



NEW ISSUE

**Discussion Paper: Introduction  
of Revised International  
Statistical Standards in ABS  
Macro-economic Statistics**

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**DISCUSSION PAPER: INTRODUCTION OF REVISED  
INTERNATIONAL STATISTICAL STANDARDS IN ABS  
MACRO-ECONOMIC STATISTICS**

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### INQUIRIES

- *for further information about implementing new international statistical standards in ABS international accounts statistics, contact Mr Bob McColl on Canberra (06) 252 6189.*
  - *for further information about implementing new international statistical standards in ABS national accounts statistics, contact Mr Paul McCarthy on Canberra (06) 252 6038.*
  - *for information about ABS statistics and services, please refer to the back page of this publication.*
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## INTRODUCTION

Most of the macro-economic statistics produced by the Australian Bureau of Statistics (ABS) are based on international statistical standards and frameworks developed by international agencies such as the United Nations and the International Monetary Fund. The ABS adopts these standards to ensure that Australian statistics are comparable with those of other countries, most of which also use the standards, and to enable it to provide statistics to the international agencies on the basis they require. Some of the more important of these standards have been in place for a long time, and a lengthy process of revising them to reflect current requirements for macro-economic statistics has only recently been completed.

2. The ABS will be revising its statistics to reflect the changed standards. This discussion paper is designed to outline the nature of the changes that would be involved were the ABS to implement the changed standards in full. Given that it is unlikely to be feasible to achieve full implementation, at least in the first instance, readers should not assume that any particular change indicated in the paper will be implemented. The feasibility of implementing a particular change will depend on several factors discussed in the paper, including the importance of implementing the change from the users' perspective.

## THE STANDARDS INVOLVED

3. Central among the standards that have been revised is the United Nations' *"A System of National Accounts"* (SNA). The edition currently used by the ABS in compiling the Australian national accounts was published in 1968. The revised version was released in late 1993 under the auspices of five international organisations: the Commission of the European Communities, the International Monetary Fund, the Organisation for Economic Co-operation and Development, the United Nations and the World Bank. The work of revising the standards document was undertaken from the mid eighties under the guidance of experts from member countries and was finalised by an inter-secretariat working group from these organisations. The ABS participated in this process through attendance at meetings of experts and by providing detailed comments on drafts of the manual. The revised document, which became available to the ABS in early 1994, is entitled *"System of National Accounts 1993"*. It will be referenced throughout this discussion paper as "SNA93".

4. Also subject to revision are standards promulgated by the International Monetary Fund (IMF) relating to balance of payments, money and banking and government finance statistics. In revising these standards the IMF is aiming to "harmonise" the standards with SNA93. "Harmonisation" means ensuring that concepts that are common to the IMF standards and SNA93 are defined in the same way, while allowing for different concepts to be applied where they are unique to one of these fields of statistics. Where concepts are components or extensions of SNA concepts they must be defined to be consistent with the SNA concepts.

5. Revision of only one of the IMF standards is complete at this time. The fourth edition of the IMF's *"Balance of Payments Manual"*, published in 1977, was superseded in 1993 by a fifth edition. This document will be referenced throughout this discussion paper as "BPM5". It became available to the ABS in late 1993. The ABS was a prominent participant in the process of revision, which was similar to that applying to SNA93.

6. The revisions still in process affect the IMF's *"A Guide to Money and Banking Statistics in International Financial Statistics"*, first issued in 1984, and *"A Manual on Government Finance Statistics"* (GFS), first issued in 1985. The former is to be replaced by a document entitled *"Manual on Monetary and Financial Statistics"*, an annotated outline of which has been circulated for comment among member countries. The new document is expected to be released in 1996. The revision of the GFS manual has just begun and it is not yet clear whether the current title will be retained. The revision is not expected to be completed for several years.

7. The discussion in this paper is restricted to the effects on ABS statistics of introducing the revised standards contained in SNA93 and BPM5. The ABS may release similar papers relating to the standards on monetary and financial statistics and government finance statistics when final versions of those standards are available.

## PURPOSE OF THE PAPER

8. The broad aim of this discussion paper is to acquaint users of ABS macro-economic statistics with the range of information that would be available were the ABS to implement all of the changes and innovations recommended in SNA93 and BPM5. To achieve this the paper makes broad comparisons of the information that would be available with full implementation with the information that is available now. The paper also describes conceptual changes that will alter the values recorded for statistics provided currently. The intention is to use the document as a basis for discussions with major users of the statistics to determine their priorities among the changes and innovations that would be introduced to the statistics if the revised standards were implemented in full.

9. Consistent with Australia's responsibility to produce internationally comparable macro-economic statistics, the ABS will implement the new international standards as far as possible. However, the ABS is conscious that it will not be able to marshal the resources necessary to implement all of the recommendations, at least in the first instance. Some of the changes recommended also might not be feasible because information necessary to support them might not be available from the records of respondents to surveys, or from administrative sources that provide data from which the statistics are compiled. The ABS will have to decide which of the feasible changes have highest priority and should therefore be implemented first. The priorities of users will be a major factor to be taken into account in making these decisions. It is hoped that this paper will play an important role in this decision making process. In that light, the ABS would welcome

submissions from users on the matters raised in the paper, or on the priorities they consider the ABS should follow. Submissions, preferably in writing, should be made either through the consultation processes outlined in paragraphs 186 and 187, or directly, to the contacts named at the end of this paper.

### THE STATISTICS AFFECTED

10. The statistics that will be affected by implementation of the revised standards are the Australian national accounts (ANA), including the financial accounts, capital stock estimates, State accounts and input-output tables, and the international accounts, including balance of payment statistics and statistics of Australia's international investment position. The main ABS publications in which these statistics appear (including related publications providing details of concepts, sources and methods used) are:

- *Australian National Accounts: National Income, Expenditure and Product* — quarterly (Cat. No. 5206.0), — annual (Cat. No. 5204.0).
- *Australian National Accounts: Concepts, Sources and Methods* — irregular (Cat. No. 5216.0).
- *Australian National Accounts: State Accounts* — quarterly (Cat. No. 5242.0), annual (Cat. No. 5220.0).
- *Australian National Accounts: Financial Accounts* — quarterly (Cat. No. 5232.0).
- *Australian National Accounts: Capital Stock* — annual (Cat. No. 5221.0).
- *Australian National Accounts: Input-Output Tables* — three yearly (Cat. No. 5209.0).
- *Australian National Accounts: Multifactor Productivity* — annual (Cat. No. 5234.0).
- *Balance of Payments, Australia* — monthly (Cat. No. 5301.0) — quarterly (Cat. No. 5302.0), — annual (Cat. No. 5303.0).
- *International Investment Position, Australia* — quarterly (Cat. No. 5306.0), annual — (Cat. No. 5305.0).
- *Balance of Payments, Australia: Concepts, Sources and Methods* — irregular (Cat. No. 5331.0).
- *International Trade in Services* — annual (Cat. No. 5354.0).

### IMPLEMENTATION TARGET DATES

11. Implementing the revised standards entails a process that will be long and complicated. Apart from consulting with users of the statistics, the ABS will have to test the availability of information from respondents to its surveys, or from administrative sources. Computer systems for processing the information will have to be altered or re-designed. Methods will have to be devised and applied for

revising historical data series to ensure continuity with statistics compiled on the new bases. Publications will have to be changed to reflect the new standards and staff will have to be trained in the new concepts.

12. Clearly, the amount of work to be done is dependent to a high degree on the extent of the changes to be introduced which, as indicated above, has yet to be decided. Nevertheless the ABS has had to set target dates for the first release of statistics on the revised basis. Some of the target dates are based on meeting international reporting commitments and, as such, will not be subject to change. Therefore, in most cases the extent of the initial implementation of the revised standards will be tailored to enable these target dates to be met. The target dates for each of the publications listed above are as follows:

<i>Cat No</i>	<i>Reference Period (a)</i>	<i>Publication Date</i>
5206.0 *	June qtr 1997	October 1997
5204.0	1996-97	May 1998
5216.0	n.a.	December 1998
5242.0 *	June qtr 1997	November 1997
5220.0	1996-97	May 1998
5232.0	June qtr 1997	November 1997
5221.0	1996-97	May 1998
5209.0	1994-95	June 1997
5234.0	1996-97	May 1998
5301.0 **	October 1997	November 1997
5302.0 **	Sept qtr 1997	November 1997
5303.0 ***	1996-97	June 1998
5305.0 ***	1996-97	June 1998
5306.0 **	Sept qtr 1997	November 1997
5331.0	n.a.	December 1999
5354.0 ***	1996-97	June 1998

(a) Historical data will also be published to ensure that consistent time series are available.

\* For these publications statistics on both the new and old bases will be published for the reference period shown to enable users to gauge the impact of the changes on the statistics. The date shown is the target date of release of the publication on the revised basis: the publication on the current basis will be released at the usual time.

\*\* For these publications an information paper will be published prior to release of statistics on the revised basis. The information paper will describe the changes being introduced and will provide comparisons of statistics on the former and revised bases.

\*\*\* These publications are to be combined in a single publication to be released at the date shown.

### SUMMARY OF MAIN DIFFERENCES

13. This section provides a broad summary of the main differences between SNA93 and the current ANA and between BPM5 and Australian international accounts. A more detailed account follows in later sections. The summary is provided to give readers an overview of the nature of the main differences that exist and to enable them to gain a general impression of the effects full implementation of the revised standards could have on the ABS statistics. The summary discusses SNA93 and BPM5 separately.



### Main Differences in SNA93

14. The most obvious differences are in the structure and content of the accounts. Full implementation of SNA93 in the ANA would increase the number of accounts considerably by subdividing existing accounts and by adding new accounts. The increase in the number of accounts would also increase the number of "balancing items", or major residual items. Nearly all items in the existing accounts would have a counterpart in the new accounts and there would be a number of new items, most of which would be recognising items covered implicitly in the existing accounts but not recorded separately.

15. There are two new income accounts in SNA93 introducing new concepts of disposable income and consumption. One of these accounts adds "Net social transfers in kind" to "Disposable income" to arrive at a new concept: "Adjusted disposable income". "Social transfers in kind" are non-monetary social benefits provided by government and non-profit institutions serving households, for example free education and health services. The other new account divides final consumption between "individual" and "collective" consumption. "Individual" consumption relates to consumption of goods and services provided to individual economic units (e.g., health services). "Collective" consumption relates to goods and services provided to the community at large (e.g., defence).

16. SNA93 provides a fully integrated set of accounts covering stocks (assets and liabilities) as well as flows (transactions). This includes balance sheets, which have not to date been included in the ANA but are to be published soon. The balancing item in the balance sheets is "net worth". SNA93 provides a set of new accounts to record events other than transactions that underlie changes in net worth. These include an account which records non-monetary changes in net worth arising from events such as catastrophic losses, growth of natural resources, discovery of new mineral deposits, etc. Monetary changes in net worth are recorded in a "Revaluation Account", which identifies holding gains/losses and distinguishes those that are due to changes in the general level of prices from those due to exceptional changes in value of particular classes of assets and liabilities.

17. There are more institutional sectors and sub-sectors in SNA93 than in the ANA. The most important difference is that SNA93 includes a sector for non-profit institutions serving households. It also includes more sub-sectors within the financial enterprises and households sectors than in the ANA. As well, rigorous application of the SNA93 definition of "quasi corporate" enterprises would increase the number of unincorporated enterprises included in the corporate sector in the ANA. The treatment of ancillary activities in SNA93 also differs in some respects from their treatment in the ANA. For relevant sub-sectors SNA93 recommends a breakdown between domestic and foreign controlled enterprises that is not provided in the ANA.

18. SNA93 includes a more detailed classification of assets and liabilities than the ANA, and extends the coverage of assets in the ANA, particularly in relation to cultivated assets and natural resources. "Valuables" (e.g., precious stones, antiques, etc) are separately identified, as are classes of intangible assets such as patents, copyrights and goodwill. Some classifications having no equivalent in the ANA are to be found in SNA93, for example, a "Classification of the Purposes of Non-Profit Institutions Serving Households" and a "Classification of Outlays of Producers by Purpose".

19. A large number of other conceptual and methodological differences are introduced in SNA93 but only a small number of these would have a marked effect on the statistics presented in the ANA. Among the more important differences is the introduction of full allocation of what has been known as the "imputed bank service charge" but is now labelled "Financial intermediation services indirectly measured" (FISIM). "Full allocation" means debiting this imputed service charge to borrowers as well as lenders, in all institutional sectors and in the Rest of the World Account. In the ANA, the imputed bank service charge is allocated only in relation to borrowers and is allocated only between households and the financial sector.

20. The concept of capital formation is extended in SNA93. It now includes defence expenditures treated in ANA as current expenditure (e.g., expenditures on airfields, hospitals, etc capable of use for civilian purposes). It also includes expenditures on mineral exploration, on computer software (including software produced in-house) and on entertainment, literary and artistic originals. The growth of breeding livestock in capital formation was treated in the 1968 SNA as part of production and capital formation and continues to be so treated in SNA93. However, the ANA has not adopted this treatment to date and so its adoption would result in a significant change to the ANA.

21. The production boundary is extended in SNA93 to include more own account production than covered in the ANA. As well, under the 1968 SNA and SNA93, workers compensation premiums are included with employees' remuneration whereas, in the ANA, payments of workers' compensation claims rather than premiums are included as remuneration. In SNA93, interest is recorded on a full accrual basis compared with the "due for payment" method currently used in the ANA. Another major difference introduced in SNA93 is that reinvested earnings made by enterprises deemed to be "direct investors" are to be recorded as property income flows (i.e., as receipts by Australians deemed to be direct investors overseas and as payments by Australian enterprises in which direct investment from overseas has occurred). Equivalent flows are imputed in the capital account.

22. While it is impossible to estimate the overall impact on measured GDP <sup>(a)</sup> of adopting SNA93 in full, indicative estimates of the impact of particular changes are as follows:

(a) In 1993, Australia's GDP was approximately \$A416 billion.

Own use production by households	+ \$A1 billion
FISIM	+ \$A4 billion
Workers' compensation	+ \$A1 billion
Entertainment, etc originals to be capitalised	+ <\$A1 billion
Computer software, etc to be capitalised	+ \$A1 billion
Mineral exploration to be capitalised	+ \$A1 billion
Growth of breeding livestock	+ \$A5 billion.

23. SNA93 recommends use of "chain volume indexes" to estimate changes in the volume of GDP. These indexes provide price weights that always reflect the current situation instead of having to be rebased every five years or so. They have disadvantages however, and may be introduced in the ANA as a supplement to existing methods for providing constant price data.

24. The differences in SNA93 described above affect all relevant components of the ANA, including input-output statistics, capital stock estimates, State accounts and the financial accounts.

25. SNA93 introduces the concepts of "social accounting matrices" (SAMs) and satellite accounts. The ABS will consider introducing some accounts based on these concepts. SAMs and satellite accounts provide alternative measures which are consistent with, and able to be related to, the major aggregates in the main accounts. In general, they focus on providing information related to specific social and policy issues such as income distribution, labour markets, ultimate financing of consumption and environmental matters. They incorporate additional data not included in the main accounts, including physical and other non-monetary data. SNA93 provides only general guidance on these concepts but is more specific on "integrated environmental and economic accounting". This represents an extension of the main accounts to provide more information on the depletion and degradation of natural resources and on the implicit flows generated.

#### Main Differences in BPM5

26. The broad structure and content of balance of payments and international investment statistics recommended in BPM5 differ from the structure and content of Australia's current balance of payments and international investment statistics. At the broadest level, the most obvious changes are to the structure of the accounts, with the existing current and capital account dichotomy being extended with the introduction of a new (third) account, the *Capital Account*. This new account mainly covers a restricted range of transfers (reclassified from the existing current account), as well as transactions in non-produced, non-financial assets. The existing Capital Account has been renamed the *Financial Account*. As well, there are significant changes in the structures and classifications adopted within the accounts that are obvious when the summary accounts are compared. Less obvious are a number of conceptual and definitional changes under BPM5 which would significantly change the scope of

similarly named components of Australia's existing international accounts statistics.

27. The *Current Account* under BPM5 contains four main components (goods, services, income, transfers), which broadly correspond to the merchandise, services, income and unrequited transfers components of the existing current account, although the composition of the components differs. While the BPM5 category "Goods", which corresponds to the "Merchandise" category in Australia's balance of payments, includes some minor items currently included in "Services" (e.g., goods for processing, repairs to goods, goods procured in ports), the "Services", "Income" and "Transfers" components in BPM5 are quite different in composition from the corresponding components in the existing accounts.

28. The more significant changes to *Services* that would arise from implementing BPM5 in Australia's balance of payments accounts include:

- an expanded breakdown of the types of services;
- the incorporation of fees earned on financial derivatives transactions and implicit fees on foreign exchange transactions; and
- the reclassification of royalties and licence fees from *Income* to *Services*.

29. The *Income* component of the current account of BPM5 identifies, at the broadest level, "Compensation of employees" and "Investment income", which roughly correspond to the "Labour income" component of the existing item "Labour and other income" and the "Investment income" component of the existing item "Property income". The primary distinction made in the Australian current account between "official" and "non-official" investment income is not made in BPM5. The other major differences in *Income* between the current Australian treatment and BPM5 include:

- the separate identification of portfolio investment income from other investment income;
- a different measure of direct investment income due to the different definition of direct investment;
- the adoption of full accrual accounting for the recognition of interest income;
- the reclassification of royalties and licence fees from *Income* to *Services*;
- the inclusion of net flows associated with certain types of financial derivatives (e.g., interest rate swaps); and
- the measurement of reinvested earnings on the basis of current operating performance including current replacement cost depreciation.

30. An issue yet to be addressed for Australia's macro-economic statistics is the difference between the SNA93 and BPM5 recommendations regarding a new item to record *financial intermediation services indirectly measured*. While BPM5 does not recommend that these imputed service charges be separated from actual interest flows in the balance of payments, SNA93 does recommend this separation in the compilation of the national accounts, including the rest of the world account. If the imputation is to be adopted in Australia's national accounts, then the ABS will need to determine whether to:

- adopt different standards in its national and international accounts; or
- reduce the measure of interest income in the balance of payments and reclassify the reduction to the services component to reflect the provision of the imputed service.

31. User views on the desirability of conforming to either international standard, and of consistency within Australia's macro-economic accounts, will influence the ABS's decisions on this issue, as will the size of the transactions involved and the practicability of making the appropriate estimates.

32. The major difference between the Australian system's current presentation of unrequited transfers and the BPM5 treatment of *Transfers* is the separate identification of capital transfers. BPM5 identifies capital transfers, excludes these transactions from the current account and reclassifies them to the new capital account. The other obvious difference between the current Australian practice and the BPM5 treatment of current transfers, apart from a different sector breakdown (*official/non-official* in the former and *government/other* in the latter), is the different itemisation provided at the detailed level.

33. The new BPM5 *Capital Account* includes capital transfers, reclassified from the existing current account component *unrequited transfers*, and the acquisition and disposal of "non-produced, non-financial" assets (e.g., embassy land, patents, copyrights). As with current transfers, the other major differences are in the sector breakdowns and the detailed itemisation provided.

34. The new *Financial Account* corresponds broadly to the existing Australian capital account. However, as well as providing additional instrument, sector and maturity detail, BPM5's hierarchical structure provides a different emphasis within the account. The primary split is not by sector. Though BPM5 includes sectors within the classification, it is only at some of the more detailed levels following type of capital, asset/liability, and type of instrument. Other major differences between the current Australian practice and BPM5 include the recognition of transactions in financial derivatives, changes to the definition of direct investment and the separate identification of portfolio investment. Also, were they to be implemented, the most wide ranging differences would be the BPM5 recommendations in relation to cross classification of portfolio and other investment according to whether the

overseas counterparties to transactions belong to one of four sectors: monetary authorities, general government, banks, other; and the separate identification of liabilities that constitute either foreign authorities' reserves, or exceptional financing for the Australian authorities.

35. The main differences between BPM5 and Australia's *international investment position*, apart from differences that parallel those affecting the financial account, are: the wider definition of gross external debt to include all liabilities other than equity; and the dissection of changes in levels to identify those attributable to price change. In addition, to conform with requirements for the national accounts, gains and losses arising from exchange rate and price changes would need to be split between neutral and real holding gains and losses. Neutral gains/losses relate to changes in the general price level or exchange rate; real gains/losses relate to all other changes for particular classes of assets and liabilities.

36. The foregoing discussion of main differences between the revised international standards and the standards applied in the relevant existing Australian statistics provides a broad indication of the nature of changes to the Australian statistics that have to be considered by the ABS. The following sections of this paper describe the differences in detail. As noted above, not all of the changes suggested by the differences will be implemented by the ABS, at least in the first instance. The extent of implementation of changes will depend on the time and resources available to the ABS and the views of users.

#### **CHANGES TO ANA THAT WOULD RESULT FROM FULL IMPLEMENTATION OF SNA93**

37. This section summarises the information the ANA would include were the ABS to implement SNA93 in full and compares that information with the information provided in the current ANA. The section firstly compares the scope, structure and broad level of content of the tables recommended in SNA93 with those presented in the ANA. Secondly, comparisons are made between the major classifications recommended in SNA93 with those currently in use. Finally, the section looks at some of the changes to concepts introduced in SNA93.

##### **Scope, Structure and Broad Content of the Accounts**

38. SNA93 provides a fully integrated set of macro-economic accounts designed to measure all the economic stocks (e.g., assets, liabilities) and flows (e.g., production, income, consumption, capital accumulation) occurring within an economy. Although the 1968 SNA covered most of these accounts, some parts of the system were not as well articulated as they are in SNA93 and the integration of the various parts of the system was not as clear.

39. Since the ABS has not implemented all of the components of the 1968 SNA, full implementation of SNA93 would introduce some accounts that are not new in the revised SNA. Readers should therefore bear in mind that the following discussion compares accounts that SNA93 recommends with the accounts the ANA include now. The differences identified are therefore not due entirely to changes introduced by the revised SNA93 but also reflect

those elements carried forward from the 1968 SNA that the ABS has not implemented. This applies particularly to balance sheets and the associated accounts although, as the paper indicates, the ABS is about to release experimental national balance sheets.

40. SNA93 recommends that national accounts compilers consider presenting national accounting information in a variety of formats, some of which are beyond the scope of this paper. The paper will discuss the accounts considered central in the system, including those which can be related readily to the existing ANA. The Section headed "Social Accounting Matrices and Satellite Accounts" below outlines some of the possible extensions of the system that might be considered once the strategy for developing the central accounts has been determined.

41. The set of accounts from SNA93 that are compared below with the ANA accounts are the "goods and services" account, the full set of accounts described as relating to institutional units and sectors (the "institutional accounts"), and the rest of the world account. The institutional accounts are the accounts that record the transactions and balances of institutional units (corporations, government units, non-profit institutions and households) classified by institutional sector (see discussion of institutional sectors in the section headed "Classifications" below). They are grouped in SNA93 into "current accounts", "accumulation accounts" and "balance sheet" accounts, as shown in Table 1 below. Table 1 compares the main accounts in SNA93 with their nearest equivalent in the ANA.

TABLE 1: LINK BETWEEN CENTRAL TABLES IN SNA93 WITH TABLES IN ANA

SNA93	ANA
<b>Transactions accounts</b>	
Goods and services account	Production account (part)
<b>Production account</b>	Production account (part)
<b>Distribution and use of income accounts:</b>	
Generation of income account	Production account (part)
Primary distribution of income account	Income and outlay account (part)
Secondary distribution of income account	Income and outlay account (part)
Redistribution of income in kind account	No equivalent
Use of disposable income account	Income and outlay account (part)
Use of adjusted disposable income account	No equivalent
<b>Accumulation accounts</b>	
Capital account	Capital account
Financial account	Financial transactions account
Other changes in assets account	No equivalent
Revaluation account	No equivalent
Neutral holding gains/losses account	
Real holding gains/losses account	
<b>Balance sheets</b>	
Opening balance sheet	No equivalent *
Changes in balance sheet account	No equivalent *
Closing balance sheet	No equivalent *
<b>External transactions accounts</b>	
Rest of the world account	Overseas transactions account

\* However, the ABS is shortly to publish experimental national balance sheets – see paragraph 42.

42. As can be seen from Table 1, the ANA domestic production account corresponds to the goods and services account, the production account and the generation of income account in SNA93. The ANA national income and outlay account corresponds to three SNA93 accounts: the primary and secondary distribution of income accounts and the uses of income account. Although the ANA has not to date included balance sheets, the ABS is soon to publish national (but not sector) balance sheets. These will incorporate data relating to fixed assets derived from the capital stock estimates published in *Australian National*

*Accounts: Capital Stock* (Cat. No. 5221.0) and data on financial assets and liabilities derived from *Australian National Accounts: Financial Accounts* (Cat. No. 5232.0), together with experimental estimates of the value of sub-soil assets, livestock, land and timber tracts.

43. A comparison of each of the ANA accounts listed in Table 1 with the corresponding SNA93 accounts follows. As well, a broad description is given of the main SNA93 tables for which there is currently no equivalent in the ANA. The comparison is made for broad summary tables

and is made separately for the ANA domestic production account, national income and outlay account, national capital account, financial account and overseas transactions account. In each of the tables presented below, the item names are followed in parenthesis by the name of the corresponding item in the alternative system, or by the algorithm to derive the corresponding item. It should be noted, however, that the correspondence between items this presentation identifies is not necessarily exact. Some of the items are affected by conceptual and definitional changes which are discussed in the section below headed "Other Changes".

44. SNA93 adopts the convention of naming opposite sides of the current accounts and the goods and services account "resources" and "uses". This convention is followed for the SNA93 accounts presented below. To preserve overall balance in the system, SNA93 shows resources on the left hand side and uses on the right hand side of the transactions accounts, and on the reverse sides of the institutional accounts. That convention is also followed in the presentation below.

45. It should be noted that SNA93 employs the concept of "*balancing items*", which are residual items derived to balance each account and which are often carried forward into another account. Most of these items also represent key economic variables (e.g., GDP, operating surplus, saving). They are shown in italics in the SNA93 accounts presented below. The goods and services account does not have a balancing item as, in concept, it is a balanced account.

46. The balancing items below should not be confused with statistical discrepancies, sometimes referred to as "balancing items", which reflect imbalances arising from measurement difficulties (e.g., the "statistical discrepancy" in the ANA). While the need for such items will continue, their presentation in the SNA93 accounts is not addressed in this paper. Similarly, the presentation of different estimates of GDP (e.g., GDP (I), GDP (E), GDP (P) and GDP (A)) currently made in the ANA is not addressed in SNA93 and will not be discussed in this paper. The ABS intends to introduce a new compilation methodology in parallel with its implementation of SNA93, based around annual current and constant price input-output tables. This will balance the alternative GDP measures for the annual national accounts. The appendix to this paper provides a broad description of this innovation.

47. The accounts below are presented in a form required to provide information for the economy as a whole. They would have to be modified slightly to present information for individual institutional sectors but, for this discussion, they provide sufficient indication of the content of institu-

tional accounts. SNA93 recommends that all of the institutional tables be presented for each institutional sector. The ABS currently presents income and outlay accounts, capital accounts and financial transactions accounts for each institutional sector but does not present the production account for institutional sectors. Adoption of the SNA93 recommendation would therefore extend the range of ANA institutional sector accounts to include a production account for each institutional sector.

#### **SNA93 Accounts Corresponding to ANA Production Account**

48. Table 2 below compares the domestic production account from the ANA (see Table 9 in Cat. No. 5204.0) with the corresponding tables in SNA93. The items in brackets underneath the ANA items are the SNA93 items most closely corresponding to those ANA items; conversely, the items in brackets underneath the SNA93 items are the ANA items that correspond most closely to those SNA93 items.

49. It can be seen that, although the content of the ANA domestic production account is spread across three SNA93 accounts, all of the items except one in the ANA domestic production account have a counterpart in SNA93. The item without a counterpart, gross national expenditure, can be derived in the SNA93 accounts. Conversely, two items in the SNA93 accounts in Table 2 have no equivalent in the domestic production account: net domestic product in the production account and acquisition less disposals of valuables in the goods and services account. Apart from conceptual changes to components (see section below headed "Other Changes"), net domestic product can be derived from information in the ANA (it equals GDP less consumption of fixed capital). Acquisition less disposals of valuables is not shown explicitly in the ANA and is a new item in SNA93 arising from the introduction of the concept of "valuables" (e.g., precious stones, works of art, antiques). This concept is discussed further under "Other Changes".

50. It will also be noted from Table 2 that the item in the ANA domestic production account called operating surplus corresponds to an item in SNA93 called operating surplus/mixed income. Operating surplus and mixed income are alternative names for the same concept in SNA93; the former is used to describe the balancing item in the generation of income account for corporations. The latter is a new name used to describe the balancing item in the generation of income account for unincorporated enterprises owned by households. The new name recognises that the operating surplus of unincorporated enterprises includes remuneration for work done by the owner as well as a return for entrepreneurship.

**TABLE 2: COMPARISON OF DOMESTIC PRODUCTION ACCOUNT IN THE ANA WITH CORRESPONDING SNA93 ACCOUNTS**

**ANA Domestic Production Account**

Wages, salaries and supplements (Compensation of employees)	Final consumption expenditure (Final consumption expenditure)
Gross operating surplus (Gross operating surplus/mixed income).	Gross fixed capital expenditure (Gross fixed capital formation)
Gross domestic product at factor cost (Output <i>less</i> intermediate consumption)	Increase in stocks (Changes in inventories)
Indirect taxes less subsidies (Taxes on production and imports less subsidies)	Gross national expenditure (Gross domestic final expenditure)
	Exports of goods and services (Exports of goods and services)
	<i>less</i> Imports of goods and services (Imports of goods and services)
Gross domestic product (I) (Gross domestic product)	Gross domestic product (E) (Gross domestic product)

**SNA93 Goods and Services Account**

RESOURCES	USES
Output ( <i>less</i> intermediate consumption <i>equals</i> GDP at factor cost)	Intermediate consumption (see Output)
Imports of goods and services (Imports of goods and services)	Final consumption expenditure (Final consumption expenditure)
Taxes on products (Indirect taxes)	Gross fixed capital formation (Gross fixed capital expenditure)
<i>less</i> Subsidies on products (Subsidies)	Changes in inventories (Increase in stocks)
	Acquisitions less disposals of valuables (No equivalent)
	Exports of goods and services (Exports of goods and services)

**SNA93 Production Account**

USES	RESOURCES
Intermediate consumption (see Output)	Output (Intermediate consumption plus GDP at factor cost)
Gross domestic product (Gross domestic product)	
Consumption of fixed capital (Consumption of fixed capital)	
Net domestic product (No equivalent)	

## SNA93 Generation of Income Account

USES	RESOURCES
Compensation of employees (Wages, salaries and supplements)	Net domestic product (No equivalent)
Taxes on production and imports (Indirect taxes)	
<i>less</i> Subsidies (Subsidies)	
Gross operating surplus/mixed income (Gross operating surplus)	

## SNA Accounts Corresponding to ANA National Income and Outlay Account

51. Table 3 below compares the National Income and Outlay Account from the ANA (Table 10 from Cat. No. 5204.0) with the corresponding accounts in SNA93. The items in brackets underneath the ANA items are the SNA93 items most closely corresponding to those ANA items; conversely, the items in brackets underneath the SNA93 items are the ANA items that correspond most closely to those SNA93 items.

52. It can be seen that SNA93 items corresponding to items in the ANA National Income and Outlay Account are spread across three SNA93 accounts. Only one item in the National Income and Outlay Account (Domestic factor

incomes) does not have a corresponding item in the SNA93 accounts shown. However, ignoring any conceptual changes to components (see section below headed "Other Changes"), Domestic factor incomes can be derived from items in the SNA93 accounts listed (it equals Compensation of employees plus Net operating surplus/mixed income).

53. It should be noted that SNA93 includes two tables that are related in concept to the National Income and Outlay Account in the ANA but are not recognised explicitly in the ANA. These are the "Redistribution of Income in Kind Account" and the "Use of Adjusted Disposable Income Account". They are discussed in the section below headed "SNA93 Accounts With No Equivalent in the ANA".

**TABLE 3: COMPARISON OF INCOME AND OUTLAY ACCOUNT IN ANA WITH CORRESPONDING SNA93 ACCOUNTS**

## ANA National Income and Outlay Account

Wages, salaries and supplements (Compensation of employees)	Final consumption expenditure (Final consumption expenditure)
<i>plus</i> Net operating surplus (Net operating surplus/mixed income)	Saving (Saving)
<i>equals</i> Domestic factor incomes	
<i>less</i> Net income paid overseas* (Net property income paid overseas)	
Indirect taxes (Taxes on production and imports)	
<i>less</i> Subsidies (Subsidies)	
National income (National Income)	
<i>less</i> Net unrequited transfers to overseas (Net current transfers paid to overseas)	
National disposable income (Disposable income)	Disposal of income (Disposable income)

\* Equals Net property income paid overseas plus Net labour income paid overseas less Net extraordinary insurance claims from overseas. Net labour income paid overseas is included in "Compensation of employees" in the SNA93 account.

### SNA93 Allocation of Primary Income Account

USES	RESOURCES
Net property income paid overseas * (Net income paid overseas)	Operating surplus/mixed income (Net operating surplus)
	Compensation of employees (Compensation of employees)
	Taxes on production and imports (Indirect taxes)
National income (National income)	Subsidies (Subsidies)

\* SNA93 actually shows the item "Property income" on both the uses and resources sides; the net item is shown here for ease of comparison.

### SNA93 Secondary Distribution of Income Account

USES	RESOURCES
Net current transfers paid to overseas* (Net unrequited transfers to overseas)	National income (National income)
Disposable income (National disposable income)	

\* SNA93 actually shows the receipts and expenditure items on the resources and uses sides of the account but the net items are shown here for ease of comparison.

### SNA93 Use of Disposable Income Account

USES	RESOURCES
Final consumption expenditure (Final consumption expenditure)	Disposable income (Disposable income)
Adjustment for the net equity of households in pension funds (No equivalent)	Adjustment for the net equity of households in pension funds (No equivalent)
Saving (Saving)	

#### SNA93 Accounts Corresponding to ANA Capital and Financial Transactions Accounts

54. Table 4 below compares the National Capital Account from the ANA (Table 11, Cat. No. 5204.0) with the corresponding account from SNA93. The items in brackets underneath the ANA items are the SNA93 items most closely corresponding to those ANA items; conversely, the items in brackets underneath the SNA93 items are the ANA items that correspond most closely to those SNA93 items. The two items in the ANA National Capital Account having no equivalent in SNA93 are "gross accumulation" and "finance of gross accumulation". Subject to conceptual differences discussed in the section below headed "Other Changes", they can be derived from the

SNA93 items ("gross accumulation" equals "gross fixed capital formation" plus "changes in inventories" plus "net lending/borrowing to overseas"; and "finance of gross accumulation" equals "net saving" plus "consumption of fixed capital").

55. The items in the SNA93 Capital Account having no equivalent in the ANA National Capital Account ("Acquisition less disposals of valuables from overseas" and "Acquisition less disposals of non-produced, non-financial assets from overseas") represent new items not shown explicitly in the ANA. They are discussed in detail below in the section headed "Other Changes".



TABLE 4: COMPARISON OF CAPITAL ACCOUNT IN ANA WITH CORRESPONDING SNA93 ACCOUNTS

## ANA National Capital Account

Consumption of fixed capital (Consumption of fixed capital)	Gross fixed capital expenditure (Gross fixed capital formation)
Saving (Saving, net)	Increase in stocks (Changes in inventories)
	Net lending overseas (Net lending/borrowing overseas)
Finance of gross accumulation (No equivalent)	Gross accumulation (No equivalent)

## SNA93 Capital Account

USES	RESOURCES
Gross fixed capital formation (Gross fixed capital expenditure)	Saving, net (Saving)
<i>less</i> Consumption of fixed capital (Consumption of fixed capital)	Capital transfers receivable from overseas *
Changes in inventories (Increase in stocks)	<i>less</i> Capital transfers payable to overseas *
Acquisition less disposals of valuables from overseas (No equivalent)	
Acquisition less disposals of non-produced non-financial assets from overseas (No equivalent)	
Net lending/net borrowing to overseas (Net lending to overseas)	

\* These items are covered in the ANA but are included with current transfers.

56. Table 5 below compares the Financial Transactions Account in the ANA (see Table 27 in Cat. No. 5232.0) with the corresponding account in SNA93. The items in brackets underneath the ANA items are the SNA93 items most closely corresponding to those ANA items; conversely, the items in brackets underneath the SNA93 items are the ANA items that correspond most closely to those

SNA93 items. At this broad level the two accounts appear identical apart from minor differences in terminology. However, the breakdown of financial assets and liabilities in the ANA is different to the breakdown in SNA93. These breakdowns are compared in the section below headed "Classifications".

TABLE 5: COMPARISON OF FINANCIAL TRANSACTIONS ACCOUNT IN ANA WITH CORRESPONDING SNA93 ACCOUNT

## ANA Financial Transactions Account

Net transactions in financial assets (Net acquisition of financial assets)	Net transactions in liabilities (including equity) (Net incurrence of liabilities)
	Change in financial position (Net lending/net borrowing)

## SNA93 Financial Account

CHANGES IN ASSETS	CHANGES IN LIABILITIES AND NET WORTH
Net acquisition of financial assets (Net transactions in financial assets)	Net incurrence of liabilities (Net transactions in liabilities (including equity))
	Net lending/net borrowing (Change in financial position)

**SNA93 Accounts Corresponding to ANA Overseas Transactions Account**

57. Table 6 below compares the Overseas Transactions Account in the ANA with the corresponding accounts in SNA93. The items in brackets underneath the ANA items are the SNA93 items most closely corresponding to those ANA items; conversely, the items in brackets underneath the SNA93 items are the ANA items that correspond most closely to those SNA93 items.

58. There are two items in the ANA Overseas Transactions Account having no equivalent in the corresponding SNA93 accounts: "Use of current receipts" and "Current receipts from overseas". Aside from some substantial conceptual differences that would affect the underlying series under SNA93, these two items can be derived from items in the SNA93 accounts. "Use of current receipts" is equal to "Imports of goods and services" plus "Compensation of employees" plus "Property income to overseas" plus "Current transfers to overseas" plus "Changes in net worth due to saving and capital transfers". Similarly, "Current receipts from overseas" is equal to "Exports of goods and services" plus "Property income from overseas" plus "Compensation of employees" plus "Current transfers from overseas".

59. SNA93 introduces two new intermediate balancing items. The item "External balance of goods and services" is simply the difference between "Imports of goods and

services" and "Exports of goods and services". However, because the concepts in BPM5 underlying the derivation of the exports and imports of goods and services are different in several respects from those used in compiling the ANA, this balance cannot be derived from the ANA's Overseas Transactions Account. Some of these changes include new services first included under SNA93, such as fees earned on foreign exchange and derivatives trading, but others involve significant reclassifications of ANA income items into the goods and services account that change the scope of the similarly named ANA series.

60. For similar reasons, the new SNA93 item "Current external balance" also has no equivalent in the ANA. Apart from the significant new services that affect the "External balance of goods and services", and which also affect this broader current balance, income measures included in the "Current external balance" also include interest flows associated with interest rate swaps and similar financial derivatives, as well as reinvested earnings. The current balance also excludes the items "Acquisitions less disposals of non-produced, non-financial assets", "Capital transfers payable" and "Capital transfers receivable". Several other changes will also impact on this balance, including the introduction of the item "Adjustment for the net equity of households in pension funds", which is a new item not covered in the ANA. This last item is explained in the section below headed "Other Changes".

**TABLE 6: COMPARISON OF OVERSEAS TRANSACTION ACCOUNT IN THE ANA WITH CORRESPONDING ACCOUNT IN SNA93**

**ANA Overseas Transaction Account**

Imports of goods and services (Imports of goods and services)	Exports of goods and services (Exports of goods and services)
Interest etc to overseas* (Part of property income)	Interest etc from overseas* (Part of property income)
Dividends to overseas (Part of property income)	Dividends from overseas (Part of property income)
Labour income to overseas (Compensation of employees)	Labour income from overseas (Compensation of employees)
Unrequited transfers to overseas (Current and capital transfers to overseas)	Extraordinary insurance claims (Part of current transfers from overseas)
Net lending to overseas (Changes in net worth due to saving and capital transfers)	Unrequited transfers from overseas (Part of current and capital transfers from overseas)
Use of current receipts (No equivalent)	Current receipts from overseas (No equivalent)

\* Interest etc. to/from overseas in the ANA includes royalties and licence fees, which under SNA93 are classified as services.

### SNA93 External Account of Goods and Services

USES	RESOURCES
Exports of goods and services (Exports of goods and services)	Imports of goods and services (Imports of goods and services)
External balance of goods and services (No equivalent)	

### SNA93 External Account of Primary Incomes and Current Transfers

USES	RESOURCES
	External balance of goods and services (No equivalent)
Compensation of employees (Labour income to overseas)	Compensation of employees (Labour income from overseas)
Property income to overseas (Interest, etc to overseas plus dividends to overseas*)	Property income from overseas (Interest, etc from overseas plus dividends from overseas*)
Current transfers to overseas (Part of unrequited transfers to overseas)	Current transfers from overseas (Part of unrequited transfers from overseas)
Adjustment for the net equity of households in pension funds (No equivalent)	Adjustment for the net equity of households in pension funds (No equivalent)
Current external balance (No equivalent)	

\* Interest etc. to/from overseas in the ANA includes royalties and licence fees which under SNA93 are classified as services. Also, Property income under SNA93 includes reinvested earnings on direct foreign investment.

### SNA93 External Accumulation Account

USES	RESOURCES
Acquisitions less disposals of non-produced non-financial assets *	Current external balance (No equivalent)
	Capital transfers, receivable *
	less Capital transfers payable *
	Changes in net worth due to saving and capital transfers (Net lending to overseas)

\* These items are covered in the ANA but are not recorded separately.

#### SNA93 Accounts With No Equivalent in the ANA

61. Table 7 below provides a broad outline of accounts in SNA93 that currently have no equivalent in the ANA. Balance sheets have been included here even though, as noted above, the ABS is shortly to publish experimental national balance sheets. The table is in two parts: Table 7 (a) deals with income accounts and Table 7(b) deals with balance sheets and related accounts. Of the new income accounts, the first, the Redistribution of Income in Kind Account, adds to disposable income the net effects of

transfers in kind (e.g., government provision of free education, distribution to households or to overseas of goods donated to non-profit institutions) and arrives at a balancing item called "Adjusted disposable income". The Use of Adjusted Disposable Income Account shows how adjusted disposable income is consumed or saved. It introduces two new concepts, "Actual individual consumption" and "Actual collective consumption", that are explained below in the section headed "Other Changes".

**TABLE 7 (a): SNA93 ACCOUNTS HAVING NO EQUIVALENT IN THE ANA — DISTRIBUTION AND USE OF INCOME ACCOUNTS**

**SNA93 Redistribution of Income in Kind Account**

USES	RESOURCES
Social transfers in kind (to overseas)	Disposable income
	Social transfers in kind (from overseas)
Adjusted disposable income	

**SNA93 Use of Adjusted Disposable Income Account**

USES	RESOURCES
Actual final consumption	Adjusted disposable income
Actual individual consumption	
Actual collective consumption	Adjustment for change in net equity of households in pension funds
Adjustment for change in net equity of households in pension funds	
Saving	

62. The balance sheets and related accounts are all designed to "close off" the system by making it a fully reconciled and integrated set of accounts. The balance sheet accounts are "stock" accounts that provide information on the opening and closing stocks of wealth in the community. The balancing item in the balance sheets is "Net worth", which represents the difference between assets and liabilities.

63. The information in the balance sheets is reconciled with information on economic transactions in Tables 2 to 6 above, through the Other Changes in Volume of Assets Account and the Revaluation Account, which measure changes in net worth arising from events other than economic transactions. The Other Changes in Volume of Assets Account records changes in the stocks of wealth that arise from events such as the destruction of existing assets by natural catastrophes, or through discovery of new assets such as oil or mineral deposits. The Revaluation Account records changes in net worth that arise from value changes. It has two supporting accounts which separate the value changes into "neutral" and "real" changes (i.e., gains or losses). These are the Neutral Holding Gains/Losses Account and the Real Holding Gains/Losses Account. This set of accounts is explained in more detail in the following paragraphs.

64. Each of the accounts in this group employs the same basic classification of assets and liabilities. To avoid repetition the classification is not reproduced in each version of the accounts reproduced in Table 7 but it should be understood that each account in the group is itemised according to the classification, which at a broad level is as follows:

Assets

Non-financial Assets

Produced assets  
Fixed assets  
Inventories  
Valuables

Non-produced assets

Tangible  
Intangible

Financial assets

Classified by type of financial instrument

Liabilities

Classified by type of financial instrument  
(same as for financial assets)

Financial assets are broadly those for which there is a corresponding liability. All other assets recorded in the system are defined as non-financial assets. Produced assets are assets created from production processes and non-produced assets are natural assets over which ownership can be enforced (for example, mineral deposits, water resources, virgin forests) and intangible assets that are "constructs of society" (for example certain patents and goodwill). The definitions and the detailed classification will not be discussed here, except in broad terms (the more detailed classification is discussed below in the section headed "Classifications" and the definition of assets is reproduced below in the section headed "Other Changes").

65. The Other Changes in Volume of Assets Account records changes in assets and liabilities, classified by type of asset/liability, as above, and according to the type of

event bringing about the change. The classification of events is shown in the version of the Other Changes in Volume of Assets Account included in Table 7 (b) below.

**TABLE 7 (b): SNA93 ACCOUNTS HAVING NO EQUIVALENT IN THE ANA — BALANCE SHEETS AND RELATED ACCOUNTS**

**SNA93 Other Changes in Volume of Assets Account**

CHANGES IN ASSETS	CHANGES IN LIABILITIES AND NET WORTH
Economic appearance of non-produced assets	Catastrophic losses
Economic appearance of produced assets	Uncompensated losses
Natural growth of non-cultivated biological resources	Other volume changes in net liabilities n.e.c.
Economic disappearance of non-produced assets	Changes in classification and structure
Catastrophic losses	
Uncompensated seizures	
Other volume changes in non-financial assets n.e.c.	
Other volume changes in financial assets and liabilities n.e.c.	
Changes in classification and structure	
	Changes in net worth due to other changes in volume of assets

**SNA93 Revaluation Account**

CHANGES IN ASSETS	CHANGES IN LIABILITIES AND NET WORTH
Nominal holding gains/losses	Nominal holding gains/losses
Non-financial assets	Liabilities
Financial assets	
	Changes in net worth due to nominal holding gains/losses

**SNA93 Neutral Holding Gains/Losses Account**

CHANGES IN ASSETS	CHANGES IN LIABILITIES AND NET WORTH
Neutral holding gains/losses	Neutral holding gains/losses
Non-financial assets	Liabilities
Financial assets	
	Changes in net worth due to neutral holding gains/losses

**SNA93 Real Holding Gains/Losses Account**

CHANGES IN ASSETS	CHANGES IN LIABILITIES AND NET WORTH
Real holding gains/losses	Real holding gains/losses
Non-financial assets	Liabilities
Financial assets	
	Changes in net worth due to real holding gains/losses

## SNA93 Opening Balance Sheet

ASSETS	LIABILITIES AND NET WORTH
Non-financial assets	Liabilities
Financial assets	
	Net Worth

## SNA93 Changes in Balance Sheet Account

ASSETS	LIABILITIES AND NET WORTH
Total changes in assets	Total changes in liabilities
Non-financial assets	
Financial assets	
	Changes in Net Worth due to: Savings and capital transfers Other changes in volume of assets Nominal holding gains/losses Neutral holding gains/losses Real holding gains/losses

## SNA93 Closing Balance Sheet

ASSETS	LIABILITIES AND NET WORTH
Non-financial assets	Liabilities
Financial assets	
	Net Worth

66. The events appearing in the Other Changes in Volume of Assets Account above can be illustrated by examples as follows:

## Economic appearance of non-produced assets

- discovery of new assets such as mineral deposits
- bringing natural assets (e.g., virgin forests) under the direct control of institutional units

## Economic appearance of produced assets

- recording valuables (e.g., precious stones, antiques, works of art) and historic monuments that were not recorded in the balance sheet at the time of their production

## Natural growth of non-cultivated biological resources

- growth in natural assets such as non-cultivated forests and fish stocks

## Economic disappearance of non-produced assets

- depletion or degradation of natural assets through use

- the writing off or cancellation of intangible assets such as patents and goodwill

## Catastrophic losses

- losses from large scale, discrete, recognisable events such as fires, floods, acts of war, etc

## Uncompensated seizures

- generally illegal assumptions of property (excludes repossession of goods in cases of default)

## Other volume changes in non-financial assets

- obsolescence, unforeseen damage and degradation not covered in allowances for consumption of fixed capital

- abandonment of facilities before they are brought into production

## Other volume changes in financial assets and liabilities

- bad debts written off (but not cancellation of debt by mutual agreement, which is treated as a capital transfer)

### Changes in classification

- unincorporated institutional unit becomes corporate and thereby moves from the household to the corporate sector.

67. The Revaluation Account records positive or negative nominal holding gains accruing to owners of assets and liabilities. These gains and losses are decomposed into neutral and real gains and losses in the Neutral Holding Gains/Losses and Real Holding Gains/Losses Accounts, respectively. Nominal holding gains/losses arise from changes in the prices of assets and liabilities held; neutral holding gains/losses are those that arise only from the change in the general level of prices. Real holding gains and losses are those due to changes in the price of an asset or liability relative to the change in the general level of prices.

68. The Balance Sheet Account has three components: the Opening Balance Sheet, the Closing Balance Sheet, and the Changes in Balance Sheet Account. The latter presents for each item in the balance sheet the arithmetic difference between the closing and opening values. In the Changes in Balance Sheet Account, the item "Change in net worth" is broken down into changes due to saving and capital transfers, other changes in the volume of assets, and nominal, neutral and real holding gains/losses (see definitions in previous paragraph).

### Statistical Units

69. This section deals with the concepts of statistical units applied in SNA93 and with the main classifications of statistical units and transactions that are recommended. Comparisons are made with the units concepts and classifications applied in the ANA.

70. Statistical units in this context are the units about which information in the system is recorded. The definition of these units is important in that it is the application of classifications (e.g., of industry or of institutional sector) to the statistical units that determines how the structure of the economy is depicted in the system of accounts. The basic statistical unit recommended in SNA93 is the "institutional unit", defined as "an economic entity capable, in its own right, of owning assets, incurring liabilities and engaging in economic activities and in transactions with other entities". In practice, this definition provides units that are individual persons or groups of persons in households, and legal or social entities recognised by law, such as companies, trusts, partnerships, non-profit organisations, and government entities.

71. SNA93 further recommends that institutional units engaged in production (called "enterprise units") be partitioned into "producing units" for the purpose of measuring production classified by industry. Ideally, producing units would be homogeneous in terms of the range of goods and services they produce, the processes they use and the materials and supplies they consume. This would facilitate grouping like units together as industries for analytical purposes. SNA93 recognises that, in practice, most producing units are not perfectly homogeneous and

recommends use of the "establishment" unit for recording production. This is a unit at a single location or group of adjacent sites engaged in a common principal activity but possibly having other secondary activities.

72. The statistical units advocated in SNA93 generally are consistent with the statistical units applied in the ANA, at least for the vast majority of smaller, less complex units. For more complex units the ABS allows variations which enable respondents to surveys to provide information more readily. For example, in the ANA the institutional unit is often a combination of legal entities under common ownership and control that are classified to the same institutional sub-sector. Use of consolidated data (i.e., eliminating transactions between the grouped units) for such a unit gives the same result as use of the SNA93 institutional unit. The producing units used in the ANA are sometimes broader units than recommended in SNA93, since they are defined as units for which the required range of production data is available. Where the data are not available for single locations or adjacent sites, a unit that is less homogeneous than the SNA93 unit can result.

73. SNA93 includes a concept of "ancillary corporations", defined as subsidiary corporations whose activities are strictly confined to providing services to the parent corporation or other ancillary corporations owned by the same parent corporation. Ancillary corporations are not treated as separate institutional units but are combined with the parent corporation. It follows that these corporations are included in the same institutional sector as the parent corporation, even though they may be engaged in activities carried out by another sector. For example, an ancillary corporation engaged solely in providing financial services to a parent company in the non-financial sector will be included in the non-financial rather than the financial sector. SNA93 also requires that holding companies be classified to the institutional sector of the group of companies as a whole, rather than to the financial sector (unless it is the sector of the group as a whole).

74. The concept of ancillary activities on which the concept of ancillary corporations is based is also applied at the level of producing units in SNA93. Ancillary activities are productive activities that are not intended for use outside the enterprise and that provide support for the main productive activities of the enterprise. Examples include accounting, personnel functions, transport of the enterprise's own products, etc. These activities are not recorded separately in SNA93 but are combined with the main activity of the producing units with which they are associated.

75. On the other hand, in the ABS's business register some ancillary activities that are organised in separate units are recorded separately and are included with the industry in which the activity is a primary activity. For example, a separately located computing bureau mainly providing computing services to producing units belonging to the same institutional unit would be classified to the computing industry if it is organised as a separate entity operating on a commercial basis, and keeps a full set of

accounts. Under SNA93 such a unit would be classified to the predominant industry among the producing units of the enterprise(s) to which it provides services. Adoption of the SNA approach would therefore have some effect on ANA industry statistics derived from surveys using the business register, but it is expected that these changes would not be as significant as other changes resulting from general improvements in ANA industry data from the changed methodology described in the appendix.

## Classifications

### *Institutional Sector Classification*

76. SNA93 identifies four types of institutional units: corporations, government units, households and non-profit institutions, and provides rules for the classification of these units to institutional sectors (see below). The separate identification of non-profit institutions would be a major innovation in the ANA and it would be a major task from a practical viewpoint. Currently they are not identified separately and most are included in the household sector. They are defined in SNA93 as "legal or social entities whose status does not permit them to be a source of income, profit or other financial gain for the units that establish, control or finance them". Thus, non-profit institutions can generate a surplus but cannot distribute that surplus.

77. The concept of corporations in SNA93 includes "quasi corporations", as it did in the 1968 SNA. Quasi corporations are defined in SNA93 as unincorporated enterprises operated as if they are separate corporations and whose de facto relationship to their owners is that of a corporation to its shareholders. They must keep a separate set of accounts. While this definition has not changed substantially from the 1968 SNA's definition, it is broader than the ABS applies in practice in the ANA. A more rigorous application of the definition would almost certainly result in a far larger number of Australian unincorporated enterprises owned by households being treated as quasi corporations. The ABS intends to assess the impact of a more rigorous application of the definition as part of the process of implementing SNA93.

78. As indicated above, SNA93 provides for the classification of the different types of institutional units to institutional sector based on a set of rules. Five domestic institutional sectors are defined:

Non-financial corporations

Financial corporations

General government

Households

Non-profit institutions serving households.

All corporations and quasi corporations are classified to either the non-financial corporations sector or the financial corporations sector, depending on their predominant activity. All government units are classified to the general government sector and all households to the households sector. Non-profit institutions are classified initially as "market" or "non-market". "Market" non-profit institutions are those that sell most of their output at prices which have a significant influence on the amounts producers are willing to supply and purchasers are willing to buy. They are included in the non-financial corporations sector or the financial corporations sector depending on their major activity. "Non-market" non-profit institutions that are controlled and mainly financed by government are included in the general government sector; those serving households make up the non-profit institutions serving households sector.

79. Although these rules for classifying institutional units to institutional sectors include some variations on rules used in compiling the ANA, the variations are generally not expected to have a major effect on the statistics. Two possible exceptions concern the institutional sector classification of universities and the central borrowing authorities of State and Territory governments. The ABS is investigating the application of the SNA93 criteria to these institutions in response to user concern that they are not currently classified appropriately. Apart from possible changes arising from these investigations, the major impact on the statistics from implementing the SNA93 institutional sector classification would be presentation of separate statistics for non-profit institutions serving households and the transfer of units as quasi corporate units from the households sector to the non-financial and financial corporate sectors.

80. The full institutional sector classification recommended in SNA93 includes a number of sub-sectors not currently recognised separately in the ANA. Table 8 compares the full institutional sector classification in SNA93 with the institutional sector classification applied in the ANA. The SNA93 classification is shown in full in the left-hand column and the corresponding components of the ANA classification are shown in the right-hand column.

81. It should be noted that the ANA classification is not used in full in all the publications in which the ANA are published. For example, information for all of the sub-sectors of the Financial Enterprises Sector is only published in Cat. No. 5232.0 (*Australian National Accounts: Financial Accounts*). Similarly, SNA93 is not always prescriptive about the information that should be compiled for the institutional sub-sectors it defines. They should be taken as indicative of the maximum range of sectoral information that could be compiled.



TABLE 8: COMPARISON OF INSTITUTIONAL SECTOR CLASSIFICATIONS IN SNA93 AND THE ANA

SNA93	ANA
Non-financial corporations Public National private Foreign controlled	Corporate trading enterprises  Public trading enterprises Commonwealth State and local Private trading enterprises
Financial corporations	Financial enterprises  Public financial enterprises Private financial enterprises
Central bank	Reserve Bank of Australia
Other depository corporations  Deposit money corporations Public National private Foreign controlled  Other depository corporations except deposit money corporations  Public National private Foreign controlled	Banks       Non-bank deposit taking institutions
Other financial intermediaries, except insurance corporations and pension funds  Public National private Foreign controlled	Other financial institutions (except general insurers)
Financial auxiliaries  Public National private Foreign controlled	(Included with non-financial corporations)
Insurance corporations and pension funds  Public National private Foreign controlled	Life insurance and superannuation funds  Other financial institutions (i.e., general insurers)
General Government  Central State Local	General Government  Commonwealth State and local
Non-profit institutions serving households	Included with households
Households  Employers Own account workers Employees Recipients of property and transfer income Recipients of property income Recipients of pensions Recipients of other transfers	Households

82. From Table 8 it can be seen that SNA93 provides for a number of institutional sub-sectors not currently used in the ANA. It recommends that the corporate sectors be subdivided into sub-sectors distinguishing public sector corporations from private sector corporations and distinguishing foreign controlled private corporations from "national" (domestically controlled) corporations. While the ANA distinguish public and private trading enterprises and, in some tables, public and private financial enterprises, generally they do not make any of the other distinctions indicated, although from time to time the ABS has undertaken studies of foreign controlled enterprises, outside the ambit of the ANA.

83. Apart from differences in terminology, two differences are evident between the sub-sectors within the Financial corporations sector. Firstly, financial auxiliaries, which are institutional units providing financial services not regarded as financial intermediation (e.g., stock brokers, insurance brokers, stock exchanges, guarantors, etc), form a separate sub-sector in SNA93 but are included in the non-financial corporations sector in the ANA. Secondly, general insurance corporations are included with life insurance corporations and pension funds in SNA93, whereas they are included with the miscellaneous group Other financial institutions in the ANA. It should also be noted that, in the 1968 SNA and therefore in the ANA, unincorporated financial enterprises were included in the financial sector whereas in SNA93, unless they are considered quasi corporate, they are included in the household sector.

84. Another difference between the SNA93 sub-sectors and the ANA sub-sectors is evident in relation to the general government sector. SNA93 separates State government and local government whereas the ANA always combines the two levels of government. It should also be noted that SNA93 recommends that, for studies of the public sector, statistics be presented for the consoli-

dated total of the general government sector and public non-financial enterprises combined, and for the consolidated total of general government, public non-financial enterprises and public financial enterprises.

85. In the household sector, SNA93 provides for sub-sectors, as did the 1968 SNA. Sub-sectoring of the household sector has never been implemented in the ANA and its introduction would represent a major change. The 1993 sub-sectoring revises the 1968 version and is based on the household's major source of income. SNA93 also suggests sub-sectoring the household sector by other economic, socio-economic and geographical criteria for specific purposes, but these alternative sub-sectorings will not be discussed here.

86. In summary, the main change involved in adoption in the ANA of the SNA93 recommendations in relation to institutional sectors and sub-sectors would be the introduction of a sector for non-profit institutions serving households. The sub-sectoring of the financial enterprises sector would change slightly, including the introduction of a sub-sector for financial auxiliaries. Sub-sectoring would be introduced for the household sector and the sub-sectors of the private corporate trading enterprises sector and the financial enterprises sector would include separate categories for foreign controlled and Australian controlled enterprises.

#### *Assets and Liabilities Classification*

87. The broad structure of the classification of assets and liabilities that is recommended in SNA93 has been discussed under "SNA93 Accounts With No Equivalent in ANA" above. The detailed level of that classification has no counterpart in the ANA apart from the parts relating to fixed assets and to financial assets and liabilities. The full classification is presented in the first column of Table 9 below, with the ANA counterparts shown in the second column.

**TABLE 9: COMPARISON OF CLASSIFICATION OF ASSETS IN SNA93 AND ANA**

SNA93	ANA
<b>Non - financial Assets</b>	
<b>Produced assets</b>	
Fixed assets	
Tangible fixed assets	
Dwellings	Dwellings plus part of real estate transfer expenses
Other buildings and structures	) Non-dwelling construction plus part of real estate
Non-residential buildings	) transfer expenses
Other structures	)
Machinery and equipment	)
Transport equipment	) Equipment
Other machinery and equipment	)
Cultivated assets	
Livestock for breeding	
Vineyards, orchards, etc.	
Intangible fixed assets	
Mineral exploration	
Computer software	
Entertainment, literary or artistic originals	
Other n.e.c.	Real estate transfer expenses on land

TABLE 9: COMPARISON OF CLASSIFICATION OF ASSETS IN SNA93 AND ANA — *continued*

SNA93	ANA
Inventories Materials and supplies Work in progress On cultivated assets Other Finished goods Goods for resale	Stocks
Valuables Precious metals and stones Antiques and other art objects Other valuables	
<b>Non-produced Assets</b> Tangible non-produced assets - Land Underlying buildings, etc. Under cultivation Recreational land Other land and surface water Sub-soil assets Coal, oil, and natural gas Metallic minerals Non-metallic minerals Non-cultivated biological resources Water resources Intangible non-produced assets Patented entities Leases and transferable contracts Purchased goodwill Other n.e.c.	
<b>Financial Assets and Liabilities</b> Monetary gold and SDRs Currency and deposits Currency Transferable deposits Other deposits Securities other than shares Short term Long term Loans Short term Long term Shares and other equity Insurance technical reserves Net equity of households in life insurance reserves and pension funds Prepayment of premiums and reserves against out- standing claims Other accounts receivable/payable Trade credit and advances Other	) ) Cash and deposits ) ) )  Short term debt securities (a) Long term debt securities Loans and placements  Equity (part) ) Insurance technical reserves of life and pension ) funds, attributable to domestic households ) Equity (part) ) Other financial claims (part)  ) Other financial claims (part) )

(a) This item is further broken down into bills of exchange, promissory notes, Treasury notes and bank certificates of deposit.

88. The elements of the ANA corresponding to the items of fixed assets in the SNA93 classification in Table 9 are those used to present statistics of gross fixed capital expenditure (for example, see Table 64, Cat. No. 5204.0)

and capital stock (as published in Cat. No. 5221.0). These elements will also be used in the ABS's forthcoming release of experimental national balance sheet statistics. The elements corresponding to the items of financial assets

and liabilities in the SNA93 classification are those used in the financial accounts (Cat. No. 5232.0). If SNA93 were to be adopted in full, the classification in Table 9 would be applied much more widely. In addition to its use in classifying gross fixed capital expenditure, financial assets and liabilities in the financial accounts and national balance sheets, it would be used in presenting sectoral balance sheets, changes in balance sheets, the revaluation account, and the holding gains/losses accounts. It would become a central classification in the ANA system.

#### *Classification of Transactions and Other Flows*

89. Broad elements of this SNA93 classification have already been displayed in the tables showing the main transactions accounts in the system. The detailed classification is presented in Table 10. However, the item descriptions in the classification relating to transactions in

financial assets and liabilities are identical to the corresponding items in the assets and liabilities classification and are not repeated in Table 10. Similarly, the item descriptions for accumulation entries are omitted because they appear in the Other Changes in Volume of Assets Account in Table 7 (b) above. In Table 10, items that have a corresponding item in the ANA (or can be derived from items in the ANA) are marked with an asterisk. It follows that items without an asterisk would be new to the ANA were SNA93 to be implemented in full. It should be noted that the correspondence between asterisked items and the ANA items will not always be exact and may be significantly different in some cases, depending on the conceptual changes introduced in SNA93. Conversely, items without an asterisk may be covered implicitly in the ANA but are not identified separately.

**TABLE 10: CLASSIFICATION OF TRANSACTIONS AND OTHER FLOWS IN SNA93**

<b>Transactions in goods and services</b>	<b>Distributive Transactions</b>
<u>Output *</u>	<u>Compensation of employees *</u>
Market output	Wages and salaries *
Output for own final use	Employers' social contributions * (a)
Other non-market output	Actual
	Imputed
<u>Intermediate consumption *</u>	
<u>Final consumption expenditure *</u>	<u>Taxes on production and exports *</u>
Individual consumption expenditure	Taxes on products
Collective consumption expenditure	Value added type taxes
	Taxes on duties on imports excluding VAT
	Import duties
	Other
	Export taxes
	Other
	Other taxes on production
<u>Actual final consumption</u>	
Actual individual consumption	<u>Subsidies *</u>
Actual collective consumption	On products
	Import subsidies
	Export subsidies
	Other
	Other
<u>Gross fixed capital formation *</u>	<u>Property income *</u>
Acquisitions less disposals of tangible fixed assets *	Interest *
Acquisitions of new assets	Distributed income of corporations
Acquisitions of existing assets	Dividends *
Disposals of existing assets	Withdrawals from income of quasi corporations *
Acquisitions less disposals of intangible fixed assets	Reinvested earnings on direct foreign investment *
Acquisitions of new assets	Property income attributed to insurance policy holders
Acquisitions of existing assets	Rent *
Disposals of existing assets	
Addition to the value of non-produced non-financial assets	<u>Current taxes on income, wealth, etc. *</u>
Major improvements	Taxes on income *
Costs of ownership transfer	Other *
<u>Changes in inventories *</u>	
<u>Acquisitions less disposals of valuables</u>	
<u>Exports of goods and services *</u>	
Goods *	
Services *	
<u>Imports of goods and services *</u>	
Goods *	
Services *	

(a) Employers' social benefits in SNA93 includes unfunded schemes managed by employers for the benefit of their employees.

TABLE 10: CLASSIFICATION OF TRANSACTIONS AND OTHER FLOWS IN SNA93 — *continued*

<u>Distributive Transactions — <i>continued</i></u>	
<u>Social contributions and benefits *</u>	Social transfers in kind
<u>Social contributions *</u>	Social benefits in kind
Actual contributions	Social security benefits, reimbursements
Employers' contributions	Other social security benefits in kind
Compulsory	Social assistance benefits in kind
Voluntary	
Employees' contributions	Transfers of individual non-market goods and services
Compulsory	
Voluntary	<u>Other current transfers *</u>
Contributions by self- and non-employed persons	Net non-life insurance premiums
Compulsory	Non-life insurance claims
Voluntary	Current transfers within general government
Imputed contributions	Current international co-operation
	Miscellaneous current transfers
Social benefits other than social transfers in kind *	<u>Adjustment for the change in net equity of households in pension funds</u>
Social security benefits in cash	
Private funded social benefits	<u>Capital transfers *</u>
Unfunded employee social benefits	Capital taxes
Social assistance benefits in cash	Investment grants
	Other capital transfers

(a) Employers' social benefits in SNA93 includes unfunded schemes managed by employers for the benefit of their employees.

90. From Table 10 it is evident that there is a large number of items in the SNA93 classification that have no equivalent in the ANA. Nearly all of them are associated with conceptual and presentational changes introduced in SNA93. For this reason they are not discussed here but are discussed in the section headed "Other Changes" below.

#### *Other Classifications*

91. SNA93 includes other classifications that will not be discussed in detail here. There is a classification of balancing items which simply brings together all the balancing items in the system in one place. These items have all been itemised in earlier parts of this paper. There is also a set of complementary classifications of transactions and flows that supply additional details for various items that might be useful in particular circumstances. The items are too numerous and of insufficient general interest to enumerate here.

92. Industry data in SNA93 are based on the International Standard Industrial Classification of all Economic Activities (ISIC), which is included in SNA93 at the two digit level. Industry statistics in the ANA up to 1992-93 are based on the Australian Standard Industrial Classification (ASIC). From the 1993-94 ANA on, the revised version of ASIC, the Australian and New Zealand Standard Industrial Classification (ANZSIC) will be used and data will be "backcast" to at least 1982-83. In developing the ANZSIC (and the ASIC) the ABS followed the structure and content of the ISIC as far as possible, while allowing variations to reflect particular Australian and New Zealand conditions and requirements. The ANA will continue to use ANZSIC to compile industry statistics after SNA93 is implemented.

93. The Central Product Classification (CPC) in SNA93 is a detailed classification of goods and services, which is used in supply and use (i.e., input-output) tables, and for other purposes. The ABS and the New Zealand Statistics Department are developing the Australian and New Zealand Commodity Classification (ANZSCC), which will match the CPC at the three digit level, as recommended in SNA93. The classification described in SNA93 has 99 items but the full (four digit) classification has 1811 items. The ten main headings are reproduced below:

- Agriculture, forestry and fishery products
- Ores and minerals; electricity, gas and water
- Food products, beverages and tobacco; textiles, apparel and leather
- Other transportable goods, except metal products, machinery and equipment
- Metal products, machinery and equipment
- Construction work and constructions; land
- Trade services; hotels and restaurant services
- Transport, storage and communication services
- Business services; agricultural, mining and manufacturing services
- Community, social and personal services

The ANA input-output tables do not use the CPC at present but it will be used (at the three digit level) in the 1994-95 input-output tables and thereafter.

94. SNA93 includes a classification of individual consumption by purpose (COICOP) which includes categories very similar to those used in the ANA (see Table 52: Private Final Consumption Expenditure, Cat. No. 5204.0). Similarly, the Classification of the Functions of Government (COFOG) in SNA93 is very similar to the classification in the ANA (see Table 59: Government Final Consumption Expenditure by Level of Government and Purpose, Cat. No. 5204.0).

95. A Classification of the Purposes of Non-profit Institutions Serving Households (COPNI) is included in SNA93. It would have to be considered for inclusion in the ANA should it be decided to include non-profit institutions serving households as a separate institutional sector. The classification has eight categories:

- research and scientific services;
- education services;
- health services;
- welfare services;
- recreational, cultural and related services;
- religious services;
- services of professional and labour organisations and civic associations;
- miscellaneous services n.e.c.

96. SNA93 includes a Classification of Outlays of Producers by Purpose (COPP) which is listed at the two digit level in the document. The one digit categories are described as outlays on:

- current production programs;
- repair and maintenance;
- engineering and related technological work;
- research and development;
- pollution abatement and control;
- sales promotion;
- external transportation;
- employee training, welfare and morale;
- general administration.

No comparable classification exists in the ANA and its introduction would provide information not previously available.

### Other Changes

97. This section deals with the main conceptual, presentational and other changes that would be introduced to the ANA through full implementation of SNA93. The matters discussed are generally not covered in detail elsewhere in this discussion paper although some of them are referred to briefly in earlier sections.

#### *Changes to Scope of Transactions*

98. *Further specification of the production boundary.* The term "production boundary" refers to the SNA's recommendations concerning the extent to which the concept of production is to be implemented in practice, given the practical difficulties in measuring some forms of production. Goods and services produced by institutional units for their own final use all fall within the SNA93 production boundary, except for services produced by members of households for themselves and other household members. This means that most unpaid household work (i.e., all unpaid household work producing services, as distinct from goods) is excluded. Note, however, that imputed rental of owner-occupied dwellings and payments made for services of paid domestic staff are inside the production boundary. Estimates of "backyard production" of major goods are included in the ANA, so implementation of the SNA93 definition would have a relatively small impact on GDP(E) and household consumption expenditure. However, the way in which such production is accounted for would need to be altered, and the household income arising from the production would have to be imputed, thereby raising the level of household income.

99. *Allocation of financial intermediation services indirectly measured (FISIM).* SNA93 recommends that consumption of the output of financial intermediation services be fully allocated among all consumers of the services (i.e., borrowers and lenders). The 1968 SNA recommended allocation of the imputed service charge on financial intermediation only to borrowers; the part relating to consumer loans was allocated to private final consumption expenditure, while the remainder, "the imputed bank service charge", was treated as the intermediate consumption of a "nominal industry" with negative operating surplus. By convention, the nominal industry was included in the financial enterprises sector. This approach, which has been adopted in the ANA, minimises the practical difficulties of allocating the charge between borrowers and lenders and among individual industries and institutional sectors.

100. Full allocation of FISIM in the ANA would constitute a major change which would have a substantial impact on key variables (a rough estimate is that it would increase GDP by \$4 billion in 1993-94). Full allocation of FISIM would mean that it would be allocated to intermediate consumption (dissected by industry and by institutional sector), to final consumption by non-profit institutions serving households, general government and households, and to exports. An estimate would also have to be made for FISIM relating to imported financial services. (In this context FISIM would relate to the financial intermediation services provided by non-resident financial enterprises to residents, and would be difficult to measure in practice.)

101. SNA93 is not prescriptive regarding the calculation of FISIM. Also, as noted in paragraph 30 above, BPM5 does not recommend incorporation of FISIM in the balance of payments accounts. It is clear that, in a full implementation of SNA93 and BPM5, the ABS would have to consider carefully whether to adopt these different standards resulting in inconsistent treatments in balance of payments and national accounts statistics, or whether to adopt one standard and not the other. In addition, detailed methods for allocating FISIM between borrowers and lenders, and among industries and institutional sectors would need to be carefully evaluated.

102. *Revised treatment of workers' compensation.* SNA93 requires (as did the 1968 SNA) that workers' compensation premiums rather than workers' compensation claims (as is the current ABS practice) be included in wages, salaries and supplements. The ABS had not adopted the 1968 SNA basis because the compulsory nature of workers' compensation in Australia implied that the employers were paying the service charge, and because some workers' compensation schemes had been run at a loss (implying a negative service charge). Changing the treatment would affect wages, salaries and supplements, GDP (by approximately +SA1 billion in recent years) and private final consumption expenditure.

103. *Inclusion, in principle, of all illegal production.* SNA93 recommends comprehensive coverage of all illegal activities. While the ANA includes no specific estimates to account for illegal activities, some transactions arising from these activities are known to be included among data used to compile the accounts. However, were the ABS to include estimates for illegal activities such as transactions in illegal drugs, prostitution and SP bookmaking, there would potentially be a significant impact on the statistics.

104. *Separate identification of non-monetary flows and re-routings.* SNA93 recommends that all non-monetary transactions included in the system be separately identified to assist analysts interested only in monetary transactions. Non-monetary transactions included in the system include payments in kind and internal transactions such as the production and consumption of goods and services in the same institutional unit.

105. SNA93 also recommends that "re-routings" be separately identified as such. "Re-routings" involve recording transactions reflecting the economic flows where the actual transactions involve a "short cut". For example, PAYE income tax deductions are recorded as a flow between employees and the taxation authority, whereas the actual flow is between the employer and the taxation authority. Similarly, superannuation payments made by employers on behalf of employees are treated as part of the employees' remuneration and are recorded in the system as if they were made to the employees with a further payment being made by the employees to the superannuation fund. In practice, they are generally made directly from the employer to a superannuation fund. The separate identification of non-monetary flows and re-routings is reflected in the Classification of Transactions and Other Flows reproduced in the section headed

"Classifications" above. The separate identification of these transactions would increase the number of items included in the accounts of the ANA.

#### *Introduction of Alternative Concepts of Consumption and Disposable Income*

106. *Introduction of the Concept of Actual Final Consumption.* SNA93 introduces the concept of "actual final consumption" for households and general government to supplement the concept of final consumption expenditure. Actual final consumption of households comprises their final consumption expenditure plus their imputed consumption of goods and services provided by general government and non-profit institutions serving households (described as "social transfers in kind" in SNA93). Some of these goods and services are deemed to be for "individual consumption" (that is, for consumption by individual households) while the remainder are deemed to be for "collective consumption" by society as a whole. Public hospital services would be an example of services provided for individual consumption, while defence expenditures would be regarded as for collective consumption. Actual final consumption of governments includes their expenditures for collective consumption but excludes their expenditures for individual consumption. By convention, non-profit institutions serving households are considered to provide only services for individual consumption, so that all of their services are included with the actual consumption of households and they have no actual consumption themselves. Actual final consumption appears in the "Redistribution of Income in Kind Account" (see Table 7 (a) above).

107. *Introduction of the Concept of Adjusted Disposable Income.* This concept is introduced as a corollary of the concept of actual final consumption. It applies to households and general government. For households it equals their disposable income plus imputed transfers of goods and services for individual consumption from government and non-profit institutions serving households. For general government it equals disposable income less transfers of goods and services to households for individual consumption. Adjusted disposable income is the balancing item recorded in the "Use of Adjusted Disposable Income Account" (see Table 7 (a) above).

108. *Changed treatment of pension and social insurance contributions and receipts.* Unlike the 1968 SNA (and the ANA), SNA93 treats contributions to pension (e.g., superannuation) schemes as current transfers made by households, and pension benefits paid by these schemes as current transfers received by households. These transfers therefore affect the level of disposable income of households recorded in the secondary distribution of income account. The transfers are part of "Net current transfers" in the Secondary Distribution of Income Account shown in Table 3 above. They would be recorded in a more detailed version of the account against the items "Social contributions" and "Social benefits other than social transfers in kind" — see Table 10 above.

109. This treatment necessitates an adjustment in the Use of Income accounts because of the treatment elsewhere in

the system of households as owning the reserves of pension schemes over which they have claims. Contributions to pension schemes placed with financial institutions managing pension funds are not treated as income of the financial institutions, neither are payments of benefits from the pension funds regarded as disbursements of income of the financial institutions. Rather, the contributions made to the schemes and the benefits paid by them represent changes in the equity of households in the schemes, which are financial transactions and do not, therefore, affect saving. This treatment applied in the 1968 SNA and applies in the ANA.

110. As a consequence, it is necessary to make an adjustment in the Use of Disposable Income Account (see Table 3 above) to ensure that any difference between the contributions to pension funds and benefits paid from pension funds does not affect the saving of the households and financial corporations sectors. The adjustment is made through the item "Adjustment for net equity of households in pension schemes" in the Use of Disposable Income Account (see Table 3 above). The item would apply in the Use of Income Account for the households sector and for the financial corporations sector.

#### ***Changes to Output, Capital Formation and Consumption of Fixed Capital Arising from Definition of Assets***

111. *Explicit definition of assets.* SNA93 defines assets as "entities over which ownership rights are enforced by institutional units, individually or collectively, and from which benefits may be derived by their owners by holding or using them over a period of time". This definition effectively extends the range of assets covered by the 1968 SNA and hence by the ANA.

112. The only items in the present ANA affected by the extended scope of the definition of assets are items in the transactions accounts, such as consumption of fixed capital and capital formation. However, the extended scope will also affect items in the national balance sheets the ABS plans to publish. The types of assets that are covered by SNA93 but are not covered explicitly by the ANA include livestock for breeding and non-produced intangible assets such as copyrights, patents, leases and other transferable contracts, and goodwill. (It should be noted that royalties received for using patent licences, trademarks and franchises are treated in SNA93 as output (payments for services), not as property income.) In implementing SNA93 the ABS would appraise the extent to which items in these categories are covered and, based on priorities, would decide whether steps would be taken to cover items found not to be covered adequately.

113. *Extension of produced assets and gross fixed capital formation to include expenditure on mineral exploration, computer software and entertainment, literary or artistic originals.* These are specific extensions of the concepts from the 1968 SNA and would represent similar extensions in the ANA. The approximate effect of treating all mineral exploration as capital expenditure in the ANA would be to increase GDP by \$1 billion. The treatment of expenditure on computer software as capital expenditure is

confined to software that is expected to be used in production for more than one year, including software developed in house. The effect of implementing this change would be to increase GDP by approximately \$1 billion. The treatment of entertainment, literary and artistic originals as intangible assets would increase GDP by less than \$1 billion. It would result in their development being classified as capital formation, and the fees, commissions and royalties paid for their production classified as payments for services rendered.

114. *Extension of government gross fixed capital formation to include expenditure by the military on structures and equipment, except weapons.* This is a change in SNA93 from the 1968 SNA that would also constitute a change in the ANA. All military expenditure on fixed assets of a kind that could be acquired by civilian users for purposes of production and could be used by the military in the same way are to be treated as capital formation. This includes military expenditures on airfields, docks, roads, hospitals, and other buildings or structures. Only military weapons are excluded from the treatment, including vehicles and equipment whose sole purpose is to launch or deliver weapons.

115. *Treatment of cultivated natural growth as output.* All cultivated natural growth is treated in SNA93 as work in progress and therefore as output. This includes growth of agricultural crops, livestock and cultivated fishstock, vineyards, orchards and timber tracts. Natural growth of biological resources that are not cultivated (e.g., virgin forests that are logged) is treated as "other changes in assets" until harvested, when it is treated as part of output. These treatments represent an extension of the production boundary in the 1968 SNA (and in the ANA), insofar as the 1968 SNA treated only growth in livestock and fishstock as work in progress. That treatment is now extended to growth in agricultural crops, orchards, vineyards and timber tracts. Such growth was treated in the 1968 SNA (and is currently treated in the ANA) as output only when harvested.

116. *Assets with a long production period to be treated as changes in inventories (work in progress) until ownership transfers.* SNA93 makes it explicit that expenditure on fixed assets that take a long time to produce is not to be treated as fixed capital formation until ownership is transferred to the eventual user of the assets. Output that is not transferred remains part of the work in progress of the institutional unit producing the asset. However, the transfer is deemed to have occurred under contracts of sale executed in advance and in the case of all own account construction. It is not expected that these treatments would have a major impact on the ANA apart from that for speculative construction, which would be treated as inventories rather than as capital formation.

117. *Treatment of incomplete services output as work in progress.* Incomplete services that take a long time to produce (e.g., architectural design, software development) are treated in SNA93 as work in progress. This treatment was not specified in the 1968 SNA and is not adopted in the



ANA. It is not known whether work in progress on such services would be significant.

118. *Extension of government inventories to include all goods held in inventories.* The only government stocks treated in the 1968 SNA as inventories were strategic materials, grains and other commodities of special importance to the nation. In the ANA very few government stocks have ever been included. All government stocks are treated as inventories in SNA93. Introduction of this change in the ANA would mean that a wide range of stocks of the general government sector would be included for the first time in inventories and change in inventories. General government stocks would mainly comprise materials and stores used in the provision of government services and, as such, would represent only a small proportion of stocks in the economy as a whole.

119. *Stocks of consumer durables to be shown as memorandum items in balance sheets.* The 1968 SNA's treatment of expenditure of households on consumer durables (e.g., household appliances, motor vehicles for private use) as final consumption has been retained in SNA93. This treatment also applies in the ANA. However, SNA93 recommends that supplementary information be provided in the balance sheet accounts on the stocks of consumer durables held by the household sector. It recommends that this information be presented according to the types of consumer durables held. This type of information has never been included in the ANA but a constant price series of stocks of consumer durables is available from the National Income Forecasting (NIF-10) model whose data base is maintained by the ABS.

120. *Gross fixed capital formation not resulting in a separate identifiable produced asset to be reflected as increased value of the asset embodying it.* This recommendation refers to expenditures associated with the purchase, creation or improvement of an asset that may not always be seen as part of expenditure on the asset. Examples of such expenditures include ownership transfer costs associated with the purchase of an asset (e.g., real estate commissions) and major improvements to existing assets that increase their productive capacity. SNA93 recommends that these expenditures be recorded as part of capital formation relating to the asset with which they are associated. The expenditures are to be included with the value of the relevant asset in the balance sheet and in the calculation of consumption of fixed capital related to that asset. Real estate transfer costs and for major improvements are estimated in the ANA but are not included with the associated asset. They are depreciated separately. Some minor extensions would need to be made to meet the SNA93 recommendations fully.

121. *Capital formation to include expenditure on valuables.* "Valuables" are defined in SNA93 as "produced assets that are not used primarily for production or consumption but acquired and held as stores of value". Examples quoted include precious metals and stones, antiques, and other art objects. By definition, valuables do not lose value and are not used up in production, so no consumption of fixed capital would be recorded for them.

It is probable that some expenditures on valuables are captured as part of capital formation in the ANA but most would be included with final consumption of households. The separate identification of valuables in the ANA would represent a significant change.

122. *Other changes relating to definition of assets.* SNA93 refers specifically to the inclusion of "historical monuments" within the definition of produced assets. Capital formation relating to more recently constructed items meeting this description would have been included in the ANA but the inclusion of all historical monuments in balance sheets would raise problems of coverage and valuation. In SNA93, creation of fixed assets by community activities is to be treated as output of households and as capital formation of the sector responsible for the upkeep of the assets. No data are available on the value of this type of activity in Australia.

#### *Changes Related to Financial Activity*

123. SNA93 is generally more specific than its predecessor in relation to defining financial instruments and activities, reflecting the changes that have occurred in financial markets since the 1968 SNA was released. In Australia, the financial accounts (Cat. No. 5232.0) were developed only in the late 1980s and so take into account developments in the financial sector that have forced many of the changes to the 1968 SNA that are included in SNA93. This section describes the changes included in SNA93 relating to financial activity that would constitute major changes in the ANA if implemented. The final paragraph in the section describes changes included in SNA93 that would not be expected to involve major changes in the ANA.

124. *All interest payable and receivable to be recorded on an accrual basis.* This recommendation reflects a general aim in SNA93 to be more explicit in defining the application of accrual accounting in the system. Introduction of this change in the ANA would mean that all interest accruing each quarter on securities and other financial instruments would be recorded whether due for payment or not. The accrued interest would be added to the balance sheet value of the financial assets and liabilities concerned. Interest accruing on zero coupon and other "deep discounted" bonds has been so recorded in the ANA Overseas Transactions Account for some time but the approach has not been applied to the accounts for domestic sectors or to other types of instruments, which have generally been recorded on a "due for payment" basis.

125. *Changes to treatment of insurance.* The basis of measuring the output of insurance has been changed in SNA93. Income from investment of insurance technical reserves is now taken into account as part of the output of life and non-life (formerly "casualty") insurance. The income is recorded as being distributed to policyholders as property income (see item "property income attributed to insurance policy holders" in Table 10 above) and is repaid to the insurance corporations as premium supplements.

126. As well, the treatment of premiums and claims relating to non-life (i.e., "casualty") insurance has changed

between the 1968 SNA and SNA93. These items were recorded when payable in the 1968 SNA but are now to be recorded when earned in the case of premiums and when due in the case of claims. The differences between premiums earned and payable, and between claims due and payable, are to be included in the balance sheet as a financial asset: "prepayments of premiums and reserves against outstanding claims" (see Table 9 above). However, the treatment currently adopted in the ANA is consistent with that recommended in SNA93 so no change is required in the ANA.

127. *Other changes relating to financial activities.* SNA93 makes a distinction between actual and contingent assets and liabilities that is generally consistent with the current treatment in the ANA. Financial assets and liabilities deemed to be "contingent" are not included in the system. The treatment of gold is changed and made clearer with a three-way breakdown: monetary gold included in international reserves; gold held as a store of value (included in the new category of "valuables"); and gold used for industrial purposes. Purchases of small items of gold jewellery by households are included in final consumption expenditure. The distinction in the 1968 SNA between "transferable" and "other" deposits has been removed and the maturity classification of financial assets has been relegated to a secondary classification.

128. SNA93 specifically includes a number of financial instruments that were not mentioned in the 1968 SNA. These include various types of financial derivatives and repurchase agreements (which are treated as similar to loans secured by securities). While some guidance is given in SNA93 on the treatment of derivatives (e.g., interest rate and currency swaps, forward rate agreements, options), the practical implications for the ANA are not yet clear.

#### **Changes Associated With Harmonisation With BPM5**

129. A primary aim in the revision of the SNA and BPM5 was to remove unnecessary differences between the concepts used in the two systems. As a result, a number of changes from the 1968 SNA included in SNA93 are associated with the process of "harmonisation". However, many of these changes had been implemented in the ANA and Australia's balance of payments statistics before BPM5 was issued. They are not discussed here. The one major change not in this category, relating to reinvested earnings of direct investment enterprises, is discussed below. The remaining change, which would have only a minor impact on the ANA, is summarised against the heading "Other changes".

130. *Separate identification of direct foreign investment and recording of reinvested earnings on direct foreign investment.* SNA93 includes the international flows of reinvested earnings attributable to direct investors as part of property income flows in the rest of world and relevant domestic sector accounts. A contra entry, equal and with opposite sign, is included under "shares and other equity" in the financial account.

131. Direct investment is investment in a "foreign direct investment enterprise", which is a branch of a non-resident enterprise, or a corporation in which at least one foreign investor owns sufficient shares to have an effective voice in management. The earnings of foreign direct investment enterprises that are attributable to their direct investors and that are retained rather than remitted as dividends or profits are to be treated as if they are remitted. An amount of the retained earnings based on the proportion of ownership of the direct investor is imputed as remittance of property income (under the item "Reinvested earnings on direct foreign investment" — see Table 10 above) in the Primary Distribution of Income Account (see Table 3 above). In that account, this item on the "uses" side refers to resident direct investment enterprises' imputed remittances to overseas and on the "resources" side refers to resident direct investors' receipts from direct investment enterprises overseas. The same amounts are recorded as reinvestment of the retained earnings in the Financial Account (see Table 5 above) within the item "shares and other equity" (see Table 9 above). Reinvestment in direct investment enterprises overseas is recorded under "changes in assets" and reinvestment in resident direct investment enterprises is recorded under "net incurrence of liabilities".

132. A measure of the effect of this change on the ANA if introduced can be gained from Table 61 of ABS Cat. No. 5204.0. The table includes a memorandum item titled "Undistributed income", which shows for 1992-93 that direct investment retained earnings receivable totalled \$1930 million and direct investment earnings payable totalled \$2318 million.

133. *Other changes from harmonisation with BPM5.* Final consumption expenditure of households is no longer to be adjusted to a "national" basis by excluding purchases of non-residents in domestic markets. The present ANA treatment is to show components of private final consumption expenditure on a gross basis with an adjustment item that adds expenditure by Australian residents overseas and deducts expenditure by non-residents in domestic markets.

#### **Effect on Constant Price Estimates**

134. *Chain Indexes.* SNA93 is more flexible with regard to the choice of the methods used to compile price index numbers to calculate volume measures for GDP and other aggregates. It nevertheless indicates a clear preference for a "chain volume index" for measuring the change in volume of GDP. A chain volume index is an index for which estimates are rebased regularly (generally annually) with the price weights always closely reflecting the price relativities relevant to the reference period. Chain volume indexes provide better indicators of growth than the more conventional constant price estimates in situations where the price and volume relativities of major components are changing rapidly over time. For example, this is currently occurring in Australia for aggregates with computer equipment as a substantial component. Computer equipment prices have been falling rapidly and usage has been

growing at a faster rate than for most other goods. In these circumstances the traditional constant price estimates will be inaccurate indicators of growth. SNA93 recommends that chain volume indexes should be expressed in dollar values, rather than index numbers, by expressing the index values in terms of the values in a base year.

135. The ABS has already taken an in-principle decision to introduce chain indexes, and development of systems to produce them is under way. Initially, experimental chain indexes will be derived from annually rebased constant price estimates for selected series, including imports and private capital expenditure on equipment. These aggregates have been chosen because they are the components most affected by the 'computer equipment price problem'. The ABS will need to decide how it will publish constant price estimates in future. Current thinking is to publish chain volume indexes in addition to the existing five-yearly rebased constant price estimates rather than as a replacement for them. This strategy is preferred because the components of chain indexes are not additive.

136. *Other Matters Related to Constant Price Estimates.* Since SNA93 includes a revaluation account (see Table 7(b) above), which segregates nominal, neutral and real holding gains and losses, users can adjust nominal interest flows to arrive at real interest flows. SNA93 recommends that real net national disposable income be derived by using the implicit price deflator for gross domestic final expenditures (currently referred to as gross national expenditure in the ANA) to convert net primary incomes and current transfers paid overseas to real values and then subtracting them and consumption of fixed capital at constant prices from real gross domestic income. Regarding international comparisons of the volume of GDP, SNA93 recommends the conversion of currencies at purchasing power parity (PPP). It also recommends that price indexes for unique structures be based on carefully selected representative structures and experts' estimates of costs to build the structures in successive years. SNA93 recommends volume movements in non-market production be based on output rather than input indicators as far as possible. Where this is not possible, it is recommended that either the sum of the constant price estimates of all inputs or a labour productivity-adjusted measure of labour input should be used instead.

#### **Effect on Input-Output Statistics**

137. SNA93 retains as an integral part of the system the detailed analysis of production by industries and flows of goods and services by kinds of products which are known as input-output tables. For this purpose it includes a central supply and use table showing the resources and uses of goods and services for each type of product and the production and generation of income accounts for each industry. The type of product classification recommended is the Central Product Classification (CPC), which is discussed under the section above headed "Classifications", and the industry classification recommended is the International Standard Classification of Industries (ISIC), which is discussed in the same section above.

138. The recommendations in SNA93 relating to input-output involve no changes in content and structure of the accounts other than those described above relating to the main accounts that carry through to input-output tables. Readers with a specific interest in input-output tables should therefore take the discussion in this discussion paper relating to the production and generation of income accounts as indicative of the sorts of changes full implementation of SNA93 would introduce to the Australian input-output tables. They should also refer to the appendix to this paper dealing with the adoption of a revised methodology for compiling the ANA using input-output tables as a benchmark.

#### **Effect on Capital Stock Estimates**

139. The annual estimates of capital stock published by the ABS in Cat. No. 5221.0 would still be compiled with full implementation of the SNA, but might not be published as such, given that most of the information they include would be published as part of other accounts in the system (for example, the balance sheets and the Other Changes in Volume of Assets Account). The perpetual inventory method used to produce the ANA capital stock estimates is retained in SNA93 as the recommended method for deriving estimates of the value of fixed assets. The estimates that would be required to produce balance sheet data classified as recommended in SNA93 (see Table 9 above) would include much more detail on types of asset than currently compiled for Cat. No. 5221.0.

#### **Effect on State Accounts**

140. SNA93 makes brief reference to the desirability of producing "regional accounts" in countries where sub-national regions are important. It gives an account of the conceptual and practical problems associated with producing regional accounts but makes no specific recommendations that would alter the way the State accounts in Australia are compiled. Users of the Australian State accounts can therefore assume that those accounts would not change with full implementation of SNA93 other than by carrying through changes to the main accounts, as described above, to the State accounts. The extent to which major extensions to the main accounts could be carried through to the State accounts would depend on questions of feasibility, costs and priorities, as discussed in the introduction to this paper.

#### **Effect on Financial Accounts**

141. The quarterly financial accounts produced by the ABS (*Australian National Accounts: Financial Accounts* – Cat No. 5232.0) include information on the levels and flows of financial assets and liabilities in the economy cross classified by institutional sub-sector and financial instrument, and by counterparty sector (i.e. the sectors on which the subject sector has financial claims, or with which it has incurred liabilities). The Australian financial accounts therefore include a great deal of information subject to the standards in SNA93. As well, they include some data derived from information subject to the standards that goes beyond the level of detail recommended in SNA93.

142. Much of what is published in Cat. No. 5232.0 is an integral part of certain accounts recommended in SNA93 (for example, the financial account and the balance sheet accounts). Users of Cat. No. 5232.0 can therefore gauge the effect of implementing SNA93 on the information in Cat. No. 5232.0 from the discussion above relating to those accounts and the related classifications. Once the extent of implementation of SNA93 has been determined the ABS will have to decide whether Cat. No. 5232.0 will continue in its current form, or whether the information it contains will be included with the publication of other information recommended in SNA93.

### Social Accounting Matrices and Satellite Accounts

143. SNA93 introduces the concepts of social accounting matrices (SAMs) and satellite accounts. The SNA lends itself to presentation in matrix format. Matrices can provide an overview of the whole system or disclose new information through bringing together data not otherwise confronted within the system. SAMs apply additional data to shed light on specific issues such as inequality among household groups and the causes and consequences of those inequalities. Satellite accounts are more in the nature of extensions of the system to provide information on selected areas of social concern. They may require additional data and employ complementary and alternative concepts and classifications.

144. The scope for developing SAMs and satellite accounts is considerable and SNA93 makes no specific recommendations to guide countries on a particular path of development. For this reason the notion of "full implementation" applied elsewhere in this discussion paper does not apply. This section of this discussion paper is therefore limited to a brief description of the nature of SAMs and satellite accounts. The aim is to illustrate the potential offered by these concepts so that readers can indicate areas of interest that will guide the ABS in developing SAMs and satellite accounts that are most likely to be beneficial to the community.

145. A SAM is the presentation of SNA accounts in a matrix which elaborates the linkages between a supply and use table and institutional sector accounts, although the supply and use table is generally less detailed than typically used in input-output tables. SAMs can incorporate data, both monetary and non-monetary, from outside the basic national accounting system. Examples of such data include: size and composition of the population by household group; production capacity by industry; life expectancy; infant mortality; nutrient intake. The aim is to provide an integrated set of tables to facilitate analysis and modelling of particular economic and social relationships.

146. An example of a SAM given in SNA93 will illustrate the type of approach involved. Working from a matrix based on the main accounts, the example incorporates various disaggregations within selected accounts, particularly the generation of income account, to include additional information on compensation of employees by type of household and category of employed person. As well, other elements of the matrix are disaggregated by standard components of the system such as industry and

product. This SAM focuses on income generation and provides a framework for linking labour market analyses and national accounting aggregates for various sectors and industries. Introducing external data into the framework (for example, a decomposition of incomes into full time equivalent employment and average wage rates, and information on potential work force expressed in full time equivalents) would yield information related to unemployment and other social issues that is consistent with major macro-economic indicators in the national accounting framework. A more detailed version of the SAM incorporates information on the location (urban or rural) of the work force and the occupations of employed persons.

147. As indicated above, satellite accounts go somewhat further than SAMs in that they allow for the development of alternative presentations which nevertheless can be linked to the main system. SNA93 does not specify a set of satellite accounts but provides a framework for the development of satellite accounts. It suggests that a first step will often be some reanalysis of the existing data. For example, in relation to production it might be necessary to recompile data for units that are more homogenous than the establishment units used to compile industry data. It might be necessary for certain analyses to extend the production boundary to include unpaid household work. For studies of income distribution implicit benefits such as tax benefits might have to be made explicit. For environmental accounts, negative transfers such as pollution created by producers would need to be taken into account.

148. SNA93 suggests that satellite accounts can cover the whole economy, in which case they may produce conceptual variants of the main aggregates, or they can be designed for functionally oriented segments of the economy (e.g., tourism, environmental protection, health, education). Depending on the field, the accounts will emphasise production and uses of specific goods and services, or analysis of transfers, or analysis of a combination of these elements. The SNA discussion of some of these elements illustrates the nature of the types of accounts that might be developed:

*Components of uses/national expenditure:* the focus is on the way goods and services are produced, on the types of producers involved, the kinds of capital and labour used and the efficiency of the production process. The framework is developed from the components of national expenditure applied to the goods and services under study. The study can be extended to cover the supply of goods and services used in production of the target goods and services. It can also embrace expenditures of particular interest, for example environmental protection expenditures.

*Users/beneficiaries:* the focus is on consumption, by separating the production and consumption aspects of the basic accounts within categories of interest. Since most interest is likely to concern households, further breakdowns of that sector are often required, for example size of income, sex, location, etc.

*Financing:* the focus here is on the units providing finance for economic activity in the sense of bearing the ultimate

expense. Ultimate consumers are not necessarily the bearers of ultimate expense and factors must be taken into account such as the financing of capital formation and transfers, financing through borrowing and capital transfers, and expenses made out of disposable income. For example, in this analysis non-profit institutions are treated as ultimate financing units, not the households paying contributions to them.

*Production and products:* this approach looks in detail at producers of particular products of interest. Production and generation of income accounts for these producers are the starting point, with analysis of physical units of output of different types, of the destination of outputs, and of the labour and capital used. The number of people employed, and their characteristics (e.g., skills, sex) may be included, as well as physical information on inventories and capital equipment.

*Full accounts of characteristic producers:* this refers to analysing production units in conjunction with the institutional units to which they belong in order to provide the full range of accounts for institutional units grouped according to common (or "characteristic") outputs. This type of analysis is an attempt to overcome the problem that the system does not provide for analysing institutional units grouped into industries.

*Non-monetary data:* the introduction of non-monetary data can be related to output, for example units produced, consultations performed (e.g., by doctors), bed nights per month (e.g., in hotels), etc. The labour force can be measured in working hours, full-time equivalent person years, etc. Non-monetary data can also be important in measuring uses and benefits.

149. The one area for which SNA93 applies the general approach described above in more detail is "integrated environmental and economic accounting". The recommended approach is to extend the basic system by treating natural resources as capital, to record their depletion and degradation as usage of that capital, and to record the implicit transfers involved. Some of these elements are already captured in the system but need to be disaggregated and reclassified to yield the required information. This particularly applies to information in the "Other Change of Assets Account".

150. Three approaches to environmental accounting are discussed in SNA93: natural resource accounting in physical terms; environmental accounts in monetary terms; and welfare approaches. These will not be discussed in detail here but their existence suggests that decisions on developing environmental accounts will not be straightforward. SNA93 provides some illustrative information on how the basic SNA framework can be extended to produce environmental accounts that include physical data. The discussion is based on the system of environmental economic accounts (SEEA) presented in the United Nations' handbook "*Integrated Environmental and Economic Accounting*". The discussion included in SNA93 will not be summarised here but readers should be aware that this basis for developing environmental accounts is available and will be considered by the ABS in developing its approach to environmental accounting.

#### **CHANGES TO AUSTRALIA'S INTERNATIONAL ACCOUNTS THAT WOULD RESULT FROM FULL IMPLEMENTATION OF BPM5**

151. This section summarises the information that statistics on Australia's balance of payments and international investment position would include were the ABS to implement BPM5 in full and compares that information with the information currently available. The section deals firstly with the effects on the structure and content of balance of payments statistics and secondly with the effects on the structure and content of statistics of the Australian international investment position. It then discusses some of the conceptual and other changes that would be introduced by implementation of BPM5.

##### **Effect on Structure and Content of Balance of Payments Statistics**

152. As mentioned in paragraph 26, the most obvious change to Australia's currently published balance of payments statistics that would occur were ABS to implement BPM5 in full would be in the broad structure and content of the accounts. At the broadest level, the most obvious changes to the structure of the accounts are the renaming of the Capital Account to the Financial Account and introduction of a third account, the Capital Account. These and other differences between the existing Australian balance of payments presentation and BPM5 are evident from the comparison of the broad structure shown in Table 11 below.

TABLE 11: COMPARISON OF EXISTING ABS BALANCE OF PAYMENTS CLASSIFICATION AND BPM5 CLASSIFICATION

Existing Australian presentation	BPM5 presentation
<u>Current Account</u>	<u>Current account</u>
Merchandise	Goods
Services	Services
Income	Income
Unrequited transfers	Current transfers
<u>Capital Account</u>	<u>Capital and Financial Account</u>
Official sector	<u>Capital Account</u>
General government	Capital transfers
Foreign investment in Australia	Acquisition/disposal of non-produced, non-financial assets
Australian investment abroad	
Reserve Bank of Australia	<u>Financial Account</u>
Foreign investment in Australia	Direct investment
Australian investment abroad	Abroad
Non-official sector	In Australia
Foreign investment in Australia	Portfolio investment
Australian investment abroad	Assets
	Liabilities
	Other investment
	Assets
	Liabilities
	Reserve assets

153. Superficially, some parts of the BPM5 presentation (especially in the current account) appear to be direct counterparts of components of the existing system. While this is correct in some cases, in others there are significant differences in the content of the two classifications. The discussion in this section will identify those differences.

154. Australia's balance of payments statistics are divided into a Current Account and a Capital Account. The Current Account comprises:

*Merchandise*

Imports and exports of goods.

*Services*

Imports and exports of shipment, other transportation, travel and other services.

*Income*

Interest and other investment income arising from foreign investment in Australia and Australian investment abroad, and other types of income such as income earned by travellers and income from insurance and royalties.

*Unrequited transfers*

The offsets to transactions for which there is no quid pro quo, such as foreign aid payments and funds that migrants transfer upon settlement in their new country.

155. The Capital Account in the existing system comprises transactions in Australia's foreign financial assets and liabilities as well as changes resulting from the allocation/cancellation of Special Drawing Rights (SDRs) by the IMF and the monetisation/de-monetisation of gold by the Reserve Bank of Australia. The statistics are presented using the classifications shown below, which differ in many respects from the classifications recommended in BPM5:

*Institutional sector*

For example, official and non-official.

*Direction of investment*

Foreign investment in Australia and Australian investment abroad.

*Type of capital*

Direct investment, 'portfolio and other' investment, and reserves.

*Instrument of investment*

For example, equity, borrowing and lending.

156. The main changes to existing Australian balance of payments categories that would be introduced by implementing BPM5 are outlined below.

### Merchandise

157. The currently published *Merchandise* category in Australia's balance of payments would be replaced by the BPM5 standard component *Goods*. All of the items currently published under *Merchandise* would be included in the BPM5 *Goods* component. Within *Goods*, most of the items would be classified in the *General Merchandise* component. Goods for processing are to be included on a gross basis in the *Goods* account, with the processing, which is currently recorded as services, being recorded as either goods or services depending on the ultimate destination of the processed goods. Repairs to goods and goods procured in ports, which are currently classified under *Services* in Australia's balance of payments, would be separately identified and shown in separate components under *Goods*.

158. BPM5 also identifies and shows transactions in non-monetary gold as a separate component under *Goods*. Non-monetary gold is further disaggregated into the following components: gold held as a store of value; and other gold.

159. The ABS currently classifies exports into two broad headings and fourteen commodity classifications, while imports are classified into three broad headings and twenty-six commodity classifications. The BPM5 classification has five main headings under *Goods*, with the last component, non-monetary gold, split into two sub-components. Of the BPM5 components, only non-monetary gold is separately published at present in Australia's balance of payments but it is not further disaggregated.

### Services

160. Services are currently published in Australia's balance of payments under the headings of *Shipment*, *Other Transportation*, *Travel* and *Other Services*. Under BPM5, *Shipment* and *Other Transportation* would be combined and classified to the BPM5 component *Transportation*, with breakdowns by type of transportation (ie, sea transport, air transport, and other transport) and by type of service (ie, passenger, freight and other). Some items currently included in *Shipment* and *Other Transportation* would be reclassified elsewhere. These items are:

- insurance on freight, which would be reclassified from *Shipment* to the BPM5 component, *Insurance Services*;
- goods procured in ports, which would be reclassified from *Other Transportation* to the BPM5 *Goods* component and then shown as a separate component in its own right; and
- passenger fares paid for cruises, which would be reclassified from *Other Transportation* to the BPM5 component, *Travel*.

161. BPM5 recommends that travel be classified by purpose: business travel, personal travel, health-related travel, education-related travel and other travel. The ABS statistics currently provide information on only two purposes — students' expenditure and other.

162. Full implementation of BPM5 would also involve a number of other changes to Australia's balance of payments *Services* statistics, including:

- an expanded breakdown of types of services;
- a changed methodology for measuring *Insurance services*;
- the inclusion of implicit service fees on foreign exchange trading and fees on transactions in financial derivatives; and
- the reclassification of royalties and licence fees from *Income* to *Services*.

163. Table 12 below compares the items in the existing goods and services account in Australia's regular balance of payments statistics with the items in the corresponding BPM5 account. Services commodity information at a more detailed level than shown by the existing Australian items is currently available annually but for recent years only.

TABLE 12: COMPARISON OF EXISTING ABS CLASSIFICATION OF GOODS AND SERVICES AND BPM5 CLASSIFICATION

Existing Australian Item	Corresponding BPM5 Items
<p><u>Merchandise</u></p> <p>(Exports are shown under two broad headings in 14 commodity categories and imports under three broad headings in 26 commodity categories).</p>	<p><u>Goods</u></p> <p>Merchandise</p> <p>Goods for processing*</p> <p>Repairs on goods*</p> <p>Goods procured in ports by carriers*</p> <p>Non-monetary gold</p> <p>    Held as a store of value</p> <p>    Other non-monetary gold</p>

\* Items reclassified from services.

continued ...

**TABLE 12: COMPARISON OF EXISTING ABS CLASSIFICATION OF GOODS AND SERVICES AND BPM5 CLASSIFICATION — *continued***

Existing Australian Item	Corresponding BPM5 Items
<p><u>Services</u></p> <p>Shipment  Freight on merchandise  Insurance on merchandise</p> <p>Other transportation  Passenger services  Port services, etc.</p> <p>Travel  Students' expenditure  Other</p> <p>Other services</p> <p>Official sector  Defence services ) split for  Financial services ) debits  Miscellaneous services ) only</p> <p>Non-official sector  Expenditure of:  Foreign/Australian governments  Foreign/Australian government employees  Other non-resident/resident entity employees  Financial services  Insurance services n.e.c.  Miscellaneous services</p>	<p><u>Services</u></p> <p>Transportation  Sea transport  Passenger  Freight  Other  Air transport  Passenger  Freight  Other  Other transport  Passenger  Freight  Other</p> <p>( 'Passenger' services excludes cruise fares – now under Travel; 'Freight' services excludes insurance on freight – now under Insurance; and 'Other' services excludes goods procured in ports and repairs to transport equipment – now under Goods. )</p> <p>Travel  Business (includes expenditure out of income earned by travellers)  Personal (includes cruise fares)  Health-related  Education-related  Other</p> <p>Communication services  Construction services  Insurance services*  Financial services  Computer and information services  Royalties and license fees  Other business services  Merchanting and other trade related services  Operational leasing services  Miscellaneous business, professional &amp; technical services  Legal, accounting, management consulting and public relations  Advertising, market research, and public opinion polling  Research and development  Architectural, engineering, and other technical services  Agricultural, mining, and on-site processing  Other</p>

\* Memorandum items specified for gross premiums and gross claims.

*continued ...*



TABLE 12: COMPARISON OF EXISTING ABS CLASSIFICATION OF GOODS AND SERVICES AND BPM5 CLASSIFICATION — *continued*

Existing Australian Item	Corresponding BPM5 Items
	<p>Personal, cultural, and recreational services            Audiovisual and related services            Other cultural and recreational services            Government services n.i.e.</p> <p>('Other services' excludes:            • repairs to and processing of goods – now under Goods; and            • expenditure out of income earned by non-resident/resident employees of resident/non-resident entities – now under Travel.</p> <p>'Services' includes:            • changed scope and measurement of insurance services;            • implicit fees for trading in foreign exchange and fees on transactions in financial derivatives; and            • the reclassification of royalties and licence fees from <i>Income</i> to <i>Services</i>).</p>

#### Income

164. Income is currently presented in Australia's balance of payments under two main headings: Property income (dividends, reinvested earnings, interest, other earnings/payments, royalties and other fees for use of intellectual property); and Labour and other income (including extraordinary insurance claims arising from natural disasters and the like). Within property income, a distinction is made between investment income and other property income, with the former further disaggregated by sector (official and non-official). Within non-official sector investment income, disaggregations by type of investment (direct investment, and "portfolio and other" investment) and type of income (reinvested earnings, remitted profits, dividends and interest) are shown. Other property income is broken down into cinema and television film royalties, and other.

165. Full implementation of BPM5 would introduce the following main changes:

- removal of the official/non-official sector split;
- separate identification of "portfolio" investment earnings from "other" types of investment earnings;
- a distinction between interest on bonds and notes and interest on money market instruments and financial derivatives;
- the recording of all interest payable or receivable on an accruals basis, rather than a due for payment basis;
- the recording of direct investment income on the basis of the new definition of direct investment;

- the calculation of reinvested earnings using current replacement cost estimates of depreciation and excluding holding gains and losses from valuation changes;
- the reclassification of royalties and licence fees etc. to the BPM5 *Services* component;
- the removal of the insurance income item and its replacement by entries for premiums (minus the service charge) and gross claims within the BPM5 *Current Transfers* component;
- the inclusion of net interest flows associated with financial derivatives;
- the recording of direct investment income flows on a gross basis; and
- the imputation of income to households arising from their net equity in life insurance reserves and pension funds.

166. The BPM5 income classification comprises two main headings: Investment income and Compensation of employees. Within Investment income, there are seven components. Compensation of employees is not further split. In Australia's classification, there are ten sub-headings within Investment income, two sub-headings within Other property income, and three sub-headings within Labour and other income.

167. Table 13 below compares the items in the income classification currently used in Australia's balance of payments statistics with the income classification in BPM5.

**TABLE 13: COMPARISON OF EXISTING ABS CLASSIFICATION OF INCOME AND BPM5 CLASSIFICATION**

Existing ABS Classification	BPM5 Classification
Labour and other income	Compensation of employees
Official sector	
Non-official sector	Investment income
Labour income	Direct investment
Insurance income	Income on equity
	Dividends and distributed branch profits
Property income	Reinvested earnings and undistributed branch profits
Investment income	Income on debt (interest)
Official sector	Portfolio investment*
General government	Income on equity (dividends)
(Interest debits split by domiciled in Australia and domiciled abroad)	Income on debt (interest)
Reserve Bank of Australia	Bonds and notes
Non-official sector	Money market instruments and financial derivatives
Direct investment income	
Reinvested earnings	Other investment*
Distributed earnings	
Remitted profits	
Dividends	
Interest	
Portfolio & other investment income	
Dividends	
Interest	
(Interest debits split by public sector and private sector)	
Other property income	
Cinema and television royalties	
Other	

\* The following supplementary sector information is sought under BPM5: monetary authorities; general government; banks; other sectors.

#### **Unrequited Transfers**

168. In Australia's currently published balance of payments statistics, *unrequited transfers* cover all transfers, regardless of their nature or purpose. A disaggregation into official and non-official transfers is shown, plus a further dissection by type of transfer (e.g., migrants' transfers, foreign aid, etc.). In contrast, the term 'unrequited' has been dropped in BPM5 and transfers are split into *Current* and *Capital* transfers. In addition, while *current transfers* are included in the Current Account, *capital transfers* are part of the new Capital Account, which comprises capital transfers and the acquisition or disposal of non-produced, non-financial assets, such as embassy land, patents and copyrights. Current transfers in BPM5 are split into General government transfers and Other sectors' transfers, with the latter item further split into workers' remittances and other transfers.

169. *Capital transfers* are defined in BPM5 as transfers which consist of the transfer of ownership of a fixed asset or the forgiveness of a liability by a creditor when no counterpart is received in return. Cash transfers (e.g., foreign aid) are regarded as capital transfers if they are linked to the acquisition or disposal of a fixed asset, that is if they result in a change in the stocks of assets of one or both parties to the transaction (e.g., investment grants). All migrants' transfers at the time of migration are also regarded as capital transfers. Capital transfers in BPM5 are split into General government transfers and Other sectors' transfers, with separate sub-components for debt forgiveness, migrants' transfers and other transfers.

170. Table 14 below compares the classification of transfers currently used in Australia's balance of payments statistics with the classification of transfers in BPM5.

**TABLE 14: COMPARISON OF EXISTING ABS CLASSIFICATION OF TRANSFERS AND BPM5 CLASSIFICATION**

Existing ABS Classification	BPM5 Classification
<u>Unrequited transfers</u>	<u>Current Transfers</u>
Official sector	General government*
Foreign aid	Other sectors
Pensions	Workers' remittances
Miscellaneous	Other transfers
Non-official sector	<u>CAPITAL ACCOUNT</u>
Migrants' transfers	Capital Transfers
Withholding taxes	General government
Miscellaneous	Debt forgiveness*
	Other*
	Other sectors
	Migrants' transfers
	Debt forgiveness*
	Other
	Acquisition/disposal of non-produced, non-financial assets

\* Various supplementary components are specified for exceptional financing transactions.

#### Capital account

171. In Australia's present balance of payments presentation, transactions in foreign financial assets and liabilities are shown in the *capital account*. In BPM5, this account has been renamed the *financial account*. As noted previously, the capital account in BPM5 is a new account which comprises capital transfers and the acquisition or

disposal of non-produced, non-financial assets, such as embassy land, patents and copyrights.

172. Table 15 below compares the classification in the capital account currently used in Australia's balance of payments statistics with the corresponding parts of the classification in the capital and financial accounts in BPM5.

**TABLE 15: COMPARISON OF ITEMS IN EXISTING ABS CAPITAL ACCOUNT WITH CORRESPONDING ITEMS IN BPM5**

Existing ABS Classification	BPM5 Classification
<u>CAPITAL ACCOUNT</u>	<u>FINANCIAL ACCOUNT*</u>
Official sector	Direct Investment
General government	Abroad
Foreign investment in Australia	Equity capital
Borrowing	Claims on affiliated enterprises
Domiciled abroad	Liabilities to affiliated enterprises
Domiciled in Australia	Reinvested earnings
Other	Other capital
Australian investment abroad	Claims on affiliated enterprises
Lending	Liabilities to affiliated enterprises
Accounts receivable/prepayments made	In Australia
Other	Equity capital
Reserve Bank of Australia	Claims on direct investors
Foreign investment in Australia	Liabilities to direct investors
Use of IMF credit	Reinvested earnings
Other	Other capital
	Claims on direct investors
	Liabilities to direct investors

\* Various supplementary components are specified for exceptional financing transactions.

TABLE 15: COMPARISON OF ITEMS IN EXISTING ABS CAPITAL ACCOUNT WITH  
CORRESPONDING ITEMS IN BPM5 — *continued*

Existing ABS Classification	BPM5 Classification
Australian investment abroad	Portfolio investment
Reserve assets	Assets
Official reserve assets	Equity securities *
Monetary gold	Debt securities
Special drawing rights	Bonds and notes*
Reserve position in IMF	Money market instruments *
Foreign exchange	Financial derivatives *
Allocation/cancellation of SDRs	Liabilities****
Monetisation/demonetisation of gold	Equity securities *
Other	Debt securities
Non-official sector	Bonds and notes*
Foreign investment in Australia	Money market instruments*
Direct investment	Financial derivatives *
Reinvestment of earnings	Other investment
Corporate equities	Assets
Net equity in branches	Trade credits **
Borrowing	Loans **
Other	Currency and deposits *
Portfolio and other investment	Other assets **
Corporate equities	Liabilities****
Borrowing	Trade credits ***
Public sector	Loans ***
Private sector	Currency and deposits *
Accounts payable/prepayments received	Other liabilities **
Public sector	Reserve assets
Private sector	Monetary gold
Australian investment abroad	Special drawing rights
Direct investment	Reserve position in the Fund
Reinvestment of earnings	Foreign exchange
Corporate equities	Currency and deposits
Net equity in branches	With monetary authorities
Lending	With banks
Other	Securities
Portfolio and other investment	Equities
Corporate equities	Bonds and notes
Lending	Money market instruments and financial
Banks	derivatives
Non-bank enterprises	Other claims
Accounts receivable/prepayments made	
Public sector	
Private sector	

\* These items are cross classified by relevant sectors, including: monetary authorities; general government; banks; other sectors.

\*\* These items are cross classified by relevant sectors and whether the instrument is long term or short term.

\*\*\* These items are cross classified by relevant sectors, by long term/short term and, for long term liabilities, by drawing and repayments.

\*\*\*\* Supplementary components are specified for Liabilities constituting foreign authorities' reserves, split by instrument and sector.

173. In Australia's international accounts statistics, the capital account, investment income and international investment position are inter-linked, and any changes affecting one will affect the others. Financial transactions are presented in a hierarchical classification, which shows a primary split by resident institutional sector (official/non-official), then by direction of investment (foreign investment in Australia or Australian investment abroad), type of capital (direct investment, 'portfolio and other' investment, and reserves) and finally by instrument of investment (e.g., equity, borrowing). In total, fifty basic items are shown in Australia's Capital Account. In the

BPM5 Financial Account, the first level of the hierarchy is type of capital, split into assets and liabilities. Within the asset and liability categories, details of instruments of investment and, in some cases, sectors and maturity are presented. A number of supplementary classifications are also shown in the BPM5 framework. One hundred and twenty-four basic components are listed in the Financial Account of BPM5 and a further twenty-five basic components are shown for harmonisation and reconciliation with the SNA93. These basic components are further split by country and by sector of the foreign party to the transaction.

### Effect on Structure and Content of International Investment Position Statistics

174. BPM5 incorporates, for the first time, recommendations and guidelines for the recording, classification and presentation of statistics on countries' international investment positions. Australia's international investment position (IIP) statistics have been conceptually integrated with the balance of payments for many years. As a result of previous work undertaken by the ABS, the basic structure and concepts of Australia's international investment position statistics already conform closely to BPM5 recommendations.

175. A number of different classifications are used in presenting Australia's IIP statistics and several different analytic views are provided by using these classifications in different sequences and combinations. The two primary classifications are by type of instrument (e.g., equity, debt, other) and direction of investment (ie. foreign investment

in Australia and Australian investment abroad). Other major classifications are by sector and type of capital. The BPM5 IIP classification is essentially the same as its classification of transactions in the financial account of the balance of payments. The changes that would be required to Australia's IIP statistics to fully implement BPM5 largely parallel those described earlier for that balance of payments account. In particular, a considerable amount of additional detail would be required as well as some reclassifications, revised definitions, and new methodologies. Table 16 below compares the classifications used in Australia's IIP statistics, for both positions and change in positions, with those recommended in BPM5. For positions, the Australian classification that is shown is based on direction of investment as this view allows a closer correspondence between the classifications. The main difference that occurs between the classifications of "change in position", is that BPM5 requires price changes to be shown separately.

**TABLE 16: COMPARISON OF ITEMS IN EXISTING AUSTRALIAN IIP STATISTICS WITH CORRESPONDING ITEMS IN BPM5**

Existing ABS Classification	BPM5 Classification
<u>Foreign Investment in Australia</u>	<u>Liabilities</u>
Official sector	Direct investment in Australia
General government	Equity capital and reinvested earnings
Borrowing	Claims on direct investors
Domiciled abroad	Liabilities to direct investors
Domiciled in Australia	Other capital
Other	Claims on direct investors
Reserve Bank of Australia	Liabilities to direct investors
Non-official sector	Portfolio investment
Direct investment	Equity securities*
Corporate equities	Debt securities
Net equity in branches	Bonds and notes*
Borrowing	Money market instruments*
Other	Financial derivatives*
Portfolio and other investment	Other investment
Corporate equities	Trade credits**
Borrowing	Loans**
Public sector	Currency and deposits*
Private sector	Other liabilities**
Accounts payable/prepayments received	

*continued ...*

**TABLE 16: COMPARISON OF ITEMS IN EXISTING AUSTRALIAN IIP STATISTICS WITH CORRESPONDING ITEMS IN BPM5 — continued**

Existing ABS Classification	BPM5 Classification
<u>Australian Investment Abroad</u> Official sector Reserve assets Lending Accounts receivable/prepayments made Other Non-official sector Direct investment Corporate equities Net equity in branches Lending Other Portfolio and other investment Corporate equities Lending Accounts receivable/prepayments made	Assets Direct investment abroad Equity capital and reinvested earnings Claims on affiliated enterprises Liabilities to affiliated enterprises Other capital Claims on affiliated enterprises Liabilities to affiliated enterprises Portfolio investment Equity securities* Debt securities Bonds and notes* Money market instruments* Financial derivatives* Other investment Trade credits** Loans** Currency and deposits* Other assets** Reserve assets Monetary gold Special drawing rights Reserve position in the Fund Foreign exchange Currency and deposits With monetary authorities With banks Securities Equities Bonds and notes Money market instruments and financial derivatives Other claims
<u>Change in Position</u> Level at beginning of period Reinvestment of earnings Other transactions Exchange rate variations Other changes Level at end of period	<u>Change in Position</u> Position at beginning of period Transactions Price changes Exchange rate changes Other adjustments Position at end of period

\* These items are cross classified by relevant sectors, including: monetary authorities; general government; banks; other sectors.

\*\* These items are cross classified by relevant sectors and whether the instrument is long term or short term.

### Other Changes

176. Apart from the changes to the structure and content of the accounts and classifications used in Australia's balance of payments and IIP statistics, full implementation of BPM5 would introduce a number of conceptual and other changes not immediately evident from, or detailed in, the foregoing discussion. These are discussed in the following paragraphs.

177. *Changed definition of direct investment:* As noted earlier, a more detailed definition of direct investment has been recommended in BPM5. The BPM5 definition:

- accommodates a lower threshold than currently used in compiling Australia's international investment statistics to identify the related enterprises to which a direct investment relationship extends. BPM5 considers an enterprise to be an affiliate of a direct investor if the latter owns, directly or indirectly, 10 per cent or more of the equity capital of the former. Australia's current principle, approximated in practice, uses a 25 per cent threshold, and the investor also has to be the largest shareholder of that enterprise for the latter to be considered as part of the direct investment group. The impact of this change on the measures of direct investment,

both by the direction of investment and on a net basis, is not yet known but is not expected to be substantial;

- excludes from the measure of direct investment all transactions, other than transactions in equity and permanent debt, between affiliated financial intermediaries. The impact of this change on both the gross and net measures of direct investment is likely to be large; and
- excludes non-participating shares from the threshold measure establishing a direct investment relationship. The impact of this change is not expected to be large.

178. *Recording of investment income on a full accrual basis:* this change was also mentioned earlier. Interest income is presently recorded in Australia's statistics on an accrual basis only for deep discounted securities and zero coupon bonds; all other interest income is recorded on a due for payment basis. Under BPM5, interest income is accrued and will be included as income for the reporting period. While quarterly measures of investment income may be significantly affected as periodic interest coupon payments are smoothed to represent the continuous accrual of income, annual measures are not likely to be significantly affected.

179. *Changed scope of insurance services:* apart from the widened scope of the service item to incorporate insurance on merchandise, the method of measurement of insurance services is also changed. The change in measurement is not expected to be significant in Australia's accounts.

180. *All foreign currency transactions are to be converted to \$A using the mid point between buying and selling rates:* while this is the principle behind the compilation of Australia's international accounts, in practice some respondents to ABS collections may report at other than mid-point rates. The feasibility of adjusting collection and compilation methodologies to the BPM5 recommendation is not yet known.

181. *Reclassification of non-participating preference shares from equity to debt securities:* this will not only impact on the identification of direct investment relationships as discussed above, but will also impact on the separate measures for equity and debt securities within portfolio investment. Again, the impact is not expected to be large.

182. *Separate identification of international investment with special purpose entities:* the significance of this group of entities (that is, holding companies, base companies, regional headquarters etc. set up with the sole purpose of serving as financial intermediaries) is not yet clear in the Australian context.

183. *Inclusion of investment in, and income from, the net equity of households in life insurance and pension funds, and prepayments of premiums and reserves against outstanding insurance claims:* it is not expected that these amounts will be significant in the Australian context.

184. *Separate identification of liabilities constituting foreign authorities' reserves:* this has never been attempted in Australia's international accounts statistics due to the load it would impose on providers of information and its likely statistical insignificance.

185. There is a range of other changes to Australia's international accounts statistics that would result from fully implementing BPM5 recommendations. These changes include more detailed dissections of financial instruments; dissections for some financial instruments by the maturity of the asset or liability; the separate identification of drawings and repayments for certain liabilities; and the identification of the sector of the non-resident counterparty to Australia's international investment transactions. Other changes are less obvious, such as the **changed definition of gross foreign debt** that will arise with BPM5 implementation, due to all financial assets and liabilities other than equity investments being included in the BPM5 concept of debt. Currently Australia's gross foreign debt statistics exclude certain accounts payable. Changing to the BPM5 concept is likely to raise Australia's gross debt in recent years by about \$7 billion.

## CONSULTATION WITH USERS

186. As noted in the introduction, this paper represents the beginning of a process of consultation with users of the statistics affected by the revised international standards to determine their priorities among the changes and enhancements to the statistics that could be implemented. Of necessity, direct consultation will have to be limited to users who make extensive use of the information and who have an important role in the community that is dependent on the statistics concerned. Nevertheless the ABS would welcome submissions from other readers who may wish to express a view on particular issues, or on priorities they consider the ABS should follow. Submissions, preferably in writing, should be made through the contacts named at the end of this paper.

187. The ABS has commenced making arrangements to interview key major users. These interviews will be conducted in the period to the end of February 1995 but further consultation will occur with a wider range of users, as firmer proposals are developed, through to November 1995. A discussion paper conveying decisions on the implementation of BPM5 is planned for release in the first half of 1996 and a similar one on SNA93 in the second half of 1996.

### CONTACTS FOR FURTHER INFORMATION

188. For further information relating to the implementation of BPM5 readers should write to Ms Barbara Dunlop, Assistant Statistician, International and Financial Accounts Branch in the ABS's central office in Canberra (see address below), or contact Mr Bob McColl on telephone (06) 252 6189. For more information on implementation of the SNA the contact at the same address is Mr Paul McCarthy, Assistant Statistician, National Accounts Branch, telephone (06) 252 6038. Written submissions should be addressed to the named officers at the following address:

Australian Bureau of Statistics  
PO Box 10  
BELCONNEN ACT 2616

Facsimile submissions should be sent to fax no. (06) 253 1051.

### COPIES OF SNA93 AND BPM5 MANUALS

189. Copies of the SNA93 and BPM5 manuals can be viewed at the library in each ABS office but are not avail-

able for purchase from the ABS. Copies of SNA93 can be purchased from any of the five sponsor organisations. The contact information for purchase of "*System of National Accounts 1993*" (SNA93) from the United Nations is as follows:

United Nations Publications  
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New York, NY 10017 USA  
Tel. 1 (212) 963 8302  
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## APPENDIX

**Integrating the Australian Input-output Tables and the Annual National Income, Expenditure and Product (NIEP) Accounts**

Despite their conceptual similarity, the data in the Australian input-output tables and the NIEP accounts often differ, in some cases by a considerable amount. This situation has occurred due to a combination of two factors. In compiling the input-output tables, the objective has been to produce as accurately as possible a comprehensive picture of the supply and use of goods and services in the Australian economy and the incomes generated from production. The need to satisfy the two identities: 'supply = use' for each commodity and 'production = income' for each industry has led the input-output compilers to choose data sources most helpful in achieving this objective. The confrontation and consequent balancing process leads to adjustments to some of the data. NIEP accounts, on the other hand, are not subject to any balancing constraint other than that between the income and expenditure based estimates of GDP, and even that is avoided by explicitly showing a statistical discrepancy and by averaging the results of the three alternative methods of calculating constant price GDP to provide the overall measure of economic growth in Australia. In the absence of comprehensive balancing constraints, the NIEP compilers have chosen data sources that are expected to give both the best result over time at the total economy level and allow a consistent application across the economy.

2. Lack of timeliness and low frequency of the input-output tables (they are currently produced triennially about three and a half years after the reference period) have contributed significantly to the tables not being used as benchmarks for the NIEP accounts.

3. The ABS has recently commenced a project with the aim of compiling annual current and constant price input-

output tables as the basis on which the production account will be compiled in the annual NIEP accounts. The aim is to achieve full integration in parallel with implementing SNA93.

**A fully reconciled system of accounts**

4. Integration of the input-output tables and the production account as described above should enable reconciliation and balancing of the annual income-based, production-based and expenditure-based estimates of GDP. However, because of the different data sources and methods used, there are other statistical discrepancies between estimates of items within the ANA that are conceptually equivalent. For example, net lending in the NIEP accounts does not agree with the change in financial position in the financial accounts. A major goal in the ABS is to work towards reducing, if not eliminating altogether, these discrepancies.

5. There are two principal factors involved in achieving the goal: improving source data and adopting unifying compilation methods. Both of these factors have a number of elements. Elements of the first include improving the coherence between ABS collections, improving their coverage and accuracy, and so on. Elements of the second include adopting consistent sources and methods to estimate the same things (as in the NIEP accounts and Input-output tables) and adopting an integrated methodological approach so that the conceptual relationships between items are recognised in the compilation process. To a large extent, the present practice in the ABS is to compile the different components of the national accounts independently of each other, resulting in the discrepancies and balancing items that appear in national accounts' tables. Implementation of SNA93 and BPM5 is seen as a strategic 'window of opportunity' to address these matters.



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