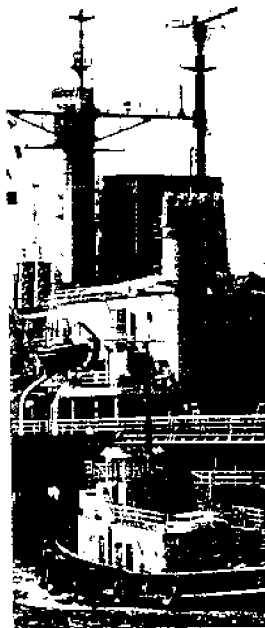




1992-93

# INTERNATIONAL TRADE IN SERVICES AUSTRALIA





**EMBARGOED UNTIL 11.30 A.M. 7 SEPTEMBER 1994**

**1992-93  
INTERNATIONAL TRADE  
IN SERVICES  
AUSTRALIA**

**IAN CASTLES  
Australian Statistician**

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### Unpublished statistics

Additional detailed statistics on international trade in services are available on request, subject to confidentiality requirements. For example, more detailed country statistics are available. Inquiries should be made to the contact officers below. The fee for this service varies according to the amount of data and the way it is provided.

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INQUIRIES • *for further information about statistics in this publication and the availability of related unpublished statistics - contact Mark Lound on (06) 252 6069 or Fiona Mackie on (06) 252 5733.*  
 • *for information about other ABS statistics and services please refer to the back page of this publication.*



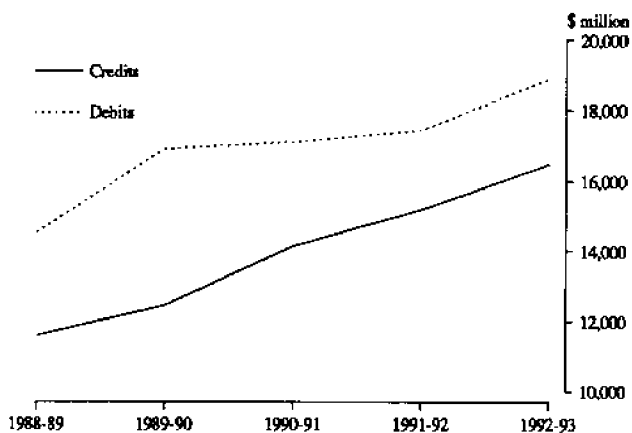
## ANALYSIS OF SERVICES TRANSACTIONS IN BALANCE OF PAYMENTS STATISTICS

### Services

In 1992-93 Australia recorded a deficit of \$2,414 million on its international trade in services, up \$171 million on the deficit in the previous year but much lower than the deficits in the preceding three years.

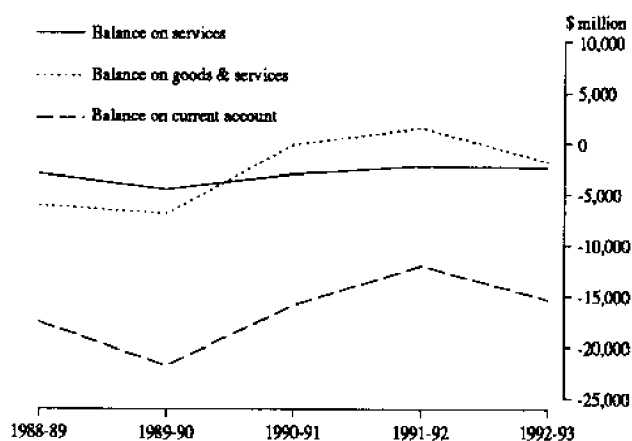
Services exports were \$16,485 million and services imports were \$18,899 million. As a proportion of current account transactions in Australia's balance of payments in 1992-93, services exports accounted for 19 per cent of credits while services imports accounted for 19 per cent of debits.

GRAPH 1 - TOTAL SERVICES



Over the five year period 1988-89 to 1992-93, the net services deficit as a percentage of the current account deficit fell one percentage point, from 17 per cent to 16 per cent. The contribution of both services exports and imports to current account credits and debits, respectively, increased by one percentage point over the same period.

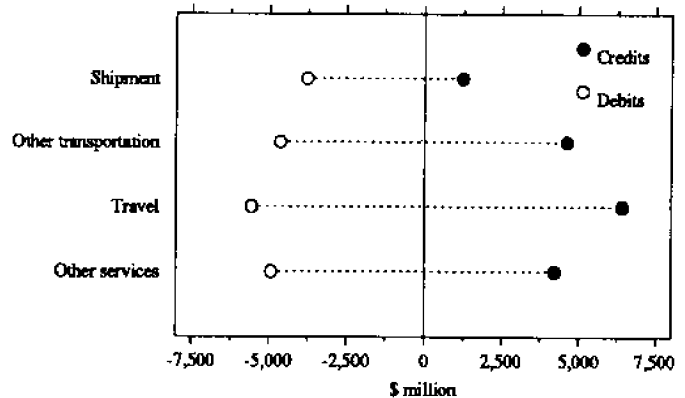
GRAPH 2 - BROAD BALANCE OF PAYMENTS AGGREGATES



The major components of services trade are *shipment*, *other transportation*, *travel* and *other services*. In services credits, the main contributor in 1992-93 was *travel* (\$6,407 million, or 39 per cent), followed by *other transportation* (\$4,614 million or 28 per cent), *other ser-*

*vices* (\$4,223 million or 26 per cent), and *shipment* (\$1,241 million or 7 per cent). The *travel* item was also the main contributor to services debits (\$5,552 million or 29 per cent), followed by *other services* (\$4,938 million or 26 per cent), *other transportation* (\$4,637 million or 25 per cent) and *shipment* (\$3,772 million or 20 per cent).

GRAPH 3 - SERVICES BY COMPONENT  
1992-93

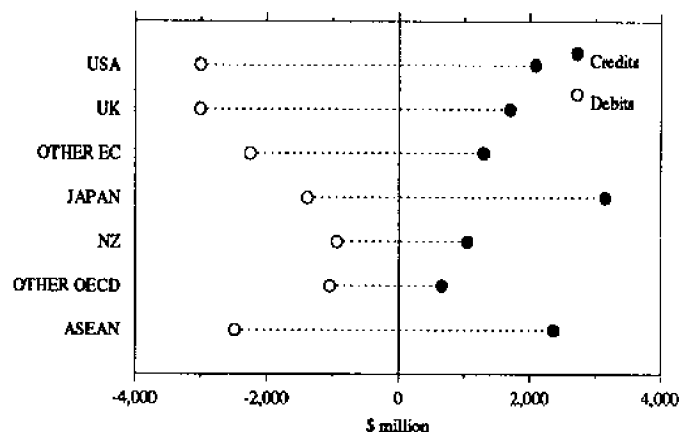


In 1992-93, the largest services surplus was recorded with *Japan* (\$1,771 million), while the largest services deficits were recorded with the *UK* (\$1,317 million), the *USA* (\$930 million) and *Other EC* (\$842 million).

Of total services credits, *OECD countries* accounted for \$9,920 million or 60 per cent (with the largest export destinations being *Japan*, \$3,151 million or 19 per cent; the *USA*, \$2,079 million or 13 per cent; the *UK*, \$1,697 million or 10 per cent; and *New Zealand*, \$1,045 million or 6 per cent). The *ASEAN* group accounted for a further \$2,363 million or 14 per cent of total services credits.

Of total services debits, *OECD countries* contributed \$11,638 million or 62 per cent (with the largest import sources being the *UK*, \$3,014 million or 16 per cent; and the *USA*, \$3,009 million or 16 per cent). The *ASEAN* group contributed a further \$2,486 million or 13 per cent of total services debits.

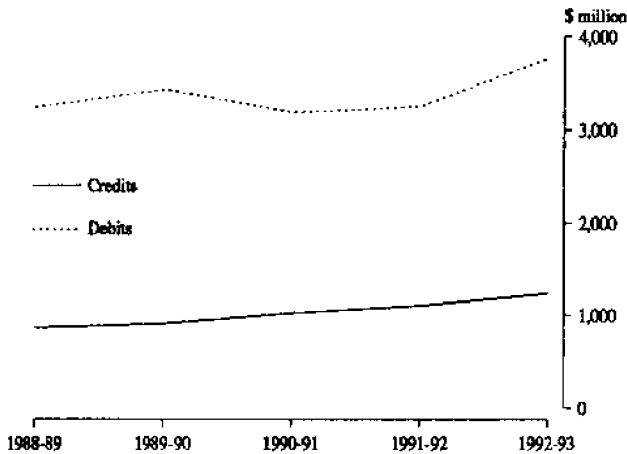
GRAPH 4 - SERVICES BY SELECTED COUNTRY GROUP  
1992-93



## Shipment

The *shipment* item comprises *freight* and *insurance* services provided by Australian residents to non-residents (credits) and similar services provided by non-residents to Australian residents (debits). The freight items account for most of shipment credits and debits (99 per cent in 1992-93). In 1992-93 *shipment* debits (\$3,772 million) continued the historical trend of greatly exceeding *shipment* credits (\$1,241 million).

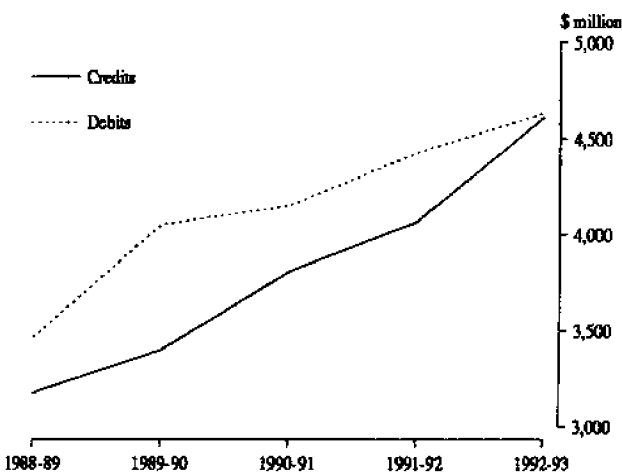
GRAPH 5 - SHIPMENT



## Other transportation

The *other transportation* item comprises *passenger services* and *port services etc.* In 1992-93, *other transportation* credits (\$4,614 million) grew strongly and totalled only slightly less than *other transportation* debits (\$4,637 million).

GRAPH 6 - OTHER TRANSPORTATION

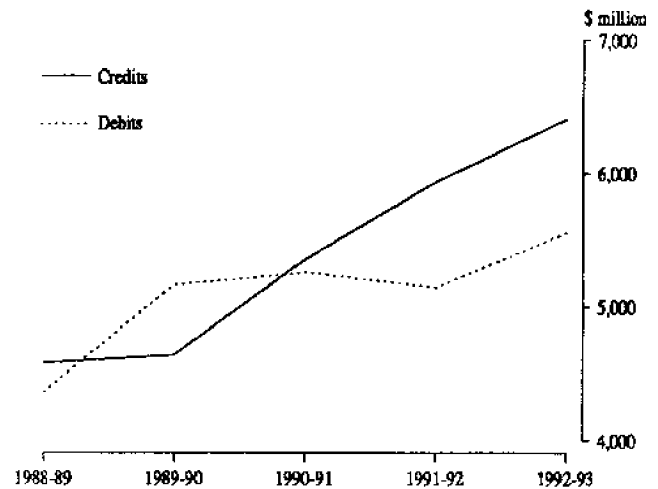


## Travel

The *travel* item comprises *students' expenditure* and *other travel*. The *travel* item measures the acquisition of goods and services by non-resident travellers in Australia (credits) and by Australian resident travellers abroad

(debits). The *travel* item recorded a surplus (\$855 million) in 1992-93, as it did in the preceding two years.

GRAPH 7 - TRAVEL



The surplus on *students' expenditure* increased by \$195 million or 25 per cent from 1991-92 to 1992-93, reflecting a similar increase during this period in *students' expenditure* credits which reached \$1,322 million in 1992-93, up \$207 million, or 19 per cent, on the 1991-92 figure.

*Expenditure on education services* and *expenditure on other goods and services* accounted for 53 per cent and 47 per cent respectively of *students' expenditure* credits in 1992-93. From 1991-92 to 1992-93, expenditure by full fee paying students grew rapidly, from \$877 million to \$1,132 million. Full fee paying students accounted for 86 per cent of all *students' expenditure* credits in 1992-93, and assisted students (ie sponsored and subsidised students), 14 per cent. This represents a significant change in proportions since 1988-89, when full fee paying students accounted for 53 per cent and assisted students accounted for 47 per cent of all *students' expenditure* credits.

The ASEAN countries were a major source of foreign *students' expenditure* in Australia (credits) with *Malaysia* the largest ASEAN contributor. These countries' relative importance remained steady, accounting for 40 per cent in 1991-92 and 39 per cent in 1992-93. In contrast, Hong Kong's contribution increased significantly in this period, from 9 per cent to 16 per cent. The People's Republic of China increased rapidly between 1988-89 and 1989-90, from 19 per cent to 27 per cent (becoming the largest single country contributor in 1989-90), but has fallen in subsequent years, declining to 7 per cent in 1992-93.

*Students' expenditure* debits increased by 4 per cent from \$320 million in 1991-92 to \$332 million in 1992-93. In 1992-93 most expenditure (63 per cent) by Australians travelling abroad for education was in the *OECD countries*, the largest recipients being the *USA* (19 per cent), the *UK* (12 per cent), *New Zealand* (9 per cent) and *Japan* (8 per cent). Outside the *OECD*, most expenditure was in the *ASEAN* countries (13 per cent).



The *other travel* item is the single largest contributor to both services credits and debits. In 1992-93 *other travel* accounted for 31 per cent of total services credits and 28 per cent of total services debits. *Other travel* recorded a deficit of \$135 million in 1992-93, up from \$4 million in 1991-92. The increase in the deficit was due to the rise in *other travel* credits of \$261 million (from \$4,824 million in 1991-92 to \$5,085 million in 1992-93) being more than offset by the rise in *other travel* debits of \$392 million (from \$4,828 million to \$5,220 million).

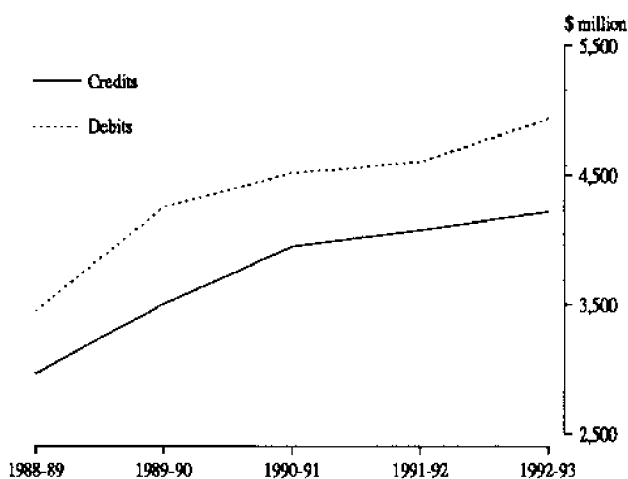
OECD countries accounted for \$3,607 million or 71 per cent of *other travel* credits in 1992-93, with the major contributors being *Japan*, \$1,258 million or 25 per cent; the *UK*, \$532 million or 10 per cent; the *USA*, \$529 million or 10 per cent and *New Zealand*, \$495 million or 10 per cent. The *ASEAN* group accounted for a further \$625 million or 12 per cent.

OECD countries were also the major destination for most Australians travelling abroad in 1992-93, accounting for \$3,080 million or 59 per cent of *other travel* debits. The major destinations were *UK*, \$895 million or 17 per cent; the *USA*, \$665 million or 13 per cent; and *Other EC*, \$641 million or 12 per cent. The *ASEAN* group contributed a further \$689 million or 13 per cent.

#### Other services

The *other services* item comprises *official* sector and *non-official* sector services. By far the major component of *other services* was *non-official miscellaneous services*, accounting for 73 per cent of total *other services* credits and 65 per cent of total *other services* debits in 1992-93. The *other services* deficit in total widened from \$486 million in 1988-89 to \$753 million in 1989-90, fell to \$526 million in 1991-92, then rose again to \$715 million in 1992-93.

GRAPH 8 - OTHER SERVICES



The largest contributor to the *other services* deficit in 1992-93 was *insurance services nec*, accounting for \$456 million. *Non-official miscellaneous services* accounted for \$120 million of the deficit.

There was an increase of \$181 million (or 6 per cent) in total *non-official miscellaneous services* credits from 1991-92 to 1992-93 and an increase of \$75 million (or 2 per cent) in debits over the same period.

The largest contributor to the increase in *non-official miscellaneous services* credits from 1991-92 to 1992-93 was *management fees between related companies* which rose by \$43 million or 15 per cent. Other major contributors to the increase in credits were *agency and advertising services provided to international transport operators* which rose by \$32 million (or 5 per cent) and *legal services* which rose by \$21 million (or 23 per cent).

The main contributors to the increase in *non-official miscellaneous services* debits from 1991-92 to 1992-93 were *engineering services*, which rose by \$54 million (or 53 per cent); *mining services*, which rose by \$38 million (or 136 per cent); and *research and development services*, which rose by \$22 million (or 21 per cent). The largest falls were in *advertising services* (down \$62 million or 23 per cent), *manufacturing services* (down \$28 million or 26 per cent) and *merchandising services* (down \$24 million or 86 per cent).

For total *non-official miscellaneous services* in 1992-93, 58 per cent of credits and 66 per cent of debits were attributable to *OECD countries*. Deficits were recorded with all the major *OECD countries* except *New Zealand* and *Germany*, with the largest deficit (\$204 million) recorded with the *USA*. Overall, a deficit of \$329 million was recorded with *OECD countries*. Surpluses were recorded with the *ASEAN* group, *Papua New Guinea* and *OPEC (excluding Indonesia)*.

Of the *OECD countries*, the largest credits were recorded with the *USA* (\$629 million or 20 per cent of total credits), the *UK* (\$367 million or 12 per cent), *New Zealand* (\$249 million or 8 per cent) and *Japan* (\$198 million or 6 per cent); while the largest debits were recorded with the *USA* (\$833 million or 26 per cent), the *UK* (\$411 million or 13 per cent) and *Japan* (\$280 million or 9 per cent). Of the *non-OECD countries*, the *ASEAN* group recorded credits of \$438 million (or 14 per cent of total *non-official miscellaneous services* credits) and debits of \$226 million (or 7 per cent of debits).

In terms of the industry of domestic transactor for total *non-official miscellaneous services* in 1992-93, the largest surpluses were recorded for the *finance, property and business services* industry (\$303 million) and the *transport and storage* industry (\$84 million). The largest deficit was recorded for the *manufacturing* industry (\$197 million), followed by the *mining* industry (\$87 million).

Major contributors to *non-official miscellaneous services* credits and debits were the *finance, property and business services* industry which accounted for 28 per cent and 18 per cent respectively; the *transport and storage* industry (20 per cent and 17 per cent); the *manufacturing* industry (12 per cent and 18 per cent); and the *wholesale and retail trade* industry (10 per cent and 11 per cent).

**Transactions in royalties, franchise fees, licence fees, distribution fees, copyright fees, patent fees, etc**

*Royalties, etc* are recorded in the balance of payments under *other property income*; that is, property income other than investment income. *Royalties, etc* is the generic term used for payments for the right to use non-financial intangible assets such as patents and copyrights or intellectual property. They are closely related to services.

Total *royalties, etc* credits rose by \$66 million (or 28 per cent) from 1991-92 to 1992-93 while *royalties, etc* debits increased by \$40 million (or 3 per cent). Total *royalties, etc* continued to record a substantial deficit (\$1,258 million) in 1992-93.

For *royalties, etc* credits, from 1991-92 to 1992-93, the largest increases were recorded for *films, television programs and video tapes* (up \$35 million or 56 per cent) and *computer software* (up \$26 million or 54 per cent).

*Royalties, etc on computer software* was the largest contributor to the increase in total *royalties, etc* debits, rising \$46 million (or 22 per cent) from 1991-92 to 1992-93. Increases in *royalties, etc* debits were also recorded for *publications* (up \$10 million or 167 per cent) and other *royalties* (up \$45 million or 15 per cent). These increases were partly offset by decreases in *technical know-how* (down \$43 million or 9 per cent), *music* (down \$10 million or 7 per cent) and *films, television programs and videotapes* (down \$9 million or 2 per cent).

For total *royalties, etc* in 1992-93, 78 per cent of credits and 97 per cent of debits were attributable to *OECD countries*. Deficits were recorded for all the major *OECD countries* other than *New Zealand*.

Of the *OECD countries*, the largest credits were recorded with the *USA* (\$91 million or 30 per cent of total credits) and the *UK* (\$70 million or 23 per cent); while the largest debits were recorded for the *USA* (\$1,002 million or 64 per cent) and the *UK* (\$198 million or 13 per cent).

In terms of the industry of domestic transactor for total *royalties, etc* in 1992-93, deficits were recorded for all industry groups. The largest deficit was recorded for the *manufacturing industry* (\$461 million), followed by the *wholesale and retail trade industry* (\$399 million), the *entertainment and recreation services industry* (\$302 million) and the *finance, property and business services industry* (\$64 million).

The largest contributor to *royalties, etc* credits was the *entertainment and recreation services industry* (\$111 million or 36 per cent) followed by the *finance, property and business services industry* (\$102 million or 33 per cent); while the largest contributor to debits was the *manufacturing industry* (\$520 million or 33 per cent), followed by the *wholesale and retail trade industry* (\$428 million or 27 per cent) and the *entertainment and recreation services industry* (\$413 million or 26 per cent).

## AUSTRALIA'S INTERNATIONAL TRANSACTIONS IN COMPUTER MERCHANDISE, SERVICES AND ROYALTIES

### Introduction

This article looks at Australia's international transactions in computer merchandise, services and royalties. It first provides a definition of international computer merchandise, services and royalties transactions, and, associated with this, issues of scope and classification are discussed. The article then looks at the sources of information and finishes with an analysis of recent estimates of Australia's computer related transactions with other countries.

The discussion and statistics presented are concerned with all international transactions that fall under the scope of computer merchandise, services and royalties and not just those activities undertaken by businesses that are generally regarded as belonging to the computer industry.

### Definition

For the purposes of this article, *computer merchandise* is defined as computer hardware, computer parts and recorded computer disks and tapes. *Computer services* are defined as data processing, software implementation and computer consultancy services. *Computer royalties* are defined as payment by one party to another for the rights to use or distribute intangible computer assets, such as software, where ownership of the asset is not transferred to the acquiring party.

The definition of transactions used in this article is the same definition as that used in Australia's balance of payments. In the balance of payments, a transaction occurs when something of economic value is provided by a resident to a non-resident (export) or by a non-resident to a resident.

There are two main definitional issues that require discussion. The first is an issue of scope and it concerns those transactions that are closely related to transactions in computer merchandise, services and royalties but fall outside the scope of these transactions. The second issue is the classification of transactions that fall within the scope of transactions in computer merchandise, services and royalties but exhibit the traits of more than one of these categories. Both of these issues are discussed in more detail below.

### Issues of Scope

The scope of transactions in computer merchandise, services and royalties excludes, conceptually, computer hardware or software that form an integral part of other merchandise or services. For example, a car may contain one or more computers; however, transactions in the intermediate computer goods embodied in cars fall outside the scope of computer merchandise, services and royalties transactions. Similarly, the scope of computer related transactions will exclude, for example, software which is provided by an accounting firm to a client as part of an accountancy consultancy; it will be counted in with the value of the accounting service.

Closely related to this is the practical problem associated with "bundling". "Bundling" refers to the combination of goods and services or the combination of several different services. When the different goods or services cannot be separately valued, payments or receipts are classified to the service or good which accounts for the majority of the value of the transaction. Thus, in certain instances, estimates of transactions in computer merchandise and services provided later in this article may include transactions in other commodities while, in other instances, the estimates may exclude transactions in computer merchandise and services that have been "bundled" with other transactions.

Computer hardware and software delivered by non-residents to Australian owned entities with long term foreign presence, such as a foreign branch or subsidiary of an Australian company, are excluded from the scope of this article as they are outside the scope of balance of payments transactions. However, services delivered by a parent company to its branch or subsidiary, or vice versa, are in scope, provided that one party is a resident and the other a non-resident.

### Issues of Classification

While, conceptually, there is a clear distinction between transactions in computer merchandise, services and royalties, in practice it is not always a straightforward matter to apply these classifications.

To illustrate this, consider an export sale that involves the provision of a computer disk. The disk may have nothing written on it; or it may contain a piece of "off the shelf" software; or it may contain a special piece of software developed for a particular client; or it may hold a master copy of software which when copied and used will earn royalties for its author.

The "empty" computer disk would be classified as a good and included in merchandise trade. Likewise, the disk holding the "off the shelf" software, where the combination of the tangible and intangible properties would generally be packaged as the one item, would also be regarded as a merchandise transaction.

On the other hand, where the disk holds a specially developed piece of software, by far the greater value generally lies with the intangible element which represents the design and development undertaken for a client. The disk is merely the means of carrying the software to its implementation in another system. Payments and receipts for this type of transaction would therefore be predominantly classified as a transaction in services, with only a small amount recorded in merchandise trade to reflect the physical value of the disk.

Similarly, where the disk holds a master copy of a piece of software for subsequent copying under licence agreements, the greater value again lies with the intangible

element which represents future royalties earnings for the author of the software. Payments and receipts for the right to use the software would be predominantly classified as transactions in royalties on computer software.

#### Sources of Information

There are two main sources of information on Australia's international transactions in computer merchandise, services and royalties. These are international merchandise trade statistics and the International Trade in Services Survey (ITSS).

International merchandise trade statistics provide information on quantities and values of goods which cross the Australian customs frontier. These statistics are, in turn, derived from the customs recording system and are available monthly.

International merchandise trade statistics are the main source for the merchandise (including computer merchandise) items in the balance of payments. A number of adjustments, however, are made to international merchandise trade statistics in order to compile information on a balance of payments (or change of ownership) basis. Details of these adjustments can be found in *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0).

Merchandise in balance of payments and international merchandise trade statistics is classified by, among other things, country and commodity. The United Nations' *Standard International Trade Classification*, third revision (SITC Rev3), provides a commodity dimension to international merchandise trade statistics. Computer merchandise is defined as SITC group 752 (computer hardware) plus SITC item 75997 (computer parts) plus part of SITC group 898 (recorded computer disks and tapes). For the purpose of this article, unrecorded computer disks and tapes are not included as they are not separately identifiable from other types of unrecorded disks and tapes.

The ITSS is a survey conducted by the ABS. The ITSS obtains details of international trade in services and royalties, including those relating to computer services. Information from the ITSS is classified by country and by industry of the Australian business unit undertaking the transaction, as well as by commodity.

#### Analysis of Recent Estimates

Table A presents information on Australia's international transactions relating to trade in computer merchandise, services and royalties for 1989-90, 1991-92 and 1992-93.

In this article, computer services and royalties are analysed together. While in the balance of payments the former is a service item and the latter an income item, it is considered more useful to combine the two when analysing international computer transactions.

The main feature is the large value of imports of computer merchandise, \$4,157 million in 1992-93, compared with all the other computer related transactions. These imports increased by \$643 million, or 18 per cent, between 1991-92 and 1992-93. They constituted about 7 per cent of Australia's total merchandise imports in 1992-93. Also notable is the growth in exports of computer merchandise, up \$124 million, or 18 per cent, between 1991-92 and 1992-93, although in total these exports contributed only about 1 per cent of Australia's merchandise exports in 1992-93.

As Table A shows, transactions in computer services and royalties are much smaller than those for computer merchandise. The relative contribution of computer services and royalties credits to total computer related exports is significant but has declined in recent years. In 1989-90 exports of computer services and royalties credits were \$242 million, or 33 per cent of total computer related exports. In 1992-93, exports of computer services and royalties credits, at \$277 million, contributed 25 per cent of total computer related exports. While imports of computer services and royalties debits, at \$387 million were

Table A: International Transactions in Computer Merchandise, Services and Royalties (a)

(\$A million)

	1989-90		1991-92		1992-93	
	Credits (Exports)	Debits (Imports)	Credits (Exports)	Debits (Imports)	Credits (Exports)	Debits (Imports)
<i>Computer merchandise job—</i>						
Computer hardware (b)	173	-2,017	221	-1,924	236	-2,324
Computer parts (c)	327	-1,076	465	-1,283	573	-1,423
Recorded computer disks and tapes (d)	n.a.	-240	n.a.	-307	n.a.	-410
<i>Total computer merchandise job</i>	<i>500</i>	<i>-3,333</i>	<i>686</i>	<i>-3,514</i>	<i>810</i>	<i>-4,157</i>
<i>Computer services and royalties—</i>						
Data processing and software implementation services (e)	172	-78	215	-91	154	-104
Computer consultancy services (f)	29	-33	42	-30	50	-26
Royalties, etc on computer software (g)	41	-214	48	-211	74	-257
<i>Total computer services and royalties</i>	<i>242</i>	<i>-325</i>	<i>305</i>	<i>-332</i>	<i>277</i>	<i>-387</i>
<b>Total</b>	<b>742</b>	<b>-3,658</b>	<b>991</b>	<b>-3,846</b>	<b>1,087</b>	<b>-4,544</b>

(a) The International Trade in Services Survey (ITSS) was not conducted in 1990-91. (b) Includes all commodities in the Standard International Trade Classification (SITC) group 752. (c) Includes all commodities in the SITC item 75997. (d) Includes commodities in part of SITC group 898. (Unrecorded computer disks and tapes have not been included as they are not separately identifiable from other types of unrecorded disks and tapes). (e) Includes services related to computer software such as systems analysis, design, programming and maintenance. (f) Includes consultancy services related to computer hardware and software. (g) Includes transactions in royalties, franchise fees, licence fees, distribution fees etc on computer software.

slightly higher than exports of computer services and royalties credits in 1992-93, they formed only 9 per cent of total computer related imports.

In 1992-93, exports of computer services and computer royalties credits accounted for 2 per cent of total exports of services and royalties, while imports of computer services and computer royalties debits accounted for 2 per cent of total imports of services and royalties.

#### Country and Industry Analysis of Computer Merchandise, Services and Royalties Transactions

As mentioned above, information obtained from international merchandise trade statistics and the ITSS can be classified by country. Information from the ITSS can also be classified by the broad industry of the Australian business unit receiving or providing the service, based on the 1983 edition of the Australian Standard Industrial Classification (ASIC).

As Table B shows, for transactions in computer merchandise in 1992-93, \$2,920 million (or 70 per cent) of imports were attributable to *OECD countries*, with the *USA* (\$1,855 million) being the single largest source. Other significant sources were *Japan* (\$663 million) and

the *UK* (\$111 million). The *OECD countries* were also the main recipients of Australian exports of computer merchandise, taking \$590 million (or 73 per cent) of these exports. Of this amount, exports valued at \$202 million were shipped to the *USA*, \$149 million to *Japan* and \$139 million to *New Zealand*.

For transactions in computer services and royalties in 1992-93, \$209 million (or 75 per cent) of credits and \$381 million (or 98 per cent) of debits were attributable to *OECD countries*. Of these, credits of \$119 million and debits of \$265 million were recorded with the *USA*. Large flows were also recorded with the *UK* (credits of \$31 million and debits of \$47 million) and *New Zealand* (credits of \$30 million) and *Japan* (debits of \$27 million).

Table C shows the broad industry classification of the Australian business units involved with exports and imports of computer services and royalties. In 1992-93, \$134 million (or 48 per cent) of credits and \$139 million (or 36 per cent) of debits were attributable to the *finance, property and business services* industry, while \$105 million (or 38 per cent) of credits and \$214 million (or 55 per cent) of debits were attributable to the *wholesale and retail trade* industry.

**Table B: International Transactions in Computer Merchandise, Services and Royalties by Country, 1992-93**  
(\$A million)

	Computer merchandise			Computer services and royalties		
	Exports fob	Imports fob	Net	Credits	Debits	Net
<i>OECD</i> —						
USA	202	-1,855	-1,653	119	-265	-146
UK	30	-111	-81	31	-47	-16
Japan	149	-663	-514	16	-27	-11
New Zealand	139	-6	133	30	-4	26
Other	69	-285	-216	12	-38	-26
Total <i>OECD</i>	590	-2,920	-2,330	209	-381	-172
ASEAN	89	-479	-390	10	-2	8
Other countries	130	-758	-628	58	-4	54
<b>Total all countries</b>	<b>810</b>	<b>-4,157</b>	<b>-3,347</b>	<b>277</b>	<b>-387</b>	<b>-110</b>

**Table C: International Transactions in Computer Services and Royalties by Industry of Transactor, 1992-93**  
(\$A million)

	Credits	Debits	Net
Manufacturing	37	-27	10
Wholesale and retail trade	105	-214	-109
Finance, property and business services	134	-139	-5
Other industries	1	-8	-7
<b>Total</b>	<b>277</b>	<b>-387</b>	<b>-110</b>

## DEVELOPMENTS IN MEASURING AUSTRALIA'S INTERNATIONAL TRADE IN SERVICES

*This article is an updated version of an article published in June 1994 in the International Monetary Fund's Balance of Payments Newsletter, Volume 1, Number 2, under the title "Australia Adopts an Integrated Approach to Collect Data on International Services".*

### Introduction

The Australian Bureau of Statistics (ABS) has taken a number of initiatives in recent years to improve and extend its statistics on Australia's international trade in services. A new integrated collection strategy has been introduced that involves several new collections, the redesign and rationalisation of existing collections, and better collection and compilation methodologies. Several initiatives are also planned that will further improve the statistics over the next few years.

The new collection strategy and data quality initiatives are bringing significant benefits to the ABS as well as to suppliers and users of international services trade data. These benefits include:

- Improved coverage of statistics on these services;
- More accurate and reliable quarterly and annual estimates of services trade in the balance of payments;
- Availability of more frequent and timely detail on trade in selected services;
- Better reporting owing to the use of simpler and clearer forms;
- Common survey frame maintenance procedures for all international trade in services collections from enterprises; and
- More commonality in processing systems, easier integration of results from different collections of data on trade in services, and a more comprehensible framework for these collections.

### Overview of Data Sources

Under the Australian balance of payments, services trade is classified into four broad categories: *Shipment*; *Other Transportation*; *Travel*; and *Other Services*. Each of these categories is further broken down by type of service and, in some cases, by type of transactor. As a result of the initiatives that have been taken, the quality of services trade statistics and the amount of detail available on *Other Services*, in particular, has increased significantly in recent years.

Historically, the main data sources for the *Shipment* and *Other Transportation* items have been foreign trade records obtained from the Australian Customs Service and quarterly surveys of enterprises engaged in transportation activities, either as principals or agents. These sources continue to provide most of the data for measuring these items, although the enterprise surveys have recently been redesigned as separate collections within a new survey with a much wider scope. This new survey - the ABS

*International Trade in Services Survey* - is discussed in more detail in later paragraphs.

For the *Travel* item, the main data sources since the early 1980s have been surveys of travellers, surveys of travel enterprises (that is, travel wholesalers and travel finance providers), and monthly overseas arrivals and departures statistics compiled from government migration records. A survey of international visitors to Australia has been conducted for many years by the Bureau of Tourism Research and results are currently available quarterly. The ABS has recently introduced a similar survey of Australians returning from visits to other countries. This ABS survey was first conducted for 1991-92 and is to be repeated every four years. It generates expenditure data, which are used to provide benchmarks for indicators collected quarterly and annually, from travel enterprises.

For *Other Services*, the official sector's transactions have historically been measured mainly by using monthly data from government financial records. Until the late 1980s, a monthly survey of banks' non-trade foreign receipts and payments was the main source for measuring the non-official sector's transactions. This survey collected data on individual transactions passing through the banking system. Over the past few years, this data source has been replaced by the new *International Trade in Services Survey*, which approaches enterprises directly for details of their international services trade.

### Changed Collection Strategy

There has been rapid growth over the past decade in transactions classified in the *Other Services* category. This has been accompanied by strong demands from analysts for more detailed, more timely and more accurate statistics on these services. There is particular interest in commodity detail as well as industry, country and State dissections. There is also a growing interest in being able to relate statistics on domestic services production with international services trade.

In response to these demands and because of serious deficiencies in the data obtained from the monthly survey of banks, the ABS decided some years ago to change its collection strategy. It discontinued the survey of banks and replaced it with a new survey that directly approaches enterprises that provide or receive international services. This new survey, the ABS *International Trade in Services Survey*, was introduced initially as a biennial collection with data collection commencing in respect of 1987-88. It sought detailed data for services commodities classified by country and industry. Since that time, the survey has been progressively extended and comprehensive data at a detailed commodity level are now collected annually. The survey also has a smaller quarterly component to provide timely data at a broad commodity level for compilation of quarterly balance of payments statistics

and a limited monthly component to obtain a small amount of data from international airlines for inclusion in monthly balance of payments estimates.

As mentioned earlier, under the new collection strategy, the existing enterprise surveys used in measuring the transportation and travel items have been redesigned and incorporated within the framework of the *International Trade in Services Survey*. As a result, the latter survey now consists of a set of integrated collections used to measure all aspects of international services trade by enterprises in Australia, apart from financial services and certain travel services. As for those services, data on financial services are obtained from the quarterly and annual collections conducted as part of the *ABS Survey of Foreign Investment*. Because financial services are closely linked to international investment activity, it was decided to collect data on them using the same forms used to collect data on international investment transactions, levels and income. In the case of travel, data on services provided to international visitors to Australia are obtained from the separate quarterly survey of those visitors.

The redesigned collection forms ask enterprises to report all their international trade in services, not just the main services traded. In the past, enterprises that traded in different types of services internationally should have received separate forms for each broad type of service. Often, however, secondary activities of those enterprises were probably not captured. There are now tailored collection forms for resident and non-resident shipping activity; resident and non-resident airline activity; insurance; travel expenditure; telecommunications; postal services; music royalties collection agencies; information technology; and film and audio-visual activity. While these forms each focus on a particular range of services, they also seek data for a core set of services trade items. Additional tailored forms will be developed as needed for any difficult to measure or statistically significant activities. For enterprises not covered by an activity-specific form, a general form collects details of all international services transactions at a broader commodity level.

#### Data Quality Initiatives

The previously separate collection populations are being progressively integrated so that duplication is minimised and enterprises in the *International Trade in Services Survey* can be sent appropriate forms. To aid this process an annual services trade coverage survey has been developed, and the first collection was undertaken for 1991-92. The survey collected indicative information about the size and nature of potential in-scope enterprises' international services trade transactions. This indicative information is combined with any past reporting details to update the survey population frame. A sample of enterprises in the frame is then approached for full details of their transactions. This approach has enabled the ABS

to direct the appropriate tailored forms to in-scope units. It has also helped to provide better stratification, thus reducing sample sizes and increasing sampling efficiency.

In connection with the creation of this common frame, a lower level statistical unit has been adopted. Reflecting this change, the new tailored forms approach discrete, identifiable operating divisions or accounting centres specialising in certain types of activity. One result is better reporting of all in-scope transactions because of the closeness of individual respondents to both day-to-day operations and relevant accounting information.

As part of the redesign of the transportation collections, an improved methodology was also introduced which has resulted in better coverage and more accurate and timely reporting of transactions. The new methodology is based on the uniform collection of data on an aggregate basis rather than a mixed collection of data on an aggregate and individual vessel voyage basis. Other developments include: improved coverage of travel credits with the introduction of a new methodology to measure expenditure on prepaid inclusive tour packages; and improved coverage and better recording of insurance services as a result of the introduction of a revised estimation methodology and the consolidation of several separate insurance collections (covering reinsurance, general, life and merchandise insurance) to obtain better data without gaps and overlaps. These developments are discussed in more detail in the following article "Recent Changes to Sources and Methods Used for Estimating Shipment, Other Transportation, Travel and Insurance Services".

#### Future Developments

Future developments include closer integration of the *International Trade in Services Survey* and other ABS surveys as concerns sample frames, coverage, data items, statistical units and output. Coverage of international services trade is expected to be further enhanced by the inclusion of supplementary questions to identify potential new units on other ABS collection forms and by making greater use of the ABS general business register. Research into important and conceptually difficult transaction types and other statistical issues will form a vital part of ongoing quality assurance measures. Bilateral comparisons of international services trade data with partner countries will continue and a joint study of detailed data with Statistics New Zealand is in progress.

A number of new or revised statistical standards will be implemented in Australia's international trade in services statistics over the next few years. These include the guidelines of the fifth edition of the *IMF Balance of Payments Manual*; the OECD-EUROSTAT trade in services classification; and the Australian and New Zealand Standard Industry Classification.

## RECENT CHANGES TO SOURCES AND METHODS USED FOR ESTIMATING SHIPMENT, OTHER TRANSPORTATION, TRAVEL AND INSURANCE SERVICES

### Introduction

This article summarises a number of recent improvements which have been made to the coverage, sources and methods used in estimating shipment, other transportation, other travel and insurance services. The changes to *shipment* and *other transportation* were first published in the May 1994 issue of the monthly balance of payments publication (5301.0); while the changes to *travel* and *insurance services* were published in the June 1994 issue of 5301.0. The changes, which are incorporated in this issue, have resulted in much better quality estimates for these items.

### Changes to Shipment and Other Transportation Services

Prior to the May 1994 issue of 5301.0, the estimates of *shipment* and *other transportation* credits and debits were partly compiled using information collected in the ABS Surveys of International Shipping Operations (SISO) and Airline Operations (SIAO). The SISO and SIAO were replaced in September quarter 1993 by new collections within the framework of the ABS International Trade in Services Survey. The new shipping collection obtains aggregated information, on a quarterly basis, on sea transport services provided by resident and non-resident shipping operators. This approach differs from that in the SISO which obtained aggregated quarterly information from some respondents and individual information on each voyage of a vessel from other respondents. The new airline collection is essentially the same as the SIAO.

The new shipping collection has resulted in estimates for *shipment* credits and *other transportation* credits and debits that are significantly higher than those based on the SISO, largely as a result of the more comprehensive coverage of the new collection and better response rates achieved from a much simpler form design. Consequently, undercoverage adjustments based on data from the new collection, and historical information supplied by the major respondents, have been made to all periods back to 1982-83.

The impact of these adjustments on the current account deficit is outlined in *Revisions* in the May 1994 issue of 5301.0, which was released on 30 June 1994.

### Changes to Travel Services

Estimates of "Other" *Travel Services* credits (that is, expenditure in Australia by overseas visitors other than students) are derived using two sources: information on the number of overseas visitors, published by ABS from data collected on passenger cards by the Department of Immigration and Ethnic Affairs; and information on the expenditure of visitors, collected mainly from the International Visitors Survey (IVS) conducted by the Bureau of Tourism Research (BTR). The expenditure information from the IVS covers goods and services purchased or con-

sumed in Australia by overseas visitors, except where some of that expenditure is pre-paid as part of an inclusive tour package. Inclusive package tour visitors report their total package cost in the IVS, but they are unable to separately identify the various components of expenditure included. Because of this data availability problem, prior to the June 1994 issue of 5301.0 such expenditure had been excluded from ABS estimates of "Other" *Travel Services* credits.

Recent ABS and BTR analysis of the available data has enabled estimates to be produced for the major components of inclusive package tour expenditure, that is organised tours and food, drink and accommodation. These estimates have now been incorporated into "Other" *Travel Services* credits. Undercoverage adjustments have been made for all periods back to 1983-84; prior to this it is considered that undercoverage would have been minimal.

Details of the impact of these adjustments on the current account deficit are contained in the June 1994 issue of 5301.0 which was released on 29 July 1994.

### Changes to Insurance Services

Prior to the June 1994 issue of 5301.0, the estimates of *Insurance services nec* credits and debits (that is, expenditure on insurance services other than freight insurance) were compiled using information obtained from the ABS Survey of Foreign Investment (SFI) and the Australian Taxation Office's taxation statistics. Annual estimates for *Insurance services nec* were compiled as the difference between premiums and "normal" claims. In the case of credits, both premiums and claims were based on SFI data. In the case of debits, estimates of premiums were derived from taxation statistics and estimates of claims were derived by applying a ratio of claims to premiums, calculated from SFI data, to premiums data from taxation statistics.

Since the June 1994 issue of 5301.0, estimates of insurance services are based primarily on information obtained from the ABS International Trade in Services Survey (ITSS). This change in data sources reflects a rationalisation of ABS data collection activity on trade in services. From 1989-90, data relating to international insurance transactions were excluded from the SFI and, from 1990-91, collected by the ITSS. Because of the significant improvements in coverage of insurance premiums data from the ITSS and the substantial timelag on data from the Australian Taxation Office, the latter source is no longer used directly in the estimation process. However, it is envisaged that the taxation data will continue to provide a useful coverage check.

The ITSS, like the SFI, collects data relating to general insurance, reinsurance and life insurance premiums and claims, and commissions incurred in arranging/writing in-



insurance business placed with and received from non-residents. There are, however, a number of significant differences between the old and new sources and methods. The more significant differences are outlined below.

*(a) Statistical Unit*

Information from the ITSS is collected and compiled in respect of a lower level statistical unit than the former SFI collection. This has resulted in significantly better coverage and classification of in-scope activity than was achieved by the SFI, which collected and compiled information at the enterprise group level. Consequently, undercoverage adjustments based on data from the ITSS have been made back to 1986-87. Prior to this it is considered that undercoverage would have been minimal.

*(b) Commissions*

In the SFI, claims receivable were collected inclusive of commissions and other expenses receivable. Similarly, claims payable were collected inclusive of commissions and other expenses payable. The ITSS, however, identifies commissions and other expenses receivable and payable separately from claims. This has enabled commissions and other expenses receivable (credits) and payable (debits) to be included in insurance services credits and debits respectively, in accordance with international statistical standards. Previously, commissions and other expenses receivable were netted off against insurance services debits. Similarly, commissions and other expenses payable were netted off against insurance services credits. As a result of this change, the insurance services credit and debit series have been recompiled back to 1968-

69, the earliest period for which estimates of insurance services have been produced.

*(c) Claims Receivable*

Because neither the SFI nor the ITSS approach Australian resident policy holders or non-resident insurers, neither survey is a good source of information on gross claims receivable on general insurance provided by non-residents to Australian resident policy holders. As a result, such claims have been significantly under-reported in the past. To address this problem, the ABS has developed a methodology, using information from the Insurance and Superannuation Commission, to estimate gross claims receivable on general insurance placed abroad. These estimates have now been incorporated into insurance services debits and undercoverage adjustments made back to 1976-77. Undercoverage is considered to have been minimal prior to this.

*(d) Timing Basis of Recording Premiums*

The ITSS collects information on an accruals basis (ie premiums earned) rather than on a due for payment basis, as was the case in the SFI collection. The accruals basis of recording conforms with the latest international standards for balance of payments statistics, as published in the Fifth Edition of the International Monetary Fund's Balance of Payments Manual. While the impact of this change cannot be quantified, it is not expected to be significant.

The overall impact on the current account deficit of these various changes in the measurement of insurance services is outlined in *Revisions* in the June 1994 issue of 5301.0, which was released on 29 July 1994.

TABLE I. SERVICES TRADE — SUMMARY

(\$ million)

	1988-89			1989-90			1990-91			1991-92			1992-93		
	Credits	Debits	Balance	Credits	Debits	Balance	Credits	Debits	Balance	Credits	Debits	Balance	Credits	Debits	Balance
<i>Shipment—</i>															
Freight	858	-3,226	-2,368	905	-3,419	-2,514	1,017	-3,164	-2,147	1,100	-3,233	-2,133	1,229	-3,748	-2,519
Insurance	11	-24	-13	12	-24	-12	12	-24	-12	12	-24	-12	12	-24	-12
Total	869	-3,250	-2,381	917	-3,443	-2,526	1,029	-3,188	-2,159	1,112	-3,257	-2,145	1,241	-3,772	-2,531
<i>Other transportation—</i>															
Passenger services	1,422	-1,849	-427	1,363	-2,223	-860	1,594	-2,292	-698	1,782	-2,464	-682	2,141	-2,515	-374
Port services etc	1,756	-1,618	138	2,039	-1,835	204	2,217	-1,864	353	2,287	-1,968	319	2,473	-2,122	351
Total	3,178	-3,467	-289	3,402	-4,058	-656	3,811	-4,156	-345	4,069	-4,432	-363	4,614	-4,637	-23
<i>Travel—</i>															
Students' expenditure	661	-191	470	878	-276	602	960	-291	669	1,115	-320	795	1,322	-332	990
Other	3,916	-4,172	-256	3,761	-4,888	-1,127	4,391	-4,962	-571	4,824	-4,828	-4	5,085	-5,220	-135
Total	4,577	-4,363	214	4,639	-5,164	-525	5,351	-5,253	98	5,939	-5,148	791	6,407	-5,552	855
<i>Other services—</i>															
Official—															
Defence services	(a)	-83	(a)	(a)	-108	(a)	(a)	-90	(a)	(a)	-106	(a)	(a)	-117	(a)
Financial services	(a)	-3	(a)	(a)	-5	(a)	(a)	-4	(a)	(a)	-8	(a)	(a)	-2	(a)
Miscellaneous services	(b)249	-221	(b)-58	(b)270	-272	(b)-115	(b)299	-353	(b)-148	246	-273	-141	262	-310	-167
Non-official—															
Expenditure of—															
Foreign governments	148	..	148	163	..	163	175	..	175	193	..	193	192	..	192
Government employees	64	-102	-38	69	-115	-46	75	-123	-48	76	-128	-52	72	-151	-79
Other employees	221	-184	37	340	-332	8	357	-387	-30	258	-408	-150	249	-445	-196
Financial services	191	-193	-2	191	-137	54	249	-241	8	297	-193	104	262	-151	111
Insurance services nec	88	-262	-174	110	-245	-135	201	-258	-57	121	-375	-254	115	-571	-456
Miscellaneous services	2,010	-2,409	-399	2,364	-3,046	-682	2,598	-3,066	-468	2,890	-3,116	-226	3,071	-3,191	-120
Total other services	2,971	-3,457	-486	3,507	-4,260	-753	3,954	-4,522	-568	4,081	-4,607	-526	4,223	-4,938	-715
<b>Total services</b>	<b>11,595</b>	<b>-14,537</b>	<b>-2,942</b>	<b>12,465</b>	<b>-16,925</b>	<b>-4,460</b>	<b>14,145</b>	<b>-17,119</b>	<b>-2,974</b>	<b>15,201</b>	<b>-17,444</b>	<b>-2,243</b>	<b>16,485</b>	<b>-18,899</b>	<b>-2,414</b>

(a) Included in official miscellaneous services (b) Also includes defence services and official financial services

TABLE 2. SERVICES TRADE — SUMMARY — PERCENTAGE CONTRIBUTIONS OF COMPONENTS  
(% of total services)

	1988-89		1989-90		1990-91		1991-92		1992-93	
	Credits	Debits	Credits	Debits	Credits	Debits	Credits	Debits	Credits	Debits
<i>Shipment—</i>										
Freight	7	22	7	20	7	18	7	19	7	20
Insurance	—	—	—	—	—	—	—	—	—	—
<i>Total</i>	7	22	7	20	7	19	7	19	7	20
<i>Other transportation—</i>										
Passenger services	12	13	11	13	11	13	12	14	13	13
Port services etc	15	11	16	11	16	11	15	11	15	11
<i>Total</i>	27	24	27	24	27	24	27	25	28	25
<i>Travel—</i>										
Students' expenditure	6	1	7	2	7	2	7	2	8	2
Other	34	29	30	29	31	29	32	28	31	28
<i>Total</i>	39	30	37	31	38	31	39	30	39	29
<i>Other services—</i>										
Official—										
Defence services	(a)	1	(a)	1	(a)	1	(a)	1	(a)	1
Financial services	(a)	—	(a)	—	(a)	—	(a)	—	(a)	—
Miscellaneous services	(b)2	2	(b)2	2	(b)2	2	(b)2	2	(b)2	2
Non-official—										
Expenditure of—										
Foreign governments	1	..	1	..	1	..	1	..	1	..
Government employees	1	1	1	1	1	1	—	1	—	1
Other employees	2	1	3	2	3	2	2	2	1	2
Financial services	2	1	2	1	2	1	2	1	2	1
Insurance services nec	1	2	1	1	1	2	1	2	1	3
Miscellaneous services	17	17	19	18	18	18	19	18	19	17
<i>Total other services</i>	26	24	28	25	28	26	27	26	26	26
<i>Total services</i>	100	100	100	100	100	100	100	100	100	100

(a) Included in official miscellaneous services (b) Also includes defence services and official financial services

TABLE 3. CONTRIBUTION OF SERVICES TRADE TO CURRENT ACCOUNT OF BALANCE OF PAYMENTS

	1988-89	1989-90	1990-91	1991-92	1992-93
	\$million				
<i>Services—</i>					
Credits	11,595	12,465	14,145	15,201	16,485
Debits	-14,537	-16,925	-17,119	-17,444	-18,899
<i>Balance</i>	-2,942	-4,460	-2,974	-2,243	-2,414
<i>Goods and Services—</i>					
Credits	55,489	61,029	66,300	70,075	76,507
Debits	-61,549	-67,917	-66,363	-68,499	-78,326
<i>Balance</i>	-6,060	-6,888	-63	1,576	-1,819
<i>Current Account—</i>					
Credits	64,057	70,226	74,983	78,916	85,199
Debits	-81,530	-92,059	-90,784	-90,887	-100,536
<i>Balance</i>	-17,473	-21,833	-15,801	-11,971	-15,337
	%				
<i>Contribution of services to goods and services—</i>					
Credits	21	20	21	22	22
Debits	24	25	26	25	24
<i>Contribution of services to current account—</i>					
Credits	18	18	19	19	19
Debits	18	18	19	19	19
<i>Balance</i>	17	20	19	19	16

TABLE 4. SERVICES BY COUNTRY GROUP - 1992-93  
(\$ million)

	OECD										NON OECD					Total all countries
	EC					Other OECD					Papua New Guinea	OPEC excluding Indonesia	Other countries	Unallocated		
	USA	Canada	UK	Germany	Other EC	Japan	New Zealand	Other OECD	Total OECD	ASEAN	Papua New Guinea	OPEC excluding Indonesia	Other countries	Unallocated		
<i>Credits</i>																
Shipment—																
Freight	58	—	45	7	125	370	66	12	683	102	48	25	303	68	1,229	
Insurance	—	—	6	—	—	6	—	—	12	—	—	—	—	—	12	
Other transportation	584	69	638	115	225	1,190	154	150	3,125	536	48	18	799	88	4,614	
Travel—																
Students' expenditure	27	4	9	5	10	71	13	10	149	522	25	12	591	23	1,322	
Other	529	91	532	254	253	1,258	495	195	3,607	625	58	4	778	13	5,085	
Other services—																
Official	56	—	—	—	—	—	—	—	56	51	35	—	85	35	262	
Non-official—																
Expenditure of—																
Foreign governments																
Foreign gov't employees	90	7	35	15	49	69	47	18	330	60	5	6	110	2	513	
Other employees																
Financial services	38	—	15	—	—	5	16	—	74	9	—	—	2	177	262	
Insurance services nec	68	—	50	3	1	-16	5	2	113	20	—	—	6	-24	115	
Miscellaneous services	629	40	367	80	150	198	249	58	1,771	438	84	19	459	300	3,071	
Total services credits	2,079	211	1,697	479	813	3,151	1,045	445	9,920	2,363	303	84	3,133	682	16,485	
<i>Debits</i>																
Shipment—																
Freight	-301	-16	-724	-162	-394	-497	-124	-306	-2,525	-363	-1	-25	-769	-65	-3,748	
Insurance	—	—	-12	—	—	-12	—	—	-24	—	—	—	—	—	-24	
Other transportation	-802	-67	-546	-194	-332	-405	-229	-95	-2,670	-931	-21	-35	-910	-70	-4,637	
Travel—																
Students' expenditure	-64	-8	-39	-9	-24	-25	-30	-9	-208	-44	-4	-1	-75	—	-332	
Other	-665	-134	-895	-118	-641	-120	-346	-161	-3,080	-689	-50	-31	-1,209	-161	-5,220	
Other services—																
Official	-91	-3	-24	-9	-19	-15	-9	-8	-178	-37	-10	-3	-159	-42	-429	
Non-official—																
Expenditure of—																
Aust gov't employees	-12	-3	-6	-4	-14	-7	-3	-9	-58	-25	-5	-3	-58	-2	-151	
Other employees	-63	-5	-47	-7	-28	-9	-66	-7	-232	-97	-7	-2	-106	-1	-445	
Financial services	-58	-3	-34	-1	-2	-6	—	-3	-107	-5	—	—	-7	-32	-151	
Insurance services nec	-120	—	-276	-15	-1	-4	-22	-18	-456	-69	—	-1	-23	-22	-571	
Miscellaneous services	-833	-41	-411	-78	-200	-280	-109	-148	-2,100	-226	-18	-9	-570	-267	-3,191	
Total services debits	-3,009	-280	-3,014	-597	-1,655	-1,380	-938	-764	-11,638	-2,486	-116	-110	-3,886	-662	-18,899	
Net services	-930	-69	-1,317	-118	-842	1,771	107	-319	-1,718	-123	187	-26	-754	20	-2,414	

TABLE 5. TRAVEL SERVICES — STUDENTS' EXPENDITURE  
(\$ million)

	1988-89	1989-90	1990-91	1991-92	1992-93
<b>Credits (a)—</b>					
<i>Education services—</i>					
Sponsored students	23	23	47	68	64
Subsidised students	160	104	78	47	23
Full fee students	176	370	392	476	609
<i>Total</i>	359	498	517	591	696
<i>Other goods and services—</i>					
Sponsored students	32	31	64	94	89
Subsidised students	93	89	59	29	15
Full fee students	177	260	319	401	523
<i>Total</i>	302	380	443	523	626
<i>Total—</i>					
Sponsored students	55	54	111	162	153
Subsidised students	253	193	137	76	38
Full fee students	353	631	711	877	1,132
<i>Total</i>	661	878	960	1,115	1,322
<i>Of which—</i>					
Short term students (b)	200	246	181	135	114
Long term students (b)	461	632	779	979	1,208
<b>Debits (c)—</b>					
Short term students (b)	-139	-211	-208	-228	-240
Long term students (b)	-52	-65	-83	-92	-92
<i>Total</i>	-191	-276	-291	-320	-332
<b>Net students' expenditure</b>	<b>470</b>	<b>602</b>	<b>669</b>	<b>795</b>	<b>990</b>

(a) Acquisition of goods and services by foreign students from Australian residents. (b) Short term students are those studying in the host country for less than one year. Conversely, long term students are those studying in the host country for one year or more. (c) Acquisition of goods and services by Australian students from non-residents.

TABLE 6. TRAVEL SERVICES — STUDENTS' EXPENDITURE BY COUNTRY GROUP  
(\$ million)

	1988-89		1989-90		1990-91		1991-92		1992-93	
	Credits	Debits	Credits	Debits	Credits	Debits	Credits	Debits	Credits	Debits
<i>OECD—</i>										
USA	13	-35	14	-49	13	-57	16	-61	27	-64
Canada	4	-8	3	-7	3	-9	3	-8	4	-9
<i>EC—</i>										
UK	11	-30	5	-36	6	-37	9	-36	9	-39
Germany	8	-5	4	-10	4	-13	5	-11	5	-9
Other	9	-17	5	-21	6	-20	7	-24	10	-24
<i>Total EC</i>	28	-52	14	-67	16	-70	20	-71	24	-72
Japan	26	-10	35	-18	45	-19	50	-27	71	-25
New Zealand	11	-15	6	-32	11	-25	12	-28	13	-30
Other	5	-7	9	-11	7	-10	7	-7	10	-8
<i>Total OECD</i>	87	-127	81	-184	95	-190	108	-202	149	-208
<i>Other countries—</i>										
<i>ASEAN—</i>										
Indonesia	58	-6	68	-10	80	-12	99	-14	126	-19
Malaysia	146	-3	160	-7	172	-6	206	-6	205	-8
Singapore	21	-5	36	-7	47	-10	81	-11	115	-9
Thailand	24	-4	27	-5	31	-7	42	-7	54	-5
Other	10	-3	14	-3	13	-3	20	-3	22	-3
<i>Total ASEAN</i>	259	-21	305	-32	343	-38	448	-41	522	-44
Papua New Guinea	12	-3	20	-5	22	-4	34	-3	25	-4
OPEC excluding Indonesia	1	—	3	—	5	—	6	-1	12	-1
China, Peoples' Republic	127	-4	236	-6	170	-5	99	-9	90	-7
Hong Kong	62	-7	111	-14	141	-20	177	-19	213	-19
Fiji	32	-5	23	-6	25	-7	27	-6	27	-6
Other	81	-24	99	-29	159	-27	216	-39	284	-43
<i>Total other countries</i>	574	-64	797	-92	865	-101	1,007	-118	1,173	-124
<b>Total all countries</b>	<b>661</b>	<b>-191</b>	<b>878</b>	<b>-276</b>	<b>960</b>	<b>-291</b>	<b>1,115</b>	<b>-320</b>	<b>1,322</b>	<b>-332</b>

TABLE 7. NON-OFFICIAL MISCELLANEOUS SERVICES — 1989-90, 1991-92 and 1992-93  
(\$ million)

	1989-90			1991-92			1992-93		
	Credits	Debits	Balance	Credits	Debits	Balance	Credits	Debits	Balance
<i>Postal services</i>	np	np	np	np	np	np	92	-63	29
<i>Telecommunications services</i>	466	-598	-132	np	np	np	np	np	np
<i>Agency and advertising services provided to international transport operators</i>	519	-404	115	587	-524	63	619	-502	117
<i>Computer and information services</i>									
Data processing and software implementation services	172	-78	94	215	-91	123	154	-104	50
Computer consultancy services	29	(a)-33	-4	42	-30	11	50	-26	23
Database services	np	np	-6	np	np	4	2	-1	1
News agency services	np	np	-28	np	np	-15	1	-23	-22
Computer and information services nei	67	-12	54	43	-41	2	72	-34	38
<i>Total computer and information services</i>	273	-163	110	310	-184	126	278	-188	89
<i>Professional services</i>									
Legal services	67	-20	47	92	-35	58	113	-38	76
Accounting and auditing services	13	-9	4	14	-7	7	25	-7	18
Market research and public opinion polling services	4	-5	-1	4	-8	-4	5	-10	-6
Advertising services	77	-267	-190	(a)74	-271	-197	48	-209	-161
Management consultancy services	62	-81	-19	31	-38	-7	43	-38	5
Architectural services	7	-4	3	(a)9	-5	4	11	(a)-1	11
Surveying services	10	-21	-11	2	np	np	8	-7	1
Professional services nei	(a)30	-30	-	22	np	np	62	-44	17
<i>Total professional services</i>	270	-437	-167	248	-379	-131	316	-334	-39
<i>Rental and operational leasing services</i>	11	-76	(a)-65	18	-63	-45	18	-82	-64
<i>Technical services</i>									
Engineering services	104	-303	-199	146	-101	45	126	-155	-29
Research and development services	52	-109	-57	72	-107	-35	70	-129	-59
Technical services nei	73	-51	22	134	-117	17	150	-56	94
<i>Total technical services</i>	230	-462	-233	352	-325	27	346	-340	6
<i>Management fees between related companies</i>	248	-408	-160	283	-431	-148	326	-444	-118
<i>Agricultural, mining, manufacturing and construction services</i>									
Agricultural services	19	-5	14	(a)25	-6	19	16	-3	14
Mining services	17	-39	-22	(a)31	-28	3	47	-66	-19
Manufacturing services	31	-22	9	26	-108	-82	31	-80	-49
Construction services	33	-97	-64	49	-44	6	49	-20	29
<i>Total agricultural, mining, manufacturing and construction services</i>	100	-164	-64	131	-186	-55	143	-168	-25
<i>Trade related services</i>									
Commission agents' services related to trade in goods	70	-135	-65	64	-158	-94	71	-139	-68
Merchandising services	19	(a)-47	-28	50	(a)-28	22	66	-4	63
Trade related services nei	(a)3	-3	-	(a)12	-1	11	20	-35	-15
<i>Total trade related services</i>	91	-185	-94	126	-187	-61	157	-177	-20
<i>Other business services</i>									
Processing and repair services	11	-15	-4	14	-18	-4	14	-19	-5
Business services nei	np	np	np	np	np	np	np	np	np
<i>Total other business services</i>	np	np	np	np	np	np	np	np	np
<i>Other services</i>									
Entertainment and cultural services	20	-32	-12	26	-29	-3	20	-40	(a)-19
Education services	37	-13	24	80	-12	68	95	-11	83
Health and medical services	2	(a)-1	-	7	np	np	(a)2	np	np
Other services nei	(a)2	-7	-5	1	np	np	11	np	np
<i>Total other services</i>	60	-53	7	114	-46	68	128	(a)-65	63
<b>Total non-official miscellaneous services</b>	<b>2,364</b>	<b>-3,046</b>	<b>-682</b>	<b>2,890</b>	<b>-3,116</b>	<b>-227</b>	<b>3,071</b>	<b>-3,191</b>	<b>-120</b>

(a) Cells with relative standard errors greater than 25 per cent - refer to paragraphs 32 and 33 of the Explanatory notes.



TABLE 8. NON-OFFICIAL MISCELLANEOUS SERVICES BY COUNTRY GROUP — 1992-93  
(\$ million)

	OECD										Non-OECD					Total all countries
	EC					Other OECD					Non-OECD					
	USA	Canada	UK	Germany	Other EC	Japan	New Zealand	Other OECD	Total OECD	ASEAN	Papua New Guinea	OPEC excluding Indonesia	Other countries	Unallocated	Total	
<i>Credits</i>																
Postal services	np	np	np	np	np	np	np	np	np	np	np	np	np	np	92	
Telecommunications services	np	np	np	np	np	np	np	np	np	np	np	np	np	np	np	
Agency and advertising services provided to international transport operators	92	8	104	19	50	23	54	9	359	183	3	2	71	1	619	
Computer and information services	127	—	27	(a)1	(a)1	27	30	3	217	11	(a)1	(a)1	28	20	278	
Professional services	56	(a)3	33	(a)8	9	15	16	2	142	34	14	np	np	86	316	
Rental and operational leasing services	(a)4	(a)7	—	—	—	3	—	—	15	(a)1	(a)2	—	—	—	18	
Technical services	36	np	np	4	15	(a)15	7	11	181	64	12	—	54	34	346	
Management fees between related companies	154	(a)2	18	—	9	(a)6	60	2	250	13	(a)11	—	27	25	326	
Agricultural, mining, manufacturing and construction services	23	—	(a)1	np	np	—	4	—	31	24	14	—	70	4	143	
Trade related services	17	np	(a)5	3	8	36	20	np	97	12	(a)2	(a)2	24	19	157	
Other business services	np	2	—	—	—	2	4	1	np	np	np	—	5	np	np	
Other services	14	—	7	—	—	np	np	—	48	37	—	1	18	24	128	
<i>Total credits (b)</i>	629	40	367	80	150	198	249	58	1,771	438	84	19	459	300	3,071	
<i>Debits</i>																
Postal services	np	np	np	np	np	np	np	np	np	np	np	np	np	np	—63	
Telecommunications services	np	np	np	np	np	np	np	np	np	np	np	np	np	np	—63	
Agency and advertising services provided to international transport operators	np	np	np	np	np	np	np	np	np	np	np	np	np	np	—502	
Computer and information services	-84	—	-15	(a)-1	(a)-15	-19	-4	np	-170	-2	—	—	-6	-9	-188	
Professional services	-66	-2	-46	-9	(a)-8	-23	-7	(a)-2	-182	-19	-1	—	-114	-38	-354	
Rental and operational leasing services	-129	-1	-3	(a)-2	-1	-4	-2	—	-79	-1	—	—	-1	-1	-82	
Technical services	—	np	-43	-13	-34	-19	-1	np	-317	-10	-1	—	-6	-5	-340	
Management fees between related companies	-192	-3	-78	(a)-4	-42	-16	(a)-4	-9	-347	-28	—	—	-47	-21	-444	
Agricultural, mining, manufacturing and construction services	-47	np	(a)-4	np	-7	-5	np	-1	-73	-13	—	—	—	np	-168	
Trade related services	(a)-20	-2	-13	-5	-9	-18	np	np	-70	-10	—	(a)-2	-65	-30	-177	
Other business services	-15	—	(a)-12	(a)-2	np	-1	-1	np	np	-4	—	—	-6	-2	np	
Other services	(a)-31	—	-6	—	—	-3	—	—	(a)-44	-5	—	—	-6	-11	(a)-65	
<i>Total debits (b)</i>	-833	-41	-411	-78	-200	-280	-109	-148	-2,100	-226	-18	-9	-570	-267	-3,191	
<i>Net non-official miscellaneous services</i>	-204	-1	-44	2	-50	-82	140	-90	-329	212	66	10	-111	33	-120	

(a) Cells with relative standard errors greater than 25 per cent - refer to paragraphs 32 and 33 of the Explanatory notes. (b) Relative standard errors for these items are given in Table 14.

TABLE 9. NON-OFFICIAL MISCELLANEOUS SERVICES BY INDUSTRY OF DOMESTIC TRANSACTOR (a) — 1992-93  
(\$ million)

	Mining	Manufacturing	Communication	Wholesale, Retail Trade	Transport & Storage	Finance, Property & Business & Services	Entertainment & Recreation Services	Other Industries	Total all industries
<i>Credits</i>									
Postal services	—	—	92	—	—	—	—	—	92
Telecommunications services	—	—	np	np	—	—	—	—	np
Agency and advertising services provided to international transport operators	—	—	—	—	582	37	—	—	619
Computer and information services	—	36	—	105	—	136	—	—	278
Professional services	(b)1	6	—	9	(b)3	266	5	24	316
Rental and operational leasing services	—	(b)3	np	np	np	—	np	(b)2	18
Technical services	1	151	—	32	np	126	np	20	346
Management fees between related companies	2	47	np	48	15	198	np	(b)10	326
Agricultural, mining, manufacturing and construction services	23	61	—	np	—	20	—	np	143
Trade related services	4	52	—	78	11	np	—	np	157
Other business services	—	(b)8	—	4	—	np	np	2	np
Other services	—	—	—	np	np	56	12	33	128
<i>Total credits (c)</i>	31	364	np	317	617	870	37	np	3,071
<i>Debits</i>									
Postal services	—	—	—	—	—	—	—	—	—
Telecommunications services	—	—	—	—	—	—	—	—	—
Agency and advertising services provided to international transport operators	—	—	—	—	—	—	—	—	—
Computer and information services	-2	-48	—	-49	-502	—	—	—	-502
Professional services	-11	-24	np	-17	(b)-7	-80	np	np	-188
Rental and operational leasing services	-4	np	—	-3	—	-217	—	—	-354
Technical services	-12	-165	np	-68	np	-4	(b)-1	np	-82
Management fees between related companies	-33	-113	—	-125	-8	-48	np	-13	-340
Agricultural, mining, manufacturing and construction services	-38	np	—	-22	—	-139	(b)-4	-22	-444
Trade related services	-20	-58	—	-55	-6	-2	—	np	-168
Other business services	—	-7	—	-6	—	-28	—	-11	-177
Other services	—	—	np	-7	np	-34	np	np	np
<i>Total debits (c)</i>	-118	-561	np	-333	-333	-567	-34	-6	(b)-65
<i>Net non-official miscellaneous services</i>	-87	-197	np	-36	84	303	-12	np	-120

(a) The industry categories shown are based on the 1983 edition of ASIC and relate to the predominant activity of the Australian business unit undertaking the transaction. (b) Calls with relative standard errors greater than 25 per cent — refer to paragraphs 32 and 33 of the Explanatory notes. (c) Relative standard errors for these items are given in Table 15.

TABLE 10. ROYALTIES, ETC.—1989-90, 1991-92 and 1992-93  
(\$ million)

	1989-90		1991-92		1992-93	
	Credits	Debits	Credits	Debits	Credits	Debits
		Balance		Balance		Balance
Royalties, etc. on—						
Films, television programs and video tapes	64	-406	62	-416	97	-407
Music	24	-112	27	-140	28	-130
Computer software	41	-214	48	-211	74	-257
Technical know-how	54	-493	71	-459	63	-416
Publications	1	-6	1	-6	—	-16
Other royalties	32	-258	32	-292	43	-337
		Balance		Balance		Balance
Total other property income	214	-1,488	240	-1,574	306	-1,564
		-1,274		-1,284		-1,258

TABLE 11. ROYALTIES ETC BY COUNTRY GROUP — 1992-93  
(\$ million)

	OECD										Non-OECD						
	EC					Other OECD					Total OECD	ASEAN	Papua New Guinea	OPEC excluding Indonesia	Other countries	Unallocated	Total all countries
	USA	Canada	UK	Germany	Other EC	Japan	New Zealand	Other OECD	Total OECD								
<i>Credits</i>																	
Royalties etc. on—																	
Films, television programs and video tapes	24	—	17	—	np	(a)20	—	67	—	—	—	—	—	(a)2	28	97	
Music	14	3	27	np	np	2	—	23	—	—	—	—	—	—	5	28	
Computer software	19	np	(a)1	(a)1	—	(a)3	np	60	—	—	—	—	—	6	7	74	
Technical know-how	28	6	3	2	np	(a)2	np	51	—	(a)1	—	—	—	9	(a)1	63	
Publications	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Other royalties	6	np	19	np	—	(a)2	(a)3	37	—	—	—	—	—	np	3	43	
Total credits (b)	91	10	70	8	10	(a)29	(a)8	239	—	2	np	np	—	np	44	306	
<i>Debits</i>																	
Royalties etc. on—																	
Films, television programs and video tapes	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Music	-258	—	-55	—	np	-2	—	-375	—	—	—	—	—	—	-33	-407	
Computer software	-79	—	-23	—	np	—	—	-125	—	—	—	—	—	—	-5	-130	
Technical know-how	-205	—	-39	—	np	—	(a)-1	-257	—	—	—	—	—	—	—	-257	
Publications	-208	—	-31	-20	-22	—	-48	-404	—	np	—	—	—	np	-1	-416	
Other royalties	-7	—	-6	np	np	—	—	-16	—	—	—	—	—	—	—	-16	
Total debits (b)	-245	np	-45	np	-13	—	-17	-334	—	np	—	—	—	np	-1	-337	
Total debits (b)	-1,002	np	-198	np	-117	-3	-66	-1,511	—	-4	—	—	—	-10	-39	-1,564	
<b>Net royalties etc.</b>	<b>-911</b>	<b>np</b>	<b>-128</b>	<b>np</b>	<b>-107</b>	<b>27</b>	<b>-58</b>	<b>-1,272</b>	<b>-1</b>	<b>np</b>	<b>np</b>	<b>—</b>	<b>—</b>	<b>np</b>	<b>5</b>	<b>-1,258</b>	

(a) Cells with relative standard errors greater than 25 per cent — refer to paragraphs 32 and 33 of the Explanatory notes. (b) Relative standard errors for these items are given in Table 14.

TABLE 12. ROYALTIES ETC BY INDUSTRY OF DOMESTIC TRANSACTION (a) — 1992-93  
(\$ million)

	Mining	Manufacturing	Communication	Wholesale, Retail Trade	Transport & Storage	Finance, Property, & Business Services	Entertainment & Recreation Services	Other Industries	Total all industries
<b>Credits</b>									
Royalties etc. on—									
Films, television programs and video tapes	—	—	—	—	—	—	97	—	97
Music	—	4	—	np	—	11	np	—	28
Computer software	—	2	—	17	—	54	—	—	74
Technical know-how	—	28	—	5	—	27	—	3	63
Publications	—	—	—	—	—	—	—	—	—
Other royalties	—	26	—	np	—	10	—	(b)1	43
<b>Total credits (c)</b>	—	60	—	29	—	102	111	4	306
<b>Debits</b>									
Royalties etc. on—									
Films, television programs and video tapes	—	—	—	—51	—	—	—356	—	—407
Music	—	—31	—	np	—	—31	np	—	—130
Computer software	—	(b) -1	np	-167	—	-87	np	(b) -1	-257
Technical know-how	-2	-296	—	-80	np	-22	—	np	-416
Publications	—	-8	—	np	—	—	np	np	-16
Other royalties	—	-183	—	-85	—	-27	-30	-11	-337
<b>Total debits (c)</b>	-3	-520	np	-428	np	-166	-413	-29	-1,564
<b>Net royalties etc.</b>	-3	-461	np	-399	np	-64	-302	-25	-1,258

(a) The industry categories shown are based on the 1983 edition of ASIC and relate to the predominant activity of the Australian business unit undertaking the transaction. (b) Cells with relative standard errors greater than 25 per cent — refer to paragraphs 32 and 33 of the Explanatory notes. (c) Relative standard errors for these items are given in Table 15.

TABLE 13. NON-OFFICIAL MISCELLANEOUS SERVICES AND ROYALTIES ETC — 1989-90, 1991-92 and 1992-93  
RELATIVE STANDARD ERRORS  
(per cent)

	1989-90		1991-92		1992-93	
	Credits	Debits	Credits	Debits	Credits	Debits
<b>Non-official miscellaneous services</b>						
<i>Postal services</i>	—	—	—	—	—	—
<i>Telecommunications services</i>	—	—	—	—	—	—
<i>Agency and advertising services provided to international transport operators</i>	—	—	—	—	—	—
<i>Computer and information services</i>						
Data processing and software implementation services	4	12	5	12	3	11
Computer consultancy services	14	28	12	6	7	5
Database services	19	25	11	25	21	19
News agency services	20	13	15	10	20	14
Computer and information services nei	20	18	14	19	10	24
<i>Total computer and information services</i>	6	9	4	10	4	8
<i>Professional services</i>						
Legal services	9	8	8	25	1	11
Accounting and auditing services	17	13	12	20	10	9
Market research and public opinion polling services	25	6	15	8	15	8
Advertising services	19	4	28	2	4	1
Management consultancy services	10	11	7	11	10	7
Architectural services	20	12	27	19	22	28
Surveying services	23	16	12	13	5	16
Professional services nei	34	19	16	16	9	4
<i>Total professional services</i>	9	4	9	3	3	2
<i>Rental and operational leasing services</i>	15	35	5	7	8	2
<i>Technical services</i>						
Engineering services	6	1	6	6	5	7
Research and development services	8	25	17	7	8	4
Technical services nei	14	17	16	4	4	8
<i>Total technical services</i>	6	6	7	3	3	4
<i>Management fees between related companies</i>	6	6	8	14	5	3
<i>Agricultural, mining, manufacturing and construction services</i>						
Agricultural services	10	11	49	17	13	10
Mining services	17	13	27	9	10	8
Manufacturing services	17	11	15	14	8	2
Construction services	22	16	12	10	25	18
<i>Total agricultural, mining, manufacturing and construction services</i>	10	12	12	9	9	4
<i>Trade related services</i>						
Commission agents' services related to trade in goods	13	7	8	7	8	5
Merchanting services	20	26	15	36	8	11
Trade related services nei	32	14	46	8	14	21
<i>Total trade related services</i>	11	8	8	8	5	6
<i>Other business services</i>						
Processing and repair services	—	—	—	—	—	—
Business services nei	34	4	9	33	15	9
<i>Total other business services</i>	34	4	9	33	15	9
<i>Other services</i>						
Entertainment and cultural services	11	9	8	11	12	44
Education services	13	20	10	9	4	7
Health and medical services	23	29	18	23	35	—
Other services nei	66	21	15	22	6	13
<i>Total other services</i>	9	8	7	8	4	27
<b>Total non-official miscellaneous services</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>
<b>Royalties, etc on —</b>						
Film, television programs & video tapes	12	7	7	7	11	2
Music	10	8	11	8	4	8
Computer software	13	5	7	4	10	4
Technical know-how	10	6	10	6	6	2
Publications	15	12	8	7	15	13
Other royalties	10	6	4	6	9	3
<b>Total royalties, etc</b>	<b>5</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>4</b>	<b>1</b>

TABLE 14. NON-OFFICIAL MISCELLANEOUS SERVICES AND ROYALTIES, ETC BY COUNTRY GROUP - 1992-93  
RELATIVE STANDARD ERRORS  
(per cent)

	NON OECD										Total all countries				
	OECD					NON OECD									
	USA	Canada	UK	Germany	Other EC	Japan	New Zealand	Other OECD	Total OECD	ASEAN		Papua New Guinea	OPEC excluding Indonesia	Other countries	Unallo- cated
<b>Non-official miscellaneous services</b>															
Total credits	2	6	1	6	3	4	6	4	1	3	8	12	4	1	
Total debits	4	4	2	4	4	3	4	6	2	3	2	8	2	2	
<b>Royalties, etc</b>															
Total credits	5	13	7	10	3	11	33	29	5	12	22	49	13	5	
Total debits	2	13	3	7	3	2	3	3	1	17	—	—	22	14	

TABLE 15. NON-OFFICIAL MISCELLANEOUS SERVICES AND ROYALTIES, ETC BY INDUSTRY OF DOMESTIC TRANSACTOR - 1992-93  
RELATIVE STANDARD ERRORS  
(per cent)

	NON OECD										Total all industries				
	Mining	Manufacturing	Communication	Wholesale, Retail Trade	Transport & Storage	Finance, Property & Business Services	Entertainment & Recreation Services	Other Industries	Unallocated	Total all countries					
<b>Non-official miscellaneous services</b>															
Total credits	9	5	—	—	4	4	11	2	10	6	—	—	—	1	
Total debits	7	2	—	—	4	4	11	3	36	3	—	—	—	2	
<b>Royalties, etc</b>															
Total credits	24	7	—	—	11	—	—	7	9	24	—	—	—	4	
Total debits	15	2	—	—	3	18	4	3	18	18	—	—	—	1	

## EXPLANATORY NOTES

### Introduction

This publication presents detailed estimates of Australia's international trade in services and related transactions for the year 1992-93 and earlier years. It presents these within the context of the current account of the balance of payments accounts. The statistics are consistent with those published on 29 July 1994 in the June 1994 issue of the monthly publication *Balance of Payments, Australia* (ABS Catalogue No. 5301.0).

2. This publication is released to coincide with the availability of detailed results from the 1992-93 International Trade in Services Survey. International trade in services statistics from several other sources are included in this publication (see paragraphs 11-20 below).

### Concepts, sources and methods

3. Descriptions of the underlying concepts and structure of the balance of payments and the sources and methods used in compiling the estimates - including those for services and related transactions - are presented in *Balance of Payments, Australia: Concepts, Sources and Methods* (catalogue no. 5331.0).

4. In particular, it should be noted that the current account of the Balance of Payments measures gross transactions between residents and non-residents.

- **An Australian resident** is any individual, enterprise or other organisation ordinarily domiciled in Australia. Australian branches, Australian agents and Australian subsidiaries of foreign enterprises are regarded as Australian residents.

- **A non-resident** is any individual, enterprise or other organisation ordinarily domiciled in a country other than Australia. Residents of Norfolk Island and other external territories of Australia and foreign branches, foreign agents and foreign subsidiaries of Australian enterprises are regarded as non-residents.

### Presentation

5. Tables 1 to 4 in this publication provide summary statistics on services transactions. Tables 5 and 6 provide further details on part of travel services. Tables 7 to 9 provide detailed information on non-official miscellaneous services transactions. Tables 10 to 12 provide information on royalties etc. Tables 13 to 15 show the relative standard errors for *non-official miscellaneous services* and *royalties, etc* estimates.

### Services

6. The *services account* of the balance of payments covers services rendered by Australian residents to non-residents (credits) and by non-residents to residents (debits), together with a few transactions in goods where it is not either analytically useful or practical to separate

them from the service component with which they are associated (eg goods purchased by travellers).

7. There is no universally accepted definition of services. Services are defined for Australian balance of payments purposes as transactions in real resources other than merchandise, income and unrequited transfers. The services classification applied to statistics in this publication is based on the service commodity rather than the industry or profession that produces that service. See the explanatory notes of the 1987-88 issue of this publication for a discussion of the meaning of services and international trade in services.

### Royalties, etc

8. Royalties, etc which are recorded in the balance of payments current account under *other property income*, are closely related to services.

9. Royalties, etc is the generic term used in the balance of payments for:

- the income receivable by Australian residents from their ownership of non-financial intangible assets where the rights to use the assets are acquired by non-residents (credits); and
- the income payable by Australian residents for the rights to use non-financial intangible assets which are owned by non-residents (debits).

10. Typical of such assets are copyrights and patents on intellectual property such as films, literature, musical compositions, inventions, industrial designs, etc. In principle, royalties are valued before the deduction of withholding tax.

### Sources and methods for services and royalties

11. The estimates of services in the balance of payments are derived from a wide variety of sources which are fully described in *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0). That publication also contains an assessment of the quality of the estimates. Broad descriptions of the data sources for the main components of the *services account* are presented in the following paragraphs.

12. *Shipment*. The shipment item refers to distributive services such as freight and insurance provided by residents to non-residents (and vice versa) as part of the transportation of goods. Under balance of payments conventions, merchandise is valued free on board at the customs frontier of the exporting country. All services performed on goods after this point are assumed to be performed on behalf of the importing country. Thus, in Australia's balance of payments, shipment debits includes distributive services provided by non-residents on Australia's imports beyond the exporting country's customs frontier and shipment credits includes distributive



services provided by Australian residents on Australia's exports beyond Australia's customs frontier. The shipment item also includes distributive services provided by non-residents to residents on goods shipped within Australia (debits) and by residents to non-residents on foreign-owned goods other than those being shipped to or from Australia (credits).

13. From the beginning of 1993-94 the ABS Surveys of International Shipping Operations (SISO) and Airline Operations (SIAO) have been replaced by new collections within the framework of the International Trade in Services Survey. Estimates for this item are now primarily derived from the International Trade in Services Survey and ABS foreign trade statistics.

14. *Other transportation.* The other transportation item refers to those services provided by residents to non-residents (and vice versa) in connection with the transportation, by air and sea, of goods and people, other than such services classified as *shipment* or *travel*. Also included are goods acquired as an integral part of the acquisition of a transportation service or which are very closely allied to the provision of transportation services such as bunkers. This category includes airfares, which are not classified to travel services. The principal source for the components of *other transportation* is the International Trade in Services Survey.

15. *Travel.* The travel item refers to the acquisition of goods and services in an economy by non-residents while they are in that economy on recreation, education, business or for health reasons, for a period of less than one year. Students studying abroad who stay for one year or more are also regarded as travellers with their expenditure included in this item. This treatment of students is adopted because their centre of interest is considered to be the country to which they will return on completion of their study.

16. *Travel credits* are goods and services acquired by non-resident travellers in Australia. They are largely measured by applying an estimate of foreign travellers' expenditure per head to an estimate of the number of travellers. The former estimate is derived from the Bureau of Tourism Research's quarterly International Visitors' Survey (IVS) and the latter from statistics of short term arrivals and departures of visitors obtained from migration cards (as published in *Overseas Arrivals and Departures, Australia* (3401.0)).

17. For estimates of *students' expenditure credits*, relevant information is also obtained from the Department of Education, Employment and Training (DEET), the Australian International Development Assistance Bureau (AIDAB), the Australian Trade Commission (Austrade), and the Bureau of Industry Economics (BIE). Academic fees paid by students are included.

18. *Travel debits* are goods and services acquired by Australians travelling abroad. They are measured by applying an estimate of Australian travellers' expenditure per head to an estimate of the number of these travellers. The

former estimate is derived from the ABS Survey of International Travel Enterprises (which provides data about travellers cheques' sales, use of internationally valid credit cards, use of currency notes etc) supplemented by a Survey of Returned Australian Travellers (SORAT) that was conducted in respect of 1991-92. Final results from the SORAT were incorporated in the January 1994 issue of the monthly balance of payments publication (catalogue no. 5301.0). The latter estimate is derived from ABS statistics of short term departures and arrivals of Australian residents.

19. *Other services.* Other services refers to all services provided by residents to non-residents (and vice-versa) other than those broadly relating to the transportation of people and goods. It comprises *defence services; financial services; expenditure of foreign governments, government employees and other employees; insurance services nec; and miscellaneous services.* By far the largest component of *other services* is *non-official miscellaneous services*, estimates of which are obtained from the International Trade in Services Survey (ITSS). The ITSS also provides information on international transactions in *royalties, etc.* Definitions of the items included in *non-official miscellaneous services* and *royalties etc* are provided in paragraph 39.

20. Estimates of *defence services, expenditure of foreign governments and government employees and other employees* are obtained from a variety of sources which are described in detail in *Balance of Payments, Australia: Concepts Sources and Methods* (5331.0). *Financial services* refers to fees, charges and commissions, other than interest, payable to or receivable from non-residents associated with financial activity. Estimates are derived from the Surveys of Foreign Investment (SFI). *Insurance services* cover the provision of insurance to non-residents by resident insurance enterprises and vice versa. The principal source for the components of insurance is the International Trade in Services Survey.

#### Country estimates

21. Country estimates reflect the country purchasing the service from Australia or making the royalty payment to Australia in the case of credits, whereas in the case of debits they reflect the country providing the service to Australia or receiving the royalty payment from Australia. Various groupings of countries such as the Organisation for Economic Co-operation and Development (OECD), the European Community (EC), the Association of South East Asian Nations (ASEAN) and the Organisation of Petroleum Exporting Countries (OPEC) (excluding Indonesia) are shown in this publication.

22. The EC comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

23. Members of the OECD include Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain,

Sweden, Switzerland, Turkey, the United Kingdom and the United States of America.

24. ASEAN members are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.

25. Members of OPEC (excluding Indonesia) include Algeria, Ecuador, Gabon, Iran, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates and Venezuela.

#### International Trade in Services Survey

26. Tables 7 to 15 show detailed statistics largely derived from the ITSS. The 1992-93 ITSS collected information on Australia's imports and exports of selected services classified by detailed services commodity, by country group and by industry of Australian transactor. It collects similar details of Australia's foreign payments and receipts for royalties.

27. *Scope and coverage.* The scope of the 1992-93 ITSS is all enterprises in Australia that engage in selected services trade internationally or had royalties transactions abroad. Those services not included in this survey are travel services, government services and financial services.

28. The coverage of the 1992-93 ITSS was changed from that of previous surveys. A large coverage survey was undertaken after the 1991-92 ITSS and results from this plus the 1991-92 ITSS were used to construct a new frame for the 1992-93 survey. This improvement in coverage has led to lower relative standard errors for the 1992-93 estimates.

29. *Statistical units.* The statistical unit for the 1992-93 ITSS was the management unit. The management unit is defined as the largest unit within an enterprise group which controls its productive activities and for which accounts are kept. It usually equates to a division or profit centre of an enterprise.

30. *Methodology.* In all, 3,000 management units were approached in the 1992-93 ITSS. Businesses were asked to report amounts receivable from non-residents and amounts payable to non-residents for selected services and for royalties. Data were collected in respect of the Australia-wide operations of each management unit. The survey collected information on all the services commodities shown in Tables 7 to 9 except for *processing and repair services* (obtained from foreign trade statistics). It also collected information on all the royalties items shown in Tables 10 to 12.

31. The *industry* classification used in statistics compiled from the ITSS is based on the *Australian Standard Industrial Classification* (ASIC), 1983 edition. Statistics are shown for services and royalties, etc classified by the predominant industry of the domestic transactor (that is, the management unit included in the ITSS).

32. *Accuracy.* The 1992-93 estimates from the ITSS are derived from information obtained from a sample of enterprises and as such are subject to sampling error; that is, they may differ from the statistics that would have been

produced if information had been obtained from all enterprises. A measure of the likely difference is given by the relative standard error, which indicates the extent to which an estimate might have varied by chance because only a sample of units was included. Relative standard errors for the data items are shown in Tables 13 to 15. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if a complete census was taken and about 19 chances in 20 that the difference will be less than two standard errors. For example, for 1992-93 total *non-official miscellaneous services* credits was estimated to be \$3,071 million with a relative standard error of 1 per cent (or \$31 million). This means there are two chances in three that a comparable complete collection of these services transactions would have given a figure within the range of \$3,040 million to \$3,102 million and 19 chances in 20 that the figure would have been within the range of \$3,009 million to \$3,133 million. The ranges are referred to as the 68 per cent and 95 per cent confidence intervals respectively.

33. Some of the standard errors associated with the estimates derived from the 1992-93 ITSS are high, ie greater than 25 per cent. Where this is the case, the estimates are footnoted accordingly and it is important for users to decide whether the estimates are accurate enough for the particular purpose for which they require the statistics. It is left to the user to exercise the necessary caution in using the estimates derived from this survey.

34. In addition to sampling errors, other inaccuracies may occur because of insufficient coverage, inadequacies in the source of information, imperfections in answers provided by respondents and errors made in the coding and processing of data. Inaccuracies of these kinds are referred to as non-sampling error and may occur in any statistical collection. Every effort is made to minimise non-sampling error by employing careful form design, trying to obtain responses from all selected enterprises and employing efficient operating procedures. While the effects of non-sampling errors are not quantifiable, users of these statistics should be aware of their existence and exercise caution in analysing series.

35. In particular, coverage of credits for the item *entertainment and cultural services* is known to be deficient because receipts received directly by Australian resident *individuals* are not specifically measured in the ITSS. The true value is likely to be larger than that shown in the tables.

36. Coverage of credits for royalties is also likely to be deficient for the same reason.

37. *Survey disclosure rules.* In accordance with the Census and Statistics Act under which the information is collected, no data are published that would disclose the operations of an individual enterprise without the consent of that enterprise. For this reason some data items are not available for publication separately, but are included in totals where applicable.

38. *Accounting basis.* Respondents to the ITSS are asked to report all data on a payable/receivable, rather than a cash, basis of accounting; that is, to report data relating to receipts due during the year, whether received or not, and to payments due during the year, whether paid or not. While this basis differs from the conceptually correct basis for recording services transactions in the balance of payments, which is to record service transactions when the services are provided, the impact of this difference on annual statistics is not likely to be significant.

#### Data item definitions

39. Set out below are definitions of the items included in *non-official miscellaneous services* and *royalties, etc* shown in Tables 7 to 12. Most of these definitions list the principal inclusions and exclusions rather than the complete scope of the item.

#### *Communication services:*

*Postal services.* Includes mail delivery and transit; electronic postal services; and courier services provided and received by Australia's postal administration.

*Telecommunications services.* Includes telephone, telegram, telemessage, and text services; television, data, and maritime services; leases of telecommunications equipment; satellite services; and cable maintenance services.

#### *Agency and advertising services provided to international transport operators:*

Includes agency fees, agents' commissions, administrative expenses, and advertising expenses of international transport operators providing transport services to or from Australia.

#### *Computer and information services:*

*Data processing and software implementation services.* Includes data processing services such as input preparation and tabulation services; timesharing services; and services related to computer software such as systems analysis, design, programming, and maintenance. Excludes data base and computer consultancy services which are recorded separately.

*Computer consultancy services.* Includes consultancy services related to computer hardware and software.

*Data base services.* Includes business and economic data base services such as those provided by news syndicates; medical, legal, technical, demographic, bibliographic, and similar data base services; and other information services such as credit reporting and authorization systems. Excludes news agency services which are recorded separately.

*News agency services.* Includes general news services such as those provided by international news agencies. Excludes data base services which are recorded separately.

*Computer and information services nei.* Includes computer and information services not already included in data processing and software implementation, computer consultancy, data base or news agency services.

#### *Professional services:*

*Legal services.* Includes legal advice and other legal services.

*Accounting and auditing services.* Includes financial auditing and accounting review services; compilation of financial statements; taxation services; bookkeeping, and other accounting services. Excludes data processing and tabulation services which are included in *data processing and software implementation services*.

*Market research and public opinion polling services.* Includes public opinion polling, market research, and similar services.

*Advertising services.* Includes advertising placement and preparation services; sample distribution services; and advertising display, installation, and supervision services. Excludes public relations services which are included in *management consultancy services* and advertising services provided to Australian transport operators which are included in *agency and advertising services provided to international transport operators*.

*Management consultancy services.* Includes financial, marketing, production, and human resources management services; and public relations services. Excludes personnel placement and supply services which are included in *other business services*.

*Architectural services.* Includes architectural design, consultancy and drafting services, and contract administration services. Excludes construction project management services which are included in *construction services* and naval architectural services which are included in *engineering services*.

*Surveying services.* Includes surface and subsurface surveying services; geological, geophysical, gravimetric, hydrographic, seismic, and marine surveying services; map making; and remote sensing.

*Professional services nei.* Includes professional services not already included in legal, accounting and auditing, market research and public opinion polling, advertising, management consultancy, architectural or surveying services.

#### *Rental and operational leasing services:*

Includes the operational leasing of structures, oil rigs, machinery, equipment and other tangible assets except aircraft and vessels. Excludes finance leasing.

**Technical services:**

**Engineering services.** Includes chemical, civil, electrical, and electronic engineering services; engineering advisory and consultancy services; marine, mining, and traffic engineering services; integrated engineering for turnkey projects; and naval architectural services. Excludes construction project management which is included in *construction services* and research and development services which are recorded separately.

**Research and development services.** Includes scientific and industrial research, and product development services.

**Technical services nei.** Includes technical testing and analysis services; industrial design and drawing services; and technical know-how. Excludes royalties on technical know-how which are recorded separately.

**Management fees between related companies (intra-corporate management fees):**

Includes fees and charges for management services provided for or by non-resident related companies.

**Agricultural, mining, manufacturing and construction services:**

**Agricultural services.** Includes crop, livestock, artificial insemination, and wool classing services.

**Mining services.** Includes project management, drilling, mineral and petroleum exploration, and oil and gas field services.

**Manufacturing services.** Includes project management; installation services; feasibility studies; and service charges for goods manufactured on a fee or contract basis (excluding the value of the goods).

**Construction services.** Includes services of general contractors in building and heavy construction; project management services; construction work by special trade contractors such as foundation work, the erection of structural steel, crane operation and on-site electrical work; installation work; and services supplied in connection with proposed projects (eg feasibility studies).

**Trade related services:**

**Commission agents' services related to trade in goods.** Includes commission and brokerage on international trade in goods, where the agent involved does not acquire ownership, and on counter trade services. Excludes processing and repair services and other commissions and brokerage (eg on services provided by insurance companies, insurance agents, travel agents, shipping agents, airline offices, freight forwarders, customs agents, banks, and finance companies etc).

**Merchanting services.** Merchanting services are defined as the acquisition and subsequent relinquishment of goods that do not cross the frontier of the economy in which their

temporary owner is a resident. Merchanting services credits are measured as the difference in a single year between the gross sales and purchases of goods which have

been bought overseas for sale overseas without entering Australia. Debit entries for these services occur for enterprises when goods purchased exceed goods sold in the same year.

**Trade related services nei.** Includes trade related services not already included in commission agents' services related to trade in goods or merchanting services.

**Other business services:**

**Processing and repair services.** Includes repairs and processing performed abroad on re-imported goods or in Australia on re-exported goods.

**Business services nei.** Includes personnel placement and supply services; printing services (where the value of the service is separate from the value of the printed material as recorded in customs documentation); photographic services; real estate services; subscription services; and translation services. Also included are any other business services not previously listed except: insurance services; banking and financial services; travel and shipping agency services; freight services, storage services and the carriage of passengers and mail; freight forwarding and customs agency services; the leasing or charter of ships and aircraft; and finance leasing.

**Other services:**

**Entertainment and cultural services.** Includes gross receipts from tours overseas by Australian resident performers; broadcasting rights' payments; performance fees paid to non-resident performers; sporting events' prizemonies and appearance fees; and actors' performance fees.

**Education services.** Includes education consultancy and correspondence courses. Excludes education services provided in Australia to non-resident students and trainees and education services provided overseas to Australian students and trainees. These are included in *travel*.

**Health and medical services.** Includes hospital management services; medical research and pathology services. Excludes health and medical services provided in Australia to non-resident patients and such services provided overseas to Australian residents. These are included in *travel*.

**Other services nei.** Includes veterinary services; and aid services provided by private aid agencies. Also included are any other services not previously listed except: insurance services; banking and financial services; travel and shipping agency services; freight services, storage services, and the carriage of passengers and mail; freight forwarding and customs agency services; the leasing or charter of ships and aircraft; finance leasing; services provided to

ships and aircraft such as stevedoring, provedoring etc; and services provided to foreign tourists in Australia.

**Royalties, etc:**

*Royalties on theatrical films, television programmes and video tapes.* Includes all royalties (including advances) on films, television programmes and video tapes.

*Royalties on music.* Includes all royalties on music and on sheet music publication (such as recording, publishing, performance, and synchronisation royalties).

*Royalties on computer software.* Includes all royalties (including advances) on computer software.

*Royalties on technical know-how.* Includes all royalties (including advances) on technical know-how.

*Royalties on publications.* Includes all royalties (including advances) on publications. Excludes royalties on sheet music publication which are included in *royalties on music*.

*Other royalties.* Includes all other royalties (including advances on other royalties) and franchise fees.

**Related publications**

40. Other ABS publications which may be of interest include:

*Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)

*Balance of Payments, Australia* (5301.0) - issued monthly

*Balance of Payments, Australia* (5302.0) - issued quarterly

*Balance of Payments, Australia* (5303.0) - issued annually

*International Investment Position, Australia* (5306.0) - issued quarterly

*International Investment Position, Australia* (5305.0) - issued annually

*Australian National Accounts, National Income and Expenditure* (5204.0) - issued annually

*Overseas Arrivals and Departures, Australia* (3402.0) - issued quarterly

*International Merchandise Trade, Australia* (5422.0) - issued quarterly

41. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The *Catalogue and Publications Advice* are available from any ABS office.

**Symbols and other usages**

nec	not elsewhere classified
nei	not elsewhere included
np	not available for publication separately but included in totals where applicable
fob	free on board
—	nil, or rounded to zero
..	not applicable

42. All values, unless otherwise indicated, are shown in Australian dollars rounded to the nearest million.

43. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

**Abbreviations**

ASEAN	Association of South East Asian Nations
EC	European Community
OECD	Organisation for Economic Co-operation and Development
OPEC	Organisation of Petroleum Exporting Countries



## For more information ...

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the *ABS Catalogue of Publications and Products* available at all ABS Offices (see below for contact details).

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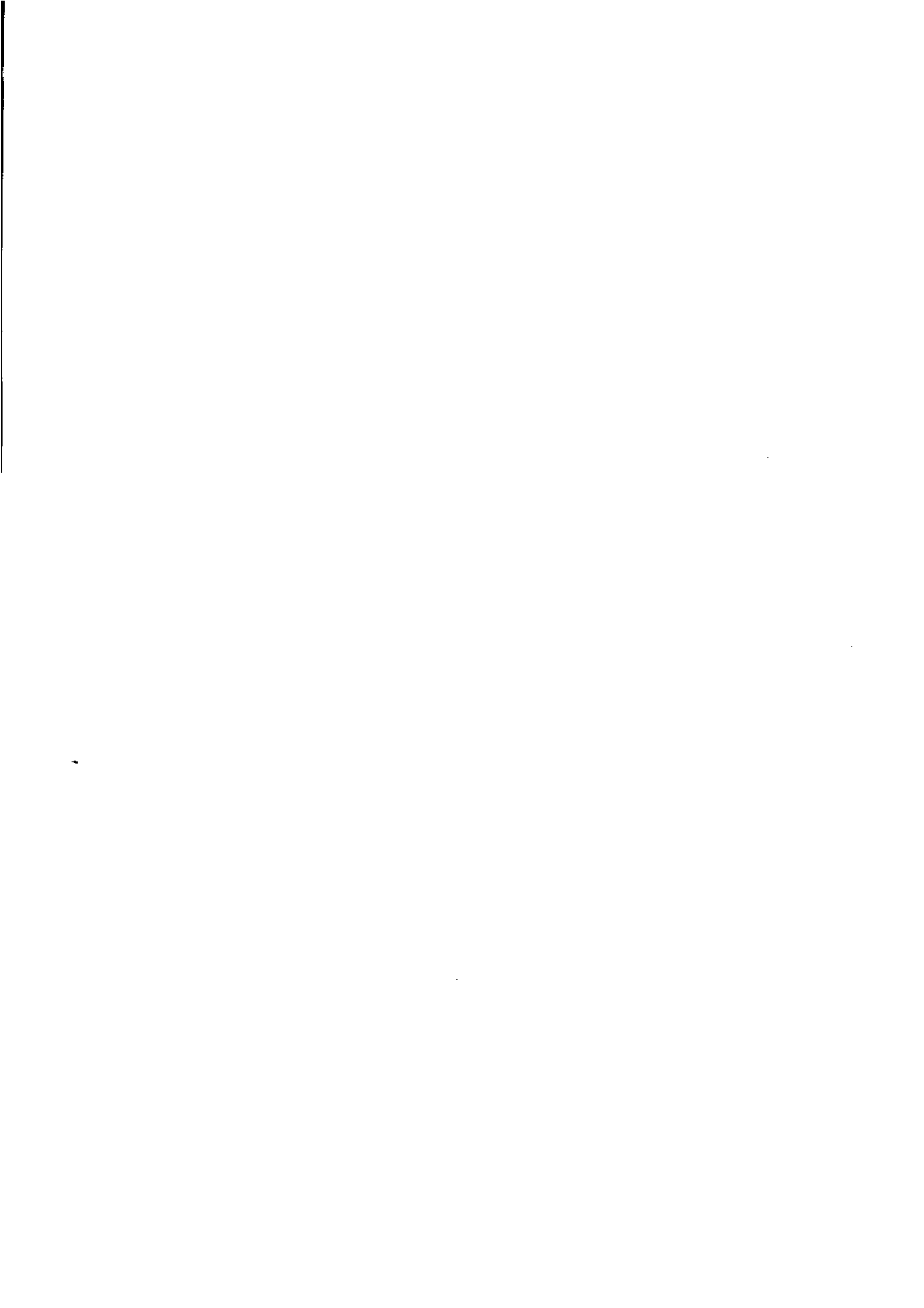
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