professionalism, and trust of providers. The Plan specifies these values in more detail. The ABS’s objectives are the following:

- An expanded and improved national statistical service;
- ABS services that are timely, relevant, responsive, and respected for their integrity and quality;
- Informed and increased use of statistics;
- A key contributor to international statistical activities that are important to Australia or our region;
- An organization that builds capability to continually improve its effectiveness;
- The trust and cooperation of our providers;
- The ABS is a respected and strongly supported organization.

The ABS also maintains and publishes information on each collection it conducts, including information on the quality of the collection. All publications produced by the ABS are subject to an internal clearance process.

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

The ABS devotes considerable resources to methodology with an overarching mandate to monitor the quality of the statistical work program generally. The Commonwealth Register of Surveys of Businesses (Statistical Clearing House) at <http://www.nss.gov.au/nss> contains metadata that describes the survey development, design, and procedures for many ABS collections. For external scrutiny, see also 0.3.1.

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

The ABS coordinates the economic statistics work program, including decisions about quality, via line management and a number of groups concerned with cross-cutting issues, the prime internal group being the ABS Economic Statistics Strategy Coordinating Committee. For external coordination see also 0.3.1.

### **1. Assurances of integrity**

#### ***1.1 Professionalism***

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

Under the *ABSA*, the Statistician and ABS form an independent statutory authority for the purposes of the *Public Service Act, 1999*. Also, the Statistician, who is appointed by the Governor-General for a period not exceeding seven years (with eligibility for

reappointment), cannot be removed other than on the grounds of misbehavior or incapacity, or by becoming bankrupt. The *ABSA* does not mention the qualifications necessary to be appointed Statistician.

The Statistician is largely free to decide which statistics the ABS should produce, but any new proposal for the collection of information for statistical purposes must be laid before both Houses of the Parliament before its implementation, unless the proposal is for the collection of information on a voluntary basis.

A professional culture is strongly embedded in the institution. All recruitment is meritocratic and transparent in line with the policies of the Australian public sector. Professional qualifications are required, and professional enhancement encouraged. ABS staff are in high demand elsewhere in the public sector, and not infrequently move on to such posts.

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

The ABS's choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations.

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

The ABS has the authority to comment on erroneous interpretation and misuse of the statistics that it produces, and does so when appropriate. ABS responses to media articles are available on the ABS website.

**1.2 Transparency**

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

The terms and conditions under which statistics are collected, processed, and disseminated are widely made available to the public, in particular through the Internet.

Copies of government legislation, including the *CSA* and the *Australian Bureau of Statistics Act* can be obtained from <http://www.publications.gov.au> or <http://www.comlaw.gov.au/>. However, the ABS website <http://www.abs.gov.au/> is the most complete source for all aspects regarding the terms and conditions of its statistics, as this website not only covers legal provisions, but also basic documents such as the ABS work program, corporate plan, annual report of the ASAC, information about the SDDS, etc., in addition to information about individual statistics.

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

It is ABS policy and practice to make all statistical releases available on the website to government, commercial, and private users simultaneously from 11:30 a.m. (Canberra time) on the day of their release. Prior to 11:30 a.m., all ABS statistics are treated as confidential and regarded as being “under embargo.”

On 1 February, 2008, new pre-embargo access arrangements were introduced. The arrangements enable access to a small number of ABS publications by authorized ministerial staff and Government officials, up to two hours prior to the official release time. This is so that briefings can be prepared for key Ministers so that they can provide informed comment on the released statistics when approached by the media, thereby avoiding any inadvertent misinterpretation which may cause unnecessary alarm or concern.

Authorized persons attending a lockup are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room, until the embargo is over. Attendees at the lockup are also required to sign security undertakings which include provision for prosecution under the *Crimes Act, 1914* for anyone who breaches the conditions for attending the lockup.

In addition to these arrangements, and having regard to the complexity of analyses required, a number of Commonwealth Treasury officials have pre-release access to *Australian National Accounts: National Income, Expenditure and Product* (ABS cat. no. 5206.0) mid-afternoon on the day before its release.

The policy on pre-embargo access is clearly set out, and can be found on the ABS website in the Section “About us.”

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

Any products released by the ABS include the ABS logo and a catalog number. Any ministerial commentary is released by Ministers or their Offices, independently of the ABS statistical releases.

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

It is ABS policy to provide advance notice to users about major changes in methodology, source data, and statistical techniques. This usually is done in the regular publications for periods before the changes take effect.

In the case of the national accounts, such notice was given in the quarterly publication *Australian National Accounts: National Income, Expenditure and Product* (ABS Catalog No. 5206.0). Regarding the change toward the adoption of the recommendations of the



2008 SNA, in addition various one-off publications explained the character of the changes well in advance.

### **1.3 Ethical standards**

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

All staff are subject to the *Code of Conduct* as covered in Section 13 of the *Australian Public Service Act, 1999*. In addition, the ABS Corporate Plan includes 12 rules of conduct that employees are expected to adhere to.

Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of standards through in-house webpage announcements, bookmarks, etc.

## **2. Methodological soundness**

### **2.1 Concepts and definitions**

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

The overall structure of Australia's national accounts follows the 2008 SNA. Deviations from this standard are well documented and publicly available at the ABS website.

### **2.2 Scope**

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

The Australian national accounts cover a broad set of tables and accounts. They include those that the ISWGNA<sup>1</sup> determined as *minimum requirement* for implementation of the SNA, as listed below:

- Annual value added and GDP at current and constant prices by activity;
- Annual expenditures of GDP at current and constant prices;
- Annual value added components<sup>2</sup> at current prices by activity;
- Sequence of accounts for the total economy (up to financial accounts) with an annual frequency;
- Annual rest-of-the-world accounts (up to net lending).

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<sup>1</sup> Inter-Secretariat Working Group on National Accounts.

<sup>2</sup> In the sense of categories of primary income.

Australia also compiles on a regular basis the tables and accounts that the ISWGNA determined as *recommended* for *SNA* implementation, as listed below:

- Quarterly value added and GDP at current and constant prices by activity;
  - Quarterly expenditures on GDP at current and constant prices;
  - Annual supply-and-use tables,
- although it should be noted that the annual supply-and-use tables are not published.

In addition, the set of compiled data includes, among other things:

- Quarterly financial accounts for sectors and the aggregate value of the other changes in assets;
- Annual balance sheets;
- Annual State accounts;<sup>3</sup>
- Symmetric industry-by-industry input-output tables;
- Annual tourism satellite accounts;
- A satellite account for nonprofit institutions (irregular).

A table showing the liabilities of and associated flows of all pension schemes, whether funded or unfunded and including social security, is not yet produced pending discussions at the international level on the format of such a table.

The definition of the economy is in accordance with the *SNA* guidelines, even though for practical reasons some flows and stocks relating to Australia's external territories are not measured. These omissions are insignificant for the national accounts totals. The Joint Petroleum Development Area (JPDA) is subject to overlapping territorial claims by Australia and Timor Leste. Fifty percent of the petroleum production project in the JPDA is considered to be part of the Australian economy.

In accordance with the *SNA*, the following specific cases are included in the Australian accounts:

- Territorial enclaves in the rest of the world,
- Free zones/bonded warehouses/factories operated by offshore enterprises under customs control, and
- Persons living in Australia who work part of the year in another country.

The production boundary is defined in accordance with the *2008 SNA* and includes in principle all of the following activities:

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<sup>3</sup> Restricted State data are available on a quarterly basis. Data for smaller regional areas than states or territories are not published.

- Own-account production of all goods for own final consumption;
- Research and development on own account;
- Output of goods for own-account fixed capital formation;
- Production of entertainment, literary, or artistic originals;
- Production of computer software;
- Illegal output sold to willing buyers.

Nevertheless, for practical reasons, estimates for these activities may not, or only partially, be made. In particular, currently no estimates for illegal output activities such as prostitution and illicit drugs are made. On the other hand, the data include estimates for the so-called “backyard production” and for hidden activities, which in Australia are known as belonging to the “cash-economy.” There are also problems of data collection for the recording of entertainment, literary, and artistic originals.

The assets recorded in the Australian national accounts follow mostly the *2008 SNA* definition. They include for instance the following:

- Natural resources;
- Weapon systems that meet the general definition of assets;
- Expenditure on research and development;
- Mineral exploration and evaluation (whether successful or not);
- Originals and copies of intellectual property products;
- Financial derivative contracts regardless whether traded on or off exchange;
- Pension entitlements on employers’ pension schemes, whether funding exists or not.

However, no separate data estimates are made for:

- Valuables and historical monuments;
- Work in progress on cultivated biological resources (crops, vineyards, cultivated fish, etc.);
- Goodwill and marketing assets; and
- Databases.

No estimates are made for the value of land under roads. The *2008 SNA* recommendations regarding contracts, leases, and licenses that can be treated as assets in certain circumstances have been implemented, but the estimates are still constrained by source data problems.

### **2.3 Classification/sectorization**

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

The *2008 SNA* is followed to classify:

- Institutional units, but nonprofit institutions serving households are included in the household sector. Only data for the highest level institutional sectors are published, except for public corporations, which are distinguished as subsectors of the nonfinancial and financial corporations sectors;
- Transactions and accounts, although in some cases the labels of transaction categories differ from those used in the *SNA*, and the Australian system of accounts does not incorporate a production account;
- Other flows.

Economic activities are classified using the Australian and New Zealand Standard Industrial Classification, 2006 edition (ANZSIC06) broken down by division for all industries, with additional breakdowns for the following divisions: agriculture, forestry and fishing; mining; manufacturing; electricity, gas and water; and transport and storage. The ANZSIC06 is consistent with International Standard Industrial Classification (ISIC) Rev. 4 at this level of disaggregation.

For products, the Input-Output Product Classification (IOPC) is employed. This classification consists of industry of origin headings with detailed product items shown under each heading.

The Classification of Individual Consumption According to Purpose (COICOP) is used for household final consumption expenditure, although quarterly estimates are published at a more aggregated level (17 categories).

A classification strongly related to the Classification of Functions of Government (COFOG) is used for government final consumption expenditure; this dissection is only available on an annual basis.

International transactions in goods are classified according to the Standard International Trade Classification (SITC) Rev. 4 (from September quarter 2008). The balance of payments taxonomy is followed for the classification of internationally traded services.

The following classification issues emerged from the introduction of the *2008 SNA*:

- The ABS largely adopted the new guidance on the treatment of “special purpose entities,” which are sometimes called shell companies or brass plate companies and which can be created by both corporations and the government. The impact on the accounts has generally been low. A deviation from the *2008 SNA* is the classification of holding companies in the predominant sector of the subsidiaries instead of being always allocated to the financial corporations sector. This decision was made after consultation with major users.
- Recommendations regarding the financial sector to reflect developments in one of the fastest-changing segments of many economies (in particular, the more comprehensive overview of financial services) have led to a review of the ABS

treatment of financial services and a change to closer compliance in the sense that more subdivisions of the sector are distinguished and that data sources were improved. No methodological changes were needed.

- Several principles that the *2008 SNA* refined in response to developments in accounting standards for government and its clarification of the delineation of the government and the public sectors from the other sectors of the economy did not require change in the Australian national accounts. Central bank output is treated as nonmarket services that are consumed by government.
- The *2008 SNA* clarification of the treatments of super dividends paid by public corporations and capital injections into public enterprises, the new principles for the treatment of public-private partnerships, and the elaboration of treatment of restructuring agencies required no change to the existing methodology followed in Australia.
- The new treatment of ancillary units as separate establishments (provided certain conditions are met) equally required no changes.
- The implementation of the *2008 SNA* rules regarding the accounting for employee stock options are constrained by data sources.
- The *2008 SNA* clarified and expanded guidelines on the accounting treatment of assets previously called “intangible produced assets” and now labeled “intellectual property products.” This has led to changes in the ABS asset classification.
- The *2008 SNA* introduced the analytical concept of capital services and suggests that details be presented in a supplementary table for market producers to accommodate research in the fields of growth and productivity. Such a table is presented by the ABS as part of its productivity analysis.
- The *2008 SNA* modified the measurement of nonlife insurance services in order to provide more plausible estimates following extreme events (e.g., earthquakes) that result in large insurance payouts. The ABS implemented the *SNA* modifications by way of introducing smoothing procedures on claims. As yet, no extreme events have occurred that would require the recording of capital transfers to damaged parties.
- The *2008 SNA* refined the method for calculating Financial Intermediation Services Indirectly Measured (FISIM). This method was already introduced in Australia. It should be noted that several details of the calculation of FISIM (such as the treatment of risk, the adaptation of the reference rate for loans and deposits in foreign currencies, and the compilation of volume measures for FISIM) are still subject of international debate.
- The *2008 SNA* expanded the treatment of remittances from persons abroad. This has led to a review of methods at the ABS and better estimates.

- The *2008 SNA* made the application of the principle of change in ownership of goods universal, resulting in changes to the recording of merchanting and of goods sent for processing, both abroad and within the domestic economy, and then returned to the owner. The changes shift the focus away from the physical movements of goods. These recommendations were implemented by the ABS, but they have a low impact for Australia. Some data quality issues are still being examined.
- The *2008 SNA* clarified the transactions between general government and public corporations, and the accounting for securitization vehicles to improve the recording of items that could significantly affect government debt. These clarifications required no changes in the Australian national accounts as securitization vehicles are not used by Australian government units.
- The *2008 SNA* clarified the treatment of several classes of loan and introduced a new treatment for standardized guarantees, such as export credit guarantees and student loan guarantees. These changes have been implemented by the ABS for major known items.

## **2.4 Basis for recording**

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

Although output is not shown in the regular accounts, it is part of the calculation of GDP following the production approach. As such, output is valued at basic prices derived from market transactions or, in the absence of such transactions, estimated by reference to market prices for analogous goods or services, or as the sum of costs incurred.

The expenditure aggregates are compiled at purchasers' prices. Where market prices are not observable, either an imputation is made (e.g., imputed rent on owner-occupied dwellings is calculated using comparable rental values for similar dwellings) or the flow is valued at cost (e.g., nonmarket services).

If levied, sales and excise taxes are included in the valuation of intermediate consumption. The Goods and Services Tax (GST), which is a value added-type tax, is usually excluded from intermediate consumption for reason that it is deductible. The intermediate consumption of input-taxed industries, such as financial services and the ownership of dwellings, is shown including value added tax. If applicable, the deductible part of the GST is excluded from the valuation of final uses.

Corrections are made when transfer prices are detected. However, it is noted that transfer prices are difficult to trace.

Total imports and exports are valued on a free on board (f.o.b.) basis. Information on insurance and freight for merchandise imports up to the Australian port of entry is available from customs documents.

Transactions in foreign currency are converted using the mid-point exchange rate prevailing in the market at the moment they take place.

Stocks are valued at market prices where those prices are available. Where not available, imputations are made (for example by reflating cost-based estimates using appropriate price indices). The ABS records debt instruments other than securities at fair value, in contrast to nominal value recommended by the *SNA*.

In variation with the *SNA*, interest on securities is recorded following the so-called creditor approach, thus substituting current market interest rates for contractual interest rates.

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

As far as possible, transactions are recorded on an accrual basis. Where material, timing adjustments will be made to source data to better reflect accruals accounting.

The sources for government transactions apply accrual accounting. Accrued but not used vacation leave is recorded as an asset of households in the balance sheets.

With respect to large capital items produced to order, some simplifications of the pure accrual principle are applied. For building and engineering construction, the buyer is assumed to take ownership of the item in accordance with progress payments made. For machinery and equipment, the change of ownership is almost invariably recorded at the time the asset is received by the buyer. In principle, in these cases the change of ownership should be recorded as output progresses.

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

In the calculation of value added, transactions between production units within the same enterprise are recorded on a gross basis. For some source data, adjustments are made to unwind netting or consolidation inappropriate for this purpose. Care is taken in the design of, and quality assurance of, surveys and administrative data to minimize netting of values by respondents in surveys beyond that permitted by commercial accounting standards.

In other respects, the *SNA* rules on grossing/netting are also followed. Nevertheless, in contrast to these rules, the sector accounts consolidate intrasector property income, financial transactions, and financial stocks. The ABS argues that these practices provide aggregates of components that are more analytically useful than simple summation without impacting the balancing items in the various accounts.

### 3. Accuracy and reliability

#### 3.1 Source data

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

A well-designed data collection program exists with regard to the source material needed for the compilation of national accounts.

Economic surveys make extensive use of a business register that became operational in 2002. The vast majority of businesses are in what is called the Australian Tax Office (ATO)-maintained population, while the remaining businesses are in the ABS-maintained population. Most businesses and organizations in Australia need to obtain an Australian Business Number (ABN) and are then included on a government register of businesses. The majority of these businesses have simple structures and therefore will satisfy the ABS statistical requirements. For the population of businesses where the ABN unit is not suitable for ABS statistical requirements, the ABS maintains its own units structure through direct contact with the businesses. This population consists typically of large, complex, and diverse businesses.

The ATO-maintained population is an efficient and very comprehensive way of obtaining information on producing units through sampling. This refers usually to the larger ones; information on the small units and units under the threshold applied by ATO is estimated through regression methods. A disadvantage of the ATO-maintained population, at least at this point in time, appears to be that changes made by the ABS to the economic classification of units cannot be fed back to the ATO due to confidentiality constraints.

The ABS-maintained population comprises three entities within a hierarchy—the enterprise group, enterprise, and the type of activity unit. It is updated through personal visits to the largest units, a mail survey, and a press watch.

The most commonly used producing unit is the *management unit*, which is the largest unit within a business for which relevant accounts are kept, having regard for industry homogeneity. However, some statistics are compiled using the *establishment* unit. This unit differs from the *SNA* establishment unit as it consists of one or more of an enterprise's locations that engage in the same predominant production activity within a State or Territory. The implication of deviations between the Australian choice of units and those defined in the *SNA* is a certain loss of precision in the allocation of production by economic activity, but the effect is likely small at the macroeconomic level. In many countries comparable to Australia, the breakdown of production by region is much finer.

The ABS uses the business register for a comprehensive survey program. The Business Surveys Register of the Statistical Clearing House contains metadata that describe the



survey development, design, and procedures for many ABS collections.<sup>4</sup> Sample frames are updated quarterly and refreshed regularly. Reportedly, the samples for the annual statistics have become quite small in relation to the desired precision of the results. Survey questionnaires are constructed according to sound design principles (e.g., questionnaires are subject to field/pilot testing; observation studies are conducted during the design of survey questionnaires). Post enumeration testing is not always applied. The ABS surveys of enterprises and households are in most cases compulsory for the respondents. Response rates are generally high as a result of intensive follow-up and other measures.

A Household Expenditure Survey (HES) is conducted regularly, although its frequency of at least once every six years will be insufficient to capture quickly changing patterns in some item categories. No ongoing household expenditure surveys exist that may be used for interim updating of the benchmark data. Sample frames for household surveys are based on the five-annually Census of Population and Housing.

Comprehensive government finance statistics on an accrual basis are available. They cover central, State, and local governments, and include for instance defense-related expenditures and data on capital stocks. An issue is that government finance statistics data are not easily related to data derived through the business register, say, on water supply. Also, a number of adjustments need to be made before the data can be incorporated in the national accounts.

Most components of the consumer price index (CPI) can be used directly for national accounts purposes. In some domains, such as Medicare and education, the CPI does not generate satisfactory indices, and national accountants must find or construct more appropriate indices. The producer price index (PPI) does not cover several types of products that the national accounts would like to deflate, in particular in the domain of services. Other frequently used price indices are the international trade prices index, building and construction price indices, and the Australian petroleum statistics produced by the Department of Industry and Resources.

Broadly sufficient subannual surveys are conducted to accommodate the quarterly national accounts; this applies both to output measures as to information on final expenditure categories.

The ABS has periodic meetings with the business community to identify new developments that need to be taken in the national accounts compilation system. Contacts are also maintained with main users, such as the Reserve Bank of Australia (RBA) and academics. The same is true with agencies that compile source data, including the ATO and the Australian Prudential Regulatory Agency (APRA). The ABS participates very actively in the setting of international standards and has well-founded opinions on the various quality criteria applicable to source statistics for the national accounts.

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<sup>4</sup> See [www.nss.gov.au/](http://www.nss.gov.au/).

The estimation of annual GDP according to the production approach relies mostly on four sources: the Annual Integrated Collection (AIC), the government finance statistics, the data on financial statistics collected by APRA, and information from the tax system. The AIC primarily serves the national accounts; it provides detailed data on income, expenses, balance sheets, and employment. Supplementary data are obtained for instance from the Australian Bureau of Agricultural and Resource Economics (ABARE), the State Mines, various surveys on construction and engineering, and the Household Expenditure Survey.

The main sources for the expenditure approach are the retail survey, the government finance statistics and the Quarterly survey of private capital expenditure for capital formation, and the balance of payments statistics.

The income approach's source for gross operating surplus is the same as that used for the production approach. Compensation of employees information is derived from the Labor Force Survey and the Survey of Employment. Data on taxes are obtained from the government finance statistics.

### Main Sources for the Annual Accounts

<b>Production Approach</b>		
<b>ANZIC categories</b>	<b>Main sources</b>	<b>Assessment</b>
Agriculture, Forestry and Fishing	• Annual Integrated Collection (AIC)	Partially insufficient  Good
Mining	• AIC	
Manufacturing	• AIC	
Electricity, Gas, Water and Waste Services	• AIC • Government Finance Statistics	
Construction	• Construction Industry Survey • AIC, Building Activity • Engineering Construction Activity	Good
Wholesale Trade	• AIC	Partially insufficient
Retail Trade	• AIC	
Accommodation and Food Services	• AIC • Government Finance Statistics	Partially insufficient Good
Transport, Postal and Warehousing	• AIC • Government Finance Statistics	Partially insufficient Good
Information, Media and Telecommunication Services	• AIC	Partially insufficient

Finance and Insurance • Finance, Insurance  • Services to Finance	<ul style="list-style-type: none"> <li>• Australian Prudential Regulatory Authority (APRA)</li> <li>• Australian Taxation Office (ATO)</li> <li>• Quarterly Survey of Financial Information (SFI)</li> <li>• Quarterly International Investments Survey (IIS)</li> <li>• AIC</li> <li>• Government Finance Statistics</li> <li>• Reserve Bank Australia</li> <li>• Private Sector Data-Annual Reports, etc.</li> </ul>	<p>Good for finance and insurance</p> <p>Poor for services to finance</p>
Rental, Hiring and Real Estate Services	• AIC	Partially insufficient
Professional, Scientific, and Technical Services	• AIC	
Administrative and Support Services	• AIC	
Public Administration and Safety	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> <li>• AIC</li> </ul>	<p>Good</p> <p>Partially insufficient</p>
Education	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> <li>• AIC</li> </ul>	<p>Good</p> <p>Partially insufficient</p>
Health and Community Services	• No Direct Source	Unsatisfactory
Arts and Recreation Services	<ul style="list-style-type: none"> <li>• AIC</li> <li>• Government Finance Statistics</li> </ul>	<p>Partially insufficient</p> <p>Good</p>
Other Services • Repair and Maintenance • Personal and Other	<ul style="list-style-type: none"> <li>• AIC</li> <li>• No Direct Source</li> </ul>	<p>Partially insufficient</p> <p>Unsatisfactory</p>

<b>Expenditure Approach</b>		
<b>Categories of expenditure</b>	<b>Main sources</b>	<b>Assessment</b>
Household Final Consumption Expenditure	• Household Expenditure Survey	Good
Government Final Consumption Expenditure	• Government Finance Statistics	Good
Gross Fixed Capital Formation • Private	<ul style="list-style-type: none"> <li>• Annualized Estimates from Quarterly Accounts</li> <li>• Government Finance Statistics</li> </ul>	Satisfactory
• Public Corporations	• Government Finance Statistics	Good

General Government Gross Fixed Capital Formation	• Government Finance Statistics	Good
Investment in Research and Development	• Research and Experimental Development	Satisfactory
Changes in Inventories	• Commodity Flow	Insufficient
Exports Less Imports of Goods and Services	• Balance of Payments Statistics	Good

<b>Income Approach</b>		
<b>Categories of income</b>	<b>Main sources</b>	<b>Assessment</b>
Compensation of Employees	Survey of Employment and Earnings, AIC	
Gross Operating Surplus • Nonfinancial  • Financial	<ul style="list-style-type: none"> <li>• Derived<sup>5</sup></li> <li>• APRA</li> <li>• ATO</li> <li>• Quarterly Survey of Financial Information (SFI),</li> <li>• Quarterly International Investments Survey (IIS)</li> <li>• Annual Integrated Collection</li> <li>• Government Finance Statistics,</li> <li>• Reserve Bank Australia</li> <li>• Private Sector Data - Annual Reports, etc.</li> </ul>	<p>Good</p> <p>Good for finance and insurance</p> <p>Poor for services to finance</p>
Taxes Less Subsidies on Production	• Government Finance Statistics	Good

The estimates of the quarterly accounts rely foremost on the Business Indicators Survey, the monthly retail survey, the Labor Force Survey, government finance statistics, and the balance of payments. These sources are supplemented by various other indicators.

<sup>5</sup> Calculated by subtracting intermediate consumption, compensation of employees and other taxes less subsidies on production from output.

### Main Sources for the Quarterly Accounts

<b>Production Approach</b>		
<b>ANZSIC categories</b>	<b>Main sources</b>	<b>Assessment</b>
Agriculture, Forestry and Fishing	<ul style="list-style-type: none"> <li>• Agriculture and Resources, Quarterly, Australian Bureau of Agricultural and Resource Economics (ABARE)</li> </ul>	Good
Mining	<ul style="list-style-type: none"> <li>• Quarterly Mineral Statistics (ABARE)</li> <li>• Value Data from Mineral and Petroleum Exploration, Australia</li> </ul>	Good
Manufacturing	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good
Electricity, Gas, Water and Waste Services	<ul style="list-style-type: none"> <li>• Electricity, Gas</li> <li>• Quantity and Value Data from Annual Censuses of Establishments for Gas and Electricity</li> <li>• Electricity and Gas Quantity Data from Manufacturing Production, Australia</li> <li>• Water</li> <li>• Quarterly Quantity Data from Water boards</li> </ul>	<p style="text-align: center;">Insufficient (small sample)</p> <p style="text-align: center;">Good</p>
Construction	<ul style="list-style-type: none"> <li>• Building Activity Survey</li> <li>• Engineering Activity Survey</li> </ul>	Good
Wholesale Trade	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good
Retail Trade	<ul style="list-style-type: none"> <li>• Monthly Retail Turnover Survey</li> <li>• Retail Industry Survey</li> <li>• New Motor Vehicle Registrations</li> </ul>	Good
Accommodation and Food Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey</li> </ul>	Good

<p>Transport, Postal and Warehousing</p> <ul style="list-style-type: none"> <li>• Road, Rail, and Water Transport</li> <li>• Air Transport</li> <li>• Postal and Warehousing</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> <li>• Passenger and Freight Kilometers from Major Transport Providers</li> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good	
Information, Media and Telecommunication Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> <li>• Revenue and Quantity Data from the Major Businesses.</li> </ul>	Good	
Finance and Insurance	<ul style="list-style-type: none"> <li>• Finance, Insurance</li> <li>• Services to Finance</li> </ul>	<p>• Output Indicators Series derived from APRA</p> <p>• ABS Quarterly Business Indicator Series and</p> <p>• APRA Data</p>	<p>Good</p> <p>Poor</p>
Rental, Hiring and Real Estate Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good	
Professional, Scientific, and Technical Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good	
Administrative and Support Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector</li> </ul>	Good	
Public Administration and Safety	<ul style="list-style-type: none"> <li>• Labor Force Survey</li> </ul>	Satisfactory	
Education	<ul style="list-style-type: none"> <li>• No Indicator</li> </ul>	Unsatisfactory	
Health and Community Services	<ul style="list-style-type: none"> <li>• Number of Patient Episodes, Doctors' Visits and Hospital Separations</li> </ul>	Satisfactory	
Arts and Recreation Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey - Private Sector (q)</li> <li>• Government Finance Data</li> </ul>	Good	
Other Services	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey Private Sector (q) and</li> <li>• Government Finance Data</li> </ul>	Good	

<b>Expenditure Approach</b>		
<b>Categories of expenditure</b>	<b>Main sources</b>	<b>Assessment</b>
Household Final Consumption Expenditure	<ul style="list-style-type: none"> <li>• Monthly Retail Trade Survey</li> <li>• Miscellaneous Indicators for Other Services</li> </ul>	Good Unsatisfactory
Government Final Consumption Expenditure	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> </ul>	Satisfactory
Private Gross Fixed Capital Formation	<ul style="list-style-type: none"> <li>• Quarterly Survey of Private Capital Expenditure</li> <li>• Building Activity Collection</li> <li>• Engineering Construction Survey</li> <li>• Mineral and Petroleum Exploration Survey</li> </ul>	Satisfactory
Public Corporations Gross Fixed Capital Formation	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> </ul>	Good
General Government Gross Fixed Capital Formation	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> </ul>	Good
Investment in Research and Development	<ul style="list-style-type: none"> <li>• Various Surveys of Government, Higher Education and Business R&amp;D</li> </ul>	Unsatisfactory
Changes in Inventories	<ul style="list-style-type: none"> <li>• Quarterly Business Indicators Survey</li> <li>• Government Finance Statistics</li> </ul>	Satisfactory

<b>Income Approach</b>		
<b>Categories of income</b>	<b>Main sources</b>	<b>Assessment</b>
Compensation of Employees	<ul style="list-style-type: none"> <li>• Quarterly Business Indicator Survey</li> <li>• Government Finance Statistics</li> <li>• Labor Price Index, Average Weekly Earnings</li> <li>• Labor Force Survey</li> </ul>	Good

<p>Gross Operating Surplus</p> <ul style="list-style-type: none"> <li>• Nonfinancial Enterprises</li> <li>• Financial Corporations</li> </ul>	<ul style="list-style-type: none"> <li>• Quarterly Business Indicator Survey</li> <li>• Government Finance Statistics</li> <li>• Consumer Price Index (for Dwellings),</li> <li>• ATO</li> <li>• APRA</li> <li>• Reserve Bank of Australia</li> <li>• Output Indicators Series derived from APRA</li> </ul>	<p>Good</p> <p>Good for finance and insurance Poor for services to finance</p>
<p>Taxes Less Subsidies</p>	<ul style="list-style-type: none"> <li>• Government Finance Statistics</li> </ul>	<p>Good</p>

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

ABS business surveys and government finance statistics are designed to collect data consistent with the *SNA* definitions to the extent permitted by provider load issues and commercial accounting standards. ABS management of collections requires conformity to data and classification standards. The ABS negotiates with administrative data providers to conform to accounting standards more generally and where practical to implement *SNA*-based concepts.

In spite of these efforts, some issues remain. For instance, the GFS serve purposes beyond the national accounts, and this results in some deviating accrual measures, varying valuation of government debt and interest, and different values for consumption of fixed capital, among other things. Also, by their nature, the APRA data do not cover financial institutions that fall outside the scope of its regulation, so that the ABS is obliged to collect data on the missing units. Problems with correct timing for annual data may occur as some businesses are allowed to report on other intervals than the statistical/financial year ending June 30. In some areas valuation is a problem, which occurs frequently in reported value data for minerals and other commodities. No satisfactory indicators on education are available for the quarterly accounts. On the whole, however, these issues seem to be manageable.

Yet, a few topics deserve attention. Cost-cutting measures over a considerable number of years, and concerns about reporting burden, seem to have had a negative influence on the pertinence of some source data, in particular the AIC, whose sample size is seen as insufficient. The AIC also does not provide a comfortable level of product detail to compile supply-and-use tables. Furthermore, some benchmark surveys appear to be quite old. The PPI lacks sufficient coverage, in particular in services, and is considered a weakness in the



range of available source data. Finally, the HES could be updated more frequently, for instance by a relatively small rolling survey that would detect changes in consumption behavior.

### *3.1.3 Source data are timely*

ABS quarterly and annual data collections are scheduled to produce results in time for input into annual and quarterly national accounts processing. Late reporting may occur for the first estimates of the quarterly accounts, in agriculture, and a few other sources, requiring that coverage imputations be made.

## **3.2 Assessment of source data**

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

ABS's quarterly and annual data collections are subject to formal clearance processes that monitor quality aspects of data collection. Formal clearance documentation is made available to national accounts staff. Discussions of the results are held quarterly, dealing with any quality questions. Quality declarations are available for many ABS data releases. Where formal clearance processes do not exist, such as for many administrative sources, contacts are maintained with the compilers to address data concerns. This involves in particular ATO and APRA. Newly-received data are also checked for their consistency with the time series.

## **3.3 Statistical techniques**

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

Data compilation procedures in the Australian statistical system are sound. The ABS Methodology and Data Management Division supports compiling agencies with expert advice on methods relating to the design, collection, compilation, and analysis of statistical data. Sound methods are being used for making adjustments for underreporting of income and for transactions taking place in the cash economy.

In Australia, GDP is calculated according to three approaches: the production, expenditure, and income ones. Because these approaches use independent sources to the extent possible, they generate different results, which the ABS shows in the quarterly accounts explicitly for the most recent year. In the other years, the differences between the three methods are removed in a balancing exercise.

In the quarterly national accounts, no current price estimates are made of GDP according to the production approach. Nor do these accounts publish volume measures of GDP following the income approach.

## **Production approach**

The annual accounts are compiled at a sufficient breakdown by economic activities (63, the publication level is 21 activities). The reliance on fixed ratios that are more than five years old is viewed as sufficiently limited, but in some categories such as transportation the ratios may go back much longer than five years.

Output of owner-occupied dwellings is correctly calculated on the basis of the rentals that tenants would pay for similar accommodation. The basis for the calculation consists of an inventory model on the stock of dwellings, while information on rents is available from the CPI.

Inventory data are used to estimate the magnitude of output and intermediate consumption. The perpetual inventory method is used to estimate consumption of fixed capital. In so far that source data are on a cash basis, appropriate efforts are undertaken to bring the data to an accrual basis. It is noted that government finance source data are already on an accrual basis.

The calculation of volume measures of GDP in the annual accounts usually start with applying the double deflation method preferred by the *SNA*, under which volume measures of intermediate input are subtracted from volume measures of output. Subsequent analysis, however, in many cases show that the results are not acceptable. The likely main cause is inadequacies in the available price indices. Other methods for compiling volume measures are usefully based on the Quarterly Business Indicators. In the end, about one third of the volume measures of annual GDP is calculated by using the double deflation method.

To compile quarterly volume measures of GDP, little use is made of the double deflation method. Only for agriculture do both the annual and quarterly accounts make use of this method. The output indicator method is most commonly used by the ABS. It involves extrapolating reference year estimates of current price gross value added using movements in a volume indicator of output. In a few cases the output indicator is just a single output statistic, but in most cases it is a composite of several output statistics. The input indicator method, which involves extrapolation using a measure of labor input such as hours worked, is used mainly to obtain estimates for general government dominated industries such as Public administration and safety, and Education.

Volume measures of taxes and subsidies on products are correctly estimated by applying base-year tax rates to the volume of the transactions taxed or subsidized. Similarly, the volume of trade margins are estimated by applying base-year trade margins as a percentage of sales to the volume of sales in the current year.

GDP volume measures are compiled using the successive multiplication of chain links each derived using a Laspeyres-type formula.

## **Expenditure approach**

The expenditure approach of measuring GDP is derived independently from other approaches. This is true for household final expenditure, gross fixed capital formation, change in inventories, and exports minus imports. Household final consumption expenditure is compiled at the two- or three-digit level of Classification of Individual Consumption According to Purpose (COICOP). However, government final consumption expenditure is compiled as one single item (which additionally can be broken down by Consumption by Functions of Government (COFOG) categories). Gross fixed capital formation is compiled by both activities and by type of assets. The same is true for inventories, although this information is not published cross-classified.

In expenditure, the reliance on more than five-year-old fixed ratios derived from benchmarks is considered limited.

### ***Other specific quarterly compilation techniques***

An appropriate benchmark technique, similar to the Denton technique, is followed to combine annual estimates with quarterly indicators.

The quarterly compilation system derives quarterly series from seasonally unadjusted source data.

Australia has adopted (with minor changes) the X-12 ARIMA package from Statistics Canada as its standard method of seasonal analysis of quarterly series. Calendar effects, where measurable, are estimated using regression techniques. The estimated seasonal and calendar influences together provide the combined adjustment factors by which the original series are seasonally adjusted. Concurrent seasonal adjustment is applied each quarter causing revisions to previous seasonal factors.

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

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

The data compiled from the main sources used to compile national accounts statistics are checked against other data sources. The intermediate quarterly results are compared with performance indices received from the Australia Industry Group, sentiment indices, and forecasts made by various institutions including the Deutsche Bank. The intermediate annual results are compared, among other things, with the quarterly accounts, independent sources on compensation of employees, and external sources on agricultural production.

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

Discrepancies disclosed by internal checks are followed up if material.

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

A quarterly supply-use model is used to reconcile the production and expenditure estimates.<sup>6</sup> Annual supply-use balancing eliminates the discrepancy between production, income and expenditure methods for all but the most recent year.

## **3.5 Revision studies**

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

In 2006, a comprehensive study was conducted into the magnitude, direction, and persistence of national accounts revisions among OECD countries. Australia participated in this study, and came out in a middle position of the group of countries. Since that time, no similar broad study has been undertaken.

Nevertheless, the impact of revisions of initial estimates is the subject of review as a matter of routine. A formal account of lessons learned from these exercises is not made. Adequate documentation of the various stages in the compilation process and the revisions made to earlier source data or estimates (including the reasons for change) is particularly well kept for the quarterly accounts.

## **4. Serviceability**

### **4.1 Periodicity and timeliness**

#### *4.1.1 Periodicity follows dissemination standards*

The periodicity of the quarterly national accounts is quarterly in accordance with SDDS requirements.

#### *4.1.2 Timeliness follows dissemination standards*

The timeliness of the quarterly accounts is about two months after the end of the reference quarter. The timeliness thus meets SDDS requirements.

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<sup>6</sup> The methodology used is described in the research paper, *A Supply and Use Model for Editing the Quarterly National Accounts* (available at <http://www.abs.gov.au/ausstats/abs@.nsf/productsbytopic/677EA0FA7DA82424CA25723600113E3B?OpenDocument>).

## 4.2 *Consistency*

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

In the quarterly accounts, explicit statistical discrepancies are included to equate the sum of the components of the expenditure and industry chain volume measures of GDP with the "headline" chain volume measure of GDP. Similarly, for current price estimates, explicit statistical discrepancies are included to equate the sum of the income and expenditure components with the "headline" GDP estimate. Discrepancies between all three methods are made explicit in the most recent year of the annual accounts and in the annual accounts for the years prior to 1994/95. These various statistical discrepancies provide an indication of the consistency of the estimates.

Other statistical discrepancies shown in the Australian national accounts pertain to (1) a discrepancy to reconcile the sum of saving and capital transfers with the sum of capital accumulation and net lending, and (2) a discrepancy (errors and omissions) to reconcile net lending with net financial transactions.

Historically, the discrepancies have been quite small. Although considerable differences in growth rates for individual quarters may appear, all three methods to estimate GDP have shown the same trend up to the global financial crisis (GFC), after which the GDP according to the expenditure approach clearly is, and remains, higher than the income and production approach. An explanation for this phenomenon has not yet been found.

The formal requirement that value (change) is equal to volume (change) multiplied by price (change) is consistently maintained. GDP as published in the input-output tables is consistent with the annual accounts for the relevant year. Quarterly accounts are made consistent through benchmarking with the published annual accounts.

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

All data are provided in the form of time series. Consistent time series for key aggregates are maintained back to 1959/60. Most annual data are available in time series from 1973/75, and subdivisions in the quarterly accounts from 1977/78.

Unusual changes in economic trends are always explained in the analytical text included in the publication and in the database accessible to users.

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

National accounts data for the rest of world are consistent with balance of payments and international investment position (BOP/IIP) data. The national accounts and government finance statistics data are in principle reconcilable, although there are several differences. Also, the data for public enterprises in the government finance statistics are not equal to those in the national accounts due to the use of different data sources. Implicit price deflators are comparable with published consumer and producer price indices. Labor

measures are reconcilable with published labor market statistics. Aggregates are relatable to published data for business surveys.

Movements in analytical series such as productivity measures, average compensation per employee, imports to stocks ratios, inventories to sales ratios, etc., as well as movements in the component series themselves, can be used as a check on the reasonableness of the accounts.

### **4.3 *Revision policy and practice***

#### *4.3.1 Revisions follow a regular and transparent schedule*

Revisions to the annual estimates normally follow a three-year cycle at the end of which the data are no longer subject to change. This also is the moment that the input-output tables for that year are prepared. However, this scheme is applied flexibly, and it is still possible that further changes are made in the fourth and later years. No fixed schedule exists for introducing major revisions in the accounts.

Revisions to previously published quarterly data can be made with each issue of the quarterly national income, expenditure, and product accounts, although most revisions are made in the September quarter issue. In addition, long-term revisions to the level of chain volume measures are made in the September quarter issue when all chain volume series are re-referenced to a new financial year, but this change does not affect estimates of the movements in the volume series. Revisions due to changes in method or changes in underlying source data are generally limited to the following periods for each quarterly release—September quarter (16 quarters), December quarter (five quarters), March quarter (six quarters) and June quarter (seven quarters). However, the seasonally adjusted and trend data can be revised for some earlier periods as a result of revisions to original data for the periods specified above.

Revisions of any importance are always explained.

#### *4.3.2 Preliminary and/or revised data are clearly identified*

Publications do not indicate whether the data are subject to later revisions. Neither do the tables indicate whether the data have been revised. On the other hand, each quarterly release contains a table of revisions undertaken for that release. Reasons for significant revisions are disclosed on page 2 of the quarterly releases.

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

Statistical publications explain revisions, but this is not done in the databases that are made available to users.

It is the ABS's intention to make formal studies and analyses of revisions, but this has been done only occasionally.

## 5. Accessibility

### 5.1 Data accessibility

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

National accounts data are published in a sufficiently clear manner; they are accompanied by an analysis that includes charts and tables that should be particularly useful for users. Datasets are usually published with a large level of detail. Even more details are available from spread sheets. The first page of the quarterly accounts publication highlights the key figures and the key points, which may be sufficient for some users. The annual accounts publication starts with an analysis that stretches over many pages, which may be quite long for nonspecialist users.

Relevant series are disseminated in seasonally-adjusted form.

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

The national accounts are in essence exclusively released on the Internet, which ensures that the data are available at the same time to professional users. This medium also facilitates dissemination. More comprehensive series are equally made available in electronic format. No charges apply, except when a customized request involves special work to be undertaken by the ABS.

The ABS website allows free access to a wide range of information, including:

- All ABS publications from 1998 onwards in Adobe Acrobat format;
- Over 2,000 spreadsheets of economic and social data;
- Multi-dimensional datasets in SuperTABLE format;
- 2001 Census Basic Community Profiles to the Statistical Local Area (SLA) level in Excel spreadsheet format;
- Summary information including Main Features, and information on upcoming releases.

#### 5.1.3 *Statistics are released on a preannounced schedule*

The precise release dates for the next two quarters' national accounts are published in the quarterly *Australian National Accounts*. The release of the annual data also follows a strict preannounced schedule.

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

The data are released simultaneously to all interested parties. To ensure impartiality, the press may have access to publications before their release in a locked facility at the ABS.

Outside contact is only possible at the end of the embargo, which normally is 11:30 a.m. Canberra time. At the same time, the national accounts data are posted on the ABS web. A longer pre-embargo access is provided to Treasury officials in order to ensure briefings for the Treasurer are available at the time of release. However, these officials are also subject to isolation until the embargo expires.

#### *5.1.5 Statistics not routinely disseminated are made available upon request*

Customized data may be provided electronically as a special data service and clients are charged on the basis of the number of data cells provided.

## **5.2 Metadata accessibility**

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

Very comprehensive sources and methods documents are published and updated regularly. Typically, they include:

- Information on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures; and
- Departures from internationally accepted standards, guidelines, or good practices.

Metadata on surveys are also easily accessible from the Commonwealth Register of Surveys of Businesses (Statistical Clearing House) at <http://www.nss.gov.au/nss>.

The SDDS/GDDS metadata, SDDS summary methodologies, and other related descriptions are reviewed and updated regularly.

All metadata are readily accessible via the Internet, their existence is cross-referenced in data releases and also otherwise well publicized. Because the accounts recently underwent an extensive revision with the introduction of the *2008 SNA* and an updated industry classification (ANZSIC06), the publication *Australian National Accounts: Concepts, Sources and Methods* has not yet been updated to incorporate all the new features. Lacking is a document that describes in detail the methodologies followed to compile the quarterly accounts.

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

The publication *Australian National Accounts: Concepts, Sources and Methods* goes into considerable detail.



From time to time simplified presentations are released in special articles on the website in the “Spotlight on...” series. Summary metadata are also provided with the data releases, which may be sufficient for some users.

### **5.3 Assistance to users**

#### *5.3.1 Contact points for each subject field are publicized*

Prompt and knowledgeable service and support are available to users of statistics. Client contact details are included on the front page of the quarterly and annual publications; the ABS national information referral service also channels enquiries to relevant officers. Assistance to users is not monitored or reviewed periodically (e.g., to gauge the time of response to e-mail requests).

Limited material is available to raise awareness on the use of statistics (e.g., for schools and research). A schools program is in place and also media training is given.

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

The ABS website [www.abs.gov.au](http://www.abs.gov.au) contains links to all ABS data releases, descriptive material, and terms and conditions of supply.

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

(Compiling Agency: Australian Bureau of Statistics)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Resource strains have been imposed on the ABS by changing to new standards and coping with the global financial crisis. There has been a significant loss of expertise.
0.2 Resources			X			
0.3 Relevance		X				
0.4 Other quality management						
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				The Australian national accounts deviate in some major aspects, such as the accrual of interest and the valuation of debt instruments other than securities, from the 2008 SNA standards, thus hampering international comparisons.
2.2 Scope		X				
2.3 Classification/sectorization		X				
2.4 Basis for recording			X			
<b>3. Accuracy and reliability</b>						
3.1 Source data			X			Sample size and product detail of the Annual Integrated Collection are insufficient. The HES is not updated frequently enough. The PPI has insufficient coverage.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				

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Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

## Recommendations

- Ensure an ABS-wide staff retaining and succession plan that reflects both the structural changes in the demand for statistics and all available sources of finance.
- Make (as an alternative presentation) national accounts series available that strictly follow the *2008 SNA* in matters such as the accrual of interest, the valuation of loans, and repurchase transactions, to allow users to make better international comparisons.
- Improve the sample size and product detail of the Annual Integrated Collection. Update the Household Expenditure Survey more often, for instance by way of a small continuous survey. Enter consultations to improve the usability of the PPI for national accounts compilation.
- In accordance with the *1993 SNA* and *2008 SNA* recommendations, consider incorporating estimates for work in progress of major crops, valuables, and illegal transactions. Review the valuation of own-account capital formation to include a mark-up.
- Continue efforts to capture or improve estimates for new features of the *2008 SNA*, such as databases, leases, employee stock options, and the treatment of pension reserves that are larger or smaller than provisions needed.
- In the annual accounts, consider changes in inventories as a series in their own right, thus diminishing their use as a remainder item.
- Repeat from time to time comprehensive analyses of revisions to the data.
- Adopt a revision policy for the annual accounts and indicate with the data which series are likely to be subject to revision.
- Continue the preparations for a Concepts and Definitions document for the national accounts that describes the new system. Prepare a methodological description of the estimation methods used to compile quarterly accounts.
- Consider making more simple documentation available to introduce lay persons to the Australian system of national accounts.

## II. PRICE STATISTICS (CONSUMER PRICE INDEX)

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the *Census and Statistics Act, 1905 (CSA)*, the *Australian Bureau of Statistics Act, 1975 (ABSA)* and associated ministerial determinations. These documents are widely available to the public, including from the ABS website <http://www.abs.gov.au/>; <http://www.comlaw.gov.au/>; and <http://www.publications.gov.au/>.

With two exceptions (the requirement to conduct a Census every five years and to compile statistics on the number of people in each State at the end of each quarter), the *CSA* entitles the Statistician (the head of the ABS) to determine what statistical information is to be collected (within the bounds of broad-ranging subject matters specified in the Statistics Regulations). The Assistant Treasurer, the Minister responsible for the ABS, can direct the Statistician, in writing, to collect statistical information relating to a particular matter specified in the Statistics Regulations. However, the Minister cannot direct the Statistician to cease a particular collection nor instruct the Statistician on how to go about collecting statistical information.

Section 6 of the *ABSA* mentions among the functions of the ABS: “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” The Australian statistical system thus is characterized by a plurality of data providers. The ABS is the largest collector of official statistics, but there is no mandate that official bodies must source statistics from it. Some statistical work is done by State governments, some by other government agencies undertaking their own collections. Specific agencies such as the Australian Institute of Health and Welfare and the Australian Bureau of Agricultural and Resource Economics also undertake statistical collection and analysis work. The *ABSA* gives the ABS the role to ensure coordination of the operations of official bodies in the collection, compilation, and dissemination of statistics and related information to avoid duplication between collections, attain compatibility between collections, and ensure the maximum utilization of statistics.

The overall legal framework is considered to work well, and there are no plans to revise it. There are no legal provisions applying specifically to the compilation of consumer price statistics apart from the general terms applying to all statistical areas. The ABS has assumed the task of compiling the consumer price statistics in accordance with its central position in the Australian statistical system, in order to provide autonomous information to the Reserve Bank of Australia (RBA) in the operation of its monetary regime, and to form the basis for the indexation arrangements that cover an estimated AUS\$170 billion of government spending.

The Statistician is obliged to appear before the Senate Estimates Committee roughly two or three times a year, and to answer questions publicly on anything to do with the work of the ABS. The Committee can also call for follow-up responses, and call on other agencies such as the Audit Office for further information.

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

The ABS compiles many source statistics. For instance, periodic business surveys, price statistics, statistics on external relations, government finance statistics, and labor market statistics are all conducted or compiled by relevant ABS departments. Internal processes ensure coordination between the various activities. However, in some cases external sources are being used, in particular administrative datasets. Provisions in taxation, customs, and prudential supervision legislation are in place enabling the relevant agencies to provide access to these datasets. The ABS manages relationships with these agencies by formal meetings, memoranda of understanding, and informal contact.

Given the high level of demand for statistics, and the multiplicity of sources, a focus for the ABS in providing statistical leadership is to support the development of information plans for different topic areas. The aim with this work is to achieve an understanding of user priorities for data development and for improved access, and to establish an agreed set of strategies amongst the partner producing agencies to optimize data development.

The ABS seeks to ensure coordination among data-producing agencies through a series of committees, as well as informal contacts with staff producing the statistics in other agencies. Changes in the production of statistics are preceded by extensive consultations.

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

The *CSA* protects confidentiality by requiring that information not be published in a manner likely to enable the identification of a particular person or organization. The *Act* states specifically that a statistical officer cannot be required to divulge or communicate to a court or tribunal any information contained in a Census form.

Notwithstanding this, the *CSA* provides for the Minister to make determinations providing for the release of certain classes of information which would not otherwise be permitted to be released under the *Act*. Still, under the provisions of a determination, personal or domestic information may not be disclosed in a manner that is likely to enable the identification of a person.

The determination currently in force under Section 13 of the *CSA* enables the Statistician to disclose:

- Certain classes of statistics (including foreign trade statistics derived from Customs documents), unless a person or organization can show that such disclosure would be likely to enable the identification of that particular person or organization;
- Statistics relating to a business or organization that are already available to the public;
- Published information relating to an official body;
- Information with consent, either on a confidential basis or on a general basis;
- Lists of names and addresses of businesses and organizations to departments or authorities for specified nonregulatory purposes;
- Unidentifiable individual statistical records; and
- Information to enable the Statistician to perform relevant statistical functions.

The ABS has a strong culture of adhering to the principles of confidentiality irrespective of the legal provisions because of the trust this builds with data providers and the related benefits for data quality. It has on occasion declined requests for data from other parts of government where it has felt this might jeopardize confidence in the confidentiality of its statistics. Respondents to surveys are informed as to the confidentiality of their responses in order to give assurance.

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

The *CSA* enables the Statistician to request or direct a person to complete a form or answer a question and it sets penalties on failure to answer questions.

In practice, Directions are applied only rarely, and the ABS has not often needed to apply penalties, since responses are good and the ABS seeks to maintain positive relations. In 2008-2009, for instance, there were no prosecutions in connection with business surveys. The response rate for surveys is high, always over 90 percent. The response rate for the retail business survey in 2008-2009, for instance, was 96 percent. The ABS is aware of response burden, and makes clear that it seeks to minimize duplication and effort.

**0.2 Resources**

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

Staff resources are broadly commensurate with the requirement to produce a quarterly CPI. However, pressures to move to a monthly index, to price collection outside the main cities, and more frequent updating of weights, are currently being considered as part of the 16<sup>th</sup> Series review of the Australian CPI and the ABS takes the view that these enhancements

would only be considered feasible enhancements with the provision of full government funding of the additional costs.

The skills base is maintained through internal and international formal training, on-the-job training, appropriate recruitment policies, exchange of staff with other countries and international agencies. The ABS encourages program staff to attend and present papers at domestic and international conferences and to exchange experiences with other countries. Office accommodation and the working environment conform to mandated Australian Public Service standards.

IT resourcing and support and training are ensured through local deployment of specialists to the prices program and more generally by ABS corporate systems support. Funding for the individual work programs in the ABS is set centrally. New work needs to be externally funded or offset by savings. Additional resources would be useful as disclosed by strains imposed by both changing to new standards and coping with the global financial crisis. There is in addition some user-funded work in the ABS; a certain amount is accepted, on the basis that it will cover all costs including overheads.

The ABS is not the sole supplier of official statistics: when the Statistician declines a request from an official agency, that agency may decide to produce the statistics itself. In such cases the ABS works with the other agency to ensure that the new data are generated in a way that will be comparable. On the other hand, the ABS does not seek to adopt the role of an inspector of official statistics.

It should be noted that while there is information on monthly consumer price outcomes (the TD-Securities – Melbourne Institute Monthly Inflation Gauge) there is still demand for a monthly ABS series of the same quality as the quarterly.

Many professional staff are suitably qualified and will have either a tertiary qualification or relative experience. Qualifications will usually be in the field of statistics economics, accounting, finance, or commerce. Many staff have attained advanced degrees.

Staff turnover has increased recently, in part because of a generational shift towards a cohort more accustomed to job moves. Together with recent retirements and a downsizing in the last years, there has been a significant loss of expertise. Salaries have been below the median for public sector positions, although a recent salary award has made up for much of the gap. Management stresses work-life balance issues, and makes continuing efforts to improve job satisfaction and retain staff. With turnover as high as 30 percent, for instance, for household survey interviewers, significant amounts of staff time in some sections are being devoted to training, thereby adding to resource pressures. Management is committed to succession planning and rotation of staff, to avoid such pressure periods in the future.

The ABS follows the Australian Public Service provisions in the management of its staff, and also has its own principles.



While overall resources are considered to be roughly commensurate with the needs of the present programs, there is no headroom for additional commitments. The ABS argues strongly that any further commitments that it is given be fully funded. A review of IT capacity found that there would be no room to increase support in the event of additional demands.

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

The budget of the area responsible for producing these statistics is subject to an efficiency dividend, as is the rest of the ABS and other Government agencies, so that, exclusive of other changes, the budget is reduced each year to promote increased efficiency. However, the ABS is exempt from the additional whole-of-government departmental efficiencies savings (which apply to other agencies), over the forward estimates period.

While the efficiency dividend approach is considered generally effective, problems have emerged in recent years in part because wage increases were not in line with the precepts of the policy. In 2009 the ABS responded by downsizing and reducing activities, including a 24 percent reduction in the size of sample of its labor force survey.

Public concern about the state of ABS funding, including representation by the Australian Statistics Advisory Council (ASAC), led to an external review by the Department of Finance and Deregulation (DoFD) of the ABS budget position on the basis of which the Government agreed to provide the ABS with additional funding to offset some of the effects of cost pressures, allowing most program cuts to be reinstated. However, the efficiency requirement remained in place. Going forward, the ABS like all Government agencies continues to face requirements to achieve efficiency targets and meet wage and other cost pressures without ensured additional funding.

The ABS has outsourced certain activities from its Canberra head office to the states, depending on the relative labor costs in local expertise in the respective locations. On the financial side, it has a Memorandum of Understanding (MoU) with the Australian Prudential Regulation Authority (APRA) regarding the provision of statistics. In this instance the ABS pays APRA for the costs incurred in collecting and quantity assuring the data required by the ABS. As part of the process, the ABS can suggest amendments to forms to include statistical items for APRA to collect along with prudential. A MoU with the DoFD is under preparation.

All staff in the ABS have a formal performance discussion every six months.

The Economic Statistics Strategy Coordinating Committee (ESSCC) reviews the operation of the prices program periodically.

### **0.3    *Relevance***

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

The ABS has in place a number of arrangements that help establish priorities and feedback both generally and for prices specifically. The ASAC is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback is provided by the Economic Statistics User Group that represents key economic constituents.

Briefings and discussions at working level take place with individual agencies and users. Media coverage and commentary on price releases provide continuous feedback. The Consumer Price Index is the subject of periodic reviews which involve a formal process of public consultation and the setting up of a CPI Advisory Group. The Australian Statistician initiates these reviews and determines the topics to be covered. The 16<sup>th</sup> Series review of the CPI was announced in December 2009. The review sends its recommendations to the Australian Statistician for consideration.

The methodological development of the CPI is not constrained by its use in indexation.

### **0.4    *Other quality management***

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

The ABS Mission Statement (We assist and encourage informed decision-making, research and discussion within governments and the community, by leading a high quality, objective and responsive national statistical service) mentions explicitly various dimensions of quality.

The ABS Corporate Plan also sets values and objectives that are highly relevant from a quality management point of view. The ABS values include integrity, relevance, service, access for all, professionalism, and trust of providers. The Plan specifies these values in more detail. The ABS objectives are the following:

- An expanded and improved national statistical service;
- ABS services that are timely, relevant, responsive and respected for their integrity and quality;
- Informed and increased use of statistics;
- A key contributor to international statistical activities that are important to Australia or our region;
- An organization that builds capability to continually improve its effectiveness;
- The trust and cooperation of our providers;

- The ABS is a respected and strongly supported organization.

The ABS also maintains and publishes information on each collection it conducts, including information on the quality of the collection.

All publications produced by the ABS are subject to an internal clearance process.

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

The ABS devotes considerable resources to methodology with an overarching mandate to monitor the quality of the statistical work program generally. The Commonwealth Register of Surveys of Businesses (Statistical Clearing House) at <http://www.nss.gov.au/nss> contains metadata that describes the survey development, design, and procedures for many ABS collections. For external scrutiny, see also 0.3.1.

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

The ABS coordinates the economic statistics work program, including decisions about quality, via line management and a number of groups concerned with cross-cutting issues, the prime internal group ESSCC. For external coordination see also 0.3.1.

## **1 Assurances of integrity**

### ***1.3 Professionalism***

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

Under the *ABSA*, the Statistician and ABS form an independent statutory authority for the purposes of the *Public Service Act, 1999*. There is specific legal provision that the ABS enjoys statistical independence. Also, the Statistician, who is appointed by the Governor-General for a period not exceeding seven years (with eligibility for reappointment), cannot be removed other than on the grounds of misbehavior or incapacity, or by becoming bankrupt. The *ABSA* does not mention the qualifications necessary to be appointed Statistician.

The Statistician is largely free to decide which statistics the ABS should produce, but any new proposal for the collection of information for statistical purposes must be laid before both Houses of the Parliament before its implementation, unless the proposal is for the collection of information on a voluntary basis.

A professional culture is strongly embedded in the institution. All recruitment is meritocratic and transparent in line with the policies of the Australian public sector. The *ABS Code of Conduct* is derived from the code of conduct of the Australian Public Service Commission. Professional qualifications and/or relative experience are required, and professional enhancement encouraged. ABS staff are in high demand elsewhere in the public sector and internationally, and not infrequently move on to such posts.

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

The ABS's choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations.

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

The ABS has the authority to comment on erroneous interpretation and misuse of the statistics that it produces and does so when appropriate. ABS responses to media articles are available on the ABS website.

**1.2 Transparency**

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

The terms and conditions under which statistics are collected, processed, and disseminated are widely made available to the public, in particular through the Internet. Copies of government legislation, including the *CSA* and the *ABSA*, from <http://www.publications.gov.au>, <http://www.comlaw.gov.au/> or <http://www.comlaw.gov.au/>. However, the ABS website <http://www.abs.gov.au/> is the most complete source for all aspects regarding the terms and conditions of its statistics, as this website not only covers legal provisions, but also basic documents such as the ABS work program, corporate plan, annual report of the ASAC, information about the SDDS, etc., in addition to information about individual statistics.

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

It is ABS policy and practice to make all statistical releases available on the website to government, commercial, and private users simultaneously from 11:30 a.m. (Canberra time) on the day of their release. Prior to 11:30 a.m., all ABS statistics are treated as confidential and regarded as being "under embargo".

On 1 February, 2008, new pre-embargo access arrangements were introduced. The arrangements enable access to a small number of ABS publications by authorized ministerial staff and Government officials, up to two hours prior to the official release time. This is so that briefings can be prepared for key Ministers so that they can provide informed comments on the released statistics when approached by the media, thereby avoiding any inadvertent misinterpretation which may cause unnecessary alarm or concern.

Authorized persons attending a lockup are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room, until the embargo is over. Attendees at the lockup are

also required to sign security undertakings which include provision for prosecution under the *Crimes Act, 1914* for anyone who breaches the conditions for attending the lockup.

The policy on pre-embargo access is clearly set out, and can be found on the ABS website in the section “About us.”

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

Any products released by the ABS include the ABS logo and a catalog number. Any ministerial commentary is released by Ministers or their Offices, independently of the ABS statistical releases.

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

It is ABS policy to provide advance notice to users about major changes in methodology, source data, and statistical techniques. This usually is done in the regular publications for periods before the changes take effect.

## **1.3 Ethical standards**

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

All staff are subject to the *Code of Conduct* as covered in Section 13 of the Australian Public Service Act, 1999. A specific code of conduct for the ABS does not exist. However, the ABS Corporate Plan includes 12 rules of conduct that employees are expected to adhere to.

Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of standards through in-house webpage announcements, bookmarks, etc.

## **2 Methodological soundness**

### **2.1 Concepts and definitions**

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

The CPI generally follows internationally accepted concepts and definitions as specified in the international *CPI Manual (2004)* and for the *1993 (and 2008) SNA* and in the resolution passed at the Seventeenth International Conference of Labour Statisticians in Geneva in December 2003.

Among the minor and/or internationally common exceptions to the *1993 SNA* are the exclusion of illegal goods and services, the exclusion of expenditure weights for gambling and prostitution, the exclusion of expenditure by institutional households and the exclusion

of expenditure on second-hand goods. Another relatively minor exclusion, common in CPI practice, concerns own-account final consumption, whose inclusion is required by the *1993* and *2008 SNA* and the *CPI Manual*.

The ABS currently publishes the national CPI, based on an *acquisitions* approach, as the key general measure of inflation in Australia. Some analytical cost of living indices based on an *outlays* approach for sub-population groups such as age pensioner households, which include mortgage interest payments, are also published to address the needs for some users. The main area where the acquisition and outlays approaches differ is in the area of owner-occupied housing costs where an acquisitions approach takes the price of new houses whereas the outlays approach includes the interest paid on mortgages and other service costs incurred. It also results in a different approach to the measurement of financial services and credit. Under the acquisitions approach charges for services such as arranging loans are included but interest is excluded whilst under the outlays approach a loan is a “product” and the interest differential charged is the “price.”

The last comprehensive review of the CPI was undertaken in 1997 which resulted in the publication of the 13<sup>th</sup> Series. Since then there have been two minor reviews in 2000 (the 14<sup>th</sup> Series) and 2005 (the 15<sup>th</sup> Series) which were limited to the updating of expenditure weights.

A major review of the CPI is currently underway with the 16<sup>th</sup> Series CPI to be implemented, in respect of the September quarter 2011 in October 2011. The CPI review process includes formal consultative mechanisms involving key users of the CPI and the general public. The ABS is seeking the views of interested parties in both written submissions and through public hearings. An important objective of this review is to update items weights, reassess the scope and coverage of the CPI, and consult on other methodological issues.

## 2.2 *Scope*

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

The reference population for the CPI is all metropolitan private households. The fixed expenditure basket used for Australia’s CPI also represents these households. The overall CPI scope is defined in broad accordance with approved practice and with the recommendations found in the international *CPI Manual* and other authoritative sources and is broadly consistent with *1993 SNA*, the main exception being non-metropolitan households are excluded.

The HES sample covers the whole of Australia but the data used in the construction of CPI weights are restricted to the six State capital cities plus Canberra and Darwin. These cities constitute the CPI reference population and represent just 64 percent of private households. This is not an issue relating to the statistical design of HES—rather it is an issue relating to the defined scope of the CPI.

The same geographical restriction applies to the collection of prices. Prices are collected continuously during each quarter from the six State capital cities plus Darwin and Canberra.

The metadata for the CPI appropriately outline the goods and services covered by the CPI. The relatively minor exclusions from the declared scope of the index, listed in 2.1.1 above, are not significant and are generally made on practical measurement grounds rather than on issues of principle. The main exception is the exclusion of second-hand goods. These are excluded entirely from the Australian CPI rather than just those sales which are transfers within the household sector. For instance sales of ex-fleet cars should be included in the CPI but in the case of the Australian CPI are not covered.

All Australian metropolitan private households are in scope of the Australian CPI regardless of income levels and in this respect the index is relevant for an index constructed as a macroeconomic indicator. However, the expenditure by people who reside in public dwellings (“institutional households”), such as residents of old people’s homes, student hostels, prisons, hospitals, etc., is excluded from the Australian CPI.

Also, in terms of weights the Australian CPI falls short of the “domestic” concept—the favored concept in the *ILO Manual on Consumer Price Indices* for a CPI constructed as a macroeconomic indicator. Following the international macroeconomic statistical standards, being present for one year or more in Australia, or intending to do so, is sufficient to qualify for selection in the Household Expenditure Survey (HES), excluding foreign diplomatic and military personnel stationed in Australia. But the HES does not enumerate short term tourists to Australia. Conceptually, the scope of the CPI does not extend to foreign diplomatic and military personnel stationed in Australia nor short term tourists to Australia.

The domestic concept is recommended for an index used as a macroeconomic indicator as it provides a measure of inflation in the territory. In practice the weights derived from the Household Expenditure Survey and the collection of prices is restricted to the six State capital cities plus Canberra and Darwin. This is the defined scope of the ABS index (see earlier reference).

### **2.3 Classification/sectorization**

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

The commodity classification used in the Australian CPI is a demand-based classification that is different from the international standard Classification of Individual Consumption According to Purpose (COICOP). The Australian commodity classification (CPICC) is based on the concept of household utility. It groups items together which are substitutable. It is conceptually different to the internationally accepted COICOP classification. For example, in the CPICC, restaurant meals are considered substitutes to eating at home and are covered by the “food” group whereas in COICOP they are considered a service and are grouped with other similar services under “Restaurants and Hotels.” At the higher level there is a broad correspondence between CPICC and COICOP

There are two significant advantages of using a COICOP–based classification.

1. It facilitates international comparisons on a like-for-like basis.
2. It aligns the CPI more closely with the dissection of household final consumption expenditure in the Australian National Accounts.

In the 15th Series CPI, CPICC divides the basket into 11 major groups, each representing a broad set of commodities

- Food
- Alcohol and tobacco
- Clothing and footwear
- Housing
- Household contents and services
- Health
- Transportation
- Communication
- Recreation
- Education
- Financial and insurance services.

These groups are divided in turn into 33 subgroups, and the subgroups into 90 expenditure classes. Presentation of the CPI in the form of groups and subgroups provides the user with quite a degree of versatility in interpreting the results. Index numbers for individual groups and subgroups can be analyzed separately as can their individual effects on the whole index.

Despite the differences between the two classifications there is a reasonable concordance at a higher level which facilitates international comparisons on a comparable basis.

## **2.4 Basis for recording**

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

The basis for recording generally follows procedures consistent with international standards. Consumption expenditure is valued at observed purchase prices (market prices), which include applicable taxes, such as Goods and Services Tax (GST), less discounts on products.

Discounted prices are recorded only when the discounts are not discriminatory and can be obtained without difficulty. The Australian CPI does not include items on clearance i.e., disappearing goods at unusually heavily discounted prices. The CPI excludes second-hand goods—so used car prices are excluded from the CPI.

If the outlet does not display prices, the price may be obtained by asking the respondent.



ABS price collectors are trained to obtain only the transaction price. List and quoted prices are verified with the respondent to confirm that they are typical transaction prices. In the case of price collection from websites, quality assurance is carried out prior to introducing this mode of collection. In some instances the respondent is contacted to ensure that there is no misinterpretation of prices collected. This is more important for some respondents than others. Prices for tradesman services are derived from unpublished data collected for the purpose of compiling the quarterly Labour Price Index (ABS Catalog No. 6345.0).

Product specifications are recorded to ensure that the same product variety is priced in subsequent collections, especially where the collection is being carried out by a different person. The recording of price determining characteristics facilitates the identification of changes in quality. Also recorded are facts related to the terms of a transaction. For example, product specifications prescribe whether or not delivery costs and service costs are reflected in the price.

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

The CPI is a quarterly index. Pricing is undertaken on a continuous basis to reflect the situation for the quarter as a whole; that is, an individual item at an individual outlet or service provider is generally priced only once a quarter for non-volatile items.

From an ABS perspective, continuous price collection over a quarter has a number of advantages:

- It is more consistent with some other economic statistics, most particularly the national accounts.
- The price of some items can be expected to change regularly over time during the collection month or can be particularly volatile. Spreading the collection of prices from different outlets for particular products over the month is a practical and cost-efficient way of obtaining a set of prices representing the whole month. For volatile items the ABS collects prices more frequently.

In addition there are practical considerations which favor continuous price collection. Most particularly, there is a more even workload, thus avoiding some of the operational problems associated with point-in-time price collection. A few items are priced only once a year, either because it is known that prices are generally reviewed just once a year (e.g., council rates and football match entry fees).

The general approach is to price each item as frequently as is necessary to ensure that reliable measures of quarterly price change can be calculated.

The pricing of goods and services is based on an acquisitions approach. Mostly the acquisition of a good or service occurs at the same time as the payment, and so any price movements are recorded then. However, there are some goods and services where payment for, and acquisition of, the good or service do not coincide. In these cases, prices are recorded at the time that the good or service is acquired, and not when the payment is made.

Recording the prices of goods and services in the period they are acquired accords with valuation on an accrual basis, as required under the *1993 SNA*. Examples where the latter happens include:

- *Goods and services invoiced periodically after consumption* (such as electricity and telecommunications and home-delivered newspapers). Price movements are introduced into the index calculation from the date at which the price change is effective. Providers are therefore approached for price information regularly to obtain current charges and dates of effect for planned price changes.
- *Goods and services paid for with loans* (e.g., motor vehicles). For index purposes, the price recorded is the full transaction price of the product at the time of acquiring it. The method and timing of payment are irrelevant under an acquisitions approach.
- *Goods and services regularly paid for in advance* (e.g., airfares, club memberships, and magazine subscriptions). For index calculation purposes the price is included when the good or service is actually acquired (e.g., date of the flight for airline travel, or the commencement date for a magazine subscription) and not the date on which the payment is made. However, prices are collected at the time payment would normally be made. For example, a ticket for domestic airline travel is typically paid for about a month before the departure date.

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

##### *Second-hand goods*

The exclusion of the prices of second-hand durable goods, such as cars, may be justified on the grounds that it is the net expenditure (i.e., purchases less sales, on such goods) that is required, and that sales and purchases by households may more or less cancel on aggregate. However, no evidence is presented that this is the rationale for the exclusion in Australia. The issue of dealers' margins needs to be investigated further. According to the *SNA*, dealer margins would be in scope for second-hand goods (the rest of expenditure is within the household sector). However, the practical issue of obtaining weights and prices can present a challenge to the index compiler. It is a problem experienced by a number of countries.

The *CPI Manual* elaborates four different scenarios on the issue of weights, all of which are based on the "net expenditure" concept:

- *Directly from another household*. The net expenditure is zero as the transaction is between households. It follows that these purchases should be excluded from a CPI.
- *From another household via a dealer*. This is where dealers purchase second-hand goods from individual households and then re-sell them, usually after carrying out renovation, cleaning or maintenance. Theoretically these purchases should be

included with a “net” weight reflecting the difference between the buying and the selling price which is deemed to represent the “service” the dealer is giving the buyer.

- *Directly from another sector*, i.e., from another enterprise or from abroad. The appropriate “net” weight is household purchases from these other sectors less any sales to them.
- *From an enterprise or from abroad via a dealer*. Following the same principles as applied above, the appropriate “net” weight consists of household purchases from dealers less household sales to dealers plus the aggregate value of dealers’ margins on the products that they buy from and resell to households.

One consequence of using net weights, with sales and purchases being treated in the same way, is that it is necessary to reverse the sign of the price changes for second-hand goods sold by households for the CPI to properly reflect changes in inflation with the consequence that price changes for second-hand goods sold directly from one household to another will carry a zero weight, but not other sales.

The exclusion of second-hand goods, in the Australian CPI, does not comply with international best practice and can only be justified if the net weight is insignificant. This needs to be tested.

### *Financial Services*

The inclusion of financial services in the Australian CPI was one of the outcomes of the 15<sup>th</sup> Series review of the CPI. As a result of the review, the ABS committed itself to the development of a price index for financial services for eventual inclusion in the CPI. A research program to develop such a measure commenced in 1998. Consistent with the objective of the CPI to measure price inflation for the household sector as a whole, the aim was to construct a price index covering all those services acquired by households in relation to the acquisition, holding and disposal of financial and real assets. It was considered essential that the index be able to reflect changes in the total cost of any service. It therefore needed to cover both those fees and charges levied directly on households and those paid indirectly via differences in interest rates on loans and those on deposits (“interest rate margins”). There are many services—besides deposit and loan facilities which are acquired by households and which have the potential to be regarded as financial services. Examples include: financial advice; currency exchange; services provided by fund managers, life insurance offices and superannuation funds; stock-broking services; real estate agency services.

The ABS price indices for deposit and loan facilities emulate the differing charging regimes of the service providers. The ABS takes as inputs samples of customer accounts covering a full 12 months activity and current period pricing schedules and calculates the annual amounts payable at current prices for a full year’s activity for each of several thousand individual customers. The pricing includes a component for indirect charges charged through interest rate margins. This can be justified conceptually.

The construction of reliable, comprehensive price indices for financial services in CPIs is inherently difficult, as there is no unanimous view about which financial services ought to be included in the CPI, or indeed about precisely how they should be measured.

Accounting for the costs of services provided by financial intermediaries is especially complex. Even where a prior decision has been made to include such facilities within the scope of the CPI, the service being provided can be difficult to visualize comprehensively, and the prices comprise significant elements that are not directly observable. The *1993 SNA* recommends that the value of financial intermediation services output produced by an enterprise should be valued as the following sum:

- For financial assets involved in financial intermediation, such as loans, the value of services provided by the enterprise to the borrower per monetary unit on account is the margin between the rate payable by the borrower and a reference rate.
- For financial liabilities involved in financial intermediation, such as deposits, the value of services provided by the enterprise to the lender or depositor per monetary unit on account is the margin between the reference rate and the rate payable by the enterprise to the lender.
- The value of actual or explicit financial intermediation service charges levied.

ABS methodology is consistent with these requirements.

In concept, the *SNA* describes the reference rate as the service-free or pure interest rate. The value of the service provided to a borrower is the difference between the actual amount of interest paid by the borrower and the lower amount that would have been paid had the reference rate applied. The converse applies for depositors. In practice, it is very difficult to identify the reference rate, and in particular to avoid either volatility in or even negative measures of the value of such services (as would occur if the reference rate lay above the lending rate or below the deposit rate). The *ILO Manual* on CPIs, recommends as a matter of practical expediency, an average of borrowing and lending rates may be used (with the mid-point being favored). The practical measurement issues associated with the Australian approach are common to other countries and are worth investigating further, seeking advice from other compilers of CPIs and taking heed of evolving international standards in this complex area.

## **Accuracy and reliability**

### **2.1 Source data**

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

#### *Expenditure weights*

The primary source for weights for the CPI is the four-digit CPICC expenditure data from the Household Expenditure Survey (HES). This is also an important source of expenditure data for prices and is used to set benchmarks for very small components of Household Final Consumption Expenditure (HFCE), regional allocations together with producing detailed breakdowns for the Supply and Use Commodity Classification and the Input-Output Commodity Classifications.

The HES has a sample of approximately 7,000 households. Data are collected using a diary of personal expenditures in which residents aged 15 years and older record their expenditure over a two-week period. The survey is not continuous and does not have a rotating sample like some household expenditure surveys—respondents appear only once. An interview questionnaire also collects information about each household's characteristics, expenditures common to all members of the household, and irregular or infrequent expenditures. The HES used in the 15th Series CPI is for the reference year 2003–2004.

Although the HES provides a comprehensive coverage of household expenditures for those households surveyed, there are some weaknesses due to underreporting in the HES data for CPI purposes—weaknesses in common with household expenditure surveys undertaken by many other countries.

Some expenditure recorded in the HES is not fully contemporaneous. In order to improve estimation, by household type and composition, and reduce sampling error for expenditure on large value (often durable) items which are purchased infrequently, the ABS obtains these by a supplementary recall survey, rather than relying on very few expenditures actually recorded in the diary during the two weeks that the household is included in the survey.

The HES records all data exactly as reported by the households. The ABS makes adjustments for known cases of underreporting, especially in expenditure on alcohol and tobacco by reference to tax information.

There is one main issue that brings into question whether the CPI is fully representative of the declared expenditure scope—that is, whether the weights are sufficiently up to date.

At the unpublished levels, continuous sample reviews/maintenance ensures that weights are updated to reflect contemporary expenditure patterns. This can be done at any time, and sources of data and methodology used to formulate these “new” weighting patterns are subject to rigorous quality standards including a peer review program. However, a complete review of weights, undertaken at the published level and above, is only undertaken when new expenditure information from a HES becomes available. Historically, in Australia the HES has been conducted only every five years (timing of the HES has been recently changed to six-yearly intervals). The weights used in the current CPI are for the reference year 2003–2004. This means that the weights in the current Australian CPI will be approximately seven years old before being updated. This aging of the weights can be a source of bias in a CPI due to the substitution effect. Upper-level substitution bias arises when prices change and consumers tend to shift their purchases toward those goods and services where relative prices have decreased, thereby reducing any adverse consequences of the price changes on

their cost of living. The impact can vary and is sometimes significant, depending on such factors as the rate of change in consumer spending habits and where the substitution occurs, particularly when substitution is made across expenditure classes (published levels). Price updating of the weights does not necessarily address this issue. Indicative research by the ABS suggests that because of the continuous sample review system in place, the upward bias from aging weights may not be significant enough to cause a measurement problem.

The ILO Resolution on CPIs strongly recommends the updating of weights at least every five years. The ABS is reviewing the frequency of weights updating as part of its 16<sup>th</sup> Series review and is considering a number of options.

### *Prices*

Prices are collected continuously during each quarter from the six State capital cities plus Darwin and Canberra. Most prices are collected by personal visits to the selected outlets by trained ABS price collectors, who observe actual marked prices as well as discuss with the retailers matters such as discounts, special offers, and volume-selling items on the day. The price collectors record all this information on the spot in handheld computers which facilitates inter-active real-time editing e.g., based on the price history of that item in that shop. ABS price collectors also actively monitor market developments such as market shares or possible quality changes. This information is used in maintaining the representativeness of the samples and making quality change assessments

The ABS has argued in the past that a CPI covering the whole of Australia is not feasible, because of the substantial additional cost of collecting prices outside the capital cities. It has also used the argument that such a survey would not be cost effective, resting its argument on the construction of a set of spatial price indices for food based on about two hundred Australian cities and towns over the period from 1960 to 1990. The results indicated that in the absence of major structural change (such as the opening or closing of a branch railway line) the relative prices between regions remained fairly constant over time. In other words, although the price levels for the localities included in the study were often quite different from those prevailing in the capital cities, all areas exhibited similar price changes. The plausibility of these results needs to be examined again given the time that has passed since the study and its narrow coverage. Whilst there is no evidence of bias in the CPI resulting from its restricted geographical coverage, there would be value in re-examining the issues of geographical coverage using up-to-date figures. It may be possible to undertake an analysis based on various kinds of external source data from market research companies.

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

The prices of most products are collected quarterly. All price collection takes place within the reference quarter, and price quotes for individual items in individual outlets are taken at the same time each quarter. In a small number of cases, when prices are known to change only once a year, price collection is annual. The source data reasonably approximates the definitions, classification, valuation, time of recording, and scope of the Australian CPI.

The design of the CPI price survey ensures broad coverage of a vast majority of goods and services in the six State capital cities plus Darwin and Canberra. A significant proportion of all prices, in expenditure weight, is collected locally by price collectors visiting retail outlets.

Regional indices for the six State capital cities plus Darwin and Canberra are compiled as well as the weighted average of eight capital cities (Australian) CPI.

Price collectors observe actual marked prices and also discuss with the retailers matters such as discounts, special offers, and volume-selling items on the day. Some data is captured on the Internet, but Internet prices from domestic Internet retailers only, e.g., Amazon, are not observed.

Regular personal visits by price collectors to the retail outlets also enable the price collectors to continually actively monitor market developments such as market shares or possible quality changes. This information is used in maintaining the representativeness of the samples, making quality change assessments, etc.

The goods and services included in the CPI pricing samples are selected purposively to represent the full range of types and varieties of goods and services within the scope of the Australian CPI and bought by the CPI population group. Extensive consultations with, for instance, retailers, manufacturers, importers, government authorities, and professional and trade associations takes place to obtain detailed information about the buying habits of the CPI population group, such as which varieties and brands of products are the largest selling types or which packaging sizes are most commonly purchased. This is then used for the purposive selection of the goods and services to be priced. Factors taken into consideration in selecting the items to be priced include: the expenditure weight of the expenditure class; the degree of homogeneity in the range of goods or services covered by the expenditure class; the extent to which the various products covered by an expenditure class are subject to different influences and cost pressures which are likely to result in disparate movements in prices; the likelihood of the particular type of good or service continuing to be available; the extent to which the item can be defined and described clearly and unambiguously.

Price collectors are trained to operate within the specification descriptions when selecting items for observation. They provide feedback where the item is not representative or the description is inadequate. They also have some influence on brand and size selection when the decision is based on information gathered from the respondent and communicated to analytical staff for informed decision making.

Detailed specifications, which are prepared centrally for price collectors include for instance—brand name, material of composition, model number, style, size, and type of packaging.

Outlet selection is also purposive. Outlets are identified for each item selected for pricing—including supermarkets, department stores, hotels, electricity and gas shop fronts, schools,—and the ABS selects a representative sample for price collection. There is no stratification by geographical area or shop type. Outlet selection is carried out similarly to item selection i.e.,

analytical staff provide outlet selections to price collectors. However, price collectors may provide analytical staff with significant evidence of local factors that may warrant and in some cases influence which outlets are included in the sample. Head office staff use market intelligence to keep an eye on which of the major retailers are active in a particular market.

The samples of respondents are reviewed regularly to ensure that they remain representative of the CPI population group's sources for purchases. Events such as company takeovers, new retailers entering the market, existing retail chains opening of new outlets, or new shopping complexes opening can all lead to the need to change the samples of respondents so that they continue to be representative of the CPI population group's purchases.

The prices sample is stratified by city and expenditure group/class. As previously stated, the sample is not stratified by shop type, but the item specification includes an indication of the type of outlet in which the product might be found. The lack of a formal stratification by outlet type is not considered to be too problematic.

ABS price collectors work full time on the CPI, central price collection is done by head office staff using the telephone or Internet sites.

Whilst there is an operational system in place for item and product selection and for the selection of outlets, there is limited detailed documentation and guidance on, for example, the selection criteria. A quality management system for a CPI covering all aspects of price collection and index compilation helps to ensure the integrity of the outputs. Good documentation is important as it can reduce the risk of errors from ambiguities and misunderstandings and it can also identify aspects of methodology and compilation which warrant further investigation and review

### *3.1.3 Source data are timely*

As noted above, most CPI data are collected at a set time in the reference Quarter.

Timeliness of the price collection survey is adequate for disseminating the CPI according to schedule. The CPI is published within a calendar month of the end of the reference period.

## **3.2 Assessment of source data**

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

CPI price data are routinely assessed. First, when price collectors enter price data into their hand-held computers, the figures are checked for validity of the results. If there is a large divergence from the previous price, the price collector is asked to confirm the new price. After the prices have been sent to head office they are checked. Prices that change by a



percentage which lies outside of upper and lower bounds which vary according to the price history of that product are identified as outliers that require further investigation.

The ABS does not specifically quantify the number of outliers, but the number of outliers is considered to be low. The ABS does, however, quantify the number of quality adjustments, price imputations, and out of stocks, by expenditure class. Prices that are considered to be outliers, which includes unexpected zero price movements, are verified by discussion with the price collector or, in exceptional circumstances, the outlet. No prices are rejected unless proven incorrect.

Centrally collected prices are checked in a similar manner.

As noted above the price surveys and outlet selections are purposive so it is not possible to calculate sampling errors. Broad-based estimates for purposive samples are possible using linearization and other techniques. Standard errors are reported for the HES estimates used for the CPI expenditure weights.

### **3.3 *Statistical techniques***

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

Data editing is the process of ensuring correct and usable data for calculation of price indices for elementary aggregates. There are three steps in this process.

- The detection of possible errors and outliers.
- The verification of data and collection of corrected data.
- The treatment of the data i.e., application of correction/edit

The detection of errors in the collection and recording of price information must occur as soon as possible after the information is actually collected. Detection is usually achieved by examining price movements and checking those that exceed some predefined limits or appear to be unrealistic based on an analysis of all available information.

As noted above, all price data collected locally in outlets benefit from real-time editing made possible by the use of hand-held computers. If there is a large difference between quarters in the price for the same item in the same shop then the hand-held computer prompts the price collector to check the price. When prices are entered into the CPI computer system further validation checks are undertaken, supported by a program which identifies outliers. If there is a large difference in the price level or change compared with similar items in other shops, then generally the price collector is asked to confirm the price by recontacting the outlet. This also applies to observations which are not within expectations, e.g., when the observation is inconsistent with knowledge gained from other sources.

ABS price collectors and their supervisors are responsible for providing as much information as possible about the reasons for extreme price movements or levels and why they accepted the price quote as valid.

The ABS strategy for minimizing the occurrence of missing observations is to maintain the relevance of the sample of items priced by continuous review. Also common patterns are examined as part of a longer-term maintenance of price samples, items, and locations for which prices are missing.

If a price cannot be observed in a particular quarter, the ABS has several ways of dealing with this occurrence. Where an item is temporarily out of stock in the sampled outlet then a price is imputed normally using the average change of prices for the same product collected in other outlets. Only if reliable information is available indicating that prices have moved in a certain direction will this imputation be adjusted.

The ABS procedure for imputing a price for a product which has no close substitutes is to estimate the movement where reliable market data is available supporting the movement or to impute a movement from an upper level (related) component. Estimation methods that carry forward the previously observed price are rarely employed by the ABS. Although this provides price continuity in the periods when observations cannot be made, it is likely that short-term movements in the index are biased, since the sub-indices in question will show no change when prices are not available. If prices in general are rising, the bias will be downwards, whereas if prices are falling, the bias will be upwards. Carry-forward is not recommended, particularly when there is high inflation or when period-to-period movements (as opposed to annual movements) in the price index are important. The carry-forward method is appropriate only if there is reason to believe that the price has not changed. However, in exceptional circumstances such as when a valid extreme price movement is observed in one item, leading to an upward component movement of significant magnitude which is not representative of the commodity, it may sometimes be better to use the previous period observed price to impute the missing observation so as not to allow the missing observation to further bias the aggregate due to imputation using a price movement which has been overly influenced by an outlier (i.e., a representative price observed which is outside market expectations and is not substitutable).

The ABS procedure for processing annual price observations in the period in which they are not observed is to carry forward the previous period price observation until such time as the price is observed again in the future. Where a price is not observed in the fourth quarter i.e., the annual observation point, the method employed for quarterly and monthly observations (as specified above) would be applied.

Sampled items from an outlet are considered for replacement if prices are missing for consecutive observation points. In the event that observations are not available for several pricing periods (i.e., two or more), investigation of a suitable replacement is carried out. Where this occurs, outlets and items are replaced promptly with another outlet or item that is similar.

ABS staff monitor the sample size for all sampled items. If the sample size for the item declines sufficiently, it will be replaced in the sample by an equivalent more representative item.

Seasonal items, such as some food items, are only observed in periods in which the item is available. Where the item is out of season (unavailable), the observed price is imputed from the upper aggregate component movement.

Aggregate weights are constant through the year for all 90 CPICC expenditure classes and for the corresponding groups.

The concept of quality used in the Australian CPI is based on a notion of consumer utility. Quality change is measured by reference to the expected value to the consumer of the changes. Quality differences between new and replaced products are handled by the CPI head office analysts and price collectors using a variety of methods, including expert judgment, direct comparison (i.e., no quality change and adjustment to the price), proportional quantity adjustment for small changes in package size, and option prices where the price of the feature is obtained from the manufacturer or wholesaler. In the case of PCs, hedonic regression is used. These are all examples of explicit quality adjustment methods.

Hedonic methods require large databases with a wide range of product characteristics. Such databases are seldom available in statistical offices (although for some products scanner data from large stores may be a viable source in some countries) and can involve substantial development and maintenance costs. In addition, hedonic models need to be reestimated periodically to ensure that they do not generate biased estimates. The ABS quite rightly takes the view that hedonic methods should be applied only where they add significantly to the statistical integrity of the index. This is most likely to be the case with hi-tech high turnover goods.

In some cases there may be overlapping prices for the replacement item with the quality/utility difference and the item it replaces, and it may be assumed that there is a competitive market and that in consequence the difference between the two prices is fully accountable by differences in utility. But implicit quality adjustment methods are not the default method—the CPI computer system does not automatically apply the overall mean imputation or similar methods without an instruction from the compiler.

Implicit quality adjustment as a default method is a common practice amongst most other index compilers, and the ABS may wish to consider making it the default for the Australian CPI. This might produce the same results as some of the explicit methods described above, and could be more cost effective. If the replacement product is of a different quality or specification and no information is available to quantify the difference, then assumptions have to be made about what proportion of the price difference is accounted for by differences in quality. Implicit quality adjustment creates an imputed “quality-adjusted” price based on price changes from similar varieties of the product. A common basic assumption underlying the most commonly used implicit quality adjustment methods is that the difference in quality between varieties or models simultaneously available in the market is equal to the difference

in price between the models. Thus when a product disappears from the shelf, an underlying assumption is made when imputing a price that a price differential continues to exist to reflect a difference in quality. This assumption can be built in to the computer system freeing up resources for other CPI activities including, for example, the improved application of explicit methods where implicit methods are shown not to be effective. Some further research into the area of implicit quality adjustment could be beneficial.

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

Predominately, the Jevons formula is used for CPI index calculation at the elementary (product) level where the sample is generally homogeneous. In other cases (very few) the Dutot formula may be applied, such as in education samples where the household has significant substitution limitations. Price relatives are calculated for each price in the sample using the geometric mean. The ratio of the current period's geometric mean of price relatives to the previous period's geometric mean of price relatives provides the change in the average price for the elementary aggregate.

The Jevons formula avoids the problems associated with the Dutot and Carli formulas and is generally regarded to be the preferable method technically for calculating elementary aggregates. It is generally the more favored method worldwide for compiling a CPI, particularly as it is arithmetically well behaved and stable, not being prone to influence from differences in the statistical variance in price levels and trends between elementary aggregates.

For the aggregation of these elementary price indices to higher level indices, using relative levels of consumer expenditure as weights, the ABS like other statistical offices deploys a Laspeyres-type index formula. This reflects the fact that for most price indices only basket reference period (as opposed to current period) weights are available and the price reference period and the weight reference period do not fully coincide, the former relating to a particular quarter and the latter to a particular year.

As previously mentioned, the periodicity of the HES and the updating of the weights do not meet the minimum standards in the ILO Resolution on CPIs. The weight reference period was last updated in 2005 using results from the 2003-2004 Household Expenditure Survey. When the new weights were introduced the new index was linked to the old index by chain linking. Chain linking involves constructing a continuous price series by multiplying together price indices that have been constructed under different baskets or weighting regimes. It is a standard and accepted part of CPI index construction.

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

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

Index results are reviewed and assessed against available information. Quarter on quarter changes in the headline CPI and its associated sub-indices are compared with earlier quarters

and checked. Statistical confrontation of similar sub-series in the CPI and PPI is conducted routinely each quarter. The National Accounts Branch uses the data in their analysis and processing, providing confrontation of the outputs post release. Discrepancies between these various series are thoroughly investigated. The CPI results are also compared with other ABS statistics and also against market expectations.

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

Unusual or unexpected movements in the index arising from large movements in particular sectors or from particular cities are investigated thoroughly before publication. In the case of unexpected prices, the price collectors may be asked to re-evaluate the reported price data. All imputed prices are investigated.

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

If discrepancies are discovered, appropriate measures are taken to remove them. In the case of unexpected results the reasons are investigated. The ABS calculates indices for each capital city plus Darwin and Canberra so geographical differences can also be assessed and used to quality assure the data.

### **3.5 Revision studies**

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

The CPI is only revised in “exceptional” circumstances, i.e., when “significant” errors are found. Such a situation has never occurred.

### **Serviceability**

#### **4.1 Periodicity and timeliness**

##### *4.1.1 Periodicity follows dissemination standards*

The Australian CPI has always been compiled on a quarterly basis. This falls short of the SDDS requirement.

The issue of whether the CPI should be produced monthly was reconsidered as part of the 13th Series CPI Review, but received very little comment during the public consultation phase of the review. The decision of the CPI Review Advisory Group was that, given the lack of strong justification for a monthly CPI, coupled with the considerable additional cost that would be incurred, the CPI would continue to be compiled and published quarterly with a timeliness of no later than one month after the end of the reference quarter.

More recently, after the financial crisis of the mid-1990s, the IMF requested that countries consider compiling monthly CPIs. In its submission to the current 16<sup>th</sup> Series Review, the RBA supported the introduction of a monthly index. A monthly CPI is not a high priority for all users compared with other desirable areas for improving the CPI and its related analytical series. Current Australian Government rules would require offsetting savings if extra funding was to be provided to meet the substantial extra cost of a monthly CPI. The ABS is considering its position.

The ILO resolution on CPIs states that “the CPI should be compiled monthly” but may be quarterly if there is not a user demand for a monthly or the necessary resources are unavailable.

Australia is one of the few countries in the world that does not compile a monthly index.

#### *4.1.2 Timeliness follows dissemination standards*

The CPI is typically released on the fourth Wednesday after the end of the reference quarter, depending on public holidays, but no later than the last Wednesday of the month after the end of the reference quarter. This means that in effect the CPI is released within a calendar month of the end of the reference period. This meets the SDDS timeliness requirement.

## **4.2 Consistency**

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

Within an expenditure base period, the CPI is fully consistent in aggregation: higher-level indices can be calculated from their constituent series using the basic Laspeyres-type formula. Upper-level indices are calculated as successively higher aggregates of lower-level indices. Since a fixed-base arithmetic aggregator is used, the indices are consistent in aggregation.

Thus the statistics are internally consistent—aggregation from any level within the index will yield the same result.

The publication *Consumer Price Index* (ABS Catalog No. 6401.0) disseminates data for index number series, as the weighted average of eight capital cities. Commentary on the main contributions to change in the All Groups index at the national level is provided in each quarterly publication. Data are provided at the Group, Subgroup, and Expenditure class levels. Similar data for each of the individual eight capital cities are available free from the ABS website (<http://www.abs.gov.au>).

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

With the exception of the Financial and insurance services group, the base of each index: 1989–90 = 100.0 is used for the overall CPI, major groups, and subgroups. The Financial and insurance services group uses a base of June quarter 2005 = 100.0. The series is compiled by

linking together the indices on each updating of weights using the annual averages of the index in the overlap periods. Changes in the weighting pattern have been made at approximately five-yearly intervals to take account of changes in household spending patterns. The CPI weights are derived from the Household Expenditure Survey (HES) which is currently scheduled to be conducted at six-yearly intervals.

There are obvious attractions in frequent chaining. However, chaining in a fixed weighted index can sometimes lead to biased estimates. This can occur if there is seasonality or cycles in the price, and chaining coincides with the top and bottom of each cycle. For this reason it is generally accepted that indices should not be chained at intervals less than annual even if the underlying expenditure data were available. The Australian treatment is consistent with international practice. In effect, the conceptual underpinning of chaining is that the traditionally expected inverse relationship between prices and quantities actually applies in practice (i.e., growth in quantities is higher for those items whose prices increase less than those of other items). The *System of National Accounts, 1993* describes the practical situations in which chaining works best. The chaining process used by the ABS will not be a source of bias.

The statistics are consistent over a reasonable period. The Australian CPI is currently in its 15th Series. The 1st Series was compiled in 1960. At the All Groups level, index numbers are available back to September quarter 1948. A long history of data is available for many expenditure classes. The shortest history is that of the Financial Services subgroup, which came into existence during the 15th Series CPI review and begins in the September quarter 2005.

Time series data for the CPI are available free from the ABS website (<http://www.abs.gov.au>).

Changes in the source data, methodology, or statistical techniques for a series do not result in the reconstruction of that series. When such changes occur, the altered series is linked to the original. Detailed investigations occur before any such changes and are subjected to peer review. Notes are produced and disseminated to identify significant series alterations, discontinuations, and additions. Special articles are often included as appendices in the quarterly publication dealing with topics that are of special interest to users. Recent examples include articles on changes to child care benefits and the treatment of deposit and loan facilities in the CPI.

Past base period revisions and chain linking have been documented in various articles.

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

The CPI is largely consistent with other price statistics and national accounts. In terms of comparable data source, there is no single source for comparison, however there are several examples of data series which are comparable with the CPI.

The differences in concept between CPI and national accounts classifications are known, so CPI indices can be reconciled at higher levels with corresponding national accounts series.

Market reports, media articles, and other external sources are used to confront the reported price data throughout the analysis and compilation process. Statistical confrontation of similar series in CPI and PPI is conducted routinely each quarter. The National Accounts Branch uses the data in their analysis and processing, providing confrontation of the outputs typically after release of the CPI. Discrepancies between these various series are thoroughly investigated.

### **4.3 Revision policy and practice**

#### *4.3.1 Revisions follow a regular and transparent schedule*

CPI data would only be revised in “exceptional” circumstances. If discrepancies are identified, the index is restored to the correct level in subsequent quarters. The reasons for the discrepancies are investigated and measures are instituted to prevent a recurrence of the error.

Historically, the CPI has not been revised. Revisions would only be made when a “significant” error occurs. “Significant errors” are those which, in the opinion of the Branch head and Division head responsible for the CPI, are of sufficient magnitude that, if not corrected, would seriously misrepresent the rate of inflation and lead to damaging miscalculations by major users. The latter involves some judgment by the individuals concerned; there are no guidelines on what would constitute an error of sufficient magnitude to seriously misrepresent the rate of inflation and lead to damaging miscalculations by major users. Any decision to correct the published CPI would only be taken with the agreement of the Australian Statistician.

#### *4.3.2 Preliminary and/or revised data are clearly identified*

Preliminary estimates of the CPI are not made.

If a revision to the CPI was considered necessary, the ABS policy on revisions to official statistics in general would require the entire release to be reissued and the incorrect version withdrawn to ensure that the correct data was available to users. The reissued version would carry a notice to users, alerting them to the corrections, explaining the circumstances and consequential impacts on other outputs. The revised series would be clearly annotated with an “r” in the publication and a cell comment (“Revised”) in the time series spreadsheets. For a Major Economic Indicator, such as the CPI, a media release would be issued to alert the public to the revision.

## **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)*

All data which are of publishable quality are available free of charge from the ABS website together with the associated metadata.

The ABS website is relatively easy to navigate.

The CPI release gives the headline figure, sub-indices, and an explanation of the main factors contributing to inflation. It also includes a number of analytical series, e.g., a series excluding volatile items. As well as the provision of hard copies, an electronic copy of the release is publicly available from the ABS website at time of first publication. Back-series and methodological notes are also available to users. A full history of time series data can be downloaded for free from the ABS website ([www.abs.gov.au](http://www.abs.gov.au)).

Data are published, free to download, as a time series in a clear manner with various levels of detail, including spreadsheets. Levels of detail include the weighted average of eight capital cities (national level) and individual capital city by:

- All groups,
- Group level,
- Subgroup level,
- Expenditure class.

Additional analytical information is provided such as:

- Tradable/nontradable items,
- Exclusion measures (e.g., CPI excluding volatile items).

No aspect of the CPI is seasonally adjusted. However the ABS produces seasonally adjusted measures of underlying inflation (trimmed mean and weighted median) consistent with the RBA developed seasonal adjustment methodologies

All data, the key figures and analyses, along with all tables, are also posted on the ABS website (<http://www.abs.gov.au>) at 11:30 a.m. Canberra time on the day of release.

Details of methodology and sources are released in *Australian Consumer Price Index: Concepts Sources and Methods 2009* (Catalog No. 6461.0). *A Guide to the Consumer Price Index 2005* (ABS Catalog No. 6440.0) provides information more suited to the casual user. Copies of both of these publications are available free to download on the ABS Internet website (<http://www.abs.gov.au>).

The CPI is released under “lock up” conditions to selected government officials, to prepare a briefing note for Ministers. This is designed to mitigate the risk of Ministers making ill-informed and potentially economically damaging comment on the numbers at the point of release. The ABS believes this practice meets legitimate concerns about risk of ill-informed comment on a key economic indicator without materially compromising the principle of

equal access to official statistics. These procedures, which were routinely used for the CPI over many years, served as the template for other major economic indicators.

The ILO resolution on CPIs states that the CPI should be “made available to all users at the same time.”

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

The CPI media release is published in conjunction with the quarterly CPI publication and the full set of data on the ABS website free of charge and disseminated by e-mail to press agencies and other subscribed parties.

The publication covers over 30 pages and provides the headline figures, detailed analysis and comment, extensive additional tables providing more detail, contributions to the quarterly change in inflation, and extensive technical notes.

Details of methodology and sources are also released in *Australian Consumer Price Index: Concepts Sources and Methods 2009* (ABS Catalog No. 6461.0). *A Guide to the Consumer Price Index 2005* (ABS Catalog No. 6440.0) provides information more suited to the casual user. Copies of both of these publications and the quarterly CPI publication are available free to download on the ABS Internet website (<http://www.abs.gov.au>).

#### *5.1.3 Statistics are released on a preannounced schedule*

Each quarterly CPI publication announces the publication dates for the subsequent four quarters. The method of calculating the publication date is also given to give transparency. Users are also given forewarning of any methodological change or rebasing, etc.

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

All data, the key figures and analyses, along with all tables, are also posted on the ABS website (<http://www.abs.gov.au>) at 11:30 a.m. Canberra time on the day of release. All data on the ABS website is free to download.

The CPI data are released simultaneously to all interested parties through the release of the quarterly publication *Consumer Price Index* (ABS Catalog No. 6401.0).

Pre-embargo release at 9:30 a.m. on the day of release is given to the Treasury, Treasurer's Office, Department of Prime Minister and Cabinet and some other Commonwealth departments for purposes of preparing ministerial briefings. Lockup arrangements apply whereby no staff can leave or communicate information outside the room until after the 11:30 a.m. embargo.

The statistical press notice is entirely separate from policy statements by ministers or officials.

## 5.2 *Metadata accessibility*

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

A great deal of specific information on CPI definitions and methods is available free of charge on the ABS website, including analytical and background papers.

The CPI press releases also include helpful metadata on sources and definitions.

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

All available CPI statistics and related material are available free to download from the ABS website (<http://www.abs.gov.au>)

## 5.3 *Assistance to users*

5.3.1 *Contact points for each subject field are publicized*

Details of methodology and sources are released in *Australian Consumer Price Index: Concepts Sources and Methods 2009* (ABS Catalog No. 6461.0). *A Guide to the Consumer Price Index 2005* (ABS Catalog No. 6440.0) provides information more suited to the casual user. Copies of both of these publications are available free to download on the ABS Internet website (<http://www.abs.gov.au>).

The ABS National Information Referral Service (NIRS) is the first point of contact for queries relating to the Consumer Price Index. Trained ABS staff respond to simple queries and screen any more technical queries. Technical queries which the NIRS staff cannot respond to are referred to staff in the Prices Branch. Significantly more complex queries, including requests for media interviews, are referred to the Director, Consumer Price Index Section.

Contact details for NIRS are advertised on the CPI pages of the ABS website and on all printed CPI related products.

NIRS maintains a database including CPI questions from users and the associated answers. The timeliness and quality of assistance to users is routinely monitored by the ABS.

Web articles are accompanied by the names of the authors. Questions on these articles are answered by the spokesman if possible, otherwise by the authors.

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

Current publications and other products released by the ABS are listed on the website:

- By catalog number
- By release date
- By topic, and
- By title

The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

All publications and press releases are made available free of charge.

Table 2. Data Quality Assessment Framework (July 2003): Summary of Results for the Consumer Price Index  
(Compiling Agency: Australian Bureau of Statistics)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Increasing the frequency of the CPI to monthly and more frequent updating of weights would require additional funding which is not in the ABS' current baseline.
0.2 Resources			X			
0.3 Relevance		X				
0.4 Other quality management						
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				In theory, the scope of the index covers the appropriate household transactions as defined by the <i>SNA</i> but institutional households and foreign residents/visitors are excluded. Also the HES weights cover only the six State capital cities plus Darwin and Canberra. The restricted geographical coverage also applies to price collection. Second-hand goods are excluded from the CPI basket.
2.2 Scope			X			
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and reliability</b>						
3.1 Source data		X				Expenditure weights are drawn from the HES which was last conducted six years ago. The expenditure weights will be seven years old before they are updated. However, past empirical studies conducted by the ABS indicate that the potential for upward bias in the CPI from the "substitution" effect may not be significant. This result is substantiated by studies by Statistics New Zealand. It is understood that ABS are considering options for a more regular HES.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
						The CPI is only revised when there is an error. There are not routine revisions.

Table 2. Data Quality Assessment Framework (July 2003): Summary of Results for the Consumer Price Index  
 (Compiling Agency: Australian Bureau of Statistics)

Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness				X		The CPI is quarterly. The SDDS stipulates a monthly index. The ILO resolution states that “the CPI should be compiled monthly” but may be quarterly if there is no user demand for a monthly series or the necessary resources are unavailable. A high proportion of users expressed dissatisfaction with quarterly periodicity and many desire a monthly series. The ABS is one of the few agencies that does not produce a monthly index.  Revisions are rare and are only made when a “significant” error occurs. There are no written guidelines on what constitutes a “significant” error and no written procedures.
4.2 Consistency		X				
4.3 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

## Recommendations

- Examine the costs and benefits of producing a national consumer price index and associated sub-indices on a monthly basis. The user survey has identified user demand.
- Examine the costs and benefits of conducting a Household Expenditure Survey on a more regular basis to facilitate the more frequent updating of CPI weights. This includes re-examining the potential bias in the CPI from out-of-date weights and how this changes with the frequency of updating weights. Out-of-date weights can be a source of bias in a CPI. Some work should be undertaken to test the sensitivity of the HES results and the impact on the CPI of different frequencies. The ABS is investigating the possibility of conducting a HES more frequently. Another option would be a smaller continuous survey.
- Assess the impact on the CPI of restricting the expenditure weights and CPI price collection to the six State capital cities plus Darwin and Canberra and examine the options for compiling a CPI covering all the domestic territory of Australia.
- Consider the costs and benefits of replacing the Australian expenditure classification CPICC with the internationally standard COICOP. Investigate options including a move to COICOP, further correspondence between CPICC and COICOP or a classification system which is structured to deliver both. Implications for the coding of the HES also need to be considered.
- Assess whether restricting the scope of the CPI to the expenditure of Australian citizens in the domestic territory of Australia compromises how representative the index is of consumer inflation in Australia as a whole. International guidelines on inflation measures recommend that the expenditure of foreign tourists and residents are included in a CPI which is compiled and used as a general economic indicator. Foreign tourists, and to a more limited extent foreign residents, will generally have very different expenditure patterns to those of national residents. This geographical coverage is generally referred to as the *domestic* concept.
- Consider whether purchases made by Internet should be explicitly included in the CPI in a cost-effective manner. Note under the *domestic* concept only purchases from Australian websites should be covered.
- Look into the methodology and practical aspects of including in the CPI second-hand goods using net weights. This especially applies to second-hand cars. The amount of expenditure on second-hand goods should be ascertained. Housing is a special example.
- Review and compile operational guidelines for revisions to the CPI. These should be clearly documented, including the decision-making process and under what circumstances the CPI should be revised. The guidelines should be understood by staff and should also be published for transparency.

- Review the guidelines for the imputation methods for missing prices, in particular the practice, albeit limited, of carrying forward prices which cannot be observed in a particular quarter. This can result in bias.



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

#### 0. Prerequisites of quality

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

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

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the *Census and Statistics Act, 1905 (CSA)*, the *Australian Bureau of Statistics Act, 1975 (ABSA)*, and associated ministerial determinations. These documents are widely available to the public, including from the ABS website <http://www.abs.gov.au/>; <http://www.comlaw.gov.au/> ; and <http://www.publications.gov.au/>.

With two exceptions (the requirement to conduct a Census every five years and to compile statistics on the number of people in each State at the end of each quarter), the *CSA* entitles the Statistician (the head of the ABS) to determine what statistical information is to be collected (within the bounds of broad-ranging subject matters specified in the Statistics Regulations). The Assistant Treasurer, the Minister responsible for the ABS can direct the Statistician, in writing, to collect statistical information relating to a particular matter specified in the Statistics Regulations. However, the Minister cannot direct the Statistician to cease a particular collection nor instruct the Statistician on how to go about collecting statistical information.

Section 6 of the *ABSA* mentions among the functions of the ABS: “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” The Australian statistical system thus is characterized by a plurality of data providers. The ABS is the largest collector of official statistics, but there is no mandate that official bodies must source statistics from it. Some statistical work is done by State governments, some by other government agencies undertaking their own collections. Specific agencies such as the Australian Institute of Health and Welfare and the Australian Bureau of Agricultural Research Economics also undertake statistical collection and analysis work. The *ABSA* gives the ABS the role to ensure co-ordination of the operations of official bodies in the collection, compilation, and dissemination of statistics and related information to avoid duplication between collections, attain compatibility between collections, and ensure the maximum utilization of statistics.

The overall legal framework is considered to work well, and there are no plans to revise it. There are no legal provisions applying specifically to the compilation of producer price statistics apart from the general terms applying to all statistical areas. The ABS has assumed the task of compiling the producer price statistics in accordance with its central position in the Australian statistical system, in order to provide autonomous information to the Reserve Bank of Australia (RBA) in the operation of its monetary regime, and to form the basis for the indexation arrangements that cover an estimated AUS\$170 billion of government

spending. Another important use of producer price statistics is as deflators in the National accounts.

The Statistician is obliged to appear before the Senate Estimates Committee roughly twice a year, and to answer questions publicly on anything to do with the work of the ABS. The Committee can also call for follow-up responses, and call on other agencies such as the Audit Office for further information.

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

The ABS compiles many source statistics. For instance, periodic business surveys, price statistics, statistics on external relations, government finance statistics, and labor market statistics are all conducted or compiled by relevant ABS departments. Internal processes ensure coordination between the various activities. However, in some cases external sources are being used, in particular, administrative datasets. Provisions in taxation, customs, and prudential supervision legislation are in place requiring the relevant agencies to provide access to these datasets. The ABS manages relationships with these agencies by formal meetings, memoranda of understanding, and informal contact.

Given the high level of demand for statistics, and the multiplicity of sources, a focus for the ABS in providing statistical leadership is to support the development of information plans for different topic areas. The aim of this work is to achieve an understanding of user priorities for data development and for improved access, and to establish an agreed set of strategies amongst the partner-producing agencies to optimize data development.

The ABS seeks to ensure coordination among data-producing agencies through a series of committees, as well as informal contacts with staff producing the statistics in other agencies. Changes in the production of statistics are preceded by extensive consultations.

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

The *CSA* protects confidentiality by requiring that information not be published in a manner likely to enable the identification of a particular person or organization. The *Act* states specifically that a statistical officer cannot be required to divulge or communicate to a court or tribunal any information contained in a Census form.

Notwithstanding this, the *CSA* provides for the Minister to make determinations providing for the release of certain classes of information which would not otherwise be permitted to be released under the *Act*. Still, under the provisions of a determination, personal or domestic information may not be disclosed in a manner that is likely to enable the identification of a person.

The determination currently in force under Section 13 of the *CSA* enables the Statistician to disclose:

- Certain classes of statistics (including foreign trade statistics derived from Customs documents), unless a person or organization can show that such disclosure would be likely to enable the identification of that particular person or organization;
- Statistics relating to a business or organization that are already available to the public;
- Published information relating to an official body;
- Information with consent, either on a confidential basis or on a general basis;
- Lists of names and addresses of businesses and organizations to departments or authorities for specified nonregulatory purposes;
- Unidentifiable individual statistical records; and
- Information to enable the Statistician to perform relevant statistical functions.

The ABS has a strong culture of adhering to the principles of confidentiality irrespective of the legal provisions because of the trust this builds with data providers and the related benefits for data quality. It has on occasion declined requests for data from other parts of government where it has felt this might jeopardize confidence in the confidentiality of its statistics. Respondents to surveys are informed as to the confidentiality of their responses in order to give assurance.

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

The CSA enables the Statistician to request or direct a person to complete a form or answer a question and it sets penalties on failure to answer questions.

In practice, Directives are applied only rarely, and the ABS has not often needed to apply penalties, since responses are good and the ABS seeks to maintain positive relations. In 2008-2009, for instance, there were no prosecutions in connection with business surveys. The response rate for surveys is high, always over 90 percent. The response rate for the retail business survey in 2008-2009, for instance, was 96 percent. The ABS is aware of response burden, and makes clear that it seeks to minimize duplication and effort.

**0.2 Resources**

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

Staff resources are broadly commensurate with the requirement to produce quarterly PPIs for the indices currently published. However, the capacity to develop and then routinely publish the outstanding PPIs for services or to move to monthly production and publication would only be feasible with government funding of the additional costs or cuts in statistical outputs elsewhere in the ABS.

The skills base is maintained through internal and international formal training, on-the-job training, appropriate recruitment policies, exchange of staff with other countries and international agencies. The ABS encourages program staff to attend and present papers at domestic and international conferences and to exchange experiences with other countries. Office accommodation and the working environment conform to mandated Australian Public Service standards.

IT resourcing and support and training are ensured through local deployment of specialists to the prices program and more generally by ABS corporate systems support. Funding for the individual work programs in the ABS is set centrally. New work needs to be externally funded or offset by savings. Additional resources would be useful as disclosed by strains imposed by both changing to new standards and coping with the global financial crisis. There is in addition some user-funded work in the ABS; a limited amount is accepted, on the basis that it will cover all costs including overhead.

The ABS is not the sole supplier of official statistics: when the Statistician declines a request from an official agency that agency sometimes decides to produce the statistics itself. In such cases the ABS works with the other agency to ensure that the new data are generated in a way that will be comparable. On the other hand, the ABS does not seek to adopt the role of an inspector of official statistics.

All professional staff are suitably qualified and will have either a tertiary qualification or relative experience. Qualifications will usually be in the field of statistics or a related social science. Several staff have attained advanced degrees.

Staff turnover has increased recently, in part because of a generational shift towards a cohort more accustomed to job moves. Together with recent retirements and a downsizing in the last years, there has been a significant loss of expertise. Salaries have been below the median for public sector positions, although a recent salary award has made up for much of the gap. Management stresses work-life balance issues, and makes continuing efforts to improve job satisfaction and retain staff. With turnover as high as 30 percent, for instance, for household survey interviewers, significant amounts of staff time in some sections are being devoted to training, thereby adding to resource pressures. Management is committed to succession planning and rotation of staff, to avoid such pressure periods in the future.

The ABS follows the Australian Public Service provisions in the management of its staff, and also has its own principles.

While overall resources are considered to be roughly commensurate with the needs of the present programs, there is no headroom for additional commitments. The ABS argues strongly that any further commitments that it is given be fully funded. A review of IT capacity found that there would be no room to increase support in the event of additional demands.

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

The budget of the area responsible for producing these statistics is subject to an efficiency dividend, as are the rest of the ABS and other Government agencies, so that, exclusive of other changes, the budget is reduced each year to promote increased efficiency. However, the ABS is exempt from the additional whole-of-government departmental efficiencies savings (which apply to other agencies), over the forward estimates period.

While the efficiency dividend approach is considered generally effective, problems have emerged in recent years in part because wage increases were not in line with the precepts of the policy. In 2009 the ABS responded by downsizing and reducing activities, including a 24 percent reduction in the size of sample of its labor force survey.

Reaction to these cuts led to the intervention of the Australian Statistics Advisory Council (ASAC) with the Minister, and a partial replenishment of its resources. Application of the efficiency dividend reportedly takes considerable management time. Going forward, additional efficiencies or the further provision of resources, the ABS may face a similar decision point in about two years.

The ABS has outsourced certain activities from its Canberra head office to the States, depending on the relative labor costs in local expertise in the respective locations. On the financial side, it has a Memorandum of Understanding (MoU) with the Australian Prudential Regulation Authority (APRA) regarding the provision of statistics. In this instance the ABS pays APRA for the costs incurred in collecting and quality assuring the data required by the ABS. As part of the process, the ABS can suggest amendments to forms to include statistical items for APRA to collect along with prudential information. A MoU with the DoFD is under Preparation.

All staff in the ABS have a formal performance discussion every six months.

The Economic Statistics Strategy Co-ordinating Committee (ESSCC) reviews the operation of the prices program periodically.

## **0.3 Relevance**

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

The ABS has in place a number of arrangements that provide priorities and feedback both generally and for national accounts specifically. The ASAC is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback is provided by the Economic Statistics User Group that represents key economic constituents.

Prices specific contacts at a senior level are undertaken. Briefings and discussions at the working level take place with individual agencies and users. The ABS routinely seeks and

receives feedback from key users of the PPI, in particular the RBA and the Commonwealth Department of the Treasury. Media coverage and commentary on prices releases provide continuous feedback.

#### **0.4 Other quality management**

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

The ABS Mission Statement (We assist and encourage informed decision-making, research and discussion within governments and the community, by leading a high quality, objective and responsive national statistical service) mentions explicitly various dimensions of quality.

The ABS Corporate Plan also sets values and objectives that are highly relevant from a quality management point of view. The ABS values include integrity, relevance, service, access for all, professionalism, and trust of providers. The Plan specifies these values in more detail. The ABS objectives are the following:

- An expanded and improved national statistical service;
- ABS services that are timely, relevant, responsive and respected for their integrity and quality;
- Informed and increased use of statistics;
- A key contributor to international statistical activities that are important to Australia or our region;
- An organization that builds capability to continually improve its effectiveness;
- The trust and cooperation of our providers;
- The ABS is a respected and strongly supported organization.

The ABS also maintains and publishes information on each collection it conducts, including information on the quality of the collection.

All publications produced by the ABS are subject to an internal clearance process.

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

The ABS devotes considerable resources to methodology with an overarching mandate to monitor the quality of the statistical work program generally. The Commonwealth Register of Surveys of Businesses (Statistical Clearing House) at <http://www.nss.gov.au/nss> contains metadata that describes the survey development, design, and procedures for many ABS collections. For external scrutiny, see also 0.3.1.

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

The ABS coordinates the economic statistics work program, including decisions about quality, via line management and a number of groups concerned with cross-cutting issues, the prime internal group being the ESSCC. For external coordination see also 0.3.1.

**1. Assurances of integrity**

**1.1 Professionalism**

*1.1.1 Statistics are produced on an impartial basis*

Under the *ABSA*, the Statistician and ABS form an independent statutory authority for the purposes of the *Public Service Act, 1999*. There is no specific legal provision that the ABS enjoys professional independence. Also, the Statistician, who is appointed by the Governor-General for a period not exceeding seven years (with eligibility for reappointment), cannot be removed other than on the ground of misbehavior or incapacity, or by becoming bankrupt. The *ABSA* does not mention the qualifications necessary to be appointed Statistician.

The Statistician is largely free to decide which statistics the ABS should produce, but any new proposal for the collection of information for statistical purposes must be laid before both Houses of the Parliament before its implementation, unless the proposal is for the collection of information on a voluntary basis.

A professional culture is strongly embedded in the institution. All recruitment is meritocratic and transparent in line with the policies of the Australian public sector. The *ABS Code of Conduct* is derived from the code of conduct of the Australian Public Service Commission. Professional qualifications and/or relevant experience are required, and professional enhancement encouraged. ABS staff are in high demand elsewhere in the public sector, and not infrequently move on to such posts.

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

The ABS's choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations.

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

The ABS has the authority to comment on erroneous interpretation and misuse of the statistics that it produces and does so when appropriate. ABS responses to media articles are available on the ABS website.

## 1.2 *Transparency*

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

The terms and conditions under which statistics are collected, processed, and disseminated are widely made available to the public, in particular through the Internet. Copies of government legislation, including the *CSA* and the *ABSA*, from <http://www.publications.gov.au/> or <http://www.comlaw.gov.au/>. However, the ABS website <http://www.abs.gov.au/> is the most complete source for all aspects regarding the terms and conditions of its statistics, as this website not only covers legal provisions, but also basic documents such as the ABS work program, corporate plan, annual report of the ASAC, information about the SDDS, etc, in addition to information about individual statistics.

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

It is ABS policy and practice to make all statistical releases available on the website to government, commercial, and private users simultaneously at 11:30 a.m. (Canberra time) on the day of their release. Prior to 11:30 a.m., all ABS statistics are treated as confidential and regarded as being “under embargo.”

On 1 February, 2008, new pre-embargo access arrangements were introduced. The arrangements enable access to a small number of ABS publications by authorized ministerial staff and Government officials, up to two hours prior to the official release time. This is so that briefings can be prepared for key Ministers so that they can provide informed comment on the released statistics when approached by the media, thereby avoiding any inadvertent misinterpretation which may cause unnecessary alarm or concern.

Authorized persons attending a lockup are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room, until the embargo is over. Attendees at the lockup are also required to sign security undertakings which include provision for prosecution under the *Crimes Act, 1914* for anyone who breaches the conditions for attending the lockup.

The policy on pre-embargo access is clearly set out, and can be found on the ABS website in the section “About us.”

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

Any products released by the ABS include the ABS logo and a catalog number. Any ministerial commentary is released by Ministers or their Offices, independently of the ABS statistical releases.



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

It is ABS policy to provide advance notice to users about major changes in methodology, source data, and statistical techniques. This usually is done in the regular publications for periods before the changes take effect.

### 1.3 ***Ethical standards***

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

All staff are subject to the *Code of Conduct* as covered in Section 13 of the Australian Public Service Act, 1999. A specific code of conduct for the ABS does not exist. However, the ABS Corporate Plan includes 12 rules of conduct that employees are expected to adhere to.

Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of standards through in-house webpage announcements, bookmarks, etc.

## 2. **Methodological soundness**

### 2.1 ***Concepts and definitions***

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

The PPIs produced by the ABS follow internationally recognized guidelines, e.g., the *PPI Manual* (2004) and the *SNA*.

The ABS produces both *input* PPIs and *output* PPIs.

The *input* PPIs measure the rate of change in the prices of goods and services purchased by the producer. ABS examples include the price index of materials used in house building, and the price index of materials used in manufacturing industries. The *output* PPIs measure the rate of change in the prices of products sold as they leave the producer. ABS examples include the price index of the output of the general construction industry, and the price index of articles produced by manufacturing industries.

Inputs for the *input* PPIs are valued at purchasers' prices, which are defined as the amounts paid by the purchaser inclusive of any nondeductible taxes on products, and transport and trade margins (i.e., the prices recorded in the index should be those relating to the price of goods and services as delivered into store, delivered on site, etc.). In line with international standards, the ABS input prices exclude deductible taxes on products but include the retail or wholesale margins of the supplier, i.e., they measure the actual cost of the good or service to the producer.

The ABS publishes these input and output producer price indices (PPIs) on a quarterly basis for different selective sectors/narrowly defined components (e.g., manufacturing, construction) at the ANZSIC Division, Subdivision, Group, and Class level. The compilation of the indices is based on products which are primary to the particular industry.

Small as well as large companies are included in the sample population for the PPIs for goods. The main deficit is in services where coverage of all Divisions is yet to be achieved.

The scope of a producer price index determines which transactions are to be included in the measure of price change. From the September quarter 2009, the manufacturing indices have been presented on a gross sector basis. The impact of this change in presentation from a net sector basis to a gross sector basis is that the scope of the output indices now includes transactions in produced articles primary to the defined sector of Australian manufacturing industries that are sold or transferred to domestic establishments within that sector for further processing, outside that sector, used as capital equipment, or exported. Similarly, the scope of the manufacturing industry input indices now relates to transactions in materials used in defined sectors of the Australian manufacturing industry that are produced domestically by establishments within the manufacturing sector, outside the manufacturing sector, or imported.

Product indices are aggregated by ANZSIC Division, Subdivision, Group, and Class but there are not necessarily indices available for all hierarchical levels of the industry classification—the latter depends on the coverage of the sample.

The ABS also compiles quarterly Import and Export price indices. These are important extensions of domestic PPIs. They are used in deflating external trade values to provide indicators of the volume of international trade. Also, import prices feed into producer input indices, since these are an important contribution to producer costs. Similarly, export prices feed indirectly into producer output indices, since exports frequently represent a significant component of producer revenue.

Thus the ABS produces PPIs for domestic sales and nondomestic sales (the XPI), and PPIs for domestic purchases and nondomestic purchases (MPI).

In addition, the ABS presents producer price indices for the supply of commodities to the Australian economy in a Stage of Production Framework. Under the latter concept, the flows of commodities are categorized according to their economic destination, on a sequential basis, along the production chain (i.e., preliminary, intermediate, and final).

The main focus of this report is on the total sales (output) PPI. Import price indices are not reviewed here in any detail and export prices are only of interest as they affect the nature of the total sales PPI.

## 2.2 *Scope*

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

The defined scope of the PPIs compiled by the ABS is consistent with internationally accepted guidelines and meets the two main uses of PPIs—as deflators in National Accounts, and as short-term indicators of inflationary trends.

In practice, however, there is a significant deficit in the outputs. The PPIs produced by the ABS cover the minimum requirements of manufacturing and mining. The ABS has commenced a program to cover service PPIs, in consultation with the National Accounts Branch, and currently about 37 percent of all services are covered (based on 2001-2002 Input/Output data). There are no targets or timetables for filling the gaps. An inability to fully fill the available positions with suitably skilled staff within the PPI area over the last year has delayed this program, but with recent recruitment, and following skilling up, the ABS expects to be making headway in the coming year.

The ABS takes the view that non-market activities fall outside the scope of PPIs. Examples of these activities include general government services such as national defence and the value of owner-occupied dwellings.

The following indices are the major PPIs released by the ABS:

#### **Stage of Production (SOP) Producer Price Indices**

Presented by stage of production, industry of origin, and destination within the economy

#### **Manufacturing Industries Producer Price Indices**

Materials Used in Manufacturing Industries (MUMI)—an input price index

Articles Produced by Manufacturing Industries (APMI)—an output price index

#### **Construction Industry Producer Price Indices**

Materials Used in House Building—an input price index

Selected output within the Construction Industry—an output price index

#### **Mining Industries Producer Price Indices**

Materials Used in Coal Mining—an input price index

#### **Service Industries Producer Price Indices**

Selected output within the following ANZSIC Divisions:

Transport, postal, and warehousing—an output price index

Information media and telecommunications—an output price index

Rental, hiring, and real estate service—an output price index

Professional, scientific, and technical services—an output price index

Administrative and support services—an output price index

Public administration and safety—an output price index, this index is not currently published.

Accommodation and food services—an output price index

Other services—an output price index

### **Copper Materials Price Indices**

Copper Materials Used in the Manufacture of Electrical Equipment—an input price index

### **International Trade Price Indices**

Import Price Index (IPI)—an input price index

Export Price Index (EPI)—an output price index.

### *Services PPIs*

Service PPIs first began to be developed by the ABS in 1995 with first publication following in the March Quarter of 2000.

Following the implementation of ANZSIC 2006, all available series have been reweighted on 2001-2002 input/output data. Ongoing series retained a reference base of 1998-1999 = 100.0, whilst new series resulting from the implementation of the ANZSIC have a reference base of 2001-2002 = 100.0. This complicates comparative analyses.

Indices have been developed progressively for significant ANZIC 2006 Services Divisions . The ABS has at this point developed and published indices for selected outputs primary to:

- Division H – Accommodation and food services. This index is not currently published.
- Division I – Transport (freight only), postal, and warehousing. Sub-indices are published for nine out of 14 subdivisions.
- Division J – Information media and telecommunications. Sub-indices are produced for two out of 10 subdivisions.
- Division L – Rental, hiring, and real estate services. Sub-indices are produced for five out of seven subdivisions.
- Division M – Professional, scientific, and technical services. Sub-indices are produced for six out of 11 subdivisions.
- Division N – Administration and support services. Sub-indices are produced for three out of five subdivisions.
- Division O – Public administration and safety. Sub-indices are produced for one out of four sub-divisions.

- Divisions S – Other services. Sub-indices are produced for one out of nine subdivisions.

There are no service PPIs for:

- Division K – Financial and insurance services.
- Division P – Education and training.
- Division Q – Health care and social assistance.
- Division R – Arts and recreation services.

The PPI Section has an initial prioritized list of service PPIs to be developed but discussions have not yet been finalized with the National Accounts Branch. The PPI Section retains responsibility for the determination of the program, but progress can and has been slowed by the research team not being fully staffed up and by research resources being diverted to agreed higher priority work (e.g., the CPI review). While it is true that some resources that may otherwise have been available for PPI-related research are diverted to the CPI review, there is PPI specific project work continuing, albeit at a slower speed, e.g., current work being done to explore whether pricing of any service industries in the CPI could also be used (as appropriate, with conceptual differences accounted for) in the PPI. This could be a relatively cheap way to address some of the current coverage gaps. When resources become available to develop more Service PPIs, priority will be based on a combination of those services representing the highest weight and those where the methodological issues have the best chance of being resolved (i.e., picking the low hanging fruit).

### **2.3 Classification/sectorization**

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

Indices are constructed in accordance with the Australian and New Zealand Standard Industrial Classification (ANZSIC). ANZSIC was developed as a regional adaptation International Standard Industrial Classification of All Economic Activities (ISIC) by the ABS and Statistics New Zealand for use in both countries for the production and analysis of industry statistics and is specifically aligned, as far as possible, with ISIC (Revision 4). In both the output and stage of production producer price indices, ANZSIC is used to classify commodities primary to a particular industry (in an industry-of-origin role). For input price indices ANZSIC is used to classify the industry of a purchaser of a given commodity (in an industry-of-consumption role). Where indices refer to input of particular materials, those materials are classified according to the industry to which those materials are primary.

To the extent that ANZSIC differs from ISIC, the ABS loses international comparability in some of its outputs. There has also been a loss of consistency within the PPI family due to different versions of ANZSIC being used in parallel. Currently, different versions of ANZSIC are used for the component indices versus the economy-wide indices. Once suitable weighting data are available all indices will be on the same basis. Compared with ANZSIC

1993, ANZSIC 2006 has a closer concordance with ISIC. There still can be differences in classification for particular industries but the latest version of ANZSIC has a closer concordance with ISIC and there are no conceptual differences.

## **2.4 Basis for recording**

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

Prices collected for the PPI are actual transaction prices (producers' or purchasers' prices, as appropriate for the relevant index) that apply at the time of collection. Prices are collected in Australian dollars (AUD).

Obtaining and securing the cooperation of selected respondents is an expensive exercise for both the ABS and its data providers. The *Survey of Producer Prices* requires collection of pricing data, reasons for price movements, and details regarding changes in product characteristics. Against this background the ABS has developed a price collection strategy that aims to:

- Yield the largest benefit from provider interactions.
- Maximize the utility of data collected.
- Where possible, reuse price index components.

This strategy is based on the principle that most providers purchase a range of commodities that are consumed in production activities, and also sell a range of products. A provider sampled to provide information regarding the sale of one type of product may be asked to provide information on sales of other significant product types, and to provide information on significant material purchases.

The ABS producer price indices cover a range of pricing bases, measuring price changes for both sales and purchases. This requires measuring prices on different valuation bases (e.g., measuring the price received by the producer and the price paid by the purchaser). Benefits arise when the provider is able to provide prices on more than one pricing basis and where the difference in pricing basis is due to a margin such as delivery costs. In such a case collecting the delivery fee as a separate data item not only allows calculation of prices on more than one pricing basis but also allows decomposition of individual price movements into different components.

Decompositions of this type enhance the capability for data confrontation and validation, improving the overall quality of the price indices.

The practice of capturing sufficient information to value the transaction on more than one pricing basis occurs frequently for manufacturing and building products.

Prices are collected separately for domestic and nondomestic sales as well as for imports. The pricing basis of the import and export price indices is "free on board" (f.o.b.). The pricing basis for materials used in manufacturing industries is purchasers' prices. A range of

products used in manufacturing processes is imported from other countries and so, in line with the philosophy of maximizing utility of data, sufficient information is collected to price an import on both a f.o.b. basis and a purchasers' price basis. For an imported product, the purchasers' price is termed "cost, insurance and freight" (c.i.f.). For this type of product, providers frequently report prices on both a c.i.f. and f.o.b. basis. Note that this information is readily available from most purchasers since the f.o.b. price is used in paying customs duty.

Foreign currency import and export prices are converted to Australian dollars at the average exchange rate of the foreign currency in the reference period, with regional lags based on shipping time applied for imports. Prices exclude excises and Goods and Services Tax (GST).

If transaction prices are not available and cannot be estimated, the ABS will accept intracompany transfer prices. Also, when necessary to achieve a response the PPI will accept mixed prices. For instance, in some cases companies can only report average prices for a range of qualities, typically because there is only one transaction price in their sales accounts system (i.e., a unit value). In other cases the prices charged to different customers are averaged in the reported data. The PPI for services asks for two types of prices, depending on the sector: average rates, which are comparable with the mixed prices sometimes used in the PPI for goods; and model prices, which are comparable to ordinary PPI market prices.

Transfer prices should be used with caution because they often do not fully reflect the true value of the goods or services being transacted. The ABS has the aim of collecting real transaction prices, which generally require a transaction with a third party. Transactions to another part of the same business (or to an affiliated business) may not reflect the true price (or true price movements) observed in the market place. The ABS only includes a transfer price in the producer price indices when the price behaviour is confirmed to represent true market transactions.

In addition to valuation of transactions on multiple pricing bases, the compilation of ABS producer and international trade price also reuses equivalent components in price indices with similar pricing bases. This frequently occurs for the articles produced by manufacturing price index, valued at basic prices, and the export price index, valued f.o.b. Both indices are output price indices, measuring the price Australian producers receive for sale of their goods. However, f.o.b. is not strictly the same as the basic price, as it includes transport from the producer to the Australian port, whereas basic price excludes such costs where they are separately invoiced. To overcome this problem articles produced by manufacturing industries price index reuse entire components (price baskets) from the export price index. Like counterpart pricing, this practice has an implicit assumption that transport costs from producer to ship move proportionally with the export f.o.b. price.

None of these estimation methods are likely to generate problems but the ABS may well be advised to periodically test the underlying assumptions and the sensitivity of the indices so produced to the estimation methods adopted.

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

Prices are market transaction prices as recorded at the time of collection.

Most individual items priced in the producer and international trade price indices are priced once per quarter, using a *point-in-time* pricing mechanism. There are some exceptions in this regard, particularly for products that exhibit volatile price behaviour. In such cases, collections are carried out monthly or even more frequently (e.g., a series of crude oil prices is collected daily). The usual practice is to collect prices from all respondents in each pricing quarter. However, there may be some cases where prices are generally stable, products take a long time to produce, or price changes occur at predetermined times. In these cases it is not necessary to collect prices in every quarter.

Point-in-time pricing has the advantage that quarterly comparisons will be consistent, but one of the disadvantages of a set point in time for PPIs is that a transaction may not have taken place on the specified date. If this happens, respondents will be asked to provide details of a transaction that occurred as near as possible to the specified date; e.g., “last shipment within the previous 30 days” or will be asked to estimate “what the cost would be if the product was produced today.”

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

All producer price indices are compiled on a gross basis following the implementation of the classification change from ANZSIC 1993 to ANZSIC 2006. This also applies to transactions between companies within the same enterprise or sector.

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

#### **3.1 Source data**

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

#### *Weights*

For the PPIs, the items included in the index are selected and allocated weights on the basis of the estimated annual values of production from input-output data. The indices are reviewed when new input-output data are available (up to now about every six years) but the source and reference period for the PPI weighting data has varied across the different manufacturing, construction, and service PPIs. Most, but not all, PPIs currently use Input/Output data from 2001-2002 following an updating of weights in September 2009 which coincided with the introduction of a revised version of the ANZSIC classification (ANZSIC06). This prolonged timescale for the updating weights raises potential concerns about whether the PPI weights are sufficiently up to date to be representative of the current



position. More up to date weights are now available, and updated Input/Output data will be available annually (previously this was not the case). The ABS has yet to decide the frequency with which weights will be updated or when an update will next be done. From the next update onwards, however, the weighting data available to be used will be much more up to date than is currently the case.

In the context of the updating of the weights in September 2009, an analysis of the difference between the old and new series was confounded by the fact that it occurred at the same time as a revision to ANZSIC. The ABS back-cast the revised series using a one-to-one mapping where this was available and other methods, such as ratio estimates, when there was no coherence between the two measures. But the simultaneous introduction of new weights and a new classification made it difficult for some users.

Published categories generally are at the three-digit (ANZSIC Group) or four-digit (ANZSIC Class) level of aggregation, with series being made available at the two-digit (ANZSIC Sub-division) and one-digit level (ANZSIC Division) where data are deemed fit for purpose.

The situation is better for the international trade price indices (ITPI). The current weighting basis for the import price index was derived from the average value of import items during 2008-2009. This differs slightly from the export price index which has used the average value of export items during 2007-2008 and 2008-2009, due to the greater volatility associated with the value of export items. These weights were revalued to reflect link period (June quarter 2009) price levels. This means, for example, that the weights for the import price index are effectively determined using quantities from 2008-2009 and prices from June quarter 2009. Indices derived by using the new weights for the September quarter 2009 were then linked to the already published June quarter 2009 (link period) levels which were derived using the previous series weights. Using this methodology, long-term chain linked series can be constructed over time on a consistent reference base for continuity and user convenience, but using annually refreshed weights. The reference base for each index series continues to be 1989-90 = 100 even though the weights are being updated each year.

### *Price collection*

The selection of companies to take part in the price survey is purposive based on information from individual contacts, manufacturing and trade organizations, and other soft information.

Tailored mail questionnaires are used for data collection.

Product specifications are agreed with the data supplier to ensure that a product (including conditions of sale) is uniquely defined, so that it may be comparably priced from period to period, i.e., priced to constant quality. In discussing detailed specifications with data suppliers the main characteristics that affect the utility to the purchaser are identified. The main criteria that could affect the utility of a product and could form part of a specification include product name and serial number; the Company's detailed specification (the Company will additionally be asked to report any enhancements or add-ons that are included in the

product (e.g., for cars, a number of options are usually available including metallic paint, air conditioning, sun roof, all of which affect the utility of the product).

A model specification is used where industries produce goods or services on a made-to-order basis or a one-off basis, and the same product is not produced in successive periods. Examples of such products include ships, buildings, and many business services.

In addition, the pricing takes into account quantity data and volume discounts; other discounts (including trade discounts to trade customers); transport terms; currency the transaction is traded in.

The ABS addresses the challenges in correctly identifying and measuring using personal interviews at sample enrolment. The use of a personal interview allows the ABS to determine the current and likely future use of the discount practices referred to above, and to emphasise the importance of notifying the ABS of any future use of discounts (including nonrecurrent discounting).

Returns by mail account for the majority of forms returned by businesses supplemented by a small amount of telephone collection and use of price lists and auction results published in newspapers or on the Internet. Firms are encouraged to report when a product is no longer available or when the product description has changed, in which case they enter the new information or substitute another product. In all cases these processes are subject to scrutiny and advice from the ABS. The ABS will telephone or visit the firm to agree on a new product specification and to obtain advice on relevant quality adjustments.

It is understood that the PPIs make use, albeit on a fairly limited scale, of some data collected or provided by third parties e.g., for construction and trade.

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

Classifications play a vital role in determining the appropriate scope and weights for price indices. This allows a direct concordance between the price index, its value aggregate, and the source data upon which it is constructed.

The key sources of weighting data for the producer price indices are the national accounts input-output tables. The supply table from the input-output framework shows the output value of product groups by source industry. The product detail tables show a finer disaggregation of supply, showing a comprehensive breakdown of output values at the product level. These data are used as sources for upper level weights for output price indices.

The key sources of weighting data for the international trade price indices are detailed product level statistics on international merchandise trade. These data are compiled (on a trade basis) from information submitted by exporters and importers or their agents to the Australian Customs Service (Customs). Weights for the export price index are averaged over two years to overcome problems of volatility.

Prices used in the indices are those reported by data suppliers in the relevant collections (producers' or purchasers' prices, as appropriate for the relevant index).

The source data generally follow requirements. As mentioned in Section 2.4.1, some mixed and intercompany prices are accepted when unavoidable but this is not considered a major nonconformity.

### *3.1.3 Source data are timely*

The ABS PPIs are in line with the timeliness requirement of the SDDS. Price data are collected throughout the reference quarter for use in compiling both that quarter's PPIs, and the National Accounts and are published within four weeks of the reference period. The publication date is set 12-months in advance, and is always the fourth Monday (or Tuesday if the Monday is a public holiday) following the end of the reference period. The PPIs are published on the Monday prior to the release of the CPI, which is released on the fourth Wednesday following the end of the reference period.

## **3.2 Assessment of source data**

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

As a purposive survey, the more common measures of statistical (sampling) error are not applicable to the PPI.

The ABS quantifies the number of quality adjustments, imputations, and out of stocks, by index. Prices that are considered to be outliers are queried with providers. This includes some zero price movements. If necessary, in exceptional circumstances a member of the ABS will visit the data provider. No prices are rejected unless proven incorrect. The question of error rates, etc., is addressed by focusing on statistical quality in collecting and processing the data. Quality assessment is a feature at all stages.

Outliers are identified by the ABS commodity experts using their best informed judgment. If there is a large divergence from the previous price, the data provider is asked to confirm the new price or indicate special factors that have come into play or changes in specification. Data-collection staff are trained to be alert for anomalous results and to follow these up immediately with data providers, as required. The collection staff submit relevant reports and comments to the staff responsible for analyzing and compiling the data. The latter, in turn, provide editing notes to senior Section staff. The editing notes include counts of quality adjustments and imputed/estimated prices for each index.

Market reports, media articles, and other external sources are used to confront the reported price data during this process. The ongoing sample maintenance program ensures that the sample of items and specifications to be priced is kept up to date.

Statistical confrontation for a small number of reliable items in the PPI and CPI is conducted routinely each quarter. Discrepancies between these series are thoroughly investigated by both teams. Data “confrontation” is conducted at the most detailed level possible. Confrontation across PPIs, National Accounts, and International Accounts areas (monthly merchandise trade) for selected commodity data is done prior to finalization of the data each quarter. Subsequent to release, the Constant Price Estimates team in the National Accounts Branch also examine confrontations, and take account of feedback and queries of concern to PPI staff.

Clearance procedures include a clearance meeting, where the results are reviewed in detail by senior Section staff and the Branch head. All anomalies and queries raised in this process are thoroughly investigated.

The Section provides comprehensive clearance documentation to the Branch head and First Assistant Statistician and Deputy Australian Statistician each quarter.

### **3.3 *Statistical techniques***

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

Internationally accepted techniques are used for index calculation and quality adjustment.

The ABS follows standard procedures in the construction of elementary aggregates. The latter are constructed by grouping individual goods and individual services into homogenous products and transactions. Elementary aggregates use the weighted average of price relatives and, for some services, the geometric mean. It is understood that the former is more of an historical legacy than a decision based on an examination of options based on a current context and a contemporary view of the market place. No recent examination has been made of the extent to which, for example, manufacturing products are substitutable within the elementary aggregate although this is to some extent addressed by routine sample maintenance, which considers whether commodities selected for an elementary aggregate are good substitutes.

A modified-Laspeyres price index formula is used to aggregate the elementary aggregates. The price relatives are combined using weights that represent the value share in the base period. Price updating is applied to the value aggregate associated with the elementary aggregate.

To incorporate the newly weighted structure into an existing price index, a link period is chosen and the value data is price updated to the link period and the new structure chained onto the existing price index.

Missing observations relating to goods, enterprises, and commodity groups are dealt with as follows:

- When an enterprise has to report the prices of more than one product for a given elementary aggregate, and one of the prices is missing, then the price change of the commodity group for that enterprise is determined on the basis of the available prices. The missing price is imputed by all other available prices within the elementary aggregate.
- If an enterprise does not respond at all, but there is information available from other enterprises in that commodity group, the price relative of the group will be calculated on the basis of the responding enterprises and this will be used to impute all price items of the missing enterprise.
- If all information is missing from an elementary aggregate, the quarter-to-quarter price changes from a higher group are used for imputation of the missing group. For this purpose the weighted arithmetic mean price is determined for the underlying known groups for quarters,  $m$  and  $m-1$ , and the index change is calculated. In the case of missing values for seasonal products in agricultural product groups, a carry-forward price is used until the moment new seasonal prices become available.

New product specifications are introduced if a reporting company clearly indicates their importance. Company weights are in general not adjusted except when the company indicates there is a considerable deviation with the one known and used in the calculations.

Several alternative methodologies are used to adjust for differences between new and replaced items. The methods include quantity adjustments, option prices, production cost adjustments, expert judgment, and linking. The general approach is to ask the reporting firm what the replaced product would sell for in the current period, or what the new product would have sold for in the prior period.

Hedonic models are employed only for computers and are shared with the CPI. The producer price indices use a form of hedonic index referred to as the “consecutive two-period chained time dummy double imputation hedonic price index” for use in price indices for personal computers. This process sees a matched model price index applied for personal computers sold between consecutive periods, combined with a consecutive-period time dummy price index (this is produced by using regression techniques) to measure price changes for both discontinued and newly introduced goods. Experience in other statistical agencies indicates the importance of re-estimating the hedonic function on a regular basis to ensure that it is up to date and does not result in a downward bias due to the out-of-date and over-valuation of old features.

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

Quality adjustments are made to the data collected, as and when required, to ensure that the PPI is produced to constant quality (see earlier paragraphs).

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

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

Standard input editing procedures are deployed to check prices (e.g., automatic querying and verification of all significant or unexpected price movements). Internal checks are supplemented by independent industry data and the results discussed with national accounts users.

The checking procedures focus on the price history of prices previously submitted by the data provider and difference in price levels or changes between one data provider and others supplying prices for similar products.

For most PPIs the default position is that quarterly price movements of +/- 5 percent are investigated but these limits will be adjusted, e.g., for volatile prices or where the contribution to the overall index is exceptionally high or low. For a few selected commodities the default setting is +/- 10 percent.

For Service PPIs the default setting is +/- 5 percent.

Validation reports highlight exceptionally large price changes, including the notification of products where there has been a change in unit quantities produced/purchased, information relating to system problems, where there are no price changes, and nil shipments.

Data confrontation is undertaken for the international trade price indices, e.g., for petrol prices and coal prices, involving representatives from the international accounts area, as well as national accounts.

After publication of the PPIs, the compilers provide national accounts with output editing notes which provide a detailed analysis of the main drivers contributing to the change in the index.

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

The indices are subject to standard output editing procedures. Results are assessed for credibility, with unexpected results receiving closer scrutiny with follow-up as required to verify reported price changes. These processes are described above in more detail. ABS industry experts are fully engaged in this process and will work in close liaison with data suppliers and industry experts outside the ABS.

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

Statistical confrontation of comparable items in series in PPI and CPI is conducted on a limited basis routinely each quarter. Discrepancies between these series are thoroughly investigated. PPI data are also confronted with a range of other data sources, such as ABARE (Australian Bureau of Agricultural and Resource Economics), and LME (London Metal Exchange).

## **3.5 Revision studies**

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

The ABS does not publish preliminary estimates which are updated the next quarter. The index numbers are “final” and are subject to revision only to correct an error, not to take on board new data. Revisions due to errors are rare and are only made if the effect of the revision is significant. So PPI data is only revised in exceptional circumstances. If significant errors are identified, the index is restored to the correct level in subsequent quarters. The reasons for the discrepancies are investigated and measures are instituted to prevent recurrence.

Given the rarity of the event, there has been no systematic study of past revisions resulting from errors.

The ABS rules for correcting an error are not prescriptive, and are not particularly transparent. For instance, whether the correction of errors are deferred until the next quarterly press notice, made public as soon as the revised figures are available and have been quality assured, and whether back-casted data is published.

## **4. Serviceability**

### **4.1 Periodicity and timeliness**

#### *4.1.1 Periodicity follows dissemination standards*

Australia is availing itself of the SDDS flexibility option for the periodicity of the producer prices index, and compiles and disseminates the index on a quarterly basis. Quarterly indices fulfill the needs of national accounts deflators, and monthly indices are not prescribed in the *PPI Manual*.

It can be noted that the frequency of manufacturing indices PPIs and some other PPIs including PPIs for Materials used in manufacturing industries was changed from monthly to quarterly from September 1997. At the same time some new PPIs were introduced for the first time, for instance, PPIs for the construction industries.

The ABS is unaware of any user demand for monthly PPI data. The ABS would argue that monthly PPIs would not represent value for money and would divert resources away from the production of higher-priority outputs.

#### *4.1.2 Timeliness follows dissemination standards*

The PPI is released each quarter, (three months ending March, June, September, and December). The data are typically released on the Monday prior to the fourth Wednesday after the end of the reference quarter, depending on public holidays, but no later than the last Monday of the month after the end of the reference quarter.

## **4.2 Consistency**

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

The all-items PPI is consistent internally when aggregated from different levels of the classification.

A consistent back-series is available from the ABS website.

Consistency with national accounts is addressed routinely, and also reconciliations between the PPI and CPI are carried out.

Product indices are generally aggregated by ANZSIC Group, Subdivision, and Division. Explanatory notes are included in all publications. Comprehensive information on the concepts, sources and methods, as well as details of the scope and coverage, of the Stage of Production (SOP) indices is provided.

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

Consistent time series data for the PPI are available free from the ABS website. For the headline Stage of Production series, index numbers are available back to September quarter 1998. Some contributing series have much longer time series available.

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

Statistical confrontation of similar series in PPI and CPI is conducted routinely each quarter. Discrepancies between these series are thoroughly investigated. The use of national accounts weights in the PPI, and of lower-level PPI series in the national accounts, together with the common use of ANZSIC, ensures that PPI series can be reconciled at higher levels with corresponding national accounts series.



### **4.3 *Revision policy and practice***

#### *4.3.1 Revisions follow a regular and transparent schedule*

Index numbers are subject to revision when an error occurs but are not routinely revised on account of new data. Revisions due to systematic errors are rare and are only made if the effect of the revision is significant. If discrepancies are identified, the index is restored to the correct level in subsequent quarters. The reasons for the discrepancies are investigated and measures are instituted to prevent recurrence.

Processes are in place for making and publishing revisions in the rare instances when these happen. Revisions will be published as soon as is practical with an explanation and back-series where appropriate. Revised figures are given an appropriate label (R = revision). But they are not transparent and not prescriptive. For example, there are no guidelines on what constitutes a “significant” revision which would lead to the publication of revised figures. Neither are there clear guidelines about whom and how the decision to published revised figures is made: but there are precedents—see 4.3.2.

#### *4.3.2 Preliminary and/or revised data are clearly identified*

The ABS reissued the March quarter 2006 PPI to correct for processing errors in a contributing index. The entire release was reissued and the incorrect version was withdrawn to ensure that the correct data were available to users. The reissued version carried a notice to users, alerting them to the corrections, explaining the circumstances and consequential impacts on other outputs. The revised series were clearly annotated with an “r” in the publication and a cell comment (“Revised”) in the time series spreadsheets.

Revisions are rare. Revisions would only be made when a “significant” error occurred. “Significant errors” are those which, in the opinion of the Branch head and Division head responsible for the PPI, are of sufficient magnitude that, if not corrected, would seriously misrepresent the rate of price change and lead to damaging miscalculations by major users. Any decision to correct the published PPI would only be taken with the agreement of the Australian Statistician. The revisions policy is not totally transparent e.g., what constitutes a significant error.

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

See 4.3.2.

## 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)*

All data, the key figures and analyses, along with all tables, are posted on the ABS website (<http://www.abs.gov.au>) at 11:30 a.m. Canberra time on the day of release.

Details of methodology and sources are released in *Producer and International Trade Price Indices: Concepts, Sources and Methods 2006* (Catalog No. 6429.0). Copies of these publications are available free to download on the ABS Internet website (<http://www.abs.gov.au>).

All publishable data are free to download, including as time series where applicable, in a clear manner with various levels of detail. In most cases, data are available down to ANZSIC class (four-digit) level. Data are published for a range of index areas, as listed in 2.3.1 above.

*5.1.2 Dissemination media and format are adequate*

The front page of the quarterly PPI publication carries a summary of key figures and key points for the Stage of Production PPIs to facilitate redissemination of information in the media. Each PPI release includes:

- A PDF version of the paper-based publication (with a limited time series length displayed in the tables);
- A web-based replication of the commentary and other notes (e.g., explanatory notes) from the PDF; and
- A complete set of PPI data in spreadsheet format (excel) containing complete time series lengths.

All data, the key figures and analyses, along with all tables, are also posted on the ABS website (<http://www.abs.gov.au>) at 11:30 a.m. Canberra time on the day of release.

*5.1.3 Statistics are released on a preannounced schedule*

Each quarterly PPI publication announces the precise publication dates for the subsequent four PPI quarterly publications.

Current publications and other products released by the ABS are listed on the website:

- By catalog number
- By release date

- By topic, and
- By title

The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

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

The data are released simultaneously to all users.

Pre-embargo release at 11:00 a.m. on the day of release is given to the Treasury, Treasurer's Office, and Department of Prime Minister and Cabinet and some other Commonwealth departments for purposes of preparing ministerial briefings. Lockup arrangements apply whereby no staff can leave or communicate information outside the room until after the 11:30 a.m. embargo.

Pre-release access to the PPI was introduced following a review, tightening-up, and standardization of the arrangements for the pre-release of ABS statistics more generally. Prior to the review, pre-release arrangements varied between different statistical series. There was no embargoed release of the PPI. Pre-release access was introduced only when it was ascertained that the PPI met the conditions, i.e., a convincing business case, for pre-release under the new standardized rules. In contrast to the PPI, the CPI has a two-hour pre-release access.

The statistical press notice is entirely separate from policy statements by Ministers or Officials.

To ensure impartiality, the ABS releases its statistics by means of an embargo system which involves setting a time prior to which no statistics from a collection are released but after which the statistics are available to everybody. The standard release time is 11:30 a.m. (Canberra time), and this embargo is printed on the publications.

#### *5.1.5 Statistics not routinely disseminated are made available upon request*

Not applicable. All available PPI statistics and related material are available free to download from the ABS website (<http://www.abs.gov.au>).

## **5.2 Metadata accessibility**

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

Details of methodology and sources are released in *Producer and International Trade Price Indices: Concepts, Sources and Methods 2006* (Catalog No. 6429.0). Copies of these

publications are available free to download on the ABS Internet website (<http://www.abs.gov.au>).

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

Data are available in both summary and detailed form. The front page of the quarterly PPI publication carries a summary of key figures and key points to facilitate redissemination of information in the media.

See also 5.1.2.

## **5.3 Assistance to users**

### *5.3.1 Contact points for each subject field are publicized*

Queries are screened through ABS staff trained to handle straightforward queries and to refer more complex ones.

More complex queries, including requests for media interviews, are referred to the Director, Producer Price Indices Section. These details are advertised on the PPI pages of the ABS website and on all printed PPI-related products.

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

Current publications and other products released by the ABS are listed on the website:

- By catalog number
- By release date
- By topic, and
- By title

The ABS also issues a daily Release Advice on the website which details products to be released in the week ahead.

Table 3. Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index  
(Compiling Agency: Australian Bureau of Statistics)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Increasing the frequency of the PPI to monthly and compiling indices for the missing Services PPIs would require additional funding which is not in the ABS' current baseline.
0.2 Resources			X			
0.3 Relevance		X				
0.4 Other quality management		X				
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				There is a deficit of PPIs for services.
2.2 Scope			X			
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and reliability</b>						
3.1 Source data		X				The PPI is only revised when there is an error. There are no routine revisions.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies	X					
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness			X			The PPI is quarterly. No demand has been identified for monthly indices. The SDDS stipulates monthly indices.
4.2 Consistency		X				

Table 3. Data Quality Assessment Framework (July 2003): Summary of Results for the Producer Price Index  
*(Compiling Agency: Australian Bureau of Statistics)*

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
4.3 Revision policy and practice		X				Revisions are rare and are only made when a “significant” error occurs. There are no written guidelines on what constitutes a “significant” error and no written procedures. The index is corrected and the publication is reissued as soon as is practical.
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

## Recommendations

- Assess user needs for monthly data. If there is a demand, examine the costs and benefits of producing a limited number of key producer price indices on a monthly basis to meet the SDDS requirement for monthly indices and taking into account the needs of users.
- Consider the costs and benefits of replacing the Australian industrial classification ANZSIC with the internationally standard ISIC. Investigate options including a move to ISIC, reviewing ANZSIC so there is further correspondence between ANZSIC and ISIC, or a classification system that is structured to deliver both. Implications for the coding of all source data also need to be considered. Use the same and most up-to-date version of ANZSIC (ANZSIC 2006) for all PPIs including the Stage of Production PPIs. This latter recommendation only applies if ANSZIC continues to be used.
- Examine the costs and benefits of producing the outstanding PPIs for services and produce and resource a prioritized work program which takes into account added value including the gain in coverage, the methodological and data issues associated with each service industry and user needs. This represents a more systematic continuation of the work being undertaken by the ABS.
- Review the compilation of deflators in the national accounts. This review should cover both conceptual issues and issues of practical measurement. The aim would be to make better use of the data collected by Prices Division.
- Introduce a more systematic review of index construction to identify priority areas for improvements to current indices. A prioritized and funded program of index improvement would be the key output. This program would identify those of the current indices that are in most need of further investment. It would cover data sources as well as detailed methodology. This would result in a more transparent program of index development which should be shared with users.

## IV. GOVERNMENT FINANCE STATISTICS

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the *Census and Statistics Act, 1905 (CSA)*, the *Australian Bureau of Statistics Act, 1975 (ABSA)*, and associated ministerial determinations. These documents are widely available to the public, including from the ABS website <http://www.abs.gov.au/>; <http://www.comlaw.gov.au/>; and <http://www.publications.gov.au/>.

The *ABSA* establishes the ABS as an independent statutory authority, defines the functions of the ABS, and describes the terms and conditions under which the Australian Statistician can be appointed and removed from office. The *Act* also established the Australian Statistics Advisory Council (ASAC).

With two exceptions (the requirement to conduct a Census every five years and to compile statistics on the number of people in each State at the end of each quarter), the *CSA* entitles the Statistician (the head of the ABS) to determine what statistical information is to be collected (within the bounds of broad-ranging subject matters specified in the Statistics Regulations). The Assistant Treasurer, the Minister responsible for the ABS can direct the Statistician, in writing, to collect statistical information relating to a particular matter specified in the Statistics Regulations. However, the Minister cannot direct the Statistician to cease a particular collection nor instruct the Statistician on how to go about collecting statistical information.

Section 6 of the *ABSA* mentions among the functions of the ABS: “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” The Australian statistical system thus is characterized by a plurality of data providers. The ABS is the largest collector of official statistics, but there is no mandate that official bodies must source statistics from it. Some statistical work is done by State governments, some by other government agencies undertaking their own collections. Specific agencies, such as the Australian Institute of Health and Welfare and the Australian Bureau of Agricultural and Resource Economics, also undertake statistical collection and analysis work. The *ABSA* gives the ABS the role to ensure co-ordination of the operations of official bodies in the collection, compilation, and dissemination of statistics and related information to avoid duplication between collections, attain compatibility between collections, and ensure the maximum utilization of statistics.



The overall legal framework is considered to work well, and there are no plans to revise it. The Statistician is obliged to appear before the Senate Estimates Committee two or three times a year, and to answer questions publicly on anything to do with the work of the ABS. The Committee can also call for follow-up responses, and call on other agencies such as the Audit Office for further information.

Within the ABS the Public Finance and Local Government Sections are responsible for collecting, processing, and disseminating GFS data for the public sector. The quarterly and annual GFS compilation process is supported by the compilation and publication of financial statements by each Australian Government.

The Department of Finance and Deregulation (DoFD) is responsible for the compilation and dissemination of monthly and annual financial statements while the Australian Office of Financial Management (AOFM), which is part of the Treasury portfolio, is responsible for the management and dissemination of data on the securities debt of the Commonwealth Government. These data are disseminated as independent reports, but also serve as source data for the GFS compilation by ABS.

The compilation and dissemination of monthly and annual financial statements for the Commonwealth is largely governed by the *Financial Management and Accountability Act, 1997*. The public can obtain copies of the legislation from the DoFD website (<http://www.finance.gov.au>).

The *Act* provides a framework for the management of public money and property of the Commonwealth, and assigns the Minister of Finance as the custodian of public assets and liabilities, ensures the proper identification of all official bank accounts, establishes an accounting and reporting framework, and gives the Minister limited powers to borrow on behalf of the Commonwealth. The *Act* sets requirements for the annual preparation and audit<sup>7</sup> of Commonwealth financial statements. A related *Act*, the *Commonwealth Authorities and Companies Act, 1997*, contains, among other things, reporting and accountability rules for other Commonwealth authorities and companies. These enabling rules allow the extension of data compilation to the public sector.

From 2008-2009 onwards, the Australian government adopted the *Australian Accounting Standard Board 1049 - Whole of Government and General Government Sector Financial Reporting (AASB 1049)*.<sup>8</sup> For the preparation of financial statements for general government and the public sector, *AASB 1049* requires the adoption of ABS GFS on the face of the statements where it does not conflict with Australian Accounting Standards. Where

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<sup>7</sup> The *Auditor-General Act 1997* established the Office of the Auditor-General as an independent entity and determines its functions.

<sup>8</sup> *AASB 1049* has replaced *Australian Accounting Standard 31- Financial Reporting by Government (AAS 31)* for the whole of government reporting.

differences between the statistical basis of reporting and the accounting standard remained, reconciliation to the key GFS aggregates and an explanation for these are required.<sup>9</sup>

The legal framework for compiling GFS for the Commonwealth is further strengthened by the *Charter of Budget Honesty Act, 1998*. The purpose of the Charter is to improve fiscal policy outcomes and facilitate public scrutiny of fiscal policy and performance. Among other things, the Charter requires regular fiscal reports based on external reporting standards, defined as the concepts and classifications set out in Australian GFS and public sector accounting standards developed by the AASB.<sup>10</sup>

The ABS has signed a *Memorandum of Understanding (MOU)* with each State and Territory Treasury and the Commonwealth Grants Commission (a key data user). The MOU establishes an interrelationship and reflects an agreed arrangement for cooperation in activities of joint interest related to GFS compilation and use of the data. The agreement provides for the timely delivery of source data of an agreed quality, follow-up on queries and consultation on changes to concepts, classifications and interpretations of the standards. The MOU is usually agreed for three years and is currently being renegotiated. Once this has been completed, the intention is also to develop a MOU with the Commonwealth DoFD.

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

The ABS seeks to ensure coordination among data-producing agencies through a series of committees, as well as informal contacts with staff producing the statistics in other agencies. The ABS manages relationships with these agencies by formal meetings, memoranda of understanding, and informal contact. Changes in the production of statistics are preceded by extensive consultations.

Working relationships of the ABS Public Finance Section are firmly established and procedures are in place to ensure adequate data sharing and coordination with source data-producing agencies, and users of the data, such as the ABS National Accounts Branch.

The ABS Public Finance Section liaises with the Commonwealth and State Departments of Treasury and Finance regarding ABS GFS and national accounts' reporting requirements. This is mostly undertaken through regular phone and email contact. The MOU currently under negotiation proposes that biannual meetings between the ABS and GFS stakeholders be held to further promote data sharing, coordination, and understanding of GFS data requirements.

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<sup>9</sup> Currently *AASB 1049* is applicable only at whole of government or general government reporting for all jurisdictions. Extending this standard to entity level is currently being considered by the AASB.

<sup>10</sup> While the legislation actually refers to the Public Sector Accounting Standards Board, this board has been subsumed in the Australian Accounting Standards Board.

Data sharing for GFS compilation is facilitated by the financial information management systems of the Commonwealth and State Departments of Treasury and Finance. These systems generally include GFS coding for transactions data according to the economic type framework (ETF). Where codes are not provided by a jurisdiction, they are derived by the ABS through application of business rules or manual intervention.

A separate Section in the ABS (located in Brisbane) collects local government data. The coordination of the collection and processing of these data is well established. Assistance is available to local government data providers to ensure compliance with reporting requirements and conceptual queries are resolved in consultation with the Public Finance Section.

GFS data serve as input data for the Australian National Accounts. The Public Finance Section and National Accounts Branch are both located in the ABS Central Office. Regular meetings are held between the two areas to ensure that national accounts requirements are met. Whilst no formal data sharing and coordination arrangements exist with regard to balance of payments data and monetary statistics, significant or unusual transfers are discussed and cross-cutting issues are monitored in a Quarterly Economic Statistics Tactical Review Committee.

The legislative framework and administrative arrangements established in the DoFD ensure working arrangements and data sharing between all Commonwealth agencies. Procedures and working arrangements are in place to ensure the timely flow of source data and regular contact with relevant entities promotes effective working relationships. Regular contact ensures that data needs for the compilation of Commonwealth financial statements and debt are met and that compilers are well informed of changes in compilation practices and the importance of the timely delivery of source data.

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

The *CSA* protects confidentiality by requiring that information not be published in a manner likely to enable the identification of a particular person or organization. The *Act* states specifically that a statistical officer cannot be required to divulge or communicate to a court or tribunal any information contained in a Census form.

Notwithstanding this, the *CSA* provides for the Minister to make determinations providing for the release of certain classes of information which would not otherwise be permitted to be released under the *Act*. Still, under the provisions of a determination, personal or domestic information may not be disclosed in a manner that is likely to enable the identification of a person.

The determination currently in force under Section 13 of the *CSA* enables the Statistician to disclose:

- Certain classes of statistics (including information in the form of statistics relating to an official body other than a government business undertaking), unless a person or organization can show that such disclosure would be likely to enable the identification of that particular person or organization;
- Statistics relating to a business or organization that are already available to the public from the business or organization or from any official body;
- Published information relating to an official body;
- Information with consent, either on a confidential basis or on a general basis;
- Lists of names and addresses of businesses and organizations to departments or authorities for specified nonregulatory purposes;
- Unidentifiable individual statistical records; and
- Information to enable the Statistician to perform relevant statistical functions.

The ABS has a strong culture of adhering to the principles of confidentiality irrespective of the legal provisions because of the trust this builds with data providers and the related benefits for data quality. It has on occasion declined requests for data from other parts of government where it has felt this might jeopardize confidence in the confidentiality of its statistics. Respondents to surveys are informed as to the confidentiality of their responses in order to give assurance.

Data for the general government in ABS macroeconomic outputs are published under clause 2 of the *Statistics Determination Act*. It determines that in the case of information relating to an official body, other than a government business undertaking, data will not be published if the responsible Minister in relation to that official body has shown that such disclosure would be likely to enable the identification of that particular person or organization.

Where it is likely that release of data for PNFCs may enable the identification of a particular corporation, the data may be disseminated under Clause 3 of the *Statistics Determination Act*, which allows the disclosure of statistics already available to the public or Clause 5, which allows disclosure with the consent of the appropriate person.

Annual GFS unit record data for both the general government and public corporations are made available to the Commonwealth Grants Commission (CGC) under a consent arrangement signed by each State and Territory Government. The consent provides boundaries around the use of the data by CGC.

Access to data within the Public Finance System is allocated at the jurisdiction level. Only staff working on a specific jurisdiction's data is given access to unit data for that jurisdiction.

GFS source data are destroyed either through shredding of paper documentation or through the ABS secure waste destruction program. ABS computer systems have a level of security

that prevents unauthorized access by external parties. Internally, the organization has six monthly IT Security audits to ensure appropriate access to data.

The Commonwealth financial statements and debt data are released either on a monthly or annual basis to the public. The data provided by reporters are held in confidence and not released on an individual basis.

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

The ABS is aware of response burden, and makes clear that it seeks to minimize duplication and response effort.

Both administrative and survey data for GFS are collected under the *CSA*. The timetable for supply of quarterly and annual GFS data to the ABS is outlined in the MOU with State and Territory Treasuries. Some jurisdictions provide data to the ABS prior to its publication by the jurisdiction. The ABS does not publish data for individual jurisdictions until it has been released by the jurisdiction. Quarterly data for individual State and Territory Treasuries are therefore published with a one-quarter lag, but data at the total State and local government level are released each quarter.

The classifications against which Australian Governments report GFS data to the ABS are outlined in the MOU. The IT system allows for electronic transmission of the data and accommodates differences in the underlying financial systems of the various reporters. Where necessary, the ABS reclassifies data to agree with GFS requirements. The Departments of Treasuries and Finance are consulted prior to major changes in data supply requirements. These arrangements will be strengthened in the MOU currently under negotiation.

Forms for the collections of GFS data are tested with respondents prior to finalization. Public Finance has a dedicated phone number that respondents can call for assistance. A letter is sent each quarter outlining the importance of the data collection. Working relationships and persuasion are primarily used to encourage response.

Administrative data collected by the DoFD are collected under the *Financial Management and Accountability Act, 1997* and the *Commonwealth Authorities and Companies Act, 1997*. These *Acts* set the reporting requirement for individual entities and regular contact with reporters ensure adherence to reporting deadlines or early notification of possible delays.

All data for the compilation of Commonwealth securities debt are derived from the computerized debt management system. The system is therefore not dependant on the responses from other units to compile the data.

## **0.2 Resources**

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

Staff facilities are generally thought to be commensurate with the needs of the existing work program, but not sufficient to resource any substantial increase in activities.

The skills base is maintained through internal and international formal training, on-the-job training, appropriate recruitment policies, exchange of staff with other countries and international agencies.

The ABS encourages program staff to attend and present papers at domestic and international conferences and to exchange experiences with other countries.

Office accommodation and the working environment conform to mandated Australian Public Service standards.

IT resourcing and support and training are ensured through local deployment of specialists to the prices program and more generally by ABS corporate systems support.

Funding for the individual work programs in the ABS is set centrally. New work needs to be externally funded or offset by savings. More resourcing would be useful as disclosed by strains imposed by both changing to new standards and coping with the global financial crisis. There is in addition some user-funded work; a certain amount is accepted, on the basis that it will cover all costs including overheads. The Statistician accepts only a limited amount of such work, in part because its continuation is not guaranteed.

The ABS is not the sole supplier of official statistics: when the Statistician turns down a request from an official agency that agency sometimes decides to produce the statistics itself. In such cases the ABS works with the other agency to ensure that the new data are generated in a way that will be comparable. On the other hand, the ABS does not seek to adopt the role of an inspector of official statistics.

Many professional staff have at least one degree, usually in statistics, economics, accounting, finance, or commerce. Several have advanced degrees.

Staff turnover has increased recently, in part because of a generational shift towards a cohort more accustomed to job moves. Together with recent retirements and a downsizing in the last years, there has been a significant loss of expertise. Salaries are below the median for public sector positions. Management stresses work-life balance issues, and makes continuing efforts to improve job satisfaction and retain staff. With the level of turnover significant amounts of staff time are being devoted to training, thereby adding to resource pressures. Management is committed to succession planning and rotation of staff, to avoid such pressure periods in the future.

The ABS follows the Australian Public Service provisions in the management of its staff, and also has its own principles.

While overall resources are considered to be roughly commensurate with the needs of the present programs, there is no headroom for additional commitments. The ABS argues strongly that any further commitments that it is given be fully funded. A review of IT capacity found that there would be no room to increase support in the event of additional demands.

The Public Finance Section has 12 staff in the compilation team; five staff in the Systems, Client Servicing and Quality team; and two staff in the Research and Development team; plus a Director. There is an average of 4.6 staff in the Local Government unit. At times some positions may not be filled for short periods due to delays in recruitment. The Public Finance Section is currently made up of a few senior experienced staff, but currently seven of the 11 junior staff have less than five months experience in GFS. A program of weekly training is in place while the Section also relies heavily on on-the-job training.

IT-systems in use in the Public Finance Section allow the receipt, processing, and dissemination of data. The system has many legacy components. Re-engineering of the Public Finance systems will commence in 2010-2011. This will bring the system into line with the ABS corporate infrastructure and allow the system to be more broadly supported. The existing system is largely supported within the Section.

Resource planning has an horizon that incorporates the current financial year (July through to June) and the three out years.

For the preparation of Commonwealth financial statements and debt data, staff, computing, and financing resources are integrated into the operational activities of the respective organizations. Resources are generally deemed to be commensurate with the work plan. In-house training and external staff development are encouraged, while the involvement of contractual accounting professionals further support the work program.

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

The ABS budget is indexed in the same way as funding for other Government agencies, and, like other Government agencies, is subject to an efficiency dividend to promote increased efficiency. However, the ABS is exempt from the additional whole-of-government departmental efficiency savings (which apply to other agencies), over the forward estimates period. While the ABS has managed satisfactorily within its overall budgetary framework, in recent years wage disparities have emerged between ABS salaries and those paid in other Commonwealth agencies for staff with comparable skills. Cost pressures and other funding constraints have prevented the ABS from addressing this gap. The consequence has been higher rates of staff turnover especially among staff with qualifications and experience in economics, statistics, and analysis, which has to some degree eroded capability.

In 2009 the ABS undertook the retrenchment of 90 middle-management staff, as well as allowing attrition of more junior staff in order to fund a pay increase in an attempt to match

increases paid in other agencies. In essence this increase “held the line,” and did nothing to address the underlying problem of wage disparities. This reflected internal ABS management decisions.

A cutback in activities, including a 24 percent reduction in the size of sample of its labor force survey, was decided on by the ABS to meet both cumulative internal cost pressures and the imposition by the Government of an additional one-off efficiency dividend applied to all Commonwealth agencies (which the ABS is no longer subject to over the forward estimates period). Public concern about the state of ABS funding, including representation by ASAC, led to an external review by the DoFD of the ABS budget position on the basis of which the Government agreed to provide the ABS with additional funding to offset some of the effects of cost pressures. However, the efficiency dividend requirement remained in place. Going forward the ABS, like all Government agencies, continues to face requirements to achieve efficiency targets and meet wage and other costs.

The ABS has an office in each Australian State and Territory and has redistributed certain activities from its Canberra head office to the regional offices depending on local expertise and/or lower staff turnover.

A Memorandum of Understanding with the DoFD is under preparation.

All staff in the ABS have a formal performance discussion every six months.

### **0.3    *Relevance***

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

The ABS has in place a number of arrangements that provide priorities and feedback both generally and for specific datasets. The ASAC is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback is provided by the Economic Statistics User Group that represents key economic constituents.

There are regular senior level contacts between the ABS and the DoFD. Briefings and discussions at the working level take place with individual agencies and users. Media coverage and commentary on GFS releases provide continuous feedback.

Major decisions, such as the migration to *2008 SNA*, as well as the adoption of the *GFSM 2001*, involve discussions with the range of advisory bodies. In particular, the decision to move simultaneously across the range of new methodologies reflected the guidance of the advisory bodies.

The MOU currently under negotiation with Treasuries proposes that a biannual meeting of GFS stakeholders be held. Members of the GFS Research and Development Team also attend various meetings and working groups of key stakeholders, including the Australian



Accounting Standards Board and the Australian Institute of Health and Welfare. The Local Government Unit also engages with users to better meet their needs for Local Government finance statistics in the policy area of roads and culture.

#### **0.4 Other quality management**

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

The ABS Mission Statement (“We assist and encourage informed decision-making, research and discussion within governments and the community, by leading a high-quality, objective, and responsive national statistical service”) mentions explicitly various dimensions of quality.

The ABS Corporate Plan lists also set values and objectives that are highly relevant from a quality management point of view. The ABS values include integrity, relevance, service, access for all, professionalism, and trust of providers. The Plan specifies these values in more detail. The ABS objectives are the following:

- An expanded and improved national statistical service;
- ABS services that are timely, relevant, responsive, and respected for their integrity and quality;
- Informed and increased use of statistics;
- A key contributor to international statistical activities that are important to Australia or our region;
- An organization that builds capability to continually improve its effectiveness;
- The trust and cooperation of our providers;
- The ABS is a respected and strongly supported organization.

The ABS also maintains and publishes information on each collection it conducts, including information on the quality of the collection. The ABS Data Quality Framework (Cat.no.1520.0) outlines the seven quality dimensions of "fitness for purpose" that provide the standards for assessing and reporting on the quality of statistical information.

All publications produced by the ABS are subject to an internal clearance process.

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

The ABS devotes considerable resources to methodology with an overarching mandate to monitor quality of the statistical work program generally. For external scrutiny, see also 0.3.1.

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

The ABS coordinates the economic statistics work program, including decisions about quality, via line management and a number of groups concerned with cross-cutting issues, the prime internal group being the ABS Economic Statistics Strategy Coordinating Committee (ESSCC). All ABS economic collections are required to have an active program of quality improvement and report on this program to the ESSCC. For external coordination see also 0.3.1.

## **1. Assurances of integrity**

### ***1.1 Professionalism***

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

Under the *ABSA*, the Statistician and ABS form an independent statutory authority for the purposes of the *Public Service Act, 1999*. Also, the Statistician, who is appointed by the Governor-General for a period, not exceeding seven years (with eligibility for reappointment), cannot be removed other than on the grounds of misbehavior or incapacity, or by becoming bankrupt. The *ABSA* does not mention the qualifications necessary to be appointed Statistician.

The Statistician is largely free to decide which statistics the ABS should produce, but any new proposal for the collection of information for statistical purposes must be laid before both Houses of the Parliament before its implementation, unless the proposal is for the collection of information on a voluntary basis.

There is a high level of professionalism throughout the Australian public service. A professional culture is strongly embedded in the institution. All recruitment is meritocratic and transparent in line with the policies of the Australian public sector. The Australian Public Service Commission (APS) *Code of Conduct* applies and in addition the ABS has its own values. Professional qualifications and enhancement are encouraged. ABS staff are in high demand elsewhere in the public sector and internationally, and not infrequently move on to such posts.

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

The ABS's choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations. For the DoFD, decisions about dissemination of data are informed by legal requirements and statistical considerations.

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

The ABS has the authority to comment on erroneous interpretation and misuse of the statistics that it produces and does so when appropriate. The ABS responses to media articles are available on the ABS website. Similarly, the DoFD monitors the media and comment when needed.

**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 statistics are collected, processed, and disseminated are widely made available to the public, in particular through the Internet.

Copies of government legislation, including the CSA and the *ABSA*, are readily available from websites. The ABS website is the most complete source for all aspects regarding the terms and conditions of its statistics, as this website not only covers legal provisions, but also basic documents such as the ABS work program, corporate plan, annual report of the ASAC, information about the SDDS, etc., in addition to information about individual datasets.

Detailed information on the concepts, sources, and methods used in compiling GFS can be found in *Australian System of Government Finance Statistics: Concepts, Sources and Methods* (Cat.no.5514.0), which is also available on the ABS website.

Additional information on the terms and conditions under which government financial statements are produced can be attained from accounting standards, notes to financial statements, annual reports, and other publications of the DoFD and AOFM.

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

It is ABS policy and practice to make all statistical releases available on the website to government, commercial, and private users simultaneously from 11:30 a.m. (Canberra time) on the day of their release. Prior to 11:30 a.m., all ABS statistics are treated as confidential and regarded as being “under embargo.”

On 1 February, 2008, new pre-embargo access arrangements were introduced. The arrangements enable access to a small number of ABS publications by authorized ministerial staff and Government officials, up to two hours prior to the official release time. This is so that briefings can be prepared for key Ministers so that they can provide informed comment on the released statistics when approached by the media, thereby avoiding any inadvertent misinterpretation which may cause unnecessary alarm or concern.

Authorized persons attending a lockup are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room, until the embargo is over. Attendees at the lockup are

also required to sign security undertakings which include provision for prosecution under the *Crimes Act, 1914* for anyone who breaches the conditions for attending the lockup.

In addition to these arrangements, and having regard to the complexity of analyses required, a number of Commonwealth Treasury officials have pre-release access to Australian National Accounts: National Income, Expenditure and Product (ABS cat. no. 5206.0) mid-afternoon on the day before its release. For GFS, the data for an individual jurisdiction are made available to that jurisdiction for review as part of quality control and reconciliation process.

The policy on pre-embargo access is clearly set out, and can be found on the ABS website in the Section “About us.”

There is no pre-release of data of the DoFD and AOFM. These data are subject to internal clearance procedures due to the administrative nature of the data.

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

Any products released by the ABS include the ABS logo and a catalog number. Any ministerial commentary is released by Ministers or their Offices, independently of the ABS statistical releases. Similarly, products released by the DoFD are clearly identified.

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

It is ABS policy to provide advance notice to users about major changes in methodology, source data, and statistical techniques. This usually is done in the regular publications for periods before the changes take effect. In addition, major changes in methodology are described in information papers, which are released in advance of publications based on the changed methodology. Notes in the publication in which they first occur also alert users to changes. Such notices were given when accrual accounting was adopted and with the implementation and more recently when the *2008 SNA* treatment of Defense Weapon Platforms were adopted in the GFS. The *ABS GFS Concepts, Sources and Methods* document will be updated after the *GFSM 2001* has been revised.

## **1.3 Ethical standards**

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

All staff are subject to the *Code of Conduct* as covered in Section 13 of the *Australian Public Service Act, 1999*. A specific code of conduct for the ABS does not exist. However, the ABS Corporate Plan includes 12 obligations employees have to the ABS. Staff at the DoFD and AOFM are subject to the same law.

Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of standards through in-house webpage announcements, bookmarks, etc.

## **2. Methodological soundness**

### **2.1 Concepts and definitions**

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

The ABS produces annual and quarterly GFS, for general government and the public sector, using nationally developed concepts, definitions, and presentational framework, based on the *1993 SNA* and broadly in line with *GFSM 2001*. The system integrates stocks and flows, and recognized two types of economic flows namely transactions and other flows, with the latter divided between revaluation and other changes in the volume of assets. While major aggregates and balancing items fully agree with the concepts and definitions used in the *GFSM 2001*, some minor differences exist with regards to terminology, concepts, and definitions used at the detailed level. Some of these differences are merely presentational.

Where differences exist between the ABS and international classifications, ABS source data are sufficiently detailed to allow linkages to the standardized presentation of *GFSM 2001*. These differences mainly result from the fact that the ABS concepts, definitions, and presentations were decided on prior to the final release of the *GFSM 2001*. In other cases, harmonization with the applicable accounting standards, long-standing national practices, and practical considerations necessitated the differences. A comparison of the differences is fully described in the *Australian System of Government Finance Statistics: Concepts, Sources and Methods* (Cat.no.5514.0), publicly available from the ABS website.

The DoFD compiles monthly financial statements for the Commonwealth following accounting standards that were largely harmonized with the statistical framework. Some instances where accounting standards differ from GFS compilation practices remained, but difference between financial statements and ABS GFS are fully reconciled and explained in publicly available documents.<sup>11</sup>

### **2.2 Scope**

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

ABS GFS cover the complete public sector of Australia. GFS data are compiled for each jurisdiction at the general government sector level. This institutional scope of the data therefore reflects all the nonmarket activities of the general government sector for the Commonwealth Government, individual State and Territory Governments as well as multi-jurisdictional units (mainly public universities), and local governments. Data on the market activities of the Public Non-Financial Corporations (PNFCs) and the Public Financial

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<sup>11</sup> See description of source data for an explanation of these differences.

Corporations (PFCs) are also compiled, to allow the compilation of data for the consolidated Public Sector.

Data disseminated for Australia, go well beyond what is normally required, since data are compiled and published individually for the Commonwealth Government, individually for each State and Territory Government, and combined for local governments in each State and Territory, except in the Australian Capital Territory where there is no separate local government.

The financial reporting (and auditing) environment of public sector corporations in Australia is highly disciplined and transparent. Material nonmarket activities performed by public corporations at the behest of general government are separately reported on in the financial reports of such entities and, as such, they are treated as separate establishments and provide an excellent data source for the ABS to reallocate them back to the general government sector.<sup>12</sup> Government controlled corporations operate under competitive neutrality principles, and they separately identify and cost any noncommercial activities conducted at the behest of their respective controlling governments. These corporations are compensated transparently by their controlling governments for such noncommercial community service obligations so the ABS GFS for general government reflects all material general government activities.

Annual data are derived from comprehensive and final audited administrative data which eliminates the need to replace preliminary data with final data. Quarterly data are only published for the current financial year. Preliminary data for one quarter are replaced in the next issue if revised information becomes available. Quarterly data are benchmarked to the final annual outcome data, mainly for national accounts aggregates, once the latter becomes available. These revised quarterly data are not published, but are available from the database, upon request.

The transactional scope of the ABS GFS data broadly covers all economic stocks and flows of the Public Sector in tables that are similar to those required by the *GFSM 2001* framework, albeit with some differences in the presentation and terminology used. The statements produced in the ABS GFS system compares well with those requires in the *GFSM 2001* system as indicated in the table below.

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<sup>12</sup> For example: The Export-Financing Insurance Corporation is classified as a PFC. This public corporation maintains on behalf of government a 'national interest account' which represents nonmarket activities conducted on behalf of the Federal Government. This account is not integrated with the PFC account but disclosed in notes to the financial statements.

### Comparison of Statements in *GFSM 2001* and ABS GFS

<i>GFSM 2001</i> Statements	ABS GFS Statements
Statement of Government Operations	Operating Statement
Statement of Sources and Uses of Cash	Cash Flow Statement
Statement of Other Economic Flows	Data included in integrated Statement of Stocks and Flows
Balance Sheet	Balance Sheet

While the ABS Operating Statement does not provide a breakdown of financing data, these data, according to financial instruments, can be derived from the Statement of Stocks and Flows. Some components presented in the statements do not fully meet the scope of the *GFSM 2001*.

For practical reasons, some undercoverage of units may arise due to the relative insignificance of the economic activities of these units versus cost of collection. These units are few in number and consist mainly of small commodity marketing boards. Partial coverage of some units entirely funded from other government units result from the lack of information on small amount of own revenue collections and the use of these funds—public hospitals, schools, and small statutory authorities are included in this category. However, the ABS takes steps to ensure that undercoverage does not increase over time due to changing circumstances.

In the ABS Cash Flow Statement, transactions related to notional cash flows associated with finance leases are separately identified, and these impact on the ABS surplus/deficit measure. However, the surplus/deficit measure on the *GFSM 2001* basis can be readily derived.

While a statement of other economic flows is not published as a stand-alone table, the equivalent information is presented in an integrated ABS Statement of Stocks and Flows. This statement, produced for each level of government, explains changes in stock position, and makes a distinction between transactions and other economic flows. Other economic flows are further broken down in revaluations and other volume changes for the Commonwealth.-This breakdown is not currently available for State and Local Government.

## 2.3 *Classification/sectorization*

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

Institutional identification and sectorization applied in the Australian GFS are in accordance with the 1993 SNA.<sup>13</sup> Australia's standard in use for institutional classification is the *Standard Institutional Sector Classification of Australia (SISCA)*, which is set out in the *Standard Economic Sector Classifications of Australia (SESCA)*. Further information on the classification of public sector units, based on the standard, is also referenced in the *Australian System of Government Finance Statistics: Concepts, Sources and Methods* (Cat.no.5514.0).

While the sectors and subsectors for which GFS are produced are broadly in accordance with the *GFSM 2001*, it should be noted that the Australian system was set up to compile a Financial Statement at General Government level for each of the jurisdictions. The consolidation of general government, PNFC, and PFC accounts for each jurisdiction is referred to as "whole-of-government" account. The aggregation and consolidation of each jurisdiction's general government sector, including the general government component of local governments and public universities, which, when consolidated, are the equivalent of the general government sector concept used in *GFSM 2001*.

For the national presentation, subsectors of general government include a subsector for multi-jurisdictional units. This subsector comprises units where jurisdiction is shared between two or more governments, an example would be public universities where control is shared between the Commonwealth government and respective State governments. For internationally comparable data, these units are reported as extra-budgetary central government units.

National classifications of main aggregates are consistent with the *GFSM 2001*, but some well-documented differences exist with regard to the terminology used for detailed classifications.

The ABS analytical structure for revenue comprises five categories compared to the four categories recognized in *GFSM 2001*. The ABS revenue structure presents:

- Taxation Revenue
- Sales of goods and services
- Property income

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<sup>13</sup> Although the ABS has published *SESCA08*, aligned with *2008 SNA*, the Australian GFS is consistent with the current requirements of the IMF as presented in *GFSM 2001*. When a revised *GFSM* is available, the ABS will consider its adoption in consultation with Treasuries.



Other current revenue  
Capital Revenue

These classifications differ from *GFSM 2001* because they do not provide for a *GFSM 2001* category for “Social Contributions,” since Australia does not have Social Security Funds. The ABS analytical structure does not separately present the category “Grants.” These data are included as a category “Grants and subsidies” in the ABS category “Other current revenue.” It should also be noted that the terminology “Grants” as used in Australia, includes all unrequited receipts, which differ from “Grants” defined in *GFSM 2001* as all noncompulsory transfers received by government units from other government units or international organizations. However, at the ABS detailed classification level, grants to other government units (as defined in *GFSM 2001*) can be identified separately if resident units are involved.

The ABS analytical structure for expenses comprises six categories compared to the eight categories recognized in *GFSM 2001*. The ABS expense structure presents:

Employee expenses (uncapitalized)  
Non-employee expenses  
Depreciation  
Current transfers  
Capital transfer  
Property expense

This presentation differs from the *GFSM 2001* since the GFS categories “Use of goods and services,” “interest” and other “expenses” are spread in the ABS categories of “non-employee expenses,” “transfers,” and property expense. In addition to the difference in the definition of grants (as described in revenue), the accounting concept of depreciation is used in the ABS GFS due to a lack of information on the economic concept of consumption of fixed capital, from the administrative sources for data. The estimate of consumption of fixed capital is therefore derived independently for the national accounts.

The ABS analytical structure for the net acquisition of nonfinancial assets is calculated as gross fixed capital formation less depreciation plus changes in inventory and other transactions in nonfinancial assets. The ABS classification framework provides for nonfinancial assets in three categories namely:

Nonfinancial produced assets  
Nonfinancial nonproduced assets  
Other assets (not elsewhere classifiable)

This presentation combines the categories for “inventories,” “valuables,” and “nonproduced assets” found in the *GFSM 2001* presentation.

The ABS analytical structure for stocks and flows of financial assets and liabilities are presented in the integrated Statement of Stocks and Flows.

Financial assets are disaggregated into:

- Cash and deposits
- Investments, loans and placements
- Accounts receivable
- Advances outstanding
- Equity

Liabilities are disaggregated into:

- Deposits held
- Proceeds from advances
- Borrowing
- Accounts payable
- Provisions that are in the nature of liabilities (include superannuation liabilities)
- Other liabilities

In addition, the ABS Cash-Flow Statements distinguish financing for policy purposes and liquidity purposes separately although this is not a requirement as such of the *GFSM 2001* classification coding system. This enables the ABS to maintain a time series for the cash-based surplus/deficit measure going back to 1961-62 on a comparable basis following the adoption of the accruals-based GFS. However, as noted below, the ABS presentation does not include all the disaggregations required in *GFSM 2001*.

The ABS presentation of data on stocks and flows in financial assets and liabilities differs significantly from the *GFSM 2001* presentation which requires a disaggregation between domestic and foreign presented according to standardized classes of financial instruments. *GFSM 2001* also requires identification of counterpart transactions so as to calculate bank and nonbank financing and stock positions.

The ABS classification system provides for the classification of sales of goods and services, expenses, and net acquisition of nonfinancial assets of the general government sector according to the Government Purpose Classification (GPC), based on the *1993 SNA* Classifications of Functions of Government (COFOG). This functional classification differs from the functions in *GFSM 2001* mainly due to a reorganization of all economic functions under a main heading of Economic Affairs and the function for Environmental Protection that was identified as a major group. The GPC treats environmental affairs in the group for “housing and community amenities,” under the subcategory for “other sanitation and protection of the environment.”

## **2.4 Basis for recording**

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

Flows are generally valued at market prices while stock data are valued according to accounting standards applicable at the source data level. Since the accounting standards call for fair valuation of assets and liabilities, this generally implies that for GFS publications,

stocks of traded instruments are valued at current market prices, but other instruments without observable markets are recorded at nominal value.

ABS GFS correctly use the debtor approach in the calculation of stocks of financial assets and liabilities and all data are reported to the ABS in local currency with foreign currency transactions converted to local currency using exchange rates prevalent at the time of the transaction.

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

The conceptual basis for the recording of all transactions in the Australian GFS system is accruals-based, i.e., transactions are recorded when economic value is created, transformed, exchanged, transferred, or extinguished. However, in practice, ABS GFS rely on accruals-based accounting records as the initial source information. In all significant areas where the accounting information is not already on the GFS accruals basis, either the ABS makes appropriate adjustments in its own GFS system, or the respective Treasury supplying the information provides appropriate adjustment journal entries. Some examples of significant areas where adjustments to accounting information are made include tax effect accounting and certain provisions.

In the case of routine tax refunds, however, no adjustments are currently being made and such refunds are therefore recorded at the time that the liability for the payment are determined, rather than at the time of the original economic event that gave rise to the tax repayment. Nonroutine refunds, especially any large cases subject to litigation, are reassigned to the appropriate period(s).

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

The Australian GFS system follows the “gross” and “net” recording guidelines of the *GFSM 2001*. Corrective transactions and repayments are netted against the original transactions as far practically possible.

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

#### **3.1 Source data**

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

Annual data are largely sourced from administrative records that were harmonized with GFS statistical reporting requirements. These data comprise aggregates unit level accounting data. Sources of data are comprehensive and institutional and geographical coverage is complete. GFS source data are provided by the DoFD and each State and Territory Government under the *Census and Statistics Act, 1905*. These data are used for the compilation of ABS GFS and serve as source data for the national accounts.

Where GFS data cannot be provided centrally by Australian Governments, the ABS undertakes direct data collection. These include quarterly survey and annual census data for local governments, quarterly general government data for South Australia, and quarterly surveys for Universities, PNFCs of the Commonwealth, NSW, Victoria, South Australia, and Tasmania. For PNFCs, quarterly data are available centrally from the Queensland, Western Australia, the Northern Territory, and Australian Capital Territory Treasuries. Annual unit record data are supplied by State Grants Commissions/Departments of Local Governments (GC/DLGs) for councils in the local government sector.

GFS institutional units are matched to the ABS Business Register to ensure correct coverage across all ABS collections. The ABS Business Register is a comprehensive register of individual units including those in the Public Sector. GFS compilers submit updates to the Business Register on a quarterly basis to record the creation of new units, the cessation of existing units, the merging or restructuring of existing units, changes in the classification of existing units, and changes in the name of existing units.

Institutional and geographical coverage is complete for Australia. The geographic coverage includes the Governments of Australia (Commonwealth), and State and Territory Governments of New South Wales, Victoria, Queensland, South Australia, Western Australia, Tasmania, the Northern Territory, and the Australian Capital Territory. The economic territory of Australia includes the Cocos (Keeling) Islands and Christmas Island. Under SESCA08 the external territory of Norfolk Island is conceptually been brought into the scope of GFS, but there are no plans to extend the coverage at this stage, as the amounts are relatively immaterial given that the population is only 2100.

GFS data are collected via a mixture of electronic transfers from Treasuries, and standard and tailored forms. The forms used have been field tested, and are reviewed annually to take account of changed circumstances and user needs. Data sourced from the financial accounting systems of the Commonwealth (DoFD), State and Territory Treasuries, and State GC/DLGs are obtained through electronic transfer. Some source data require mapping to the ABS classifications, either automatically during the upload process or manually during processing.

Problems due to material gaps in coverage and/or completeness of data transmissions are identified and addressed via telephone and email consultation with designated Treasury contacts. Longer-term issues are addressed in the MOU with Treasuries.

Qualitative information on the data sources is regularly sought from key stakeholders when the opportunity arises. In addition, international standards, guidelines, and practices (such as the IMF *GFSM 2001* and *2008 SNA*) are monitored for changes that need to be adopted in source data systems to ensure relevance of the collection process. The Public Finance Section regularly consults with data-supplying agencies on updates in their chart of accounts (in both a conceptual and systems capacity), and any other changes which may affect the data transmitted, and may require adjustment or reclassifications of source data. Additional information may be collected from Treasuries in response to particular programs or events, such as the Global Financial Crisis.

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

Source data closely approximate the methodology of ABS GFS, primarily due to concerted efforts to harmonization accounting standards with GFS requirements. Supplementary sources are mostly form-based collections. Forms are prepared according to the ABS forms design standards manual and are designed to collect data on an ABS GFS basis. Where data are not fully compliant with GFS, the ABS adjusts data based on additional information collected as needed.

Limitations in the accounting systems employed by some source data providers mean that some breakdowns consistent with GFS classifications cannot be provided in the GFS file in the format required by the ABS (e.g., current/capital transfer breakdowns at the Commonwealth level<sup>14</sup>). When possible, manual intervention by ABS staff ensures that data align with international reporting requirements. However, in some cases data for some of the *GFSM 2001* breakdowns are not available in ABS GFS source data, such as breakdown of foreign and domestic assets and liabilities.

All data sources provide sufficient detail to allow consolidation at various levels of general government and the public sector.

### 3.1.3 *Source data are timely*

Timely accounting data at the whole of government level compiled by the DoFD, and the Treasuries in each State and Territory, are supplied to the ABS as electronic data files on an annual basis. Data for the general government sector are supplied on a quarterly basis for all jurisdictions except South Australia. Some jurisdictions also provide public nonfinancial corporations data via the electronic file on a quarterly basis.

Final audited annual files are generally provided four months after the end of the financial year. In the case of delays caused by jurisdictions that have not released their own audited accounts, the ABS works with the relevant Treasury in order to meet the ABS deadlines

Quarterly files are provided 30 days after the end of the reference quarter. ABS GFS compilers are kept informed by source data compilers of unforeseen delays in the compilation of source data occur. While these delays sometimes affect the timely feed of data to the national accounts, it seldom impacts on the release of GFS publications. In the case of delays in receipt of quarterly source data, historical imputation in early processing are replaced after variances with actual data are calculated.

Quarterly and annual GFS data for the Local Government sector are collected and processed by the Local Government Section. Local Government quarterly data are provided by a

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<sup>14</sup> Although these are available from the financial systems, it requires some adjustments for ABS GFS purposes.

sample of councils eight days after the end of the reference quarter, with validated weighted estimates being provided to the Public Finance Section 30 days after the end of the quarter. For the annual data collection, unit record data are provided by each of the Department of Local Government/Grant commissions five to eight months after the end of the financial year with edited data files being provided to the Public Finance Section six to eight months after the end of financial year.

Reporting units are made aware of the deadlines set for reporting. For State and Territory Treasuries, the MOU clearly sets out agency reporting requirements. For form-based data collection, a letter is sent clearly stating reporting deadlines, followed up with reminder contact via telephone and email to ensure the timely delivery of source data.

### **3.2 Assessment of source data**

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

Automated procedures are used to facilitate the monitoring of the internal consistency and accuracy of data reported by individual government sector units. The system has embedded micro-editing of inputs. These edits consists of unit-level edit checks such as classification edits, legality edits, code combination edits, code existence edits, and level of coding edits. The system also performs intrasector edits and aggregation edits. The automated procedures also test the internal consistency of each institution's data (e.g., cross checks). Data inconsistencies and out-of-trend values are confirmed with reporting units via a verification process, and variances and reasons for variances are documented.

The source data are analysed for misreporting, in particular to check for temporal consistency. Input editing checks are routinely performed to identify data anomalies, and regular data quality meetings are held to analyse and assess the data for accuracy. GFS compilers address questions concerning the accuracy of source data through direct contacts with reporting agencies. Assessment of source data ensures that deviations are identified and corrected in a timely manner, and inform efforts to improve the data of the reporting agencies. Source data are also assessed by checking across alternative sources, as part of the input editing phase when compiling GFS data.

By-law the financial statements of government units must represent a true and fair position of government. Annual source data derived from audited accounting records have the added advantage of a rigorous audit process mandated by law. For the Commonwealth, accounting records during the fiscal year are also subject to scrutiny due to a monthly clearance process that includes a comparison against the profile of the budget, question and answer sessions with relevant general managers and ministers, and the preparation of commentaries on variances to usual patterns of revenue collection and spending.

### 3.3 *Statistical techniques*

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

Compilation procedures are aimed at minimizing manual processing errors such as coding, editing, and tabulation errors. Because there is no uniform accounting system used by individual government units in Australia, the format of electronic transfers of data vary for individual jurisdictions. Although the Public Finance Section employs broad compilation procedures to compile GFS data across jurisdictions, the process is adapted to accommodate individual submissions with unique issues and limitations applicable on specific jurisdictions.

Where data are missing, historical data and budget information are used to provide best estimates for use in preliminary GFS. In the first instance data are imputed, then reviewed and manually updated with final data if necessary. There are no preliminary data on an annual basis as audited reports are used. Quarterly data is preliminary for some jurisdictions. These are replaced by final data in the subsequent period.

Data are corrected if more accurate data become available. Material differences are recorded as revisions to data are clearly documented as such. Compilation procedures are documented and updated after each processing period.

Quarterly data are never reconciled to the annual data for publication purposes, as the annual data are published 10 months after the end of the financial year. Quarterly data are only published for the current financial year (with the exception of the September quarter where the previous financial year is published). A benchmarking exercise is primarily undertaken for national accounts to reduce discrepancies between annual and quarterly data for the previous three years.

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

Data adjustment and transformations are kept to the minimum due to the close approximation of source data to ABS GFS. Where adjustments to source data are undertaken, they are documented, with significant adjustments being justified during the clearance process.

When data are not available that reasonably approximate underlying concepts and definitions, scope, and recording principles for ABS GFS, procedures used to adjust data may include gathering intelligence from various additional sources including annual reports, historical data, forward budget information, and other government announcements.

Data adjustments and transformations use appropriate techniques when, for example, grossing up, reclassifying, time adjustment, valuation adjustment, data imputations, consolidation adjustments, etc.

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

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

Intermediate results and statistical outputs are regularly assessed and validated against other data. Annual reports, forward budgets and mid-year estimates, as well as government announcements, are compared with source data to ensure a correct representation of GFS. The treatment of specific concepts and data in a consistent manner across the ABS macroeconomic program are also considered by the Quarterly Economic Statistics Tactical Review Committee (QESTRC).

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

Relevant components of the GFS data series are tested against other statistical series, as part of the clearance process. To this effect, data are tested for correlation with data such as those on population and price movements.

GFS data are assessed for internal consistency. Reported financial flow data on nonfinancial and financial assets and liabilities are reconciled with changes in the corresponding stock data. Classification edits are performed as part of regular input editing procedures by ABS GFS compilation staff, and are designed to check the validity of GFS classification codes assigned to flows and stocks. Intrasector edits are also performed in order to identify imbalances in flows and stocks. Aggregate edits are then applied after unit and intrasector edits have been completed and amendments have been made.

Procedures are in place to establish whether any classification/sectorization errors or omissions occurred and any fluctuations in the data due to these are investigated. The Public Finance Research and Development Team investigates issues such as classification/sectorization errors, or changes that may be necessary. Required changes are communicated to the relevant Commonwealth, or State or Territory jurisdiction, and the methodology behind these decisions is clearly documented.

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

Statistical outputs are checked horizontally and vertically to identify and correct any discrepancies. These procedures examine the integration of stocks and flows, and the reasonableness of other economic flows.

Once micro-editing has taken place, aggregation, derivation, consolidation, and estimation processes are undertaken. After errors have been identified and corrected, macro-editing of outputs takes place. This involves examining output to see if it is consistent with expectations based on historical patterns and known economic developments. Values that are not within expected ranges are identified and investigated. A structured process to monitor economic events, reported in the media, is in place. These events are captured in internal GFS briefings which describe the background to the event and the expected impact on GFS data. GFS output is monitored to ensure that these events are adequately captured in the data.



An integral part of the assessment of GFS data is the identification of differences in fiscal data between the source (DoFD and State and Territory Treasuries) and ABS GFS data. These differences are compared and resolved or reconciled through a verification process with the relevant entities. The identification of differences and the reconciliation process are documented and retained as part of clearance documentation for each quarterly and annual GFS reference period.

Public Finance and Local Government Sections do not undertake any comparisons or reconciliations with the data of other countries

A data clearance process is also undertaken for data delivered to national accounts.

### **3.5 Revision studies**

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

Annual GFS are derived from audited administrative records and are therefore not subject to revisions other than minor corrections and adjustments, or revisions to historical data due to changes in methodology, such as the adoption of the *2008 SNA* treatment of Defense Weapon Systems. ABS GFS are mainly revised when the quarterly data for local governments are benchmarked after the final annual data became available. These revisions are mainly done in the context of the national accounts.

Data quality checks identify and investigate the sources of errors, omissions, and fluctuations in the data. Documentation on revisions includes: (a) identification of the main aspects of the source data leading to the revisions; (b) the reasons for the revisions; and (c) the direction and magnitude of the revisions. This documentation is kept as part of the records on the normal clearance pertaining to each reporting period. Significant revisions to previously published data are noted in the release of data for subsequent periods. Findings from the analyses of revisions are used to improve the compilation of ABS GFS.

## **4. Serviceability**

### **4.1 Periodicity and timeliness**

#### *4.1.1 Periodicity follows dissemination standards*

#### **Australia meets the periodicity standards of the SDDS in respect of:**

- Central government operations data are published monthly (by the DoFD).
- General government operations data are published annually by the ABS.

**Australia exceeds the periodicity standards of the SDDS in respect of:**

- Central government debt data, broken down by instrument, currency, and maturity are published monthly (by AOFM), while the standard requires only quarterly dissemination.
- General government data are published quarterly (by the ABS) although quarterly general government data are an encouraged category of data for SDDS purposes.

It should also be noted that Australia exceeds the dissemination standards for central government by the monthly dissemination of a full suite of financial statements for the Commonwealth Government, based on AASB 1049, comprising an income statement, balance sheet, and cash-flow statement.

*4.1.2 Timeliness follows dissemination standards*

**Australia does not fully meet the timeliness standard of the SDDS in respect of:**

- Central government operations data are disseminated four weeks after the end of the reference month, except for June and July. Australia is availing itself of a targeted timeliness flexibility option where a three-month lag is allowed for the last month of the fiscal year and two-month lag for the first month of the new fiscal year, provided quarterly general government data are disseminated with a one-quarter lag in accordance with the SDDS encouraged requirement for the *GFSM 2001*.
- Annual general government operations data are disseminated 10 months after the end of the reference period, while the standard requires dissemination within two quarters after the end of the reference period. (However, quarterly data are disseminated, which exceeds the standard: the sum of quarterly data serve as preliminary annual data within the SDDS timeliness requirement for annual data.)

**Australia exceeds the timeliness standards of the SDDS:**

- Quarterly general government operations data are disseminated two months after the end of the reference period, while the standard encourages dissemination within one quarter after the end of the reference period.
- Monthly central government securities debt data, broken down by instrument, currency, and maturity are published within three weeks after the end of the reference period, while the standard requires dissemination within one quarter after the end of the reference period.

## 4.2 Consistency

### 4.2.1 Statistics are consistent within the dataset

ABS GFS statistics are internally consistent. Concepts, definitions, and classifications are the same for producing annual and subannual GFS. ABS GFS statistics are closely reconciled to data provided in budget documents of all governments, annual reports of nonbudget units, and audited financial statements.

The quarterly GFS data, as published two months after the reference period, do not sum to the annual GFS data published 10 months after the reference period. Quarterly data are only reported for the current fiscal year (with the exception of the September quarter, when data for all quarters of the previous financial year are published). Quarterly data are benchmarked to the annual data primarily for national accounts purposes—although these data are available in the ABS database, the revised data are only disseminated on request.

ABS GFS ensure consistency between stocks and flows is maintained. The ABS publishes a Statement of Stocks and Flows annually. The Commonwealth Government publishes a statement of other economic flows for the general government sector. This statement outlines all revaluations and other volume changes occurring throughout the reference period, and it allows the ABS to disaggregate other economic flows into price and volume effects. These flow data are reconcilable with the changes in the stocks of assets and liabilities.

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

Annual GFS data, compiled using a consistent accruals-based method, are available from 1998-1999 to 2007-2008. Some cash-based GFS data are available as a time series from 1961-1962 to 1997-1998. Although the historical cash series are not published, some data may be available on request.

Detailed data for the latest, finalized fiscal year for general government and for all levels of government are published in the following publications:

- *Government Finance Statistics, Australia* (Cat. no. 5512.0)
- *Taxation Revenue, Australia* (Cat. no. 5506.0).
- *Government Finance Statistics, Education, Australia* (Cat. no. 5518.0)

When significant source data, methodological, or conceptual changes are made to GFS data the historical series are reconstructed back to 1961-1962, where appropriate and possible. For example, in the September 2009 quarter, Defence Weapons Platforms were capitalized in ABS GFS. The ABS has elected to adopt this treatment early in the core accounts to align with the 2008 SNA methodology adopted in the national accounts. The time series were revised accordingly.

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

GFS data are compiled on a *GFSM 2001* basis and are not fully consistent with the national accounts data due to specific differences in concepts and methodology used. However, the reasons for differences are well documented and reconcilable. The main reasons for differences between ABS GFS and the Australian national accounts are:

- The recognition of Commonwealth personal and income taxes in GFS is based on the taxation liability method (TLM) where taxes are recognised the earlier of when an assessment of a tax liability is made, or when a cash payment is received. This method is adopted in GFS as it provides more certainty in the recording of revenue and less possibility of material under- or over-statement. For GST and some other taxes the economic transactions method (ETM) is used. The ETM is used in the Australian national accounts and it records taxation revenue when the associated economic activity has occurred-
- The Australian national accounts estimate includes a measure of consumption of fixed capital that is an economic measure based on the expected economic life of an asset and current replacement costs, whereas the GFS estimate includes a measure of depreciation that is based on the Australian Accounting Standards.
- The Australian national accounts use FISIM to measure the service provided by financial intermediaries while GFS records interest payments and receipts.
- The Australian national accounts estimates include capitalized expenditure for selected intangible nonfinancial assets whereas, in the GFS estimates, some of this may be recorded as operating expenses.
- A major change in the *2008 SNA* is the recognition of expenditure on Research and Development (R&D) as capital formation. The ABS implemented this change in the Australian System of National Accounts in September 2009. This change will be reflected in ABS GFS after the *GFSM 2001* has been updated.
- Balancing adjustments related to economic indicators are made to the national accounts while the ABS GFS are based on administrative records.

In the ABS GFS, data on transactions with nonresidents are not available from GFS source data, so it is not possible to check consistency or reconcile with Balance of Payments data. There is some information sharing between the two areas for individual external transactions if these are significant (e.g., debt forgiveness). Similarly, ABS GFS do not identify financing transactions with the bank and nonbank sectors separately so that consistency and reconciliation with monetary data is not possible.

### **4.3 Revision policy and practice**

#### *4.3.1 Revisions follow a regular and transparent schedule*

Revisions are made to the quarterly GFS data for the current financial year as required. These usually result from new and/or updated source information. Quarterly data for quarters of previous financial years are replaced with data, benchmarked to the final annual data for national accounts purposes. These revised data are not published, but are available from the database on request.

Final data are published in *Government Finance Statistics, Australia* (Cat. no. 5512.0) approximately 10 months after the reference period. Annual GFS data may be subject to minor revision in subsequent years.

#### *4.3.2 Preliminary and/or revised data are clearly identified*

Preliminary annual GFS data are not published in Australia as audited reports are considered final data. Should some annual data revisions occur, a note to the effect will appear with the revised data. Some quarterly data may be preliminary (e.g., based on estimates). There is a general note in the publication that revisions are made to the quarterly GFS data each quarter as required, as a result of new and updated information available from jurisdictions.

Revised data are generally footnoted in the ABS publication where these are significant. For instance, in 2008-2009 a historical review of New South Wales GFS has been undertaken, and will be identified as such in the publication

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

The ABS has not undertaken any studies of revisions to GFS data.

## **5. Accessibility**

### **5.1 Data accessibility**

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

ABS GFS are disseminated in millions of Australian dollars, covering all levels of Australian Governments, and are presented for subsectors and consolidated for the general government of each jurisdiction, general government for all levels of government, and the total public sector. GFS are disseminated on a quarterly and annual basis. Annual data are presented for both the current reference period and as a 10-year time series. The quarterly publication time series is for the current financial year only. It shows the current reference period for Australia, the Commonwealth, and total Australian State and Territory and Local Governments. In addition, data for individual States and Territories, and Local Government for each State are published with a one-quarter lag.

Monthly financial statements for the Commonwealth, and debt data are released for each period. Although these data are not presented in a time series, comparable data are available to the public in previous publications. Historical data are also available from archived documents on the website. These data present the outcome of the reporting period, cumulative amounts for the fiscal year, compared with estimates for the year and an annual profile of outcomes.

Australia's fiscal year is from July 1 to June 30. All publications advise users of any changes or developments that affect the data. Depending on the nature of the change, forewarning in preceding publications is given.

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

This ABS website gives free access to several publications related to ABS GFS data. These publications are:

- Quarterly publication:**

  - *Government Finance Statistics* (Cat. no. 5519.0.55.001)
- Annual publications:**

  - *Government Financial Estimates, Australia* (Cat. no. 5501.0.55.001)
  - *Government Finance Statistics, Australia* (Cat. no. 5512.0)
  - *Taxation Revenue, Australia* (Cat. no. 5506.0)
  - *Government Finance Statistics, Education, Australia* (Cat. no. 5518.0.55.001)

Longer time series are available on request and incur a fee.

Commonwealth financial statements and debt are disseminated on the website of the DoFD and AOFM. These data are presented in several monthly/quarterly and annual reports.

### 5.1.3 *Statistics are released on a preannounced schedule*

Each quarterly issue of *Government Finance Statistics, Australia, Quarterly* (Cat. no. 5519.0.55.001) includes specific dates for release of data for the two following quarterly issues.

The release calendar on the ABS website shows the expected release dates for the next six months. Publications listed are usually released in accordance with the advertised release dates, although in some circumstances release dates may change. Any changes will be advertised on the ABS website. (<http://www.abs.gov.au>).

For central government operations, the monthly media release *Australian Government Monthly Financial Statements*, includes a notice informing the public that upcoming release

dates are disseminated on the International Monetary Fund's Dissemination Standards Bulletin Board (DSBB). Similarly, the quarterly Treasury publication *Economic Roundup* includes a notice informing the public that the approximate release date for the Commonwealth debt data are disseminated on the DSBB. However, adherence to the release dates is not always punctual, due to changes that may occur as a result of the internal clearance procedure of the financial statements.

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

The ABS GFS data are released simultaneously to all interested parties on the ABS website through the publications listed above under 5.1.2:

To ensure impartiality, the ABS releases its statistics by means of an embargo system which involves setting a time prior to which no statistics from a collection are released but after which the statistics are available to everybody. The standard release time is 11:30 a.m. (Canberra time), and this embargo is printed on the publications.

Commonwealth financial statements and debt data are disseminated on the respective websites of the DoFD and AOFM. Data are released to all parties simultaneously after the publications were cleared by the respective authorities.

#### *5.1.5 Statistics not routinely disseminated are made available upon request*

Some ABS GFS data are available on request, back to 1961-62. Prior to 1998-99, however, GFS were compiled on a cash rather than accrual basis. Users are advised that the move to an accrual basis of recording required a change in data sources and methodologies for some jurisdictions. The historical data are only released with caveats due to this. All publications advertise the existence of unpublished data, if it exists and state the contact person, phone number, and email address of relevant officers in the Public Finance Section. Detailed queries on Local Government data, which are available on request, are referred to the Local Government Section.

The Commonwealth financial statements and debt data, compiled under the *Financial Management and Accountability Act, 1997* and the *Commonwealth Authorities and Companies Act, 1997*, are released either on a monthly or annual basis to the public. The data provided by individual reporters is held in confidence and not released on an individual basis.

## **5.2 Metadata accessibility**

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

For ABS GFS, a comprehensive *Concepts, Sources and Methods* document is published and updated after changes are applied to ABS data compilation practices. The document describes in detail the following:

- Information on concepts, definitions, classifications, data sources, compilation methods, statistical techniques, and other relevant methodological aspects and procedures;
- Departures from internationally accepted standards, guidelines, or good practices;
- Information on survey sources, such as survey characteristics (response rates, survey monitoring, and studies of nonsampling errors) and other survey features (method, sample frame, sample design, and selection, estimation and imputation techniques, etc.), and on the nature of administrative data sources; and main linkages with related major data systems.

The only *2008 SNA* change that has been implemented in ABS GFS is the capitalization of Defense Weapons Platforms. The ABS GFS metadata will be updated for this change and will be comprehensively reviewed after changes arising from the broader revisions to *GFSM 2001* have been implemented. Information on *2008 SNA* can be obtained from the information paper *Implementation of new international statistical standards in ABS National and International Accounts* (Cat. no. 5310.0.55.002).

The SDDS metadata, SDDS summary methodologies, and other related descriptions are reviewed and updated regularly. The metadata are readily accessible from the website of the ABS and their availability is cross referenced in data releases, and in catalogs of publications.

Additional information on methodology is also available from other ABS publications on sectorization, running surveys, technical notes, and research documents. In addition, details of methodology and sources are released in explanatory notes with each data publication.

In addition to the metadata on the statistical system, metadata on the accounting and budgetary system that underlies the financial statements are also widely available. The adoption of the accounting standard for the general government sector (AASB 1049) was widely publicized and descriptions on the adoption of accrual accounting and the reporting framework of Commonwealth finances are available from the websites of the DoFD and AOFM. These documents contain a glossary of terms and information on accounting rules, classifications, etc.

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

While metadata are fully explained and allows a high degree of transparency with regards to compilation practices, these metadata are highly technical and may in some cases be too complex for the nontechnical user. A summary of information adapted to needs of the nontechnical users may be helpful.



### 5.3 *Assistance to users*

#### 5.3.1 *Contact points for each subject field are publicized*

The Public Finance Section in the ABS has dedicated staff who are client contact officers as part of their duties. They provide assistance to users requiring unpublished data and advice as to its use and concepts. These officers' email addresses and telephone numbers, as well as the email of the Public Finance Section, are advertised in all GFS publications. In addition, the contact details of the ABS' National Information Referral Section are provided in all publications.

For publications on the Commonwealth financial statements and debt data, the name and telephone number of contact points are disseminated in published statements. The websites of the DoFD and AOFM also have a central contact point for queries.

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

The catalog of ABS publications can be accessed, using publication date, topic, catalog number, or title of publication. Any changes to release dates and availability of data will be advertised on the ABS website. It is widely advertised that all electronic publications are available free of charge. When unpublished data is requested by a user, a quote for the cost of the service is dispatched and work does not commence until the user accepts the quote. Some hard-copy publications are available for a fee.

For the Commonwealth financial statements and debt data, lists of publications are included in their respective websites. Historical publications can be acquired from the respective electronic archives. All data are considered public information and are therefore available free of charge.

Table 4. Data Quality Assessment Framework (July 2003): Summary of Results for Government Finance Statistics  
(Compiling Agencies: Australian Bureau of Statistics and Ministry of Finance)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Resource strains have been imposed on the ABS by changing to new standards and coping with the global financial crisis. There has been a significant loss of expertise.
0.2 Resources			X			
0.3 Relevance		X				
0.4 Other quality management		X				
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				Some components of statements are incomplete since stocks and flows of financial assets and liabilities are not split between domestic/foreign and bank/nonbank in the ABS's GFS system. However, these splits are published in the Financial Accounts, Australian National Accounts (Cat. No. 5232.0) for the national government and State and local governments.
2.2 Scope			X			
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and reliability</b>						
3.1 Source data		X				
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				

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Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness			X			Targeted flexibility options for monthly central government data—annual general government data only available 10 months after the reference period. Published quarterly data do not add to annual because benchmarked data are not published. Consistency with BOP and monetary statistics cannot be checked, while well-known documented differences with national accounts exist.
4.2 Consistency			X			
4.3 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

## Recommendations

- Extend the transactional coverage of GFS to include a breakdown of domestic/foreign and bank/nonbank stocks and flows of financial assets and liabilities, available in the quarterly financial accounts dataset.
- Improve the timeliness of the monthly GFS data (General Government Operations) dissemination so as to eliminate the need for the targeted flexibility option.
- Review deviations from *GFSM 2001*, and consider adopting the classifications and concepts fully so as to further increase consistency with other macroeconomic datasets and attain international comparability.
- Consider the costs and benefits of additional work to redisseminate quarterly data for general government after benchmarking so as to attain a publicly disseminated quarterly time series consistent with annual data.
- Consider measures to ensure that resources are commensurate with ambitious work plans.
- Ensure succession planning so as to eliminate constraints resulting from high staff turnover.
- Investigate the quantitative impact of differences in methodology used in GFS and national accounts, so as to inform compilers and users of the materiality of these differences.
- Continue with efforts to ensure that all State and local government source data are received timely enough for use in GFS and national accounts compilation.
- Examine the possibility to improve the clearance process for monthly data, so as to ensure that these data are disseminated punctually in accordance with the advance release calendars.
- Consider the dissemination of metadata, adapted to the various levels of needs of a range of audiences.

## V. MONETARY STATISTICS

### 0. Prerequisites of Quality

#### 0.1 *Legal and institutional environment*

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

The role and functions of the RBA are underpinned by various pieces of legislation. The RBA is a statutory authority, established by an *Act* of Parliament, the *Reserve Bank Act, 1959*, which gives its specific powers and obligations. As an independent central bank, the RBA is accountable to the Parliament for its actions. The *Reserve Bank Act, 1959* stipulates conditions under which the RBA has to consult with the Australian Government. The *Commonwealth Authorities and Companies Act, 1997* requires the Reserve Bank Board to prepare an annual report, for presentation to the Treasurer and tabling in Parliament (usually in September of each year).

Section 11 of the *Reserve Bank Act, 1959* requires the Reserve Bank Board to inform the Australian Government from time to time of the Reserve Bank's monetary and banking policy. This occurs largely through frequent formal and informal contacts between the Governor and the Treasurer.

Section 13 of *Reserve Bank Act, 1959* also directs that “the Governor and the Secretary to the Department of the Treasury shall establish a close liaison with each other and shall keep each other fully informed on all matters which jointly concern the Bank and the Department of the Treasury.”

The Governor and Deputy Governor are appointed by the Treasurer for terms of up to seven years, and are eligible for reappointment.

The RBA has two boards: these are the Reserve Bank Board, which has responsibility for monetary policy and financial stability, and the Payments System Board, which has responsibility for matters relating to the payments system.

The Reserve Bank Board comprises nine members: three *ex officio* members—the Governor (who is Chairman), the Deputy Governor (who is Deputy Chairman) and the Secretary to the Treasury—and six external members, who are appointed by the Treasurer for terms of up to five years. A list of previous and current members of the Reserve Bank Board is also published on the RBA website.

In terms of Section 17(1) of the *Reserve Bank Act*, members of the Board may not be a director, officer, or employee of an authorized deposit-taking institution for the purposes of the *Banking Act, 1959*.

The Australian Prudential Regulation Authority (APRA) has responsibility, under the *Australian Prudential Regulation Authority Act, 1998 (APRA Act)*, for the prudential supervision of the financial sector. The *Financial Sector (Collection of Data) Act, 2001*

provides it with authority to collect data from the sector. The Reserve Bank of Australia (RBA) compiles and disseminates monetary statistics. The *Reserve Bank of Australia Act, 1959 (RBAA)* does not include a specific mandate for the dissemination of official monetary statistics for Australia, although the RBA has performed this role for many years. A Memorandum of Understanding (MOU), 1998 between the RBA and APRA sets out respective responsibilities of the two agencies, and mandates the sharing of information pursuant to their objectives. It notes, in paragraph 6, that “APRA gathers a wide range of prudential data on the institutions which it supervises” and in paragraph 7 that “information available to one which is relevant to the responsibilities of the other will be shared as requested.”

A team in place at APRA is responsible for the collection and preparation of balance sheet data, and for their efficient transfer through a secured data feed, to the RBA. There is a team in place at the RBA which has the explicit responsibility for compiling the monetary statistics, as well as a team responsible for the dissemination of the statistics to the public.

There are procedures in place that allow both APRA and the RBA to inspect the data carefully. During this process, institutions are often called upon to validate their data. Under the *1998 MOU* a joint Co-ordination Committee was established to facilitate close cooperation between the RBA and APRA. Among other tasks the Committee is tasked to handle operational matters such as statistical collections, joint research work, and participation in international fora. The Committee is mandated to be chaired by the Assistant Governor (Financial Systems) of the RBA and meet at least monthly.

In line with the *Freedom of Information Act, 1982*, the monetary statistics, at an aggregated level, are provided by the RBA to the public with no impairment to the data production. To maintain privacy (as set out in the *Australian Prudential Regulation Authority Act, 1998*, the *Reserve Bank Act, 1959*, and the *Banking Act, 1959*), data relating to individual institutions are not published by the RBA but are provided to the RBA from APRA in accordance with the *Australian Prudential Regulation Authority Act, 1998*.

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

All registered institutions are required to submit data to APRA according to a fixed timeline, and these data are then provided to the RBA in a timely manner. On the 10<sup>th</sup> business working day of each month, authorized deposit-taking institutions (banks, building societies, and credit unions) and registered financial corporations are required to submit to APRA a snapshot of their balance sheet as at the end of the previous month. Timetables regarding this process are provided to all parties concerned, and any potential issues with adhering to this timetable are required to be acknowledged immediately.

Contact is maintained by the RBA with the teams at APRA, who are responsible for collecting the balance-sheet data and providing these to the RBA, and the ABS, who are responsible for providing several additional data items that form part of the monetary statistics compilation process. Electronic contact is maintained continually throughout the

month to inform of developments and amendments concerning various stages of the process as well as to raise any data query concerns promptly. There are also periodic face-to-face meetings between members of these three agencies (usually every six months).

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

The RBA's legal obligations in relation to the confidentiality of financial institutions' information are set out in Section 79A of the *Reserve Bank Act, 1959*. Clause 1 defines the meaning of terms used in the rest of the Section, such as "financial institution," "officer," "protected document," and "protected information." Clause 2 deals with the confidentiality of the protected documents and protected information and the penalties for failure to abide by the law. Clauses 3-10 set out the circumstances under which certain protected information and documents may be released and on whose authority. Clause 9 stipulates that the protected documents and documents containing protected information are exempt documents for the purposes of Section 38 of the *Freedom of Information Act, 1982*.

APRA publishes instructions and requirements for the respondents to follow along with the reporting forms.

The RBA's *Code of Conduct* outlines strict guidelines for all staff members regarding access to, and handling of, confidential or sensitive information. In addition, individual and financial corporation behavior is regulated according to the *Corporations Act, 2001* and the *Crimes Act, 1914*.

Individual data records are only viewable by staff requiring the information for statistical duties. Access to the database and electronic communication requires manager approval and access lists are reviewed regularly.

The RBA publishes monetary statistics at an aggregate level, whereby no information for individual institutions could be inferred. The most specific data are presented according to an institutional division between: banks, credit unions, building societies, money-market corporations or finance companies, and general financiers.

Data are guarded by strict access controls, and by locked filing systems for any hard-copy data. Hard copies are shredded as soon as possible, and access to electronic data is contained to staff with appropriate security access.

Security of both the premises and the computer systems is a very high priority at the RBA and all systems are well protected from unauthorized access to data.

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

The *Australian Prudential Regulation Authority Act, 1998 (APRA Act)* provides APRA with the legal authority to provide protected data collected under the *Financial Sector*

*(Collection of Data) Act, 2001* to the RBA. The Australian Securities and Investment Commission (ASIC) has the legal authority to inspect member corporations to validate data and ensure reporting standards are being adhered to under the *Australian Securities and Investment Commission Act, 2001*.

The RBA follows all guidelines outlined in the aforementioned regulatory documents.

Reporting by financial institutions to APRA is mandatory. Institutions failing to report can incur a penalty (of 50 penalty points, i.e., \$5,500 for each day a submission is late) according to the *Financial Sector (Collection of Data) Act, 2001*.

Both APRA and the RBA consider the response burden on respondents when collecting data from financial institutions. All parties involved are advised of processes that impose a large burden and these are intended to be minimized as far as possible. The *1998 MOU* requires, paragraph 9, that APRA and the RBA work together to avoid duplication in the collection of information so as to minimize the reporting burden on financial institutions.

APRA acts as an intermediary between the individual financial institutions and the RBA, and respondents are required to contact staff at APRA for assistance. APRA takes steps to maintain a pleasant working relationship with the data providers. The RBA places high importance on the concerns and requests of APRA and all other data providers. It tries to meet requests for additional nonconfidential data, but is mindful also of the burden of meeting such request on its staff.

## **0.2 Resources**

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

The current staff number is adequate, and changing needs are addressed on a regular basis. At present, 2.5 full-time staff are employed at the RBA to compile the monetary statistics and other financial aggregates. Additional resources are allocated to the database administration work.

Significant training is given to new staff, and reliable high-quality consultation is available at all times from staff who previously performed the tasks.

Scheduled turnover of staff is managed to ensure that suitable staff are utilized and that an abundance of advice is available for new staff members. Senior members of the team experience a slower rate of turnover.

Salary levels are competitive; wage increases are matched to general industry trends and are indexed to price level developments.

Sufficient computer resources are available in the RBA, with each individual team member having full-time access to a personal computer, printer, and Internet email access (for communicating with APRA and ABS).



The RBA uses in-house software built on the commercial software products of SQL server 2000 and Visual Basic 6. APRA electronically delivers data into an RBA storage database, and further data processing and analysis are performed using Excel spreadsheets. This software is effective in capturing all of the required information and clearly displaying missing information. The database is updated several times per business day to ensure all data are accurate and up to date.

Multiple back-up systems are in place across the RBA. These include real-time back-up systems within the network, emergency power generators, and an off-site location (Business Resumption Site) where all the operations of the building are fully transferable in the event of the Head Office building being inaccessible (these facilities are tested regularly to ensure all processes are completely functional).

The RBA head office and all related RBA sites (Business Resumption Site and State Offices) have good facilities. The RBA facilities are well lit and equipped with good air conditioning. Facilities are easily accessible to all users including those with disabilities.

Funding for the monetary statistics program is adequate and secure. Budgetary meetings are performed regularly to reassess the funding and staffing requirements within the RBA.

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

The RBA has an annual formal performance management program. At the beginning of each appraisal year a performance planning discussion with supervisors is conducted, and there are formal mid-term and end-term reviews which include an assessment of work skills. The RBA has formal arrangements for managing staff whose performance is identified as below acceptable standards.

Periodic reviews of work processes are encouraged throughout the RBA by all levels of staff so as to ensure accuracy, timeliness, and clarity across all tasks performed.

RBA staff attend local and international conferences as a means to obtain outside expert assistance. The RBA also encourages visits from academics, providing valuable input into research papers. The annual *RBA Conference* and *Economic Research Workshops* also encourage expert assistance from the wider community. However, none of the RBA staff currently involved in the compilation of monetary statistics has attended the Monetary and Financial Statistics course offered by the IMF.

Resources used to compile the statistics are routinely assessed (at least once a year) and evaluated against alternatives. Budgeting analysis is a useful tool for assessing the requirement and allocation of resources.

### **0.3    *Relevance***

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

Data users have access to information on developments and changes to the statistics via announcements on the RBA website (included with the statistical tables). The statistics are in a user-friendly manner, freely accessible online from the RBA website, through which the usefulness, level of detail, timeliness, and periodicity are clearly identified. The online statistical tables have notes attached that provide users with all the necessary information that they require to adequately analyze the data that the RBA produces. Feedback is encouraged through publicized communication channels (such as the RBA media office).

The RBA meets with APRA and the ABS on a six-monthly basis to discuss data collection and respondent burden issues. The RBA is in regular contact with industry groups and companies gaining users feedback and information on economic conditions. The RBA does not carry out users' surveys beyond the circle of its correspondents in the financial sector to identify the needs of academics, national and international media, etc.

The RBA is actively involved in attending international conferences to maintain international relevance with its statistics. The RBA maintains close relations with APRA and the ABS, and attends conferences, workshops, and meetings organized by those agencies on a regular basis.

The RBA is actively involved in identifying potential new data requirements and evolving to meet the changing needs of data users.

### **0.4    *Other quality management***

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

All RBA staff are aware of the agency's determination to achieve the highest level of quality in all tasks. The importance of quality is repeatedly emphasized, and managers are accountable for achieving quality. Quality is encouraged through training and development, as well as through frequent quality evaluations by management. Internal audits are regularly undertaken to verify quality standards.

The RBA is the sole provider of Australian monetary statistics and as such benefits from access to a complete dataset of information (e.g., stock-and-flow data comparisons for individual institutions are performed regularly to ensure data consistency). A query generation system is used to automatically identify unusual data movements which are provided to APRA for follow-up validation by the financial institution. Many statistical series released by the RBA are related and are often generated as a result of the construction of related or component statistical series.

The RBA follows the international standards outlined in the IMF *Monetary and Financial Statistics Manual, 2000* and the *Monetary and Financial Statistics: Compilation Guide, 2008* as closely as practically possible.

The public is assured of the RBA's commitment to quality through regular publications. These include the annual Reserve Bank Board *Report*, quarterly *Statement on Monetary Policy*, quarterly *Bulletin*, public addresses and conferences as well as published research undertaken by RBA staff—all of which are easily accessible via the RBA website ([publications page](#)).

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

The RBA is committed to ensuring quality in the published monetary statistics and as such, internal monitoring and evaluations of revisions and timeliness are constantly in progress by various levels of management. If the reporting financial institutions identify errors within their dataset, or implement changes in methodology, the RBA requires the reporting institution to submit an evaluation of the historical revisions to ensure that this error or methodological change has not introduced any inaccuracies into the time series.

APRA provides instructions and expert guidance to the financial institutions to ensure a common understanding of the data requirements of each form. The RBA consults with APRA to ensure that it fully understands the presentation of the statistics, and thus that the data can be represented accurately.

Quality is constantly being reviewed. The RBA regularly considers ways to ensure the quality of the data is maintained. The RBA encourages staff to highlight potential areas for quality improvements, and addressing these concerns is a high priority. APRA, the RBA, and the ABS meet on a six-monthly basis and quality assurance, is a topic that is regularly addressed.

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

Quality improvements identified during the ongoing monitoring process are explicitly addressed and given high priority when planning the work program. Those requiring additional resources, if identified, would be met as best as possible, and the actions taken in such cases would be documented and presented for further evaluation.

### **1. Assurances of Integrity**

#### ***1.1 Professionalism***

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

There is a *Code of Conduct* for RBA board members. The Governor and Deputy Governor of the RBA, as well as the staff, shall adhere not only to this code but also to the RBA staff *Code of Conduct*.

Recruitment to the RBA is subject to the provisions of the *Reserve Bank Act, 1959* – Part VII and regulations made under the *Act* and other relevant Commonwealth and State legislation. Recruitment processes are open and fair. The RBA is committed to equal opportunity in employment with recruitment and selection decisions based solely on the relative strengths of the applicants.

Most staff in the RBA Economic Group, where in particular monetary statistics are compiled, are university graduates in economics. Staff are often recruited through the RBA Cadet and Graduate Development Program.

Extensive on-the-job training is provided to new staff when they join the team. The desk manual outlining the procedures for compiling the monetary statistics is regularly kept up to date.

The RBA is a professional organization noted for its high standard of behavior. The RBA *Code of Conduct* promotes staff honesty and integrity in all dealings.

The RBA seeks to enhance the community's understanding of its responsibilities and its monetary policies through a broad communications program. The primary vehicles are its quarterly *Bulletin*, quarterly *Statement on Monetary Policy*, semi-annual appearances of the Governor before a Parliamentary Committee, and the half-yearly *Financial Stability Review*. Speeches and presentations are other avenues through which the Bank explains its views to the community. All of these publications and speeches are easily accessible on the RBA website.

Staff contributions to these papers and speeches are recognized. For example, a recent speech by the Deputy Governor recognizes the staff contributions in the endnotes of *Mining Booms and Australian Economy*; an article published in the *Bulletin* recognizes the authors in the footnotes of *Measuring Credit*.

Research and analysis are regularly reviewed by peers within the RBA. Staff are encouraged to seek feedback from other staff within their team and the rest of the RBA.

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

The compilation process for monetary statistics does not rely on advanced statistical techniques but more on comprehensive accounting data for all transactions performed by each depository corporation.

Source data on depository corporations other than the central bank are collected by APRA. The data collection forms are designed by APRA with consultation from the ABS and the RBA.

The central bank survey, other depository corporations survey, and depository corporations survey constituting monetary statistics are disseminated without manipulation of source data once thoroughly verified and duly validated.

Monetary statistics are disseminated according to a predetermined publication schedule available on the RBA website.

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

The RBA has a media policy available to all staff on the internal RBA intranet. According to this media policy, only senior staff authorized to speak to the media can offer comments when solicited from outside inquirers.

All statistical enquiries deposited via the website are directed to the RBA Media Office, which in turn forwards the enquiry to the appropriate subject matter expert for follow up.

The monitoring of RBA media coverage in the print, wire, and broadcast forum is done directly by staff within the RBA Information Department and by a paid media service.

Misuse of data or erroneous interpretations in the media are rare, and on occasion, a senior member of the Bank's staff has had follow-up discussions with the relevant journalist.

There has never been a situation where the RBA has felt necessary to request a retraction from the media.

**1.2 Transparency**

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

All legal documents constituting the framework for RBA statistical activities are accessible on the RBA website.

Statistics compiled by the RBA are no longer published in hard copy in the monthly *Bulletin*, as the RBA moved to electronic dissemination in January 2010. The new quarterly *Bulletin* published in hard copy includes a series of articles illustrated with tables and charts, where the data sources are mentioned. Thus, the public is able to visit the relevant source data-producing agency website for further information and historical data.

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

A bi-weekly briefing is prepared for the Treasury providing comments on recent credit developments. In some cases such comments are conducted on unpublished preliminary estimates. This prior access is generally known.

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

Data produced by the RBA are mainly disseminated via its website in Excel spreadsheets, and each data column has the data source clearly labeled.

Under the Section “Copyright,” the RBA website has the statement:

“You may download, display, print, or reproduce material on this website in unaltered form for your personal, noncommercial use or within your organization, with proper attribution given to the RBA. Other than for any use permitted under the *Copyright Act, 1968*, all other rights are reserved.”

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“Requests for any further authorization in regard to the use of information on this site should be addressed to the Media Office.”

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

All methodological changes are announced prior to their release in the RBA *Bulletin* and in the statistics media release as they occur, e.g., *Revisions to Housing Credit Growth* in July 2005.

## **1.3 Ethical standards**

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

The RBA *Code of Conduct* outlines strict guidelines for all staff members regarding correct behavior. The primary requirement of staff is honesty and integrity in all dealings. Staff who deal with the public should do so openly and fairly; they should show no favor towards friends or relatives, or in other ways misuse their position as Bank officers.

Staff should not gain benefit from privileged information they possess as a result of their employment at the Bank. Staff who are involved, directly or indirectly, in the Bank’s dealings of a regulatory, professional, or commercial nature with a firm, should not transact in shares or other obligations of that firm at any time when it could reasonably be

expected that the value of such assets would be sensitive to the public release of information known to the staff member.

The Bank expects every staff member to observe high standards of ethical behavior and professional conduct at all times. Therefore, while staff are generally permitted to manage their own personal financial affairs as they see fit, they are to take care to avoid conflicts between their private interests and their duty to the Bank and take special care in their personal dealings in financial instruments.

New staff are made aware of the RBA *Code of Conduct* when recruited. At least annually, the Bank circulates the policy to staff and asks that it be read and understood. In particular, the *Code of Conduct* is encapsulated in the form used as a support for the discussion of the goals during the annual Performance Appraisal cycle. The form is signed by the staff who thereby acknowledge their awareness of the Code.

Failure to follow the *Code of Conduct* can lead to disciplinary action, including the possibility of dismissal; in certain circumstances it may also lead to civil or criminal penalties in accordance with the corporations' law or regulatory rules applicable in various jurisdictions.

## **2. Methodological Soundness**

### **2.1 Concepts and definitions**

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

The RBA has a long-standing practice of publishing monthly measures of the supply of money and credit, referred to on the RBA website as *Financial Aggregates*. They include:

- Monetary aggregates of currency on issue, current deposits with banks, other deposits of the private nonbank sector with banks, and borrowings from the private sector by nonbank depository corporations; and
- Credit (loans, advances, and bills discounted) to the private nonfinancial sector (and public trading enterprises) by all financial intermediaries.

In addition, the RBA recently made the move towards the adoption of the IMF's *Monetary and Financial Statistics Manual, 2000* for the compilation of its monetary statistics and implemented the underlying standardized report forms developed by the IMF. As a result, the monetary statistics are now posted on the RBA website—under the headings “Statistics/ Money and Credit Statistics/Monetary Statistics (IMF Framework)” in formats that allow for easy international comparisons. The structure of concepts and definitions is consistent with the principles outlined in the *MFSM 2000*.

The process of compilation of the monetary statistics by the RBA includes:

- A central bank survey based on a comprehensive central bank balance sheet that covers all of the accounts of the central bank;
- A survey for depository corporations other than the central bank (called Authorized Deposit-taking Institutions survey), that covers all of the items in the balance sheets of banks, credit unions, and building societies. Data from money-market corporations and cash management trusts are not included;
- A (total) depository corporations survey that is a consolidation of the central bank survey and the other depository corporations survey. This survey presents the money supply and its counterparts.

At this stage, the monetary statistics compiled by the RBA do not include a sub-sectoral survey of financial corporations other than depository corporations.

In the depository corporations survey the main aggregates are as follows: broad money aggregate and its sources, that are net foreign assets, net claims on the central government, credit to the domestic economy (nonfinancial corporations, State and local general government, households, financial corporations other than depository corporations), nonmonetary resources and capital accounts of the depository corporations, other items net, and adjustment for central bank and other depository corporations positions (ODCs) discrepancy.

## **2.2 Scope**

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

The depository corporations survey covers the central bank, 57 banks, 11 building societies, and 109 credit unions as of end-March 2010.

Money-market corporations and cash management trusts are not included in the depository corporations survey at this stage, although the shares they issue are fulfilling the most common definition of broad money. The RBA, however, includes data on money-market corporations and cash management trusts in some of the data series posted on its website under “Financial Aggregates.”

Some of the financial positions with the IMF are recorded in the central bank balance sheet (SDR holdings and IMF accounts 1 and 2) and some are recorded in the Treasury books (subscription to the IMF, SDR allocation, and loans to the IMF).

Data for the central bank cover all transactions for the headquarters, the four State offices, and the Canberra branch within Australia.

For banks, credit unions, and building societies, the balance sheets used as source data for the compilation of monetary statistics relate to the domestically conducted transactions



with residents and nonresidents. Transactions conducted by overseas branches and subsidiaries of banks are not included.

### **2.3 Classification/sectorization**

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

Reporting forms are developed by APRA in consultation with the ABS and the RBA. The sector definitions embodied in the reporting forms reflect very precisely the sectorization in the *1993 SNA*.

The very detailed sector definitions provided in the *APRA Instructions Guide* (for example, the *APRA ARF320.0 Statement of Financial Position* pages 7 through 15) are almost a complete copy of those in the *1993 SNA*.

In the *APRA Instructions Guide*, delineation between resident and rest of the world/nonresident is as follows: the rest-of-the-world sector consists of all nonresident units that enter into transactions, or have other economic links, with Australian resident units. The concept of residence is one based on the economic territory of a country rather than legal or political concepts. A nonresident unit is any individual, enterprise, or other organization ordinarily domiciled in a country other than Australia.

In particular, the following are considered as rest of the world/nonresident:

- Foreign branches and foreign subsidiaries of Australian enterprises; and
- Residents of Norfolk Island and other external territories of Australia.

Australian branches and subsidiaries of a nonresident corporation are resident.

Resident units of the economy are grouped into the following mutually exclusive institutional sectors and sub-sectors as shown in the *MFSM 2000*:

- Financial corporations (central bank, other depository corporations, other financial corporations);
- Nonfinancial corporations (public nonfinancial corporations, other nonfinancial corporations);
- General government (central government, State government, local government, social security funds);
- Households; and
- Nonprofit institutions servicing households.

The classification scheme for financial instruments is based on the liquidity of financial instruments and the legal characteristics that describe the form of the underlying creditor/debtor relationship as specified in the *MFSM 2000*. The scheme includes the following groups: monetary gold and SDRs, currency and deposits, securities other than shares, loans, shares and other equities, insurance technical reserves, financial derivatives, and other accounts receivable/payable.

The very detailed classification of financial and nonfinancial assets is provided in the *APRA Instructions Guide* (for example, the APRA ARF320.0 *Statement of Financial Position* pages 16 through 75):

At the one-digit asset level: cash and liquid assets; trading securities; investment securities; acceptances of customers, loans and advances; other investments; fixed assets; intangible assets; other assets; and memorandum asset items.

At the one-digit liabilities level: due to clearing houses; due to financial institutions; acceptances; deposits; other borrowings; income tax liability; provisions; bonds; notes and long-term borrowings; creditors and other liabilities; loan capital and hybrid securities; memorandum liabilities items; and shareholder equity.

Refinancing by the central bank to the banks is in the form of repurchase agreements. The securities or other bills that are used in the transaction actually remain in the books of the commercial bank. The central bank records the repo as a loan of cash rather than an outright purchase of securities.

For banks, the guidelines for recording of securities repurchase agreements (repos) are spelled out in *APRA ARF 320.0 Statement of Financial Position* (Domestic Books) in item code BSL10640. This is in accordance with the instructions provided by APRA for submitting this reporting form on page 60 of the *APRA Instructions Guide*:

“5.1 Securities sold under agreements to repurchase

Where the transferee of the stock effectively receives a lenders rate of return (i.e., the underlying risks and rewards of ownership of the underlying stock is not effectively transferred), these transactions are to be accounted for as collateralized lending activities (treating stock lending as on balance sheet exposures). Securities sold under agreements to repurchase, represents the payable due to counterparties with whom the stock has been lent and from whom cash has been lodged. Under this method of accounting the banks physical stock positions recorded on the balance sheet in either Trading Securities or Investment Securities Sections is not affected.”

In addition, credit unions and building societies (CUBS) report through a similar form—*APRA ARF 323.0 Statement of Financial Position* (Licensed ADI) in item code BSL 10640 which is on the liabilities side of the balance sheet. The instructions provided by APRA for the CUBS coincide with the information provided to Banks detailed above.

Securities repurchase agreements are also reported on the asset side of the balance sheet, under “Trading Securities” for banks and CUBS. This however does not include the amount payable due to counterparties with whom the stock has been lent or sold or from

whom cash has been lodged as it is recorded in Securities sold under agreements to repurchase.

More detail about these reporting arrangements is provided in the instruction manuals provided by APRA for banks and CUBS.

## **2.4 Basis for recording**

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

Financial assets are valued according to their classification under AASB 139 which entails that market or fair value is not applied to all financial assets. Those assets that are classified under “held for trading and available-for-sale” and derivatives are measured at fair value, or at market price for assets which have liquid markets. Assets which are classified as loans and receivable and held to maturity are valued at amortized cost. Hence it is possible to have a readily marketable debt instrument which is classified as held to maturity being valued at amortized cost rather than the market price.

Monetary gold is valued at market prices in the central bank accounts.

Loans are valued at current book value (outstanding principal amount at its original cost plus any accrued interest) without adjustment for expected loan losses arising from anticipated defaults by borrowers. The data on loan-loss provisions are recorded under a separate item in the depository corporations balance sheets.

Shares and other equity on the asset side of the balance sheet are valued as provided for by AASB 139. Shares and other equity on the liability side are valued as net worth.

Financial transactions are recorded when there is a change of ownership, on the basis of the prices at which assets and liabilities are bought and sold, and transactions are recorded when new securities are issued and securities are redeemed.

Valuation adjustments (including holding gains and losses on instruments) are presented in the valuation changes item.

All financial assets and liabilities denominated in foreign currencies are converted in national currency at end of month spot exchange rate.

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

Accrual accounting, which records transactions and other flows at the moment that the economic value is created, transformed, exchanged, transferred, or extinguished, is used. Consequently, interest on financial assets or liabilities is treated as accruing continuously during the accounting period.

Interest arrears do not require separate recording if they have been recorded on an accrual basis prior to the interest becoming past due. After the interest becomes overdue, it continues to be 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. The claim for the overdue payments represents a financial asset, even though the underlying off-balance-sheet instrument does not qualify as a financial asset.

Derivative contracts used to be considered off balance sheet, but are now reported on the balance sheet under AASB 139. Hence, if a customer pays to buy an interest rate option contract from a bank, the bank would record the fee as a receivable and the interest rate option contract would be recorded on the balance sheet as a derivative liability.

Transactions are normally recorded at the time they occur (simultaneous recording). However, this depends on the banks' accounting and transaction capturing system. Sometimes banks backdate transactions.

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

Data on loans used for the compilation of monetary statistics are on a gross basis.

Claims and liabilities of banks on the same counterpart are generally not netted and recorded on a gross basis on each side of the balance sheet. However, netting is permitted if prerequisites stated below are met:

“Unless otherwise specifically stated, institutions are allowed to take advantage of netting agreements in relation to disclosure of data items in this form. Institutions are to comply with the prerequisite for netting outlined in Australian accounting standards AASB 139, AASB 132 Financial Instruments: Disclosure and Presentation (AASB 132), AASB 7 Financial Instruments: Disclosures (AASB 7) and relevant prudential standards.”

Whenever the data on particular sectors are presented on a net basis because of the analytical usefulness, the underlying data on a gross basis are also shown, in accordance with the *MFSM 2000* general principle for such presentation. For instance, in the depository corporations survey, “net foreign assets” are presented along with their two components: claims on nonresidents less liabilities to nonresidents. Also, “net claims on the central government” are presented along with their two components: claims on central government less central government deposits.

In conformity with guidelines outlined in the *MFSM 2000*, the depository corporations survey is obtained by canceling out outstanding claims and liabilities between all depository corporations, while preserving the presentation of data on all stocks and flows that are claims on (and liabilities to): financial corporations subsectors other than the depository corporations subsector, other resident sectors, and nonresidents.

### 3. Accuracy and Reliability

#### 3.1 Source data

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

The RBA is able to maintain an up-to-date record of all reporting institutions through its storage database that is regularly updated with data transfers from APRA.

In addition, APRA's website provides a more accessible list of all reporting institutions by classification (<http://www.apra.gov.au/adi/ADIList.cfm>). The list of institutions shown on its webpage is compiled in accordance with the *Banking Act, 1959* and is regularly maintained by APRA.

The monetary statistics compiled for Australia currently cover the central bank, banks, credit unions, and building societies. Data are systematically collected each month by APRA from these entities and made available to the RBA. At this stage, the monetary statistics do not include data from money-market corporations and cash management trusts though such data are available at APRA and the ABS, and are included in the RBA financial aggregates release of credit to the private sector and broad money.

It is the responsibility of APRA to develop and maintain all the reporting forms in consultation with the ABS and the RBA. The reporting forms in use have been designed and field tested by APRA after consultation with ABS and RBA.

Reporting forms are reviewed as needed to incorporate new international accounting standards and national regulatory requirements. For example, in September 2007 APRA announced the new reporting requirements in connection with implementing the Basel II Capital Framework in Australia.

In the past, reporting forms were also reviewed to align the data with the concepts included in the *1993 SNA* as these are the source data for the ABS national accounts. This explains that most sectorization and classification required for the compilation of monetary statistics are fulfilled in the data made available by APRA to the RBA.

The reporting forms incorporate sufficient detail in the sectorization of counterparties and the nature of the financial assets. However, the forms do not provide for the split between transactions in national currency and transactions in foreign currency at the requested level of detail. For instance, the forms for deposits with banks are properly sectorized by holder sectors and by type of deposits, but each elementary cell in the forms includes one single amount with the sum for national and foreign currency deposits. The total amount of all deposits in foreign currency is provided for in one single memorandum item. Data available on the forms collected by APRA cover all balance sheet items for ODCs (banks, credit unions, and building societies).

APRA and the RBA maintain close communication prior to changes in reporting obligations. For example, two large commercial banks merged at the end of 2009. In the lead up to these changes being finalized, there was extensive discussion between the RBA and APRA to identify the preferred way of dealing with the reporting changes to minimize their impact on the statistics.

The collection of financial data is the responsibility of APRA in accordance with Commonwealth legislation: the *Financial Sector (Collection of Data) Act, 2001*. APRA can amend the reporting forms at any time, in consultation with the ABS and the RBA, to maintain a comprehensive collection system.

Staff involved in compiling monetary statistics have daily access to a variety of banking and financial media, and thus stay aware of developments in the banking industry.

The RBA is in regular communication with APRA. At present it does not hold periodic meetings with market participants to explicitly discuss developments relevant to the compilation of monetary statistics. If there are particular concerns, the standard protocol is to send a request through APRA, who subsequently pass it on to the appropriate bank for follow up.

As part of the RBA's liaison program, regular meetings are held with the major banks to discuss any developments.

No meetings are held with users beyond the immediate interlocutors of the RBA in the financial sector.

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

The central bank and the ODCs apply the most advanced international accounting standards so that data meet the requirement for valuation and time of recording.

Source data for the central bank and ODCs broadly fulfill the needs for monetary statistics regarding sectorization of institutional units and identification of the nature of assets.

However, the source data on banks do not provide the split between transactions in national currency and transactions in foreign currency at the requested level of detail.

Also, the RBA has no data by sector on the holders of certificates of deposits. As a result, the total outstanding amount of certificates of deposits is allocated to broad money.

### *3.1.3 Source data are timely*

Source data are sufficiently timely to enable—after they are checked, validated, and processed—the dissemination of monetary statistics in conformity with the Special Data Dissemination Standard (SDDS).

APRA provides the RBA with the list of financial institutions that have not reported in a timely manner. APRA updates this list on a daily basis. It employs rigorous follow-up procedures to ensure the timeliness of data delivery by the ODCs. If the deadline for disseminating monthly monetary statistics is imminent, the RBA can initiate direct contact with the respondent after APRA has granted authorization to do so.

Data are transferred electronically between the APRA database and the RBA database. The APRA database is maintained and updated on a real-time basis, thus once revisions from an entity have been received by APRA, the database is updated close to instantaneously. On the RBA side, the database is updated several times each day to ensure that any revisions in the data are received in a timely fashion and that they do not significantly affect the compilation timeline.

### **3.2 *Assessment of source data***

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

Both the RBA and APRA monitor the data that are submitted by financial institutions to ensure they are consistent with previous entries. At present, the RBA runs an automatic checking macro for the data reported by banks, registered financial corporations, credit unions, and building societies. The aim of the macros is to identify abnormalities in the reporting behavior of each institution.

Running these macros generates automated queries for the specific item code on the balance sheet of the institution where the abnormal activity has been detected. The RBA maintains a record of the queries generated by the macros along with the responses provided by the institution concerned.

Data inconsistencies and out-of-trend values are confirmed with respondents.

When reporting forms change, APRA and the RBA hold regular consultations to identify the magnitude of impact on the data items.

APRA and the RBA have an agreed schedule of events for managing the data query process each month. Upon the RBA receiving the response to a data query that it has passed on, it can initiate a follow-up process with the relevant institutions (through APRA) if it requires more detail.

### **3.3 *Statistical techniques***

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

The data-collection process is automated from the respondent through to the APRA database and then on to the RBA database.

There are no imputation processes for nonrespondents to monetary statistics. However, adjustments are applied to the data when calculating the growth rates for the RBA measures of credit and broad money. These adjustments are advertised to the public in the statistical tables on the series break sheet.

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

All financial assets and liabilities denominated in foreign currency are converted into national currency at the end of month spot exchange rate.

Seasonal adjustment is conducted using the X-12-ARIMA Seasonal Adjustment Program. Such seasonal adjustment is consistent with international standards, as set out in the *IMF Monetary and Financial Statistics Compilation Guide* on pages 184-190. The RBA re-estimates seasonal factors each month.

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

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

The source data used for the compilation of the monthly other depository corporations survey are sufficiently reliable that there is no need to supplement them with secondary party information. The ABS compiles the flow-of-fund accounts on a quarterly basis, which is a useful exercise to cross check stock-and-flow data.

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

The main aggregates produced in the depository corporations survey are cross checked with the other RBA financial aggregates.

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

The RBA has an established procedure for submitting queries about abnormal activity demonstrated in the balance sheets of financial institutions. This process includes submitting queries regarding misreporting, classification errors, and omissions.

The RBA monitors both flow and stock data for monetary statistics. The ABS Lending Finance (ABS 5671.0) and Housing Finance (ABS 5609.0) releases provide monthly flow data on new loans in the economy for business, housing, and personal reasons. These data are reconciled with the changes in the sectoral balance sheets that represent the existing stock of loans in the economy.



### **3.5 Revision studies**

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

Monetary statistics are not subject to formal revision cycles because data are deemed final when first released. Revisions of data already disseminated are incidental only. Such revisions occur essentially when a respondent updates its submission to APRA or from the re-estimation of seasonal factors each month.

## **4. Serviceability**

### **4.1 Periodicity and timeliness**

#### *4.1.1 Periodicity follows dissemination standards*

Monetary statistics (i.e., central bank survey, other depository corporations survey, and depository corporations survey) are released on a monthly basis on the RBA website. In addition, a weekly summary of the central bank balance sheet is released at 4:30 p.m. every Friday with data as of the previous Wednesday.

#### *4.1.2 Timeliness follows dissemination standards*

The monthly data on the central bank are disseminated within two weeks after the end of the reference month, in line with the SDDS requirement.

The monthly data on the ODCs are disseminated within one month of the end of the reference month, also in line with the SDDS requirement.

### **4.2 Consistency**

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

The central bank's and ODCs' records for claims on, and liabilities to, are broadly consistent between each other.

At this time, the other financial corporations survey is not available. Thus, the consistency checks of this survey with the central bank survey and other depository corporations survey cannot be undertaken.

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

Monetary statistics are published on the RBA website and presented as statistical tables with time series beginning January 2007.

The current monetary statistics dataset has been established recently and has not been subject to any changes in source data, methodology, or techniques. However, based on

the experience of other datasets published by the RBA, it appears it is RBA policy to back cast as far as reasonably possible when such changes are introduced. For example, see *Revisions to Housing Credit Growth* in July 2005 where the data series were reconstructed back to 1997.

All statistical tables published by the RBA come with methodological notes and documentation on series breaks. Breaks are documented when the impact on the reference aggregate is \$A300 million or more. For most tables, commentary is provided in the monetary statistics media release every month explaining the current economic trends in the data.

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

Since “bank financing” is not available in government finance statistics, the consistency check with the “net claims on the government” in the monetary statistics cannot be performed.

Quarterly financial accounts/flow-of-funds accounts compiled by the ABS and end of quarter monetary statistics compiled by the RBA are largely based on the same source data. Thus, quarterly stock and flows data are reconcilable even though this is not immediate as the formats of presentations are not similar. However, for monetary and credit aggregates reconciliation of stocks and flows is easier than for the other items as these are prominent aggregates in both datasets.

Consistency checks of “net foreign assets” in monetary statistics with the corresponding aggregates in balance of payments and IIP statistics are not carried out at this stage.

### **4.3 Revision policy and practice**

#### *4.3.1 Revisions follow a regular and transparent schedule*

Monetary statistics are deemed final when first released, so there is no official revision cycle.

In the event that monetary statistics are revised due to updated source data, a specific warning may be provided in the monthly media release.

#### *4.3.2 Preliminary and/or revised data are clearly identified*

Monetary statistics are deemed final when first released.

Revisions, if any, are noted in the media release that is posted each month along with the statistical tables.

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

Revisions of monetary statistics data being incidental and not systematic, studies and analysis of revisions are not conducted.

## 5. **Accessibility**

### 5.1 **Data accessibility**

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

Monetary statistics (IMF Framework) are published by the RBA in the form of three tables (D11, D12 and D13) with end-month data and without seasonal adjustment.

Financial aggregates statistics are published by the RBA in original and seasonally adjusted terms for month end. A media release with a clear link to accompanying statistical tables provides the user with time series of data to allow analysis of the financial aggregates in greater detail. Charts that summarize the statistical information are also made available on the RBA website on a monthly basis.

Monetary statistics are disaggregated and details are also made available to the public from the statistical tables link on the RBA website. The release includes a breakdown of broad money as follows:

- Currency (defined as holdings of notes and coins by the nonbank private sector);
- M1 equals currency plus total current deposits with the central bank and ODCs (excluding central and State governments, and interbank deposits);
- M3 equals M1 plus all other deposits of residents with depository corporations (excluding central and State governments, and interbank deposits); and
- Broad money equals M3 plus nondeposit borrowings from the nonbank private sector by all financial intermediaries, less the holdings of currency and bank deposits by registered financial corporations and cash management trusts.

A breakdown of credit to the private sector is available as follows: owner-occupier housing; investor housing; personal credit; and business credit.

When the statistical tables are disseminated a media release is posted on the RBA website highlighting and explaining the most recent movements in the data.

Some prominent aggregates are disseminated in seasonally adjusted form: currency; M1; M3; broad money; and sector credit. In 2006 the RBA moved to concurrent seasonal adjustment of the financial aggregates data, with seasonal factors re-estimated using the X-12-ARIMA Seasonal Adjustment Program each month with the release of new data.

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

The media release provides precise detail in a clear language accessible to all users, thus facilitating the reuse of the content by media.

All items comprised in monetary statistics are available under the “Money and Credit Statistics” heading on the page “Statistical Tables” on the RBA website.

Time series including the most recent data for the monetary statistics are freely available on the RBA website to all users.

### *5.1.3 Statistics are released on a preannounced schedule*

A permanent publication schedule is available for users to access on the RBA website. A weekly schedule of release is also available on the home page of the RBA website providing a list of releases for the upcoming week.

The RBA ensures that the monetary statistics (IMF Framework) are released on the third Thursday of each month (11:30 a.m. AEST) for data as of the last business day of the preceding month .

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

The RBA website provides the public with a detailed release schedule that informs users when and at what time they can expect to access the monetary statistics. In addition, the monthly media release is posted on the RBA website providing direct links to the statistical tables that contain the data enabling easy access for public users.

The monetary statistics data are released simultaneously to all interested parties.

The press is not briefed in advance of the monetary statistics release.

### *5.1.5 Statistics not routinely disseminated are made available upon request*

In addition to the monetary statistics (IMF Framework), the RBA disseminates an array of statistical information (see list below) on its website. All statistical tables are easily accessible on the RBA website, and each are subject to their own release schedule.

Statistical information released by the RBA relate to the following topics:

- RBA Assets and Liabilities;
- Assets and Liabilities of Financial Institutions and Nonfinancial Sectors (Banks; Other Authorized Deposit-taking Institutions; Registered Financial Corporations; Other Financial Institutions; Household; and Private Nonfinancial Sector);
- Payments System (Credit and Charge Card Statistics; ATM Cash Withdrawals; Debit Card Statistics; Cheques and Direct Entry Payments; etc.);

- Money and Credit Statistics (in addition to the financial aggregates data, data are also available on Lending Commitments; Debt Securities Outstanding; Bank Lending Classified by Sector; Rural Debt Lending; etc);
- Government Finance;
- Financial Markets;
- Prices and Output;
- Balance of Payments and External Finance.

The RBA in general does not provide customized tabulations of data to the public. However, it provides monthly data to the IMF, the Commonwealth Treasury, and the Bank for International Settlements (BIS) in their requested formats. In the event of a request from the public, it assists in directing the public to where the statistical tables are easily available on its website or redirects the enquiry to the appropriate statistical agency e.g., the ABS, APRA, or the Australian Bureau of Agricultural and Resource Economics (ABARE).

In addition to the freely available statistical tables, the RBA also disseminates monthly board minutes, quarterly *Statement of Monetary Policy*, quarterly *Bulletin*, biannual *Financial Stability Review*, research discussion papers, conference and workshop material, education material, and speeches that are also freely available on the RBA website. If clients wish to obtain additional information produced in these releases, the client is able to do so in an orderly fashion through the “Publications” link on the RBA website.

## 5.2 Metadata accessibility

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

The monetary statistics tables are each accompanied by methodological notes featuring concepts, definitions, classifications, data sources, and other relevant methodological aspects and procedures.

The RBA procedures are broadly consistent with the principles outlined by the IMF in the *Monetary and Financial Statistics Manual, 2000* and the *Monetary and Financial Statistics: Compilation Guide, 2008*. Departures from the IMF standards are briefly documented.

Data on the central bank are provided by the RBA Financial Administration Department based on the RBA accounting system and end-of-period general balance of accounts.

The majority of the data used to construct the other depository corporations survey (Authorized Deposit-taking Institutions Survey) are collected by APRA under powers set out in the *Financial Sector (Collection of Data) Act, 2001*. By the tenth business day of each month, banks, building societies, credit unions, and registered financial corporations are required to submit to APRA a snapshot of their balance sheets as at the end of the previous month.

APRA electronically transfers the data through to the RBA into a database that facilitates easy transition of information between the two organizations. Whilst there is no underlying database that joins the ABS and the RBA, all ABS data are provided in a user-friendly format that is easily transferred into the RBA system. The RBA makes it clear to users that the financial aggregates data are sourced from APRA; however, it is unnecessary to report the mechanics of the data transfer.

The RBA regularly reviews and updates the information provided for the IMF SDDS metadata and IMF SDDS summary methodology and posted on the IMF Dissemination Standards Bulletin Board (<http://dsbb.imf.org/Applications/web/dsbbhome/>).

When the monetary statistics are released into the public domain, a media release is posted on the RBA website under the heading “Latest News.” This enables users to access the RBA commentary on the latest statistics and also provides a link to the statistical tables. Each table has its specific methodological notes. In addition, metadata and summary methodology are also available through the IMF SDDS website.

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

Metadata on monetary statistics and financial aggregates are available only in electronic form on the RBA website and the IMF SDDS website. No hard-copy document is made available to the general public.

Research Discussion Papers (RDP) provide more detailed information on certain aspects of the financial aggregates and other areas of the macroeconomy and are publicly available on the RBA website. For example, a recent RDP “Credit and Monetary Policy: An Australian SVAR” by Leon Berkelmans examined the intertwined relationships between credit and other macroeconomic variables.

In addition, feature articles relating to the financial aggregates are also available online on the RBA website. For example:

- Measuring Credit, *RBA Bulletin* September 2009;
- Consumer Credit and Household Finances, *RBA Bulletin* June 1999;
- Housing Loan Approvals and Housing Credit Growth, *RBA Statement of Monetary Policy*, February 2004.

### 5.3 *Assistance to users*

#### 5.3.1 *Contact points for each subject field are publicized*

All statistical releases include contact details to the RBA Media Office, providing an address, telephone number, facsimile number, and email contact address for any related enquiries regarding the release. The Media Office is then able to redirect the enquiry to the most appropriate member of the staff. In addition, the RBA website also provides a quick link to “Contact Us” and this provides the same contact details of the Media Office, as well as additional information such as the bank’s toll free number.

On the RBA website there is a Section devoted to educational purposes. The Section includes information on monetary policy, how to use and interpret statistical information, as well as useful resources for school teachers and students of economics and finance. In addition, the RBA coordinates (in conjunction with the UNSW Economics Society) an Economics Competition, where university students are invited to write an essay on a particular predetermined topic in economics.

Since January 2010, all the RBA data are available in an online format. Direct access points on the home page of the RBA website can easily take users to “Statistics,” “Publications,” “Media Releases,” and “Speeches.”

More recently the RBA has invested in improving the interface of the website to make it easier to use and more accessible for users with disabilities.

The RBA treats all data enquiries with the highest level of importance. It seeks to maintain its reputation of being timely and providing accurate information to the public. Depending upon the nature of the request, it will therefore seek to respond as soon as it is feasible, ensuring that the objectives of timeliness and accuracy are met.

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

Historical media releases are archived on the RBA website and can be easily accessed by online users.

The RBA also maintains an online archive of all RBA media releases and publications. In addition, if any public user is unable to find the specific document or information they are seeking, they are able to contact the Media Office to acquire assistance.

The RBA website contains a customized Google search that returns results for searches on statistics, publications, and other content on the site. There is a specific search feature for statistics. For key publications, there are customized search boxes related to that publication.

All statistical data released on the RBA website are free of charge and obtained through the “Statistics” link on the RBA’s website home page.

The RBA website also offers a clear path to users wanting to order a printed copy of any publication on the RBA website. The prices for various papers and conference volumes are available for a clearly specified fee.



Table 5. Data Quality Assessment Framework (July 2003): Summary of Results for Monetary Statistics  
(Compiling Agency: Reserve Bank of Australia)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				There is no survey on the needs of users outside the financial sector.
0.2 Resources		X				
0.3 Relevance			X			
0.4 Other quality management		X				
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				Money -market corporations and cash management trusts are not covered in the depository corporations survey.
2.2 Scope			X			
2.3 Classification/sectorization		X				
2.4 Basis for recording		X				
<b>3. Accuracy and reliability</b>						
3.1 Source data				X		Most items in bank balance sheets do not present the split between national currency/foreign currencies at the requested level of detail. Holdings of certificates of deposits issued by banks are not sectorized by holder sectors and the total amount is allocated to the broad money aggregate whatever the holder sector.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness		X				
4.2 Consistency		X				
4.3 Revision policy and practice		X				

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Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>5. Accessibility</b>						
5.1 Data accessibility		X				In the statistical tables posted on the website there is no indication of contact point in the relevant units.
5.2 Metadata accessibility		X				
5.3 Assistance to users			X			

**Recommendations**

- Obtain from APRA source data presenting systematically the split between transactions in national currency and transactions in foreign currency.
- Collect data for a proper sectorization of holders of certificates of deposits issued by banks. Such sectorization can be obtained through a survey of money-market operators. A first step would be to identify all holdings by financial corporations reporting to APRA.
- Conduct consultations outside the financial sector with the view to better identifying the needs of academics, media, international investors, etc.
- Expand the institutional coverage of monetary statistics to money-market corporations and cash management trusts.
- Submit applications for staff participation in the IMF monetary and financial statistics courses.

## VI. BALANCE OF PAYMENTS AND INTERNATIONAL INVESTMENT POSITION STATISTICS

### 0. Prerequisites of quality

#### 0.1 *Legal and institutional environment*

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

The Australian Bureau of Statistics (ABS) collects and disseminates statistics under the authority of the *Census and Statistics Act, 1905 (CSA)*, the *Australian Bureau of Statistics Act, 1975 (ABSA)* and associated ministerial determinations. These documents are widely available to the public, including from the ABS website <http://www.abs.gov.au/>; <http://www.comlaw.gov.au/>; and <http://www.publications.gov.au/>.

With two exceptions (the requirement to conduct a Census every five years and to compile statistics on the number of people in each State at the end of each quarter), the *CSA* entitles the Statistician (the head of the ABS) to determine what statistical information is to be collected (within the bounds of broad-ranging subject matters specified in the Statistics Regulations). The Assistant Treasurer, the Minister responsible for the ABS can direct the Statistician, in writing, to collect statistical information relating to a particular matter specified in the Statistics Regulations. However, the Minister cannot direct the Statistician to cease a particular collection or instruct the Statistician on how to go about collecting statistical information.

Section 6 of the *ABSA* mentions among the functions of the ABS: “to constitute the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provide statistical services for those Governments.” The Australian statistical system thus is characterized by a plurality of data providers. The ABS is the largest collector of official statistics, but there is no mandate that official bodies must source statistics from it. Some statistical work is done by State governments, some by other government agencies undertaking their own collections. Specific agencies such as the Australian Prudential Regulation Authority (APRA) also undertake statistical collection and analysis work. The *ABSA* gives the ABS the role to ensure coordination of the operations of official bodies in the collection, compilation, and dissemination of statistics and related information to avoid duplication between collections, attain compatibility between collections, and ensure the maximum utilization of statistics.

The overall legal framework is considered to work well, and there are no plans to revise it.

There are no legal provisions applying specifically to the compilation of balance of payments and international investment position (BOP/IIP) statistics apart from the general terms applying to all statistical areas. The ABS has assumed the task of compiling the BOP/IIP statistics in accordance with its central position in the Australian statistical system. No other institution challenges the ABS’s responsibilities in this respect.

The Statistician is obliged to appear before the Senate Estimates Committee roughly two or three times a year, and to answer questions publicly on anything to do with the work of the ABS. The Committee can also call for follow-up responses, and call on other agencies such as the Audit Office for further information.

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

The ABS compiles many source statistics for the BOP/IIP statistics itself. Internal processes ensure coordination between the various activities. However, in some cases, external sources are being used, in particular administrative datasets. Provisions in taxation, customs, and prudential supervision legislation are in place enabling the relevant agencies to provide access to these datasets.

Given the high level of demand for statistics, and the multiplicity of sources, a focus for the ABS in providing statistical leadership is to support the development of information plans for different topic areas. The aim of this work is to achieve an understanding of user priorities for data development and for improved access, and to establish an agreed set of strategies among the partner-producing agencies to optimize data development.

The ABS seeks to ensure coordination among data-producing agencies through a series of committees, as well as informal contacts with staff producing the statistics in other agencies. Changes in the production of statistics are preceded by extensive consultations.

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

The *CSA* protects confidentiality by requiring that information not be published in a manner likely to enable the identification of a particular person or organization. The *Act* states specifically that a statistical officer cannot be required to divulge or communicate to a court or tribunal any information contained in a Census form.

Notwithstanding this, the *CSA* allows the Minister to make determinations providing for the release of certain classes of information which would not otherwise be permitted to be released under the *Act*. Still, under the provisions of a determination, personal or domestic information may not be disclosed in a manner that is likely to enable the identification of a person.

The determination currently in force under Section 13 of the *CSA* enables the Statistician to disclose:

- Certain classes of statistics (including foreign trade statistics derived from Customs documents), unless a person or organization can show that such disclosure would be likely to enable the identification of that particular person or organization;
- Statistics relating to a business or organization that are already available to the public from the business or organization or from any official body;

- Published information relating to an official body;
- Information with consent, either on a confidential basis or on a general basis;
- Lists of names and addresses of businesses and organizations to departments or authorities for specified nonregulatory purposes;
- Unidentifiable individual statistical records; and
- Information to enable the Statistician to perform relevant statistical functions.

The ABS has a strong culture of adhering to the principles of confidentiality irrespective of the legal provisions because of the trust this builds with data providers and the related benefits for data quality. It has on occasion declined requests for data from other parts of government where it has felt this might jeopardize confidence in the confidentiality of its statistics. Respondents to surveys are informed as to the confidentiality of their responses in order to give assurance.

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

The *CSA* enables the Statistician to request or direct a person to complete a form or answer a question and it sets penalties on failure to answer questions.

In practice Directives are applied only rarely, and the ABS has not often needed to apply penalties, since responses are good and the ABS seeks to maintain positive relations. In 2008-2009, for instance, there were no prosecutions in connection with the business surveys used for compiling the international accounts. The response rate for surveys is high, usually around 90 percent. The response rate for the survey of international trade in services in 2008-2009, for instance, was 93-94 percent, while the response rate for the survey of international investment for the same period was 86-88 percent. The ABS is aware of response burden, and makes clear that it seeks to minimize duplication and effort.

**0.2 Resources**

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

A large percentage of the ABS economic statistics effort is aimed at data collection activities within an *SNA* framework, including those for compiling the BOP/IIP statistics.

The skills base is maintained through internal and international formal training, on-the-job training, appropriate recruitment policies, exchange of staff with other countries and international agencies.

The ABS encourages program staff to attend and present papers at domestic and international conferences and to exchange experiences with other countries

Office accommodation and the working environment conform to mandated Australian Public Service standards.

IT resourcing and support and training are ensured through ABS corporate systems support.

Funding for the individual work programs in the ABS is set centrally. New work needs to be externally funded or offset by savings. More resources would be useful, particularly in view of the strains imposed by both changing to new standards and coping with the global financial crisis. There is in addition some user-funded work: a certain amount of this is accepted on the basis that funding will cover all costs including overheads. The Statistician accepts only a limited amount of such work, in part because its continuation is not guaranteed.

The ABS is not the sole supplier of official statistics: when the Statistician turns down a request from an official agency that agency sometimes decides to produce the statistics itself. In such cases the ABS works with the other agency to ensure that the new data are generated in a way that will be comparable. On the other hand, the ABS does not seek to adopt the role of an inspector of official statistics.

Many professional staff have at least one degree, usually in statistics, economics, accounting, finance, or commerce. Some have advanced degrees.

Staff turnover has increased recently, in part because of a generational shift towards a cohort more accustomed to job moves. Together with recent retirements and a downsizing in the last years, there has been a significant loss of expertise. Salaries have been below the median for public sector positions. Management stress work-life balance issues, and make continuing efforts to improve job satisfaction and retain staff. With turnover as high as 30 percent, significant amounts of staff time in some Sections are being devoted to training, thereby adding to resource pressures. Management is committed to succession planning and rotation of staff to avoid such pressure periods in the future.

The ABS follows the Australian Public Service provisions in the management of its staff, and also has its own principles.

While overall resources are considered to be roughly commensurate with the needs of the present programs, there is no headroom for additional commitments. The ABS argues strongly that any further commitments that it is given be fully funded. A review of IT capacity found that there would be no room to increase support in the event of additional demands.

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

The ABS budget is indexed in the same way as funding for other Government agencies, and, like other Government agencies, is subject to an efficiency dividend to promote increased efficiency. However, the ABS is exempt from the additional whole-of-government departmental efficiencies savings (which apply to other agencies) over the forward estimates

period. While the ABS has managed satisfactorily within its overall budgetary framework, in recent years disparities have emerged between ABS salaries and those paid in other Commonwealth agencies for staff with comparable skills. Cost pressures and other funding constraints have prevented the ABS from addressing this gap. The consequence has been higher rates of staff turnover, especially among staff with qualifications and experience in economics, statistics, and analysis, which has to some degree eroded capability.

In 2009 the ABS undertook the retrenchment of 90 middle-management staff, as well as allowing attrition of more junior staff in order to fund a pay increase in an attempt to match increases paid in other agencies. In essence this increase “held the line,” and did nothing to address the underlying problem of wage disparities.

A cutback in activities, including a 24 per cent reduction in the size of sample of its labour force survey, was decided on by the ABS to meet both cumulative internal cost pressures and the imposition by the Government of an additional one-off efficiency dividend applied to all Commonwealth agencies (to which the ABS will no longer be subject over the forward estimates period). Public concern about the state of ABS funding, including representation by ASAC, led to an external review by the Department of Finance and Deregulation (DoFD) of the ABS budget position, on the basis of which the Government agreed to provide the ABS with additional funding to offset some of the effects of cost pressures, thereby allowing most program cuts to be reinstated. However, the efficiency dividend requirement remained in place. Going forward the ABS, like all Government agencies, continues to face requirements to achieve efficiency targets and meet wages and other costs.

The ABS has an office in each Australian State, and has redistributed certain activities from its Canberra head office to the State offices depending on local expertise and/or lower staff turnover.

On the financial side, the ABS has a Memorandum of Understanding (MoU) with APRA regarding the provision of statistics. In this instance, the ABS pays APRA for the costs incurred in collecting and quality assuring the data required by the ABS. As part of the process, the ABS can suggest amendments to forms to include statistical items for APRA to collect along with prudential information.

The ABA has an Agency Heads Agreement with the Australian Customs and Border Protection Service.

All staff in the ABS have a formal performance discussion every six months.

The Economic Statistics Strategy Coordinating Committee (ESSCC) reviews the operation of the international accounts program periodically.



### **0.3 Relevance**

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

The ABS has in place a number of arrangements that provide priorities and feedback both generally and for specific datasets. The Australian Statistics Advisory Council is an independent body that provides advice on priorities and performance on the statistics work program generally. More specific advice and feedback is provided by the Economic Statistics User Group that represents key economic constituents.

Contacts at a senior level are undertaken between the ABS and relevant agencies such as the Australian Customs and Border Protection Service. Briefings and discussions at a working level take place with individual agencies and users. Media coverage and commentary on the international accounts releases provide continuous feedback.

A number of other user groups and reference groups concerning trade in services, financial statistics, and price indices monitor important components of the data feeding into the BOP/IIP statistics.

Major decisions, such as the migration to the *Balance of Payments and Investment Position Manual (BPM6)*, involve discussions with the range of advisory bodies. In particular, the decision to move simultaneously across the range of new methodologies reflected the guidance of the advisory bodies.

### **0.4 Other quality management**

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

The ABS's Mission Statement covers various dimensions of quality: "We assist and encourage informed decision making, research and discussion within governments and the community, by leading a high quality, objective, and responsive national statistical service."

The ABS's Corporate Plan also sets values and objectives that are highly relevant from a quality management point of view. The ABS values include integrity, relevance, service, access for all, professionalism, and trust of providers. The Plan specifies these values in more detail. The ABS's objectives are the following:

- An expanded and improved national statistical service;
- ABS services that are timely, relevant, responsive, and respected for their integrity and quality;
- Informed and increased use of statistics;

- A key contributor to international statistical activities that are important to Australia or our region;
- An organization that builds capability to continually improve its effectiveness;
- The trust and cooperation of our providers;
- The ABS is a respected and strongly supported organization.

The ABS also maintains and publishes information on each collection it conducts, including information on the quality of the collection.

All publications produced by the ABS are subject to an internal clearance process.

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

The ABS devotes considerable resources to methodology with an overarching mandate to monitor the quality of the statistical work program generally. The Commonwealth Register of Surveys of Businesses (Statistical Clearing House) at <http://www.nss.gov.au/nss> contains metadata that describe the survey development, design, and procedures for many ABS collections. For external scrutiny, see also 0.3.1.

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

The ABS coordinates the economic statistics work program, including decisions about quality, via line management and a number of groups concerned with cross-cutting issues, the prime internal group being the ABS Economic Statistics Strategy Coordinating Committee. For external coordination see also 0.3.1.

## **1. Assurances of integrity**

### ***1.1 Professionalism***

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

Under the ABSA, the Statistician and the ABS form an independent statutory authority for the purposes of the *Public Service Act, 1999*. Also, the Statistician, who is appointed by the Governor-General for a period not exceeding seven years (with eligibility for reappointment), cannot be removed other than on the grounds of misbehavior or incapacity, or by becoming bankrupt. The ABSA does not mention the qualifications necessary to be appointed Statistician.

The Statistician is largely free to decide which statistics the ABS should produce, but any new proposal for the collection of information for statistical purposes must be laid before both Houses of the Parliament before its implementation, unless the proposal is for the collection of information on a voluntary basis.

A professional culture is strongly embedded in the institution. All recruitment is meritocratic and transparent in line with the policies of the Australian public sector. The *Code of Conduct* of the Australian Public Service Commission applies to ABS staff and in addition the ABS has its own values. Professional enhancement is encouraged. ABS staff are in high demand elsewhere in the public sector, and not infrequently move on to such posts.

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

The ABS's choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations.

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

The ABS has the authority to comment on erroneous interpretation and misuse of the statistics that it produces and does so when appropriate. ABS responses to media articles are available on the ABS website.

**1.2 Transparency**

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

The terms and conditions under which statistics are collected, processed, and disseminated are widely made available to the public, in particular through the Internet.

Copies of government legislation, including the *CSA* and the *ABSA*, can be obtained from <http://www.publications.gov.au> or <http://www.comlaw.gov.au>. The ABS website <http://www.abs.gov.au> is the most complete source for all aspects regarding the terms and conditions of its statistics, as this website not only covers legal provisions, but also basic documents such as the ABS work program, corporate plan, annual report of the ASAC, information about the SDDS, etc., in addition to information about individual statistics.

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

It is ABS policy and practice to make all statistical releases available on the website to government, commercial, and private users simultaneously from 11:30 a.m. (Canberra time) on the day of their release. Prior to 11:30 a.m., all ABS statistics are treated as confidential and regarded as being “under embargo.”

On February 1, 2008, new pre-embargo access arrangements were introduced. The arrangements enable access to a small number of ABS publications by authorized ministerial staff and Government officials, up to two hours prior to the official release time. This is so that briefings can be prepared for key Ministers so that they can provide informed comment

on the released statistics when approached by the media, thereby avoiding any inadvertent misinterpretation which may cause unnecessary alarm or concern.

Authorized persons attending a lockup are required to remain in a secure room managed by ABS staff, and are prohibited from communicating any information from the statistical release to anyone outside the room until the embargo is over. Attendees at the lockup are also required to sign security undertakings which include provision for prosecution under the *Crimes Act, 1914* for anyone who breaches the conditions for attending the lockup.

The policy on pre-embargo access is clearly set out, and can be found on the ABS website in the Section “About us.”

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

Any products released by the ABS include the ABS logo and a catalog number. Any ministerial commentary is released by Ministers or their Offices, independently of the ABS statistical releases.

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

It is ABS policy to provide advance notice to users about major changes in methodology, source data, and statistical techniques. This usually is done in the regular publications for periods before the changes take effect.

In the case of the international accounts, such notice is given in the quarterly publication *Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0). In addition, in the case of the *BPM6*, various one-off publications explained the character of changes well in advance of their implementation.

## **1.3 Ethical standards**

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

All staff are subject to the *Code of Conduct* as covered in Section 13 of the *Australian Public Service Act, 1999*. A specific code of conduct for the ABS does not exist. However, the ABS Corporate Plan includes 12 obligations employees have to the ABS.

Staff are made aware of ethical standards at induction, and have to sign an undertaking to abide by them. Staff are periodically reminded of standards through in-house webpage announcements, bookmarks, etc.

## 2. Methodological soundness

### 2.1 Concepts and definitions

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

The conceptual framework and classification structure of the Australian BOP and IIP statistics published by the ABS largely follow both the sixth edition of the IMF's *BPM6* and *2008 SNA*.

The ABS chooses to diverge from the international guidelines and standards in a number of instances (see below), as described in Chapter 5 of the *Information Paper: Implementation of New International Statistical Standards in ABS National and International Accounts*.<sup>15</sup>

### 2.2 Scope

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

Australia's BOP and IIP broadly cover all resident-nonresident transactions that are significant for the Australian economy. The external territories of Christmas Island, Cocos (Keeling) Islands, Norfolk Island, the Australian Antarctic Territory, Heard and McDonald Islands, the Territory of Ashmore Reef and Cartier Island, Coral Sea Islands, and Australia's territorial enclaves overseas are regarded as part of the Australian economy.

Due to administrative complexities and measurement difficulties, Norfolk Island transactions (population 2,100) will not always be captured. The impact on Australia's overall economic performance is insignificant, as large transactions will be identified and included in the relevant statistics.

The ABS does not collect information on employee stock options (ESOs) that should be included under compensation of employees and financial derivatives. In view of past studies, and the small value of compensation of employees in Australia's international accounts, the size of these transactions is expected to be insignificant. (Nonetheless, the ABS intends to investigate the possibility to start collecting these data.)

Two components of primary income, "rent" and "taxes and subsidies on products and production," are not measured, due to a lack of data sources, but are expected to be insignificant.

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<sup>15</sup> This publication (Catalog No. 5310.0.55.002) is available on the ABS internet website: <http://abs.gov.au/ausstats/abs@.nsf/Products/5310.0.55.002~September+2009~Main+Features~Chapter+5%20Ongoing+Research+and+Divergence+Issues?OpenDocument>.

## 2.3 *Classification/sectorization*

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

The classification/sectorization of the Australian BOP and IIP statistics in principle follows both *BPM6* and the *2008 SNA*, with further extensions to take account of domestic user requirements. In particular, more detailed commodity classifications are provided for the goods account. Debt transactions are published with a more detailed sector classification than required by *BPM6*, together with additional detail on the geographical allocation of the debt. The ABS also publishes data on the remaining maturity of external debt, broken down by currency. Although it is not an international requirement, the mission recommends the ABS additionally publish the remaining maturity of external debt by sector, in view of the high international demand for these data.<sup>16</sup>

In a number of instances, however, the classification/sectorization is not in accordance with *BPM6*. The ABS chooses to diverge from the international standards in the following cases.

- Both *BPM5* and *BPM6* treat repos as collateralized loans (or deposits). This treatment is not supported by the ABS as it is of the view that the best statistical representation of (reverse) repos is that of an outright purchase/sale of securities with the obligation to sell/buy-back similar securities; any difference between the repurchase price and the market price is to be recorded as a forward contract (financial derivative).
- The divergence from the international standards regarding the recording of repos applies to the reserve data in the BOP/IIP and the data recorded in the reserve template of Australia. In these datasets, the reserve-related liabilities resulting from repurchase agreements are netted off against reserve assets. This is inconsistent with *BPM6* and *International Reserves and Foreign Currency Liquidity Guidelines for a Data Template*, and also diverges from the ABS treatment of repos as outright transactions in securities. In addition, although securities borrowed or acquired under reverse repo are correctly excluded from Section I of the template, Section IV of the template indicates that they are included.
- *BPM6* recommends that domestic transactions resulting in changes in external securities holdings be recorded as a reclassification in the international investment position via the other changes account. Similarly, transactions between nonresidents in securities issued by residents are to be recorded as reclassifications. The ABS however considers the issuers of securities as implicit counterparties to any secondary trading in the instrument, and therefore does not treat these exchanges as reclassifications but as international transactions. While this treatment does affect the

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<sup>16</sup> In *BPM6*, the breakdown of external debt liabilities by remaining maturity and institutional sector is requested as a supplementary item; see *BPM6*, Table A9-IV.

gross transactions recorded in the financial account, this is not the case for the net transactions.

- Holding companies (units holding the assets of subsidiary corporations but not undertaking any management activities) should sectorally be classified as captive financial institutions and money lenders under both the *2008 SNA* and *BPM6*. For the ABS, this recommendation implies a departure from the established practice, where they are classified according to the major economic activities of the controlled entities.<sup>17</sup>
- The ABS does not follow the new sign convention for the financial account, according to which both increases in net financial assets and the incurrence of net financial liabilities are shown with a positive sign, and net transactions are computed by subtracting liabilities from the assets. Instead, the *BPM5* approach for the financial account is retained as the ABS prefers the total transactions of the BOP plus the errors and omissions to add up to zero. In the IIP presentation, the ABS chooses to maintain consistency with its sign convention for the financial account, meaning that assets positions have a negative sign (implying that short positions would be recorded with a positive sign) and liabilities positions a positive sign.

In some cases, the full implementation of *BPM6* has not been completed and data are still classified according to *BPM5*, although the available data sources allow presentation according to *BPM6*. Adjustments are expected to be made in the near futures:

- Outright purchases and sales of the results of R&D are recorded in the capital account instead of charges for the use of intellectual property in the services account.
- Interest before FISIM is not shown as a separate memorandum item (although FISIM and interest after FISIM are both shown, allowing calculation of the memorandum item).
- Memorandum items on the residual maturity of reserve-related liabilities are published neither in the IIP, nor in Section 2 of Australia's reserves template.

The mission noted two misclassifications::

- Asian Bond Funds 1 and 2 are recorded differently in the reserve template and the reserve data as published in the BOP and IIP. In the former dataset, these investments are recorded in Section I.A. (5), Other reserve assets, other, which is in accordance with the outcome of consultations with the IMF. To be consistent, these investments

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<sup>17</sup> In direct investment, the ABS collects data from the legal enterprise group insofar as the entities concerned are classified in the same subsector.

should be recorded under Other reserve assets, other claims in the BOP/IIP, instead of the current recording under Other reserve assets, securities, equity and investment fund shares.

- In one instance an asset that was rightly taken from the reserve template was not properly reclassified in the BOP/IIP.

## **2.4 Basis for recording**

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

The valuation rules of the Australian BOP and IIP statistics published by the ABS in general follow international standards and guidelines.

Loans and deposits are recorded at fair value.

The ABS uses the f.o.b. value as determined by customs' information rather than the f.o.b. value that is reported by the importers as it is expected to give a better reflection of the true (f.o.b.) market value of the good.

There is a departure from the guidance provided in *BPM6*. In the IIP, fair valuation is used as the valuation of other investment debt instruments in preference to nominal value on the basis that fair value is a better reflection of the market valuation that would be applied to the positions. *BPM6* recommends recording of other investment debt at nominal value, to be supplemented with memorandum items in case the fair value is different.

Both the *2008 SNA* and *BPM6* recommend using the debtor approach for recording interest accruing on debt securities, which means that interest accrues at the contractual rate agreed at issue. The ABS follows the creditor approach, in which interest accrues at the current market interest rate, with the view that this is the best reflection of the market reality, and is consistent with the market valuation of the debt.

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

As far as possible an accrual basis is used. Where material, timing, and/or valuation adjustments will be made to source data to better reflect accruals accounting.

In accordance with *BPM6*, dividends are recorded when the shares go ex-dividend, while reinvested earnings are recorded on a current operating profit basis. At present the metadata to the BOP and IIP state that dividends are recorded on the declaration date, which is meant to reflect the date that shares go ex-dividend. For international comparability, the terminology in the metadata could be changed to "when the shares go ex-dividend."



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

All transactions are collected on a gross basis, except for financial derivatives within the reserve assets functional category, which, in line with international standards, are recorded on a net basis (assets minus liabilities).

**3. Accuracy and reliability**

**3.1 Source data**

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

The data sources are broadly sufficient to compile the major items of Australia's BOP and IIP, and are under continuous review to ensure that the data collection system remains comprehensive. The ABS uses a diverse range of data sources in the compilation of BOP and IIP data, including ABS business surveys conducted solely or primarily for BOP/IIP purposes; other ABS surveys that are useful for, but not designed primarily for, BOP and IIP purposes; surveys conducted by other government agencies; and a variety of administrative data sources. Administrative sources include the use of customs declarations for international merchandise trade statistics as the basis for trade in goods; passenger cards for traveler numbers in trade in services; reporting on reserve assets by the central bank; and reporting by the DoFD and the Department of Foreign Affairs and Trade (DFAT) on the government's external transactions and positions.

Survey questionnaires are constructed using sound design principles, and are subject to field testing prior to implementation. Desktop error analysis and a program of respondent visits are employed to ensure nonsampling error is minimized. Surveys used for the BOP and IIP are conducted using separate business frames maintained for each collection. Maintenance of the frames incorporates the use of taxation data, the Australian Business Register, profiling information from the ABS business register, media reports, coverage surveys, and other ad hoc sources to identify new in-scope businesses and to cater for mergers and other changes.

Passenger information is received from the Department of Immigration and Citizenship and is used to compile traveler numbers for trade in services. For students in Australia, the preferred data are the visa numbers. Data collected on the passenger cards are sufficient to apply BOP concepts. Stratified random samples are used for the survey of international trade in services. The international investment survey employs a threshold collection strategy. Weighted estimates are produced for trade in services, while international investment aggregates include an adjustment for activities below the threshold. Data on transactions and positions of reserve assets are collected from the RBA. The ABS meets regularly with data providers, users, and regulators to identify new developments that impact on compilation of the BOP and IIP. In addition, the financial press is monitored for information on transactions and transactors as well as innovations in markets which need to be taken into account. The

ABS continues to monitor and be involved in international fora that may have an impact on the compilation of the BOP and IIP.

Due to the absence of data sources, the classification of some standard components is based on specific assumptions:

- All construction enterprises operating in Australia are considered to be residents of Australia on the assumption that all construction in Australia by nonresidents concerns projects with a duration of longer than one year in view of the country's relatively isolated geographic location.
- Dividends on equity excluding investment fund shares credits are not recorded separately on the assumption that all portfolio equity investment is in investment funds. This approach affects both the size of dividends and reinvested earnings attributable to investment fund shareholders.
- Foreign direct investment is presented on a gross assets and liabilities basis. Data on the directional basis (i.e., inward and outward direct investment), that are essential for many purposes, are also available. The ABS works on the assumption that the ultimate controlling parent of domestic direct investment enterprises is located abroad as there are no tax incentives for round tripping.

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

The source data for Australia's BOP and IIP to a large extent use definitions, scope, classifications, valuation, and time of recording as set out in international standards.

- Goods: The primary source for goods is ABS international merchandise trade statistics compiled from customs declarations. These data are supplemented with a range of monthly and quarterly surveys to adjust customs records to the appropriate timing, coverage, and valuation bases required under *BPM6*, including the recording according to the progressive change of ownership where appropriate. Customs data are also used as the basis for data on imports and exports of goods for manufacturing services and repairs.
- The primary sources for transportation services are customs declarations (for freight on imports) and a quarterly survey of both resident transport operators and of nonresident transport operators or their resident agents.
- Travel services credits are measured through a range of administrative sources (relating to foreign visitors in Australia split by purpose of travel) combined with a quarterly sample survey of foreigners departing Australia, and a survey of nonresident students' expenditure in Australia. Travel debits are measured primarily through a range of administrative data sources and an ongoing household survey of returned Australian travelers. Government services are measured through a range of administrative information, together with rather dated historical information from

foreign embassies. Most other services are measured through the business survey designed for BOP purposes (the survey of international trade in services), while some are partly modeled using regulatory information, such as for insurance and pension services (see below).

- **Primary income:** The primary sources for compensation of employees are traveler surveys, administrative sources, and information from Australian embassies. Investment income is compiled from a threshold survey of government and business enterprises (the international investment survey) that is also used for the compilation of the financial account and international investment position.
- **Secondary income:** Administrative information is used for general government transfers. Administrative sources and regulatory information are the sources for the transfers of other sectors.
- **Capital account:** Administrative information is used for general government transfers. The transfers of other sectors are measured through monitoring of media. Acquisition/disposals of nonproduced, nonfinancial assets are measured through administrative records for purchases and sales of embassy land, together with a survey of business enterprises transacting in the intangible assets.
- **Financial account:** Direct investment, portfolio investment, financial derivatives, and other investment are all measured through the survey of international investment activity. The BOP transactions are reported within the reconciliation format of the IIP. Portfolio equity liabilities are collected through a census of resident nominees (custodians) that report on a security-by-security basis. Other portfolio assets and liabilities are recorded at a—fairly disaggregate—aggregate level. Reserve assets are reported directly by the central bank.
- The international investment survey captures opening and closing positions for the quarter in a full reconciliation statement, which allows for fully reconciled financial account and IIP data, and for the compilation of separate information on price, exchange rate, and other volume changes. Investment income is also captured in this survey.

### *3.1.3 Source data are timely*

ABS quarterly data collections are scheduled to produce results in time for input into quarterly BOP and IIP processing. Due dates for reporting are advised on the front page of survey forms with responses generally accepted for two weeks (international investment) or seven weeks (international trade in services) after the due date. Between the due date and the close off for acceptance of data, intensive follow up is undertaken with respondents.

Information from the survey of international trade in services is not available in time for the quarterly publication to which the data refer. The most recently published services data are therefore estimated via extrapolations and additional incidental data. Survey results are introduced through revisions when the subsequent issue is published.

## 3.2 *Assessment of source data*

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

The ABS quarterly data collections are subject to formal clearance processes that monitor quality aspects of data collection. Formal clearance documentation is made available to senior managers, and results are discussed. Quality assessments are available (or are being made available) for many ABS data releases.

Verification is undertaken in a variety of contexts and may necessitate revision of the data. Atypical responses are identified at both the input processing and output stages. These are confirmed with respondents, and records are maintained to assist with the interpretation of aggregates.

Data confrontation takes place within the ABS between the Balance of Payments and the National Accounts Divisions, and between BOP statistics and the trade price indices. Data from other ABS collections (e.g., on capital expenditure) are also used to confront components of the BOP and IIP with the national accounts.

Assessment of source data for individual components of the BOP and IIP:

- Goods: Adjustments are made to customs declarations to meet *BPM6* requirements for coverage/classification/timing/valuation. Merchandise trade data are validated at a level consistent with their use for BOP purposes. Significant transactions are verified. Data are compared to press reports, company reports, and information from port authorities.
- Services: A variety of validations is undertaken. Media reports are monitored and information confronted with reported values.
- Primary income: As well as the ongoing verification of income flows against outstanding investment positions, reported cross-border investment income is compared with the published accounts of the major financial and trading corporations, and with the total (resident and nonresident) investment income flows reported in other ABS surveys. The data are also confronted within the context of an investment income matrix of instrument by sector income flows for the entire economy.
- Secondary income: General government aid transfers are validated against official aid reports. Withholding tax receipts are monitored against the underlying cross-border transactions on which they are levied, and anomalies are adjusted where necessary.
- Capital account: Aid transfers by the general government are validated against official aid reports. Coverage and valuation for the acquisition less disposal of

intangible assets are monitored against the information from resident counterparts making and receiving payments for such assets.

- Financial account and IIP: A wide variety of verification processes are adopted. As the source data are collected within the reconciliation model for the IIP, self-verification by the reporting units is part of the reporting to the ABS. The data for cross-border transactions and investment positions are also confronted with data reported on total balance sheet positions and financial transactions in both other ABS collections (for flow-of-funds and balance sheet presentations in the national financial accounts, including summary market statements) and in prudential reporting. Data are also routinely compared with company reports and press reports.

### 3.3 *Statistical techniques*

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

The ABS makes adjustments to unit record data when extreme values cannot be verified with the provider or other data sources. Information is maintained on these adjustments. Weights used in the sample surveys for trade in services transactions are number-raised (Horritz-Thompson) applied at the stratum level. In the international investment survey, coverage adjustments made in threshold collections are carried forward, using reported mean values from small-size strata to make adjustments in the strata below the threshold through price changes in the other changes account (transactions for the strata below the threshold are assumed to be zero). Electronic forms are used in the international investment survey to minimize the potential for coding and data-entry errors.

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

The ABS performs seasonal analysis for up to 250 current account time series, in excess of international data standards. About 110 current price seasonally adjusted series are published quarterly, and about 140 volume and price series for goods and services. Seasonal reanalysis is undertaken concurrently, with a more in-depth annual review.

Several models are used to estimate specific standard components, including the following:

- Manufacturing services: Customs data provide information on goods crossing the border for processing. Fees for manufacturing services are currently set at 30 percent of the export value, based on a limited availability of empirical data.
- Travel services: estimated monthly, using monthly information collected via passenger cards combined with quarterly estimates of per capita expenditure.
- Transport freight debits: estimated monthly, based on monthly merchandise trade imports (value of cost, insurance, and freight less free on board). Country estimates available annually are based on the shipping/airline agents' commissions by country.

- A model using actual investment data is used to estimate FISIM, with a breakdown by currencies for position data.
- A model is in place to reconcile reinvested earnings with the market value of direct investment positions (via an adjustment in price changes).
- A model has been developed to estimate the transactions and positions in nonlife insurance, especially for freight and reinsurance, and pensions (life insurance is expected to be insignificant). The model covers all BOP and IIP items related to these activities, in line with the guidelines of *BPM6*.

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

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

All data submitted by businesses in surveys or through administrative sources are subject to rigorous editing procedures, verifying the validity of the data. Where available, data are also confronted with regulatory prudential information, company reports, and information gathered from the financial press.

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

Aggregates are assessed for their plausibility and may result in further investigation of individual business data. These assessments include alignment with concepts as well as confrontation within the BOP framework and alignment with accounting identities and sensibilities. Reliability and accuracy tests of BOP and IIP data include validating implied rates of return from investment income and IIP data; relationships between passenger transport and travel services; and relationships between freight transport and trade in goods.

A number of accounting tests are in place to check the relationship between changes in the valuation of financial derivatives and the underlying instruments for which they would be a hedge.

Checks are also made to ensure that deposit liabilities are only recognized in the deposit-taking sectors, and that equity liabilities denominated in the domestic currency have zero impact from exchange rate changes.

Further, all information from other sources is brought together prior to the compilation of investment income, financial account and international investment position. This external information is used to compile an “expectation” of these components to confront against survey results when they are compiled.

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

There is an ongoing program to confront reported data and aggregates to identify and remove causes of statistical discrepancies. This includes ensuring consistency across the

macroeconomic accounts regarding the recording of large transactions. Staff involved in compiling the financial account monitor errors and omissions to confirm that no consistent biases are becoming apparent and that the magnitude of errors and omissions is not increasing over time.

The ABS undertakes occasional bilateral comparisons with New Zealand for trade in goods and services at relatively aggregated levels. Bilateral comparisons with other countries are undertaken on an ad hoc basis by the DFAT with results being provided to the ABS to inform future investigations.

### **3.5 Revision studies**

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

The ABS publication *Quality of Australian Balance of Payments Statistics* (ABS Catalog No. 5342.0, issued in 1996) includes extensive information on revisions. The publication is available free of charge on the ABS website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/9B2AC490155E0862CA2570B300822F06?OpenDocument>). Additional internal documentation is maintained on the extent of revisions and includes a description of major causes of revisions and how these revisions were applied.

Analysis of revisions to the current account balance is published in the *ABS Annual Report*, which can be found on the ABS website (<http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/1001.02008-09?OpenDocument>).

## **4. Serviceability**

### **4.1 Periodicity and timeliness**

*4.1.1 Periodicity follows dissemination standards*

External sector statistics are disseminated in line with the SDDS standards. Australia exceeds the SDDS periodicity requirements for the IIP (published quarterly). The ABS publishes a wide range of additional data exceeding SDDS requirements:

- IIP data for all partner countries are available on a calendar year basis. The data are available by selected country (using the directional principle for direct investment) at broad aggregates of primary income, financial account transactions, and positions of foreign investment in Australia and Australian investment abroad.
- More detailed component series are available for portfolio investment assets consistent with the requirements of the Coordinated Portfolio Investment Survey.

- Also in addition to *BPM6* requirements, (i) foreign investment assets and liabilities (transactions and positions) are published by industry on a quarterly basis, and (ii) data on direct investment transactions and positions by industry are published on an annual basis (consistent with the OECD requirements for direct investment).
- Partner country data for the goods component of the BOP are available from the merchandise trade statistics.
- The BOP standard components for services are available annually for 47 partner countries and country groups on both a calendar and financial year (July-June) basis.

#### 4.1.2 *Timeliness follows dissemination standards*

External sector statistics are disseminated in line with SDDS requirements. BOP and IIP statistics are released approximately two months after the end of the reference quarter, which exceeds SDDS requirements.

## 4.2 *Consistency*

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

The BOP and IIP data are fully consistent and reconciled. The quarterly *Balance of Payments and International Investment Position* (see above for webpage) includes tables presenting the IIP in a full reconciliation statement, with transactions in the reconciliation statement equal to the transactions recorded in the BOP. The reconciliation statement also includes details on price changes, exchange rate changes, and other volume changes.

Net errors and omissions have been small and have oscillated around zero.

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

Quarterly BOP series are published on the ABS website from September quarter 1959. Quarterly IIP series are available from September quarter 1988. Both time series are on a *BPM6* basis, although some components are not available for the full time series. For example, positions between fellow enterprises were introduced in the series in September quarter 2009; financial derivatives were introduced in September quarter 1994; other aspects of the financial account were introduced in September quarter 1988; and acquisition and disposals of nonproduced, nonfinancial assets were introduced in March quarter 1988.

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

Balance of payments adjustments made to international merchandise trade data are published in the monthly publication of *International Trade in Goods and Services* (ABS Catalog No. 5368.0). This publication is available on the ABS Internet website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/A5FB33BD2E3CC68FCA257496001547A1?OpenDocument>).



Australia's BOP and IIP statistics are fully consistent with the rest-of-the-world sector in Australia's national accounts which are compiled on a 2008 SNA basis.

A comparison of banks' international transactions and positions in the BOP/IIP data and the monetary statistics is performed frequently.

### **4.3 Revision policy and practice**

#### *4.3.1 Revisions follow a regular and transparent schedule*

The general policy adopted for the statistics on the BOP and IIP is to take every practical opportunity to incorporate more accurate information into the estimates for every period. However, in order to minimize disruption to historical statistical series, and to meet the compilation timetable requirements for the national accounts, revisions to periods prior to the previous financial year are generally only made once a year. These revisions are made in the June quarter issue (for investment income, financial account, and the IIP) and the September quarter issue (for trade in goods and services and other components) of the quarterly publication *Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0). Exceptions are made to this practice where significant revisions are identified; these are incorporated into the next available issue.

The revision policy is documented in *Balance of Payments and International Investments Position, Australia: Concepts, Sources and Methods* (ABS Catalog No. 5331.0).

#### *4.3.2 Preliminary and/or revised data are clearly identified*

The data are provisional when first released and are subject to revision. This information is stated in the explanatory notes of the publications. Revisions are noted on page 2 of the relevant publications. Reasons for revisions are provided where significant.

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

Summary revision tables are included in the quarterly publication, *Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0). The ABS publication *Quality of Australian Balance of Payments Statistics* (ABS Catalog No. 5342.0, issued in 1996) includes numerical analyses of revisions performance, estimates of the impact of revisions on movements between periods, detailed assessments of balancing items, some subjective assessments of quality, and documents the range of quality assurance practices that are adopted. While the analyses in that paper pre-date the substantial upgrading of the Australian BOP and IIP statistics that accompanied the transition to *BPM5*, much of the analyses have general applicability. The publication is available free of charge on the ABS website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/9B2AC490155E0862CA2570B300822F06?OpenDocument>). The mission notes that an update of this publication with an analysis of the revisions due to *BPM6* is not available.

## 5. Accessibility

### 5.1 Data accessibility

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

Data are disseminated in millions of Australian dollars, showing credits and debits for the following, as well as a range of detailed data: goods, services, primary income, secondary income, and the capital account. Data disseminated for the financial account are dissected into net acquisition of financial assets and net incurrence of liabilities (further dissected into direct investment, portfolio investment, financial derivatives, other investment, and reserve assets).

The current account series are published in original, seasonally adjusted, and trend terms. The goods and services series are also published in chain volume terms, together with implicit price deflators, fixed weighted indices and terms of trade, and the percentage changes in these series. The capital and financial accounts are only published in original terms. Forward seasonal concurrent factors are published.

For the IIP, data are presented in both a time series format and in a reconciliation format. Most prescribed components, including asset and liability data on direct investment, portfolio investments (broken down into equity and debt), financial derivatives, other investments, and data on reserve assets, are disseminated; the memorandum items for reserve-related liabilities at remaining maturity are not available (para. 2.3.1).

International investment assets and liabilities (transactions and levels of investment) are published by broad industry, individual countries, and country groups.

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

##### *Hard copy*

*International Trade in Goods and Services, Australia* (ABS Catalog No. 5368.0) is available for free download from the ABS Internet website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/A5FB33BD2E3CC68FCA257496001547A1?OpenDocument>).

*Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0) is available for free download from the ABS Internet website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/18925C62AA2B57A6CA25756D0013A6EA?OpenDocument>).

##### *Electronic*

The ABS website gives free access to data on the main BOP and IIP aggregates and analysis of the latest quarterly information.

Requests for customized data may incur a charge.

### *5.1.3 Statistics are released on a preannounced schedule*

Each issue of the quarterly BOP and IIP publication, *Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0) announces the release date for the following three issues.

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

The data are released simultaneously to all interested parties through the release of the quarterly publication *Balance of Payments and International Investment Position, Australia* (ABS Catalog No. 5302.0). To ensure impartiality, the ABS releases its statistics by means of an embargo system. The standard release time is 11:30 a.m. (Canberra time), and this embargo is printed on the publications (see para. 1.2.2 for pre-embargo access arrangements). The full set of BOP and IIP data are posted on the ABS Internet website at the prescribed release time (<http://www.abs.gov.au>).

### *5.1.5 Statistics not routinely disseminated are made available upon request*

More detailed quarterly and annual statistics and time series data are available on request or via subscription. Customized data may be provided electronically as a special data service and clients are charged on the basis of the number of data cells provided and the time taken.

## **5.2 Metadata accessibility**

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

Details of concepts, sources, and methods are published in the ABS publication *Balance of Payments and International Investment Position, Australia, Concepts, Sources and Methods* (ABS Catalog No. 5331.0), available free of charge on the ABS website (<http://abs.gov.au/AUSSTATS/abs@.nsf/ProductsbyCatalogue/F0F9482037038946CA2570B300817354?OpenDocument>). This publication is currently on a *BPM5* basis and will be updated during 2010 to reflect *BPM6* concepts, sources, and methods. Between issues of these reference publications, any changes in concepts, sources, or methods are documented in the affected publications. SDDS metadata are provided and reviewed on a regular basis.

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

In addition to the detailed concepts, sources, and methods documentation, brief explanatory notes are also included in each statistical publication.

Table 6. Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments Statistics and International Investment Position Statistics  
(Compiling Agency: Australian Bureau of Statistics)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>0. Prerequisites of quality</b>						
0.1 Legal and institutional environment		X				Resource strains have been imposed on the ABS by changing to new standards and coping with the global financial crisis. There has been a significant loss of expertise.
0.2 Resources			X			
0.3 Relevance		X				
0.4 Other quality management						
<b>1. Assurances of integrity</b>						
1.1 Professionalism		X				
1.2 Transparency		X				
1.3 Ethical standards		X				
<b>2. Methodological soundness</b>						
2.1 Concepts and definitions		X				The international standards are not observed for the classification/sectorization of repos; transactions in foreign securities between residents and transactions in domestic securities between nonresidents; outright purchases and sales of the outcome of R&D; holding companies; and the reserve template. No data are published for interest before FISIM. The sign convention of <i>BPM6</i> is not observed. Loans and deposits are recorded at fair value. Interest on securities is based on the creditor approach.
2.2 Scope		X				
2.3 Classification/sectorization			X			
2.4 Basis for recording			X			
<b>3. Accuracy and reliability</b>						
3.1 Source data		X				In some instances data classification is based on assumptions due to a lack of source data, i.e., all portfolio income on equity is attributed to income on shares in investment funds.
3.2 Assessment of source data		X				
3.3 Statistical techniques		X				
3.4 Assessment and validation of intermediate data and statistical outputs		X				
3.5 Revision studies		X				

Table 6. Data Quality Assessment Framework (July 2003): Summary of Results for Balance of Payments Statistics and International Investment Position Statistics  
(Compiling Agency: Australian Bureau of Statistics)

Key to symbols: NA = Not Applicable; O = Practice Observed; LO = Practice Largely Observed; LNO = Practice Largely Not Observed; NO = Practice Not Observed; SDDS = Complies with SDDS Criteria						
Element	NA	Assessment				Comments
		O	LO	LNO	NO	
<b>4. Serviceability</b>						
4.1 Periodicity and timeliness		X				Some inconsistencies between the BOP/IIP reserve assets and the data template.
4.2 Consistency		X				
4.3 Revision policy and practice		X				
<b>5. Accessibility</b>						
5.1 Data accessibility		X				
5.2 Metadata accessibility		X				
5.3 Assistance to users		X				

## Recommendations

- Consider publishing additional datasets that fully comply with the international standards for classification/sectorization, as well as data that allow conversion to the *BPM5* presentation format to serve international users.
- Enhance consultations between the ABS and RBA to avoid differences in classification. Consider bringing the reserves data in the BOP/IIP and the reserve template in line with international standards regarding the recording of repos.
- Publish or reclassify data that are currently available but not published or erroneously classified in the prescribed manner of *BPM6*.
- Investigate the assumption that all portfolio equity investment abroad is through investment funds, with a view to showing separately dividends on equity excluding investment fund shares and obtaining a better estimation of reinvested earnings attributable to investment fund shareholders.
- Consider using the sign convention as required under *BPM6* standards.
- Even though this is not a requirement in the international data standards, it is recommended that the ABS start publishing remaining maturity of external debt by sector, in view of the high international demand for these data.

**APPENDIX I: USERS' VIEWS**

1. An informal survey of the views of users on the macroeconomic statistical data produced by the Australian authorities was conducted by the Fund with the assistance of the ABS (in Canberra) and RBA (in Sydney).<sup>18</sup> Twenty-five responses were received. Three separate meetings were held: one in Sydney for all users, a further meeting in Sydney with the RBA as a user; and a meeting in Canberra with representatives of government agencies.
2. All users rated Australian statistics highly, and appreciated the efforts made to consult with users and keep users aware of prospective changes. Several stressed that any critiques needed to be seen in this light and were only qualifications to a generally strong picture.
3. Among the datasets, users both in the survey and at the meetings were most critical of the CPI, with requests for improved coverage and periodicity: close to half the survey respondents were dissatisfied with current periodicity, by far the highest share of dissatisfaction of any dataset or question. More frequent rebasing, perhaps every four years, was mentioned as desirable. The timeliness of national accounts and of GFS, and the amount of information on revisions to national accounts, were also of concern to users. Some considered statistics on exports of services not to have kept up with user needs, given the rapid rise in importance of these exports in recent years.
4. All survey respondents thought all underlying methodologies sound and appropriate, and official statistics unbiased and accurate. Users from all groups, however, felt that there had been a significant loss of expertise in the past few years, and referred to the retirement of a number of iconic figures. There seemed to be less analysis produced with the numbers than in earlier times. The emphasis on trends, rather than on seasonally adjusted data, was thought by some to be not well suited to the present period of uncertainties. Abundant explanations are sometimes given on the data, but users thought focused pointers on key factors could be useful.
5. Among the comments on the CPI, it was noted that the ABS has itself initiated a review (the 16<sup>th</sup>) and that comments are being solicited; a number of users have been placing their own comments on the website. Criticisms of the CPI included the issue of low periodicity, and the inclusion of indirectly measured financial services (FISIM), which have a significant weight in the index. However, CPI users whose focus is on social policy were satisfied with the current quarterly periodicity.
6. On national accounts, users wanted progress on reconciliation of the various GDP estimates, which show diverging trends since the start of the global financial crisis. The published headline GDP measure is the average of the Expenditure, Income, and Product based estimates, however the Income and Product measures has shown a lower rate of

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<sup>18</sup> The users included academics, banks, government agencies, and embassies. It is not possible to assess the extent to which the views expressed are representative of the user population.

growth than the Expenditure measure, over the last two years, which had been exacerbated by postponing the annual rebenchmarking to facilitate implementation of international standards. While there is broad acceptance that the headline average GDP is tracking economic growth well, use of the components of the three divergent series was regarded as problematic.

7. Some official users expressed reservations about the confidentiality rules which preclude full information for officials involved in trade negotiations.<sup>19</sup> There was recognition of the difficulties for the ABS to prioritize across multiple objectives, but some official users thought priority was given to national accounts and price statistics at the expense of GFS. There was recognition, however, of the wide consultations held before prioritization decisions were made—although some users suggested that there was less transparency in how the subsequent decisions were actually made.

8. Users considered that the ABS was at risk of losing credibility. A number of recent instances were brought up. In September 2009 the national accounts had to be rereleased; also, at the outset of the crisis, budget pressures had induced the ABS to reduce the sample size of the labor force survey by 24 percent; some users thought that the survey had subsequently demonstrated higher volatility, and the original sample had been reintroduced. In some areas alternative suppliers were meeting perceived gaps in ABS statistics, for instance by providing higher periodicity CPI figures and the State figures on productivity trends. There were differences in views as to whether the latter was a problem: some thought multiple figures for the same variable would be confusing, while others noted the widespread multiplicity of figures also amongst international providers, for instance between the IMF and the OECD.

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<sup>19</sup> The ABS notes that nonstatistical sources should be used, since confidence in the confidentiality of the statistics should not be compromised by their use for trade negotiations.



## **Appendix II. Summary of the Special Data Dissemination Standard (SDDS)**

The SDDS prescribes the following practices under each of the identified dimensions:

### **Data dimension** (coverage, periodicity, and timeliness)

- The dissemination of 18 data categories, including component detail, covering the four main sectors (real, fiscal, financial, and external) of the economy, with prescribed periodicity and timeliness.

### **Access dimension**

- The dissemination of advance release calendars providing at least a one-quarter advance notice of approximate release dates, and at least a one-week advance notice of the precise release dates; and
- The simultaneous release of data to all users.

### **Integrity dimension**

- The dissemination of the terms and conditions under which official statistics are produced and disseminated;
- The identification of internal government access to data before release;
- The identification of ministerial commentary on the occasion of statistical release; and
- The provision of information about revision and advance notice of major changes in methodology.

### **Quality dimension**

- The dissemination of documentation on statistical methodology and sources used in preparing statistics; and
- The dissemination of component detail and/or additional data series that make possible cross-checks and checks of reasonableness.

SDDS subscribers are required to:

- Post descriptions of their data dissemination practices (metadata) on the IMF's Dissemination Standards Bulletin Board (DSBB). Summary methodologies, which describe data compilation practices in some detail, are also disseminated on the DSBB; and

- Maintain an Internet website, referred to as the National Summary Data Page (NSDP), which contains the actual data described in the metadata and to which the DSBB is electronically linked.

The IMF staff is monitoring observance of the standard through NSDPs maintained on the Internet. Monitoring is limited to the coverage, periodicity, and timeliness of the data and to the dissemination of advance release calendars.

Source: <http://dsbb.imf.org>.

**Appendix III. Data Quality Assessment Framework—Generic Framework  
(July 2003 Framework)**

<i>Quality Dimensions</i>	<i>Elements</i>	<i>Indicators</i>
<p><b>0. Prerequisites of quality</b></p>	<p><b>0.1 Legal and institutional environment</b>—<i>The environment is supportive of statistics.</i></p> <p><b>0.2 Resources</b>—<i>Resources are commensurate with needs of statistical programs.</i></p> <p><b>0.3 Relevance</b>—<i>Statistics cover relevant information on the subject field.</i></p> <p><b>0.4 Other quality management</b>—<i>Quality is a cornerstone of statistical work.</i></p>	<p>0.1.1 The responsibility for collecting, processing, and disseminating the statistics is clearly specified.</p> <p>0.1.2 Data sharing and coordination among data-producing agencies are adequate.</p> <p>0.1.3 Individual reporters' data are to be kept confidential and used for statistical purposes only.</p> <p>0.1.4 Statistical reporting is ensured through legal mandate and/or measures to encourage response.</p> <p>0.2.1 Staff, facilities, computing resources, and financing are commensurate with statistical programs.</p> <p>0.2.2 Measures to ensure efficient use of resources are implemented.</p> <p>0.3.1 The relevance and practical utility of existing statistics in meeting users' needs are monitored.</p> <p>0.4.1 Processes are in place to focus on quality.</p> <p>0.4.2 Processes are in place to monitor the quality of the statistical program.</p> <p>0.4.3 Processes are in place to deal with quality considerations in planning the statistical program.</p>
<p><b>1. Assurances of integrity</b> <i>The principle of objectivity in the collection, processing, and dissemination of statistics is firmly adhered to.</i></p>	<p><b>1.1 Professionalism</b>—<i>Statistical policies and practices are guided by professional principles.</i></p> <p><b>1.2 Transparency</b>—<i>Statistical policies and practices are transparent.</i></p> <p><b>1.3 Ethical standards</b>—<i>Policies and practices are guided by ethical standards.</i></p>	<p>1.1.1 Statistics are produced on an impartial basis.</p> <p>1.1.2 Choices of sources and statistical techniques, as well as decisions about dissemination, are informed solely by statistical considerations.</p> <p>1.1.3 The appropriate statistical entity is entitled to comment on erroneous interpretation and misuse of statistics.</p> <p>1.2.1 The terms and conditions under which statistics are collected, processed, and disseminated are available to the public.</p> <p>1.2.2 Internal governmental access to statistics prior to their release is publicly identified.</p> <p>1.2.3 Products of statistical agencies/units are clearly identified as such.</p> <p>1.2.4 Advance notice is given of major changes in methodology, source data, and statistical techniques.</p> <p>1.3.1 Guidelines for staff behavior are in place and are well known to the staff.</p>

<b>Quality Dimensions</b>	<b>Elements</b>	<b>Indicators</b>
<p><b>2. Methodological soundness</b>  <i>The methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.</i></p>	<p><b>2.1 Concepts and definitions</b>—<i>Concepts and definitions used are in accord with internationally accepted statistical frameworks.</i></p> <p><b>2.2 Scope</b>—<i>The scope is in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p><b>2.3 Classification/sectorization</b>—<i>Classification and sectorization systems are in accord with internationally accepted standards, guidelines, or good practices.</i></p> <p><b>2.4 Basis for recording</b>—<i>Flows and stocks are valued and recorded according to internationally accepted standards, guidelines, or good practices</i></p>	<p>2.1.1 The overall structure in terms of concepts and definitions follows internationally accepted standards, guidelines, or good practices.</p> <p>2.2.1 The scope is broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.3.1 Classification/sectorization systems used are broadly consistent with internationally accepted standards, guidelines, or good practices.</p> <p>2.4.1 Market prices are used to value flows and stocks.</p> <p>2.4.2 Recording is done on an accrual basis.</p> <p>2.4.3 Grossing/netting procedures are broadly consistent with internationally accepted standards, guidelines, or good practices.</p>
<p><b>3. Accuracy and reliability</b>  <i>Source data and statistical techniques are sound and statistical outputs sufficiently portray reality.</i></p>	<p><b>3.1 Source data</b>—<i>Source data available provide an adequate basis to compile statistics.</i></p> <p><b>3.2 Assessment of source data</b>—<i>Source data are regularly assessed.</i></p> <p><b>3.3 Statistical techniques</b>—<i>Statistical techniques employed conform to sound statistical procedures.</i></p> <p><b>3.4 Assessment and validation of intermediate data and statistical outputs</b>—<i>Intermediate results and statistical outputs are regularly assessed and validated.</i></p> <p><b>3.5 Revision studies</b>—<i>Revisions, as a gauge of reliability, are tracked and mined for the information they may provide.</i></p>	<p>3.1.1 Source data are obtained from comprehensive data collection programs that take into account country-specific conditions.</p> <p>3.1.2 Source data reasonably approximate the definitions, scope, classifications, valuation, and time of recording required.</p> <p>3.1.3 Source data are timely.</p> <p>3.2.1 Source data—including censuses, sample surveys, and administrative records—are routinely assessed, e.g., for coverage, sample error, response error, and nonsampling error; the results of the assessments are monitored and made available to guide statistical processes.</p> <p>3.3.1 Data compilation employs sound statistical techniques to deal with data sources.</p> <p>3.3.2 Other statistical procedures (e.g., data adjustments and transformations, and statistical analysis) employ sound statistical techniques.</p> <p>3.4.1 Intermediate results are validated against other information, where applicable.</p> <p>3.4.2 Statistical discrepancies in intermediate data are assessed and investigated.</p> <p>3.4.3 Statistical discrepancies and other potential indicators or problems in statistical outputs are investigated.</p> <p>3.5.1 Studies and analyses of revisions are carried out routinely and used internally to inform statistical processes (see also 4.3.3).</p>

<b>Quality Dimensions</b>	<b>Elements</b>	<b>Indicators</b>
<p><b>4. Serviceability</b>  <i>Statistics, with adequate periodicity and timeliness, are consistent and follow a predictable revisions policy.</i></p>	<p><b>4.1 Periodicity and timeliness</b>—<i>Periodicity and timeliness follow internationally accepted dissemination standards.</i></p> <p><b>4.2 Consistency</b>—<i>Statistics are consistent within the dataset, over time, and with major datasets.</i></p> <p><b>4.3 Revision policy and practice</b>—<i>Data revisions follow a regular and publicized procedure.</i></p>	<p>4.1.1 Periodicity follows dissemination standards.  4.1.2 Timeliness follows dissemination standards.</p> <p>4.2.1 Statistics are consistent within the dataset.  4.2.2 Statistics are consistent or reconcilable over a reasonable period of time.  4.2.3 Statistics are consistent or reconcilable with those obtained through other data sources and/or statistical frameworks.</p> <p>4.3.1 Revisions follow a regular and transparent schedule.  4.3.2 Preliminary and/or revised data are clearly identified.  4.3.3 Studies and analyses of revisions are made public (see also 3.5.1).</p>
<p><b>5. Accessibility</b>  <i>Data and metadata are easily available and assistance to users is adequate.</i></p>	<p><b>5.1 Data accessibility</b>—<i>Statistics are presented in a clear and understandable manner, forms of dissemination are adequate, and statistics are made available on an impartial basis.</i></p> <p><b>5.2 Metadata accessibility</b>—<i>Up-to-date and pertinent metadata are made available.</i></p> <p><b>5.3 Assistance to users</b>—<i>Prompt and knowledgeable support service is available.</i></p>	<p>5.1.1 Statistics are presented in a way that facilitates proper interpretation and meaningful comparisons (layout and clarity of text, tables, and charts).  5.1.2 Dissemination media and format are adequate.  5.1.3 Statistics are released on a preannounced schedule.  5.1.4 Statistics are made available to all users at the same time.  5.1.5 Statistics not routinely disseminated are made available upon request.</p> <p>5.2.1 Documentation on concepts, scope, classifications, basis of recording, data sources, and statistical techniques is available, and differences from internationally accepted standards, guidelines, or good practices are annotated.  5.2.2 Levels of detail are adapted to the needs of the intended audience.</p> <p>5.3.1 Contact points for each subject field are publicized.  5.3.2 Catalogs of publications, documents, and other services, including information on any charges, are widely available.</p>

### Appendix IV. Users' Survey

<b>General Information About Uses of Official Macroeconomic Statistics of Australia</b>	
	Total Number of Responses
1. Which official statistics do you use regularly?	26
a. National accounts (NA) b. Prices c. Government finance statistics (GFS) d. Monetary statistics (Monetary) e. Balance of payments (BOP) f. Other <ul style="list-style-type: none"> <li>• Production indices</li> <li>• Labor market</li> <li>• Merchandise trade</li> <li>• International reserves and foreign currency liquidity</li> <li>• External debt</li> <li>• International investment position</li> <li>• Other</li> </ul>	25 25 18 23 20 0 12 23 19 12 18 15 8
2. Where do you obtain the official statistics?	
a. Official press releases and publications on macroeconomic statistics b. Private sector summaries and analyses c. Official policy papers d. Publications from international organizations about the country e. Other sources	25 11 14 14 8
3. Do you refer to official descriptions of the sources and methods that were used to compile the official statistics?	
<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	26
4. For what purposes do you use the official statistics?	
a. Analysis of current developments for short-term decision making b. Analysis of trends for longer-term policy formulation c. Econometric model building and forecasting d. Economic research e. Comparison with economic developments in other countries f. General economic background g. Other	22 16 19 25 23 22 7

<b>General Information About Uses of Official Macroeconomic Statistics of Australia</b>						
	<b>NA</b>	<b>Prices</b>	<b>GFS</b>	<b>Mone- tary</b>	<b>BOP</b>	<b>Other</b>
<b>5. Coverage and detail</b>						
5.1 In general, are you satisfied with the coverage of official statistics?						
• Yes	23	18	17	21	22	9
• No	1	7	4	1		2
5.2 In general, are you satisfied with the official statistics in terms of their level of detail?						
• Yes	23	23	17	20	21	7
• No	1	2	4	2	1	1
<b>6. Periodicity and timeliness</b>						
6.1 Are you satisfied with the frequency of compilation of the official statistics (e.g., weekly, monthly, quarterly, annual)?						
• Yes	20	13	18	20	20	8
• No	3	11	3	1	1	
6.2. In general, do you consider that the official statistics are disseminated with the appropriate timeliness (the time lag after the period to which they pertain, e.g., 60 days after the reference period)?						
• Yes	17	21	13	21	22	7
• No	7	4	8	1		
<b>7. Other dissemination practices</b>						
7.1 Do you know if there is a publicly disseminated calendar that announces in advance the dates on which the various official statistics will be disseminated?						
• Yes	25	26	22	20	22	7
• No			1	3	2	1
7.2 If there is a calendar of release dates, in your experience, are the official statistics released on the dates announced?						
• Yes	23	26	21	20	22	7
• No						
7.3 Is there enough information about revisions to official statistics?						
• Yes	16	21	14	17	20	8
• No	7	3	4	4	2	
<b>8. Accessibility</b>						
8.1 Can you easily access the official statistics?						
• Yes	23	26	21	22	23	9
• No			1			

<b>General Information About Uses of Official Macroeconomic Statistics of Australia</b>										
	<b>NA</b>	<b>Prices</b>	<b>GFS</b>	<b>Mone- tary</b>	<b>BOP</b>	<b>Other</b>				
8.2 Can you easily access information pertaining to official statistics you use (explanatory notes, methodological descriptions, reference concerning concepts, classification, statistical practice)?										
<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	20	23	19	20	21	10				
					Yes	No				
8.3 Is the above information on methodology sufficiently clear and at an adequate level of detail to be useful to you?					21	3				
8.4 How do you get access to official statistics?										
<ul style="list-style-type: none"> <li>• Official releases</li> <li>• Hard copy publications</li> <li>• Data specifically requested</li> <li>• Official website</li> <li>• Other</li> <li>• E-mail requests</li> </ul>					4					
					5					
					6					
					25					
					9					
					15					
	<b>NA</b>	<b>Prices</b>	<b>GFS</b>	<b>Mone- tary</b>	<b>BOP</b>	<b>Other</b>				
<b>9. Overall assessment</b>										
9.1 In your opinion, is the underlying methodology of official statistics sound and appropriate?										
<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	24	23 1	20	20	23	9				
9.2 In general, do you consider the official statistics to be unbiased and accurate?										
<ul style="list-style-type: none"> <li>• Yes</li> <li>• No</li> </ul>	21 1	21 1	20	22	23	8 1				
9.3 How would you compare the quality of official statistics of the country with those of other countries in the region?										
<ul style="list-style-type: none"> <li>• Better</li> <li>• Same</li> <li>• Worse</li> </ul>					16	14	12	17	16	8
					5	5	5	4	4	
						3		1		
9.4 How do you assess the overall quality of official statistics? (1 rated as poor and 5 as excellent.										
	1									
	2		1							
	3	6	4	4	3	2				
	3-4	1								
	4	8	16	12	9	11				
	5	9	4	4	10	9				
						5				
						4				

NA = National Accounts; Prices refers to: CPI (Consumer Price Index) and PPI (Producer Price Index);  
GFS = Government Finance Statistics; Monetary = Monetary Statistics; and BOP = Balance of Payments Statistics