Australian Bureau of Statistics

# MEASURING AUSTRALIA'S ECONOMY

## .... A Student Guide

Edition 2

# MEASURING AUSTRALIA'S ECONOMY:
## A Student Guide

# 1994

IAN CASTLES
Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

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# Contents

## PREFACE

The Australian Bureau of Statistics (ABS) has developed *Measuring Australia's Economy: A Student Guide* as a general reference publication and an information resource for anyone wishing to gain an understanding of the key economic indicators used to measure the performance of the economy. It is considered particularly useful for tertiary and secondary school students studying economics and those involved in economic analysis in the business or government communities.

The *Guide* draws on a wide range of information compiled by the ABS and other organisations and explains, in non-technical terms, the meanings of around fifty key economic indicators. It also provides data in chart and tabular form.

*Measuring Australia's Economy: A Student Guide, 1994* is the second edition of the *Guide* and it includes a number of improvements since the previous issue. Based on feedback from users of the *Guide*, several new indicators have been added, mainly to better describe national accounts. The new indicators are: 2.1.2 National Accounts; 2.1.3 Domestic Production Account; 2.1.4 Income and Outlay Account; 2.1.5 Capital Account; 2.1.7 Composite Leading Indicator; and 2.6.7 Demography. In addition, where available, trend and 1989–90 constant price series are now included in charts and tables.

The *Guide* is one of a range of ABS products designed or suitable for students. Other major resources include subject packs or kits of ABS products and topic guides relating to primary and secondary school curricula in each State and Territory (1330.1 1330.7). Publications other than the *Guide* specifically written for the education sector include *Statistics - A Powerful Edge* (1331.0), *Surviving Statistics A User's Guide to the Basics* (1332.0), *Striking a Balance!* (1314.0) *Women and Work* (6205.0) and *Australia — Working it Out!* (1332.2).

During development of the *Guide* and prior to the release of this edition, there was wide consultation with tertiary and secondary educators and the Queensland Economics Teachers Association. I thank these and other people for their time and helpful contributions. The assistance of ABS staff in the Canberra and Queensland Offices and people in other organisations who contributed data is also most gratefully acknowledged.

I trust that this publication will add to students store of knowledge of sound indicators of the economy and ultimately assist them in the future to make informed decisions; an outcome which is at the heart of the ABS mission.

**IAN CASTLES**
**Australian Statistician**

**Australian Bureau of Statistics**
**Canberra ACT 2616**
**January 1994**

## HOW TO USE THIS PUBLICATION

*Measuring Australia's Economy: A Student Guide* has been developed as a general reference publication and information resource for those wishing to gain an understanding of the major economic indicators used to measure the performance of the economy.

It is recommended that General Information, on page (vi), and Chapter 1 be read before looking at the statistics.

### Economic Indicators

The publication contains economic indicators along with additional information provided to assist the reader's understanding and interpretation of the statistics presented. The economic indicators, consisting of data and explanatory notes for each indicator, are presented in Chapter 2. They have been grouped by activity for ease of interpretation. International comparisons have been presented for some key indicators and you will find these in Chapter 3. Use the index at the rear of this *Guide* to assist in locating the information required.

The additional information that describes presentation conventions and the statistical methods and concepts used to collect, compile and present the data, are presented in Chapter 4, *Statistics: Concepts, Sources, Methods and Usage*. This chapter also contains further references to more detailed explanations that may be required.

### Updated data available

*Measuring Australia's Economy* is an annual publication. Should you wish to access the very latest data or further details of concepts, sources and methods, the source publications are included in the footnotes of each chart and table for reference. Alternatively, publications issued regularly also contain the latest statistics. In particular *Australian National Accounts: National Income, Expenditure and Product* (5206.0) and *Balance of Payments, Australia* (5302.0) would be useful publications to reference. For general reference, use the ABS *Catalogue of Publications and Products* (1101.0) to locate the information you require.

The ABS operates a Library Extension Program which targets research libraries (national, State, tertiary and Parliamentary libraries), Public libraries, special libraries (government and private sector) and school libraries. Libraries that participate in the extension program hold substantial collections of ABS material. The ABS publications mentioned throughout this *Guide*, including those above, could be available in your school, TAFE or university library.

## GENERAL INFORMATION

### This Publication

General inquiries concerning this publication should be addressed to the Manager, Client Support, Brisbane, on (07) 222 6155.

Comments on ways to improve this publication are welcome and should be directed to The Editor, *Measuring Australia's Economy, A Student Guide* (1360.0), SSACS Branch, GPO Box 9817, Brisbane Qld 4001.

### Chart and Table Contents

The statistics presented are the latest available at *November 1993.*

The statistics are generally presented in the charts as time series for the last 10 years of monthly or quarterly data.

The tables generally present the last 6 years of annual data along with the latest 7 quarters or 15 months of sub-annual data.

### Data Sources

The tables contain mainly ABS data, although data from non-ABS sources are also included. For ABS data, the name of the source publication and its catalogue number are included in the footnotes of the charts and tables. If the data are from other sources, the source organisation's name is included in the footnotes.

### Seasonally Adjusted and Trend Estimates

Data series in this publication include original, seasonally adjusted and trend series. Seasonally adjusted and trend series are clearly labelled. All other series are original series. Care should be taken in interpreting data for the most recent months and quarters. Some of the original and all of the seasonally adjusted series and trend are subject to revision.

The ABS is increasingly placing emphasis on trend series, which are seasonally adjusted data, smoothed to diminish the impact of irregular components in the series.

It is not uncommon for movements in the original time series data to differ from those in seasonally adjusted and trend time series. Movements in a time series of original data may reflect several factors, including:

- longer-term changes in the item being measured (i.e. trend movements);
- short-term irregular changes;
- regular seasonal influences;
- normal 'trading', 'working' or 'pay' day patterns; and
- systematic holiday effects.

Seasonal adjustment and trend estimates help the user identify the effect of these influences on the time series. Seasonal adjustment removes the

effect of the last three listed influences from the data, leaving only the trend and short-term irregular movements. Trend estimates are then obtained by removing the effects of the short-term irregularities.

**Constant Price Estimates**

Constant price estimates in this publication refer to estimates in 1989–90 dollar terms and measure values expressed at the average prices that prevailed that year. Period to period movements in constant price estimates provide what are often called 'changes in real terms'.

**Explanatory Notes**

ABS publications generally contain Explanatory Notes which describe the collection methodology and data items contained therein. Because *Measuring Australia's Economy* contains statistics from numerous sources, collection methodologies and data item descriptions have not been included. Readers are directed to the Explanatory Notes contained in the appropriate ABS publications for such descriptions. Explanatory Notes in *Measuring Australia's Economy* describe each economic indicator.

**Further Reading**

Further reading references for each indicator are generally ABS publications. The ABS uses a catalogue numbering system to describe its publications and products. The catalogue number appears in brackets after each publication, for example, *Balance of Payments, Australia* (5303.0). A description of the catalogue numbering system can be found in the *Catalogue of Publications and Products* (1101.0). The origins of publications not from the ABS are also indicated.

**Symbols and Other Usages**

In all tables the following symbols mean:

| | |
|---|---|
| n.a. | not available |
| n.y.a. | not yet available |
| p | preliminary |
| . . | not applicable |
| 0, or 0.0 | nil or rounded to zero |

Yearly periods shown as, e.g. 1991–92, refer to the fiscal year ended 30 June.

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

# CHAPTER

# 1

# CHAPTER 1
# MEASURING ECONOMIC ACTIVITY

The Australian Bureau of Statistics (ABS) constitutes the central statistical authority for the Australian Government and, by arrangements with the Governments of the States, provides statistical services for those Governments. It is the central agency which collects, compiles, analyses and distributes statistics and related information. The ABS has a responsibility to provide information which supports decision making and informs the community generally.

**Economic Statistics**

A large amount of the information collected and published by the ABS records economic activity. This information is collected mainly by surveys and censuses, while some is a by-product of administrative activities, for instance, information about motor vehicles registered is regularly acquired by the ABS from State motor vehicle registration authorities.

The information collected from surveys, censuses and as administrative by-product is put together to form separate measures of activity in the economy. For instance, the turnover of retailers is compiled from a survey conducted by the ABS and the number of people employed is compiled from the ABS labour force survey. These measures are also referred to as *economic indicators*, which can be thought of as economic variables which change in a predictable way in relation to overall economic activity. Economic analysts use indicators along with other information to help explain why things happen as they do in the economy and then use this knowledge to predict future events.

**National Accounts**

With separate indicators, particular aspects of economic activity can be monitored. Motor vehicle registrations and the turnover of retailers have already been mentioned. Some other separate measures are the profits made by companies, the amount of building activity and the output of manufacturers.

Another important use of this information is as the building blocks of a set of accounts for Australia, called the national accounts. Just as a set of accounts for a business consolidate a lot of information about the business and present it in a set format, national accounts consolidate a range of statistics, from those involving individuals to those involving

# CHAPTER 2

the whole nation, into a consistent format which describes the overall economic position of the nation. The accounts also provide details of the contributions of different types of economic activity to the total within a particular period. For example, we can see from the national accounts how much of our national income is derived from exports, or how much of the national production is contributed by the manufacturing sector.

The summary measure of the nation's economic position provided in the national accounts is Gross Domestic Product or GDP. GDP is one of the most important economic indicators. It is defined as the income generated by production taking place within Australia's territory. More detailed descriptions of national accounts are given in Chapters 2 and 4.

This publication provides descriptions and examples of about fifty key economic indicators, some of which form part of the national accounts. Descriptions of basic concepts are included, followed by a comprehensive index. The section *How to Use This Publication* on page (vi) contains a description of the contents and suggestions on how to best use the publication.

# CHAPTER 2
# ECONOMIC INDICATORS



It is possible to get a picture of the Australian economy by reading the newspaper, journals, economic texts and government publications. Commentators who contribute to these publications analyse the Australian economy by observing the major economic indicators in the context of how they view the Australian political and social environment.

Analysis of the economy should be based on the major economic indicators. A combination of a knowledge of economic indicators and an understanding of the social and political environment will help to assess why the economy has changed over time.

Whenever the economy is analysed, arguments should be backed up using economic indicators data. Also, when arguments that other commentators put forward are read, care should be taken to ensure they are supported by economic data.

Economic indicators in this publication can be used to see how the economy has changed over the last 10 years.


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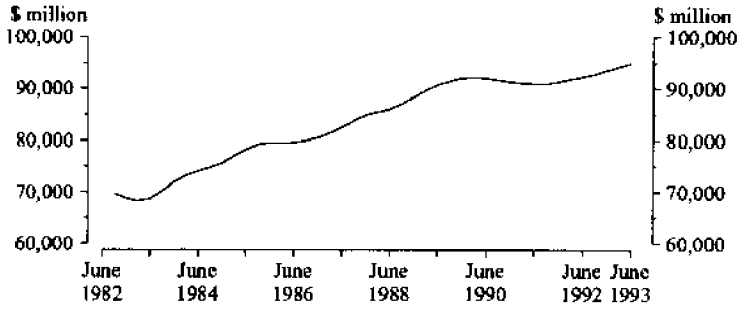
# Section 2.1
# Summary Measures of Economic Activity

# 2.1.1 Gross Domestic Product

## Comment

Gross domestic product, GDP(A) trend at constant prices has shown moderate growth over 1992–93. This followed a sustained decline in economic activity (a recession) between the June quarter 1990 and the June quarter 1991, with five quarterly decreases in GDP(A) recorded. The Australian economy displayed growth through most of the 1980s, with the exception of the 1982–83 recession. Recovery from recession was much faster in this earlier instance than in 91–92.

**GROSS DOMESTIC PRODUCT, GDP(A)
AT AVERAGE 1989–90 PRICES, TREND**




*Source: ABS 5206.0, Quarterly data*

**MEASURES OF GROSS PRODUCT AT AVERAGE 1989–90 PRICES
($ million)**

| *Period* | *GDP(I) income based* | *GDP(E) expenditure based* | *GDP(P) production based* | *GDP(A) average* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 342,963 | 341,739 | 336,100 | 340,267 |
| 1988–89 | 359,565 | 353,579 | 355,594 | 356,246 |
| 1989–90 | 370,007 | 364,001 | 370,007 | 368,005 |
| 1990–91 | 368,535 | 362,808 | 363,973 | 365,105 |
| 1991–92 | 370,959 | 367,808 | 361,385 | 366,717 |
| 1992–93 | 380,149 | 378,089 | 369,807 | 376,015 |
| | | QUARTERLY — TREND | | |
| *1991–92—* | | | | |
| December | 92,439 | 91,811 | 90,086 | 91,445 |
| March | 93,148 | 92,165 | 90,398 | 91,904 |
| June | 93,675 | 92,580 | 90,871 | 92,375 |
| *1992–93—* | | | | |
| September | 94,015 | 93,239 | 91,387 | 92,880 |
| December | 94,531 | 94,146 | 92,050 | 93,576 |
| March | 95,222 | 94,953 | 92,834 | 94,336 |
| June | 95,811 | 95,482 | 93,550 | 94,948 |

*Source: ABS, Australian National Accounts: National Income, Expenditure and Product (5206.0).*

# Explanatory Notes

Gross domestic product (GDP) is an aggregate measure of the value of economic production in Australia in a given period.

Three independent measures of GDP are produced each quarter. They are the sum of goods and services produced at each stage of production less the costs of production, **GDP(P)**; the sum of incomes generated by production, **GDP(I)**; and the sum of final expenditure on goods and services produced, plus exports minus imports, **GDP(E)**. A fourth measure of GDP, calculated as the average of the above three, is referred to as **GDP(A)**.

Analysis has shown that *constant price* GDP(A) has provided the most satisfactory indicator of short-term seasonally adjusted or trend growth in GDP.

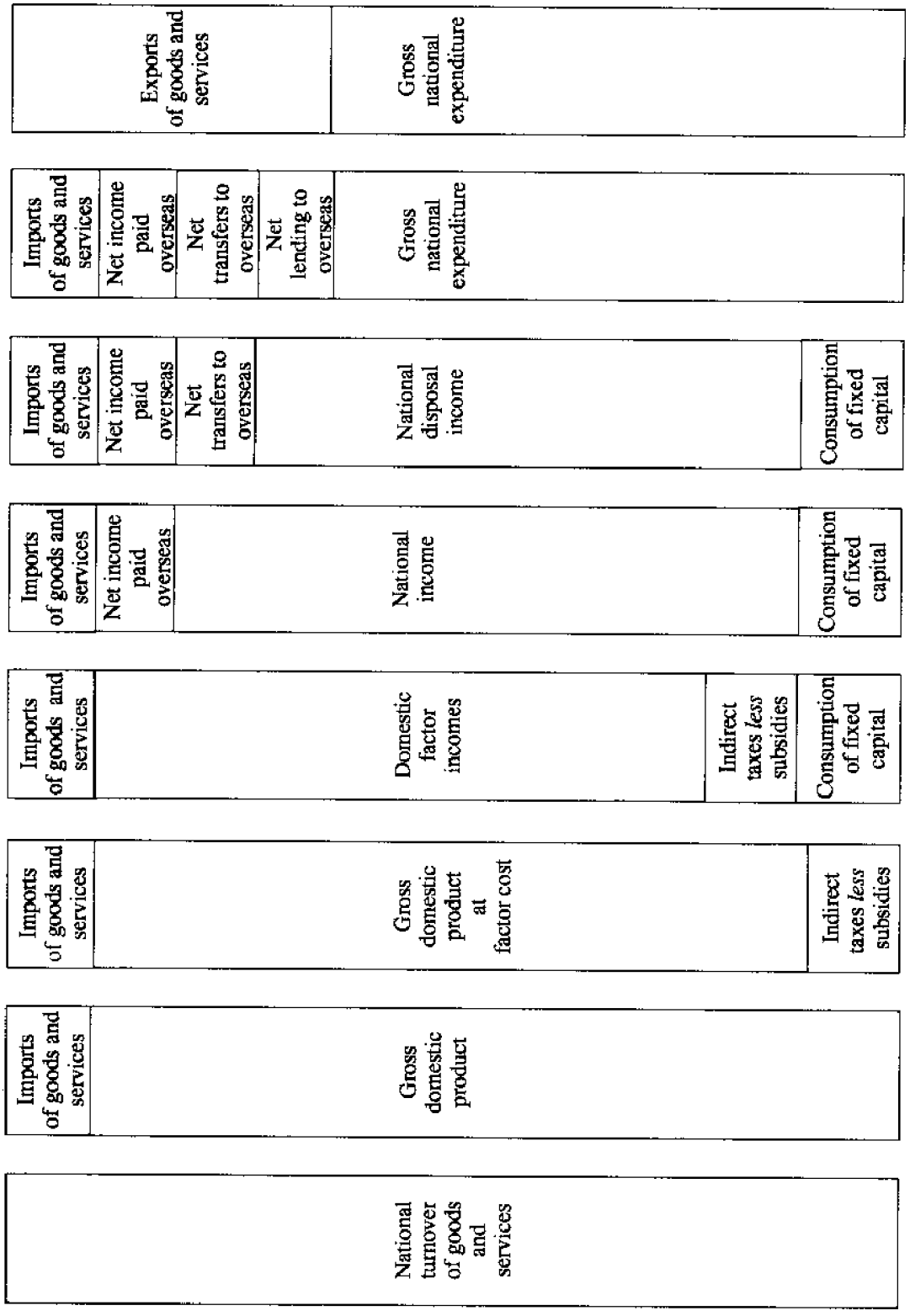
The preferred *current price* measure of GDP is GDP(I). It is the overall measure which is consistent with subsidiary measures, such as national income and data in the other consolidated tables (for example, the national income and outlay account). GDP(I) also provides the base year benchmarks for the constant price estimates of GDP(P). Before the introduction of GDP(A) in 1990, constant price GDP(I) had traditionally been the most prominent and commonly-used measure of economic growth in Australia.

# Further Reading

- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
  Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains quarterly data back to September quarter 1984 for each of the 4 measures of GDP. See the Feature Article in the June Quarter 1990 issue for information on the relationship between the three GDP measures.
- ☐ *A Guide to Australian National Accounts* (5235.0)
  Explains the most important features of the Australian national accounts and provides a very basic understanding of the meaning and uses of these statistics.

# 2.1.2 National Accounts

**NATIONAL ACCOUNTS**
**RELATIONSHIP OF MAIN AGGREGATES**



# Explanatory Notes

The essential function of the national accounts is to provide a systematic summary of national economic activity. The structure of the national income and expenditure accounts provides an economically meaningful aggregation of the wide range of diverse transactions occurring in the economy and the various entities (transactors) involved in those transactions.

The basic structure of the national accounts is determined by the classification of transactors into institutional sectors and the classification of transactions firstly by economic type and secondly grouped to form accounts. The four domestic institutional sectors grouped according to their roles, (with the emphasis being on the differences in their financial behaviour in the economy) are: corporate trading enterprises; financial enterprises; households; and general government.

The types of accounts reflect the major economic processes occurring in the economy, namely production, the distribution of incomes, consumption, saving and investment. Accordingly, they reflect the key economic flows of the Keynesian system. The national income and expenditure accounts are composed of three major types of accounts:

- production accounts
- income and outlay accounts
- capital accounts.

A fourth account, the overseas transactions account, records transactions between the domestic economy and the rest of the world.

Each of these accounts is produced for the nation as a whole and these four accounts form the consolidated summary accounts. An important feature of the accounts is that they are a double entry system, and therefore are fully balanced. Every entry has a counterpart entry i.e. every outgoing reappears elsewhere as an incoming, reflecting the circularity of the economic process. However, in order to show the derivation of important aggregates, a few debit entries are shown as deductions on the credit side of the accounts.

The figure on the facing page shows how the various national accounting aggregates are related to each other. National turnover can be viewed as the *total supply of goods and services* to the market, free of duplication, in a given period. In other words, it is the total supply available in Australia to final buyers. Supply is sourced from both domestic production and imports.

The last block views national turnover as the sum of all *final expenditures* on goods and services in the same given period. These final expenditures are defined to include increase in stocks and exports, which are considered to be final expenditures from the point of view of the domestic economy.

The supply and expenditure views do not quite represent the same physical goods because goods produced in the current period may pass through stockholdings before being included in consumer and capital expenditures or in exports in subsequent periods. On the other hand, the views do represent the same services, because services are supplied and used simultaneously.

# Further Reading

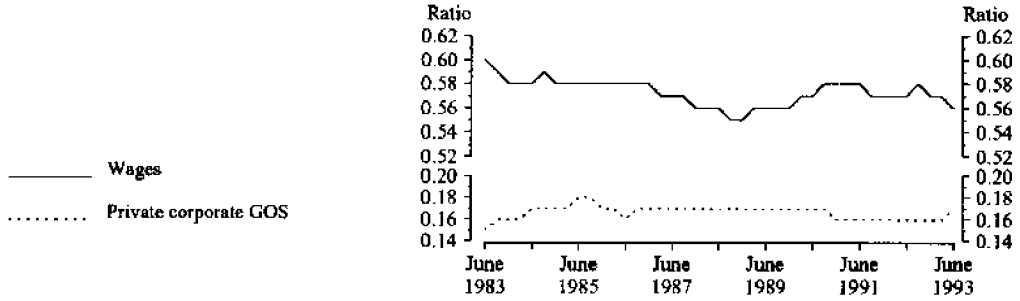
☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
Contains a detailed explanation of the system of Australian national accounts.

# 2.1.3 National Accounts
# Domestic Production Account

## Comment

The proportion of wages, salaries and supplements to GDP at factor cost has averaged 0.57 over the period June quarter 1983 to June quarter 1993. In comparison, the proportion of private corporate gross operating surplus to GDP at factor cost has averaged 16.7 over the same period. More recently the proportion of wages, salaries and supplements to GDP at factor cost has been decreasing while the proportion of private corporate gross operating surplus to GDP at factor cost has begun to increase.

**PROPORTION OF WAGES, SALARIES AND SUPPLEMENTS TO GDP AT FACTOR COST, AND PROPORTION OF PRIVATE CORPORATE GROSS OPERATING SURPLUS TO GDP AT FACTOR COST, TREND**




*Source: ABS 5206.0, Quarterly data*

**DOMESTIC PRODUCTION ACCOUNT (a)**
**($ million)**

| | *1987–88* | *1988–89* | *1989–90* | *1990–91* | *1991–92* | *1992–93* |
|---|---|---|---|---|---|---|
| Final consumption expenditure | 227,986 | 251,350 | 276,907 | 293,895 | 309,570 | 323,025 |
| Gross fixed capital expenditure | | | | | | |
| Private | 54,325 | 67,570 | 68,496 | 61,591 | 55,820 | 58,222 |
| Public enterprises & general government | 17,271 | 17,933 | 21,417 | 20,790 | 20,465 | 19,701 |
| Increase in stocks | 463 | 3,876 | 4,468 | −1,773 | −2,260 | 348 |
| Gross national expenditure | 299,119 | 340,729 | 371,288 | 374,503 | 383,595 | 401,296 |
| Net exports | 1,724 | −6,490 | −7,287 | −506 | 1,277 | 2,107 |
| **Gross domestic product (GDP(E))** | **297,395** | **334,239** | **364,001** | **373,997** | **384,872** | **399,189** |
| Statistical discrepancy | 1,031 | 5,611 | 6,006 | 5,905 | 3,308 | 2,171 |
| **Gross domestic product (GDP(I))** | **298,426** | **339,850** | **370,007** | **379,902** | **388,180** | **401,360** |
| Wages, salaries and supplements | 147,097 | 165,566 | 184,517 | 192,662 | 197,199 | 202,856 |
| Gross operating surplus | 114,293 | 133,155 | 141,176 | 142,583 | 146,614 | 152,859 |
| Gross domestic product at factor cost | 261,390 | 298,721 | 325,693 | 335,245 | 343,813 | 355,715 |
| Indirect taxes less subsidies | 37,036 | 41,129 | 44,314 | 44,657 | 44,367 | 45,645 |
| **Gross domestic product (GDP(I))** | **298,426** | **339,850** | **370,007** | **379,902** | **388,180** | **401,360** |

(a) Data are available and published quarterly.

*Source:* ABS, *Australian National Accounts, National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

The domestic production account is a consolidated summary account of all the production activity which takes place in Australia. The account records the expenses incurred in production and the receipts from sales of final goods and services.

On the credit side the domestic production account records receipts from sales of goods and services (including goods produced for own use) to final domestic consumers, increases in stocks and exports minus imports. The aggregation of the receipts side is referred to as expenditure on GDP, that is GDP(E).

On the debit side of the production account are recorded the costs of production including factor incomes, i.e. wages, salaries and supplements, gross operating surplus (the income of enterprises from production) and net indirect taxes paid to government. The aggregation of the payments side is referred to as GDP(I).

Conceptually, GDP(I) is equivalent to GDP(E). However, in practice, the statistical discrepancy, reflecting net errors and omissions, is the difference between these two totals. When compiling the national income and expenditure accounts it is necessary to show the statistical discrepancy as a contra entry in one of the other summary accounts. It has been included in the capital account since the Australian national accounts were first compiled in their current form.

The domestic production account is analogous to accounts used in business accounting and is, in effect, a consolidation of the trading accounts of individual enterprises from all sectors.

# Further Reading

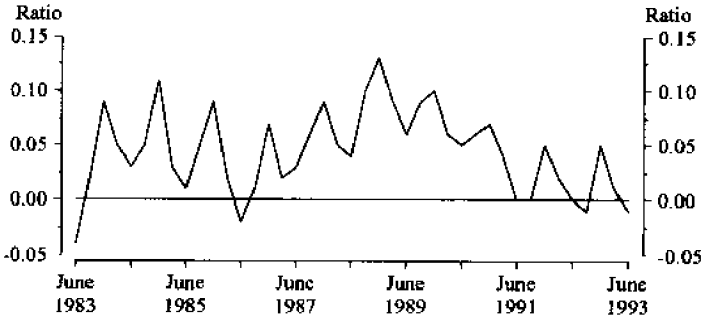
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains quarterly data back to September quarter 1984 for the domestic production account in original, seasonally adjusted and trend series, and in current and constant prices.
- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
  Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.
- ☐ *A Guide to Australian National Accounts* (5235.0)
  Explains the most important features of the Australian national accounts and provides a very basic understanding of the meaning and uses of these statistics.

# 2.1.4 National Accounts
# Income and Outlay Account

## Comment

The ratio of national saving to national disposable income in original terms, fluctuates from quarter to quarter with peaks recorded in every December quarter between 1983 and 1993. The proportion of national saving to national disposable income was zero for the June quarter 1991, September quarter 1991 and June quarter 1992 indicating that all the income generated from production was being spent on consumption.

**PROPORTION OF NATIONAL SAVING TO NATIONAL DISPOSABLE INCOME**




*Source: ABS 5206.0, Quarterly data*

**NATIONAL INCOME AND OUTLAY ACCOUNT**
**($ million)**

| | *1987–88* | *1988–89* | *1989–90* | *1990–91* | *1991 92* | *1992–93* |
|---|---|---|---|---|---|---|
| Wages, salaries and supplements | 147,097 | 165,566 | 184,517 | 192,662 | 197,199 | 202,856 |
| Net operating surplus | 67,543 | 81,951 | 85,349 | 84,391 | 86,900 | 91,802 |
| Domestic factor incomes | 214,640 | 247,517 | 269,866 | 277,053 | 284,099 | 294,658 |
| less Net income paid overseas(a) | 10,246 | 13,614 | 17,467 | 17,767 | 15,860 | 14,168 |
| Indirect taxes | 41,500 | 45,792 | 48,900 | 50,353 | 50,228 | 52,027 |
| less Subsidies | 4,464 | 4,663 | 4,586 | 5,696 | 5,861 | 6,382 |
| National income | 241,430 | 275,032 | 296,713 | 303,943 | 312,606 | 326,135 |
| less Net unrequited transfers to overseas | –1,664 | –2,209 | –2,348 | 2,478 | –2,288 | 739 |
| National disposable income | 243,094 | 277,241 | 299,061 | 306,421 | 314,894 | 326,874 |
| Final consumption expenditure — | | | | | | |
| Private | 175,586 | 194,500 | 214,830 | 226,875 | 237,738 | 247,571 |
| Government | 52,400 | 56,850 | 62,077 | 67,020 | 71,832 | 75,454 |
| Saving | 15,108 | 25,891 | 22,154 | 12,526 | 5,324 | 3,849 |
| Disposal of income | 243,094 | 277,241 | 299,061 | 306,421 | 314,894 | 326,874 |

(a) Includes property income, labour income and extraordinary insurance claims from overseas.
*Source:* ABS, *Australian National Accounts, National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

The national income and outlay account is one of the consolidated national accounts describing the distribution of incomes in the economy. The account shows how much of the national income is spent on final consumption. That part of income which is not spent in this way is saving.

The national income and outlay account records (on the income side) wages, salaries and supplements, net operating surplus and indirect taxes less subsidies (all from the domestic production account). From this income are deducted net payments of income and miscellaneous transfers to overseas to yield national disposable income.

The outlay or disbursements side of the account shows this disposable income as being used for final consumption expenditure with the balance being the nation's saving – a source of finance for gross capital formation.

# Further Reading

- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains quarterly data for the last 9 quarters for the national income and outlay account including quarterly national income and outlay accounts for households and general government.

- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
  Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.

- ☐ *A Guide to Australian National Accounts* (5235.0)
  Explains the most important features of the Australian national accounts and provides a very basic understanding of the meaning and uses of these statistics.

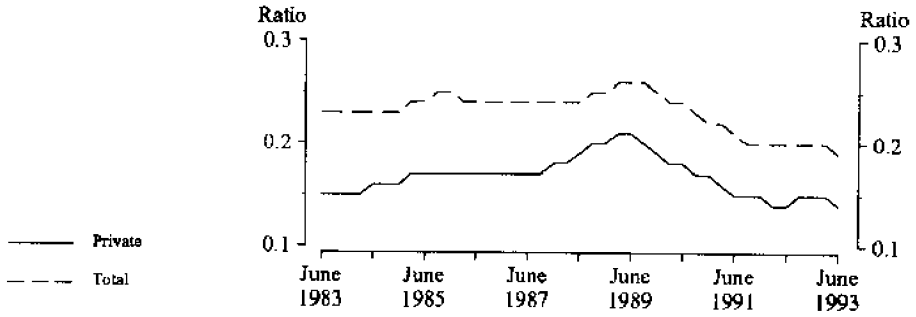
2.1.5

# National Accounts
# Capital Account

## Comment

The proportion of private gross fixed capital expenditure to GDP(E) increased from 0.15 in June 1983 to a peak of 0.21 in June 1989 and has since fallen to 0.14. From March 1985 to September 1987 the proportion of private gross fixed capital expenditure to GDP(E) remained stable at 0.17. The proportion of total gross fixed capital expenditure to GDP(E) has also fallen markedly in recent years, largely because of the fall in the private sector.

**PROPORTION OF PRIVATE AND TOTAL FIXED CAPITAL EXPENDITURE TO GDP(E)**




*Source: ABS 5206.0, Quarterly data*

**NATIONAL CAPITAL ACCOUNT**
**($ million)**

| | *1987–88* | *1988–89* | *1989–90* | *1990–91* | *1991–92* | *1992–93* |
|---|---|---|---|---|---|---|
| Consumption of fixed capital | 46,750 | 51,204 | 55,827 | 58,192 | 59,714 | 61,057 |
| Other saving (a) | 785 | 2,312 | –3,830 | –7,915 | –2,381 | 3,646 |
| Household saving | 10,671 | 15,307 | 18,125 | 18,358 | 18,465 | 16,126 |
| General government surplus on current transactions | 3,652 | 8,272 | 7,859 | 2,083 | –10,760 | –15,923 |
| Finance of gross accumulation | 61,858 | 77,095 | 77,981 | 70,718 | 65,038 | 64,906 |
| Gross fixed capital expenditure — | | | | | | |
| Private — | | | | | | |
| Dwellings | 12,461 | 17,591 | 18,546 | 17,106 | 16,930 | 19,329 |
| Non-dwelling construction | 12,686 | 14,613 | 16,748 | 14,362 | 11,290 | 9,988 |
| Equipment | 24,240 | 28,260 | 27,903 | 25,355 | 22,416 | 23,634 |
| Real estate transfer expenses | 4,938 | 7,106 | 5,299 | 4,768 | 5,184 | 5,271 |
| Public enterprises | 9,842 | 10,366 | 13,002 | 12,037 | 11,669 | 10,736 |
| General government | 7,429 | 7,567 | 8,415 | 8,753 | 8,796 | 8,965 |
| Total gross fixed capital expenditure | 71,596 | 85,503 | 89,913 | 82,381 | 76,285 | 77,923 |
| Total increase in stocks | –463 | 3,876 | 4,468 | 1,773 | –2,260 | 348 |
| Statistical discrepancy | 1,031 | 5,611 | 6,006 | 5,905 | 3,308 | 2,171 |
| Net lending to overseas | –10,306 | –17,895 | –22,406 | –15,795 | 12,295 | –15,536 |
| Gross accumulation | 61,858 | 77,095 | 77,981 | 70,718 | 65,038 | 64,906 |

(a) Increase in income tax provisions, undistributed income and extraordinary insurance claims paid.
*Source:* ABS, *Australian National Accounts, National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

The national capital account shows how the saving from the national income and outlay account is used to finance gross fixed capital expenditure. Essentially therefore, this account shows the saving and investment flows taking place in the economy.

If, as is currently the case in Australia, the nation's saving is not sufficient to pay for all the capital equipment needed for Australian production, the shortfall must be borrowed from overseas. The amount borrowed from overseas is shown in the national capital account as a negative entry for "net lending to overseas".

The equality of investment and saving follows from the fact that saving is that part of the national income which is not spent on consumption while investment is that part of the domestic product which is not consumed.

The national capital account shows, on the receipts side, consumption of fixed capital transferred from the domestic production account and saving transferred from the national income and outlay account.

On the payments side are purchases by all sectors of new buildings, structures and equipment, the increase in stocks of all sectors and a balance described as net lending to overseas.

In principle, the sum of net lending for all domestic sectors is equal to the nation's net lending to overseas. However, in practice, net lending for each sector is derived as a balancing item and therefore includes each sector's share of the statistical discrepancy, which represents net errors and omissions in the accounts

# Further Reading

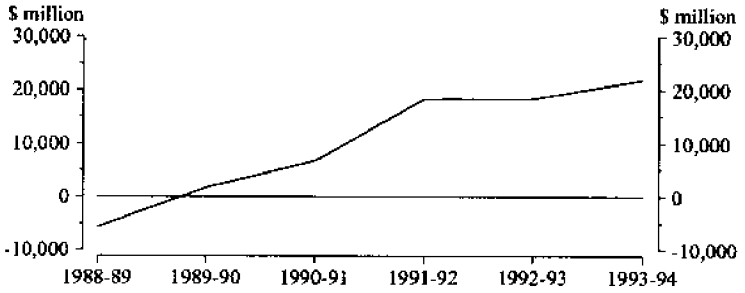
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains quarterly data for the last 9 quarters for the national capital account as well as other national accounting aggregates.
- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
  Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.
- ☐ *Australian National Accounts: Financial Accounts* (5232.0)
  Contains information on the level (stock) of financial assets and liabilities of each sector of the economy and transactions (flow of funds) between the sectors.
- ☐ *A Guide to Australian National Accounts* (5235.0)
  Explains the most important features of the Australian national accounts and provides a very basic understanding of the meaning and uses of these statistics.

# 2.1.6 Government Financial Estimates

## Comment

The net financing requirement for all levels of government combined is expected to rise from $18,374m in 1992–93 to $21,884m in 1993–94, its highest level in the 6 year period from 1988–89 to 1993–94. This continues a deficit position held since combined levels of government last experienced a surplus of $5,697m in 1988–89.

**NET FINANCING REQUIREMENT (a)**
**COMMONWEALTH, STATE, TERRITORY AND LOCAL GOVERNMENTS COMBINED**




(a) Net financing requirement comprises financing less increase in provisions less net advances received.
*Source: ABS, 5501.0, Annual data*

**ECONOMIC TRANSACTIONS OF**
**COMMONWEALTH, STATE, TERRITORY AND LOCAL GOVERNMENTS COMBINED**
**($ million)**

| *Period* | *Total current outlays* | *Total capital outlays* | *Total outlays* | *Total revenue* | *Total financing (a)* | *Net financing requirement (b)* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1988–89 | 106,836 | 17,341 | 124,177 | 124,654 | –477 | -5,697 |
| 1989–90 | 116,952 | 24,346 | 141,298 | 134,307 | 6,992 | 1,727 |
| 1990–91 | 128,480 | 22,176 | 150,656 | 139,400 | 11,256 | 6,678 |
| 1991–92 | 137,599 | 22,850 | 160,449 | 135,667 | 24,782 | 18,259 |
| 1992–93 | 145,101 | 19,423 | 164,523 | 140,740 | 23,784 | 18,374 |
| 1993–94(c) | 155,218 | 18,169 | 173,387 | 145,918 | 27,469 | 21,884 |

(a) Financing is the difference between total outlays and revenue and grants received. (b) Net financing requirement comprises financing less increase in provisions (which equals deficit or surplus) less net advances received. (c) Forward estimate.
*Source:* ABS, *Government Financial Estimates, Australia* (5501.0).

# Explanatory Notes

Government financial estimates provide forecasts of outlays and revenue for the current financial year (the budget year) and estimates of actual expenditure and revenue for the past 5 years. The estimates cover both government organisations mainly funded from taxation (called general government) and government enterprises providing goods and services for the market (public trading enterprises).

The estimates are compiled from Commonwealth and State government budgets which are presented usually in August and September each year, and from estimates supplied by individual authorities not funded directly from the budget (e.g. electricity authorities, public transport authorities, statutory authorities and local government authorities).

Government finance statistics can be used to monitor fiscal policy. When government increases its spending, for example when it increases pensions and benefits paid to households, there is a tendency for aggregate demand to rise. A similar effect can be obtained by reducing taxation so that more money remains in the hands of private consumers. Conversely, government can reduce expenditure or increase taxes in an attempt to reduce demand.

The difference between government outlays and revenue is measured by the Net Financing Requirement (NFR) which affects government debt. A positive NFR means the government must borrow money to finance its activities. This increases debt. If revenue exceeds outlays, the NFR is negative and the government can use the surplus to reduce debt.

The actual size of the NFR often differs from the initial forecast. Any changes in the state of the economy affect government outlays and revenue. During a fall in economic activity, tax revenue falls while outlays on welfare increase. As the economy picks up, outlays on welfare fall and tax revenue rises. This process is most marked at the Commonwealth government level.

# Further Reading

- ☐ *Government Financial Estimates, Australia* (5501.0)
  Contains outlays, revenue and financing transactions for all levels of government covering the forward (or budget) year and the previous 5 years.

- ☐ *Public Sector Financial Assets and Liabilities Australia* (5513.0)
  Contains annual statistics on the financial assets and liabilities of the Australian non-financial public sector.

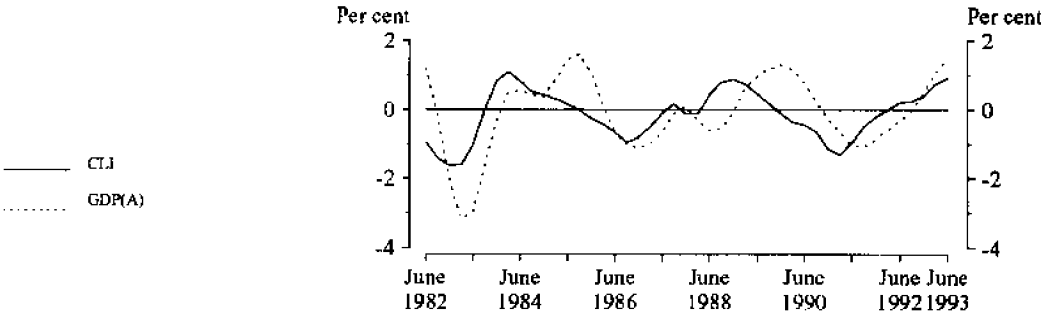
- ☐ *Government Finance Statistics, Australia* (5512.0)
  Provides annual details of the consolidated financial transactions of the non-financial public sector for all levels of government.

# 2.1.7 Composite Leading Indicator

## Comment

Turning points in the growth rate of GDP(A) in most instances have occurred within 2 quarters of those indicated by the Composite Leading Indicator (CLI). The June quarter 1993 CLI did not indicate a turning point and thus indicates a continuation of cyclical recovery for at least September and December quarters 1993.

**CLI AND GDP(A)**
**DEVIATION FROM LONG-TERM TREND IN GDP(A)**




*Source: ABS, 1350.0, Quarterly data*

**CLI AND GDP(A)**
**DEVIATION FROM LONG-TERM TREND**

| *Period* | *CLI change from previous quarter* | *CLI deviation from long-term trend* | *GDP(A) change from previous quarter* | *GDP(A) deviation from long-term trend* |
|---|---|---|---|---|
| | | QUARTERLY | | |
| *1991–92* | | | | |
| December | 0.29 | –0.20 | 0.24 | –0.84 |
| March | 0.20 | 0.00 | 0.27 | 0.57 |
| June | 0.22 | 0.22 | 0.25 | –0.32 |
| *1992–93* | | | | |
| September | 0.03 | 0.25 | 0.29 | –0.03 |
| December | 0.15 | 0.40 | 0.51 | 0.48 |
| March | 0.35 | 0.75 | 0.58 | 1.06 |
| June | 0.18 | 0.93 | 0.47 | 1.53 |

*Source:* ABS, *Australian Economic Indicators* (1350.0).

# Explanatory Notes

The Australian Bureau of Statistics has developed an experimental composite leading indicator (CLI) which summarises the early signals contained in a selection of economic indicators. The CLI is designed to help in the detection of turning points between successive expansions and slowdowns in economic activity.

The CLI is a single time series produced by aggregating economic indicators which give a balanced coverage of several aspects of economic activity. These aspects are monetary policy (real interest rates), a measure of terms of trade (ratio of commodity prices to import prices), external demand (US GDP), pressures on production capacity (job vacancies), internal demand (housing finance), market confidence (the All industrials index) and entrepreneurs' expectations.

The expansion and contraction phases identified in a business cycle are periods of rise and fall in economic activity relative to the long-term trend of constant price GDP(A). Constant price GDP(A) is the reference measure of economic activity used by most decision makers in Australia.

The CLI is expressed in terms of deviation from the long-term trend in GDP(A). It is designed so that the direction of its growth indicates the likelihood of an expansion or a slowdown relative to the long-term trend in GDP(A) for the next two quarters.

The primary use of the CLI is for the detection of turning points in the business cycle, not in forecasting the level of any measure of economic activity.

The ABS is also developing a survey of business expectations to give a short and medium term, *quantitative* measure of the expected change of a number of business performance indicators. Experimental results are available in *Australian Business Expectations* (5250.0), described in the Further Reading section below.

# Further Reading

- *Information Paper: An Experimental Composite Leading Indicator of Australian Economic Activity* (1347.0)
  This information paper describes the nature and construction of a new experimental leading indicator of Australian economic activity.

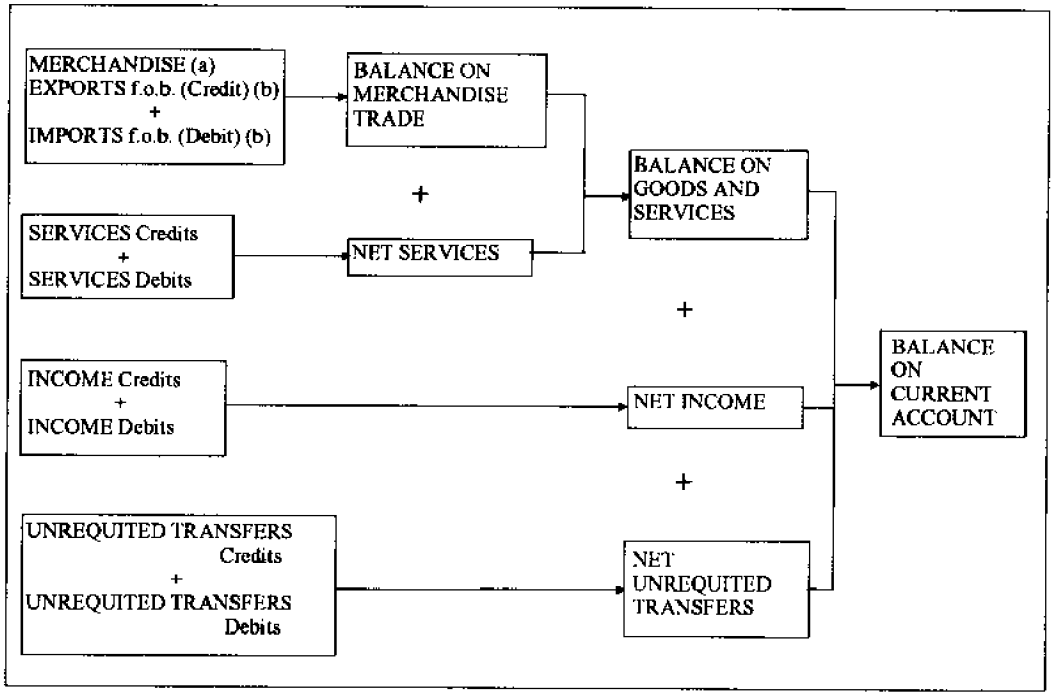
- *Australian Economic Indicators* (1350.0)
  The composite leading indicator is released every quarter, shortly after the release of the gross domestic product, and is published in Australian Economic Indicators.

- *Australian Business Expectations* (5250.0)
  Contains estimates of future economic activity based on the business expectations of senior executives, managers and proprietors of businesses operating in Australia. Estimates, by industry, of the expected change for one quarter and 4 quarters are presented for a range of performance indicators covering trading performance, investment, employment, operating expenses and international trade.

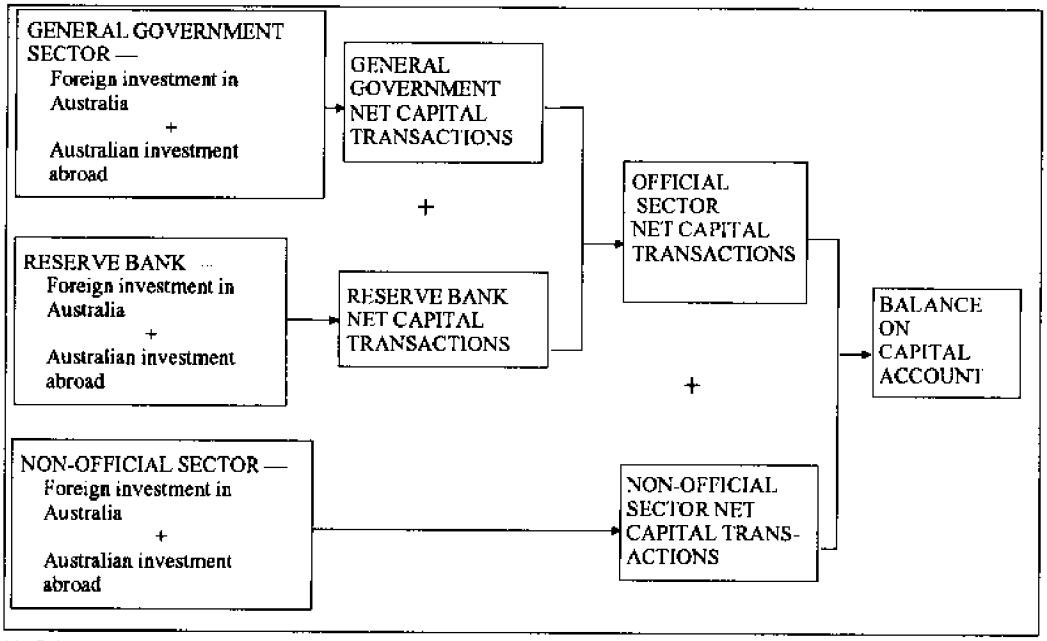
# Section 2.2
# International Accounts and Trade

# 2.2.1 Balance of Payments

## CURRENT ACCOUNT




## CAPITAL ACCOUNT




(a) Balance of Payments basis. (b) Merchandise is valued at the point of free on board (f.o.b.) at the customs frontier of the exporting country.

# Explanatory Notes

Two broad accounts make up the balance of payments, namely the current account and the capital account, but first a word about the balance of payments itself.

Despite its name, the balance of payments is a record of Australia's economic *transactions* with the rest of the world, many of which do not involve simultaneous payment (such as credit sales) and some of which involve no payment at all (such as goods provided under foreign aid programs). All these transactions, which usually involve dealings between an Australian resident and a non-resident, are entered in a set of double entry accounts which make up the balance of payments. It is the use of the double entry system that enables *balances* to be derived, but the balance of payments cannot be summarised in just a single balance.

The *current account* comprises transactions in goods, services, income and unrequited transfers. Unrequited transfers are offset entries to transactions where ownership of an item changes without payment, or expectation of payment. For example, an incoming migrant might bring in foreign exchange; the offsetting entry is an unrequited transfer.

The *capital account* comprises transactions in Australia's foreign financial assets and liabilities, such as foreign borrowing and lending by Australian residents, equity investments and purchases and sales of official reserve assets.

In principle, the deficit (or surplus) on the current account should be matched by a surplus (or deficit) on the capital account. In practice, this is not the case. The balances on the capital account and the current account are reconciled by the *balancing item*. This is the sum of net errors (transactions not measured accurately) and net omissions (transactions not measured at all).

# Further Reading

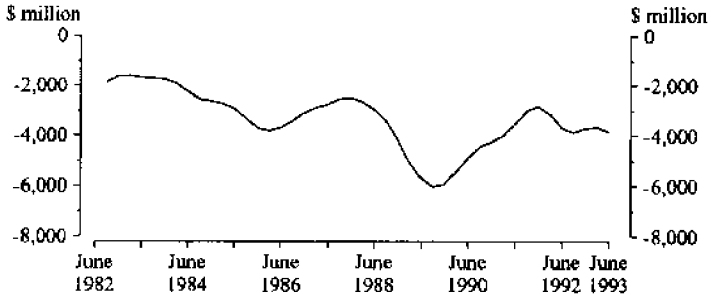
- *Balance of Payments, Australia* (5301.0)
  Includes monthly data on imports of goods and services, including trend and seasonally adjusted series.
- *Balance of Payments, Australia* (5302.0)
  Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account.
- *Balance of Payments, Australia* (5303.0)
  Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1991–92 publication for balance of payments ratios and for international comparisons of balance of payments statistics.
- *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)
  Provides a comprehensive description of the concepts and structure of the Australian balance of payments and of the data sources and methods used to compile the statistics contained in Australian balance of payments publications.

# 2.2.2 Balance of Payments Current Account

## Comment

In trend terms, Australia's balance on current account declined to a low of -$6,014m in September quarter 1989. During the nine quarters following this, the balance improved, reaching -$2,850m in December quarter 1991. More recently, the balance on current account has been slowly deteriorating.

**BALANCE ON CURRENT ACCOUNT TREND**




*Source: ABS 5302.0, Quarterly data*

**BALANCE OF PAYMENTS, CURRENT ACCOUNT**
**($ million)**

| *Period* | *Balance on current account* |
|---|---|
| ANNUAL | |
| 1987–88 | –10,571 |
| 1988–89 | –17,861 |
| 1989–90 | 22,147 |
| 1990–91 | 16,247 |
| 1991–92 | –12,380 |
| 1992–93 | –15,446 |
| QUARTERLY — TREND | |
| *1991–92—* | |
| December | –2,805 |
| March | –3,123 |
| June | –3,691 |
| *1992–93—* | |
| September | –3,864 |
| December | –3,692 |
| March | –3,650 |
| June | –3,835 |

*Source:* ABS, *Balance of Payments, Australia* (5302.0).

# Explanatory Notes

The balance on current account is the sum of the balances on merchandise trade, services trade, income and unrequited transfers. The balances are derived by calculating the difference of credit entries, which are shown without sign, and debit entries, which have a negative sign. If the sum of the balances is negative, a nation has a current account deficit, while if the figure is positive, a nation has a current account surplus.

The balance on current account consists of:

- Balance on goods and services: the difference between the total export value and the total import value of goods and services. It should be noted that within the balance on goods and services there is a net services balance and a merchandise trade balance which provides an analytically useful division between services and goods;
- Net income: the difference between the value of income, such as dividends and interest earned by residents from non-residents (credits) and that payable by residents to non-residents;
- Net unrequited transfers: the difference between unrequited transfer credits and debits. An unrequited transfer is needed when real or financial resources are provided without something of economic value being received in return. For example, Australia's foreign aid abroad requires a debit entry while an immigrant who brings foreign exchange to Australia adds a credit entry to unrequited transfers.

Australia has had a current account deficit since the mid 1970s. This indicates that the nation as a whole has been consuming and investing more than the available national income and savings levels. To fund this shortfall, Australia has had to acquire finance from non-residents. These capital inflows are measured in the capital account of the balance of payments. The net capital inflow (inflows less outflows) in a period is in principle equal and offsetting to the deficit on the current account of the balance of payments in that period.

The continued capital account surpluses have contributed to Australia's net foreign debt. The economic significance of this debt is hotly debated but, interestingly, the interest repayments on it are the major cause of Australia's large net income deficit which, in turn, plays an important role in Australia's current account deficit problems.

# Further Reading

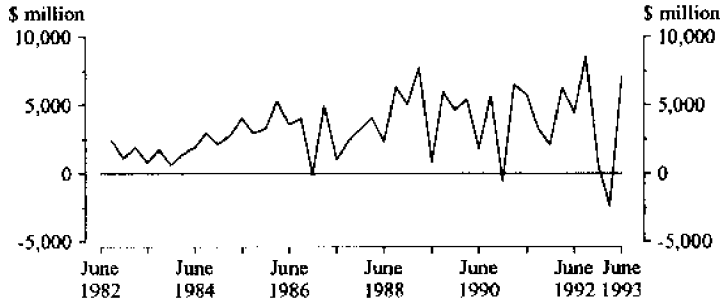
- ☐ *Balance of Payments, Australia* (5302.0)
  Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account. Quarterly and annual historical summaries for the latest sixteen years are also included.
- ☐ *Balance of Payments, Australia* (5303.0)
  Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1991–92 publication for balance of payments ratios and for international comparisons of balance of payments statistics.

# 2.2.3 Balance of Payments Capital Account

## Comment

The balance on the capital account changes quite markedly from quarter to quarter. The balance on the capital account usually records a surplus, reaching its highest ever quarterly level in the September quarter 1992, although this was followed by the highest capital account deficit recorded in the March quarter 1993. Deficits were also recorded in the December quarters 1986 and 1990.

BALANCE ON CAPITAL ACCOUNT




*Source: ABS 5302.0, Quarterly data*

BALANCE OF PAYMENTS, CAPITAL ACCOUNT
($ million)

| *Period* | *Balance on capital account* |
|---|---|
| ANNUAL | |
| 1987–88 | 12,054 |
| 1988–89 | 19,976 |
| 1989–90 | 17,879 |
| 1990–91 | 17,421 |
| 1991–92 | 16,083 |
| 1992–93 | 14,066 |
| QUARTERLY | |
| *1991–92* | |
| December | 2,087 |
| March | 6,285 |
| June | 4,459 |
| *1992–93*— | |
| September | 8,581 |
| December | 719 |
| March | –2,378 |
| June | 7,144 |

*Source:* ABS, *Balance of Payments Australia* (5302.0).

# Explanatory Notes

The capital account provides information on transactions in Australia's foreign financial assets and liabilities, such as foreign borrowing and lending by Australian residents, equity investments and purchases and sales of official reserve assets.

The flows covered by the account are grouped into two major categories:

- official capital, that is, transactions involving State and Commonwealth governments and the Reserve Bank; and
- non-official capital, that is, transactions involving financial enterprises, non-financial trading enterprises and households. Government-owned financial and trading enterprises, such as the Commonwealth Bank and Telecom are included in the non-official sector.

Credit entries in the capital account are net inflows, resulting from a reduction in Australian investment abroad and/or an increase in foreign investment in Australia. Debit entries are net outflows and reflect the reverse situation. Like the current account, credit entries are shown without sign while debit entries take a negative sign.

A positive capital account balance (a net inflow) occurs when the increase in Australia's liabilities to foreign countries (or the reduction in claims on foreign countries) in a period exceeds the increase in Australia's claims on foreign countries (or the reduction in liabilities to foreign countries).

Such a net inflow of capital occurs when a country has a current account deficit. In other words, to finance this deficit, it draws on savings from the rest of the world.

A negative capital account balance (a net outflow) occurs when the increase in Australia's claims on foreign countries (or the reduction in liabilities to foreign countries) in a period exceeds the increase in its liabilities to foreign countries (or the reduction in claims on foreign countries).

Such a net outflow of capital occurs when a nation has a current account surplus. In other words, the net outflow for nations with such a surplus represents the extent to which they provide their domestic savings to the rest of the world.

# Further Reading

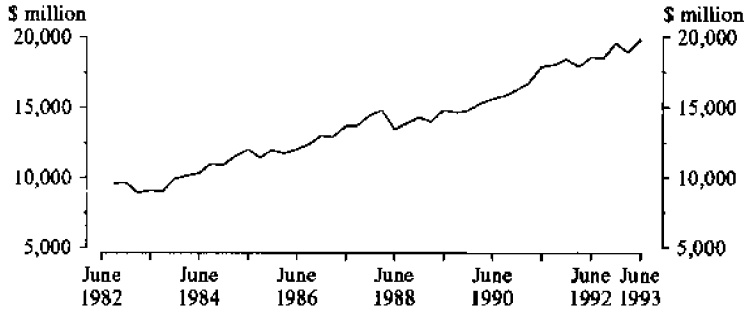
- ☐ *Balance of Payments, Australia* (5302.0)
  Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account. Quarterly and annual historical summaries for the latest sixteen years are also included.
- ☐ *Balance of Payments, Australia* (5303.0)
  Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years. See the feature articles in the 1991–92 publication for balance of payments ratios and for international comparisons of balance of payments statistics.

# 2.2.4 Exports of Goods and Services

## Comment

In seasonally adjusted constant price terms, Australia's total exports of goods and services generally increased over the period September 1983 to June 1993. The major contributing factors to this increase were non-rural merchandise exports and services credits.

**TOTAL EXPORTS OF GOODS AND SERVICES AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 5302.0, Quarterly data*

**EXPORTS OF GOODS AND SERVICES AT AVERAGE 1989–90 PRICES**
**($ million)**

| *Period* | *Merchandise exports f.o.b.(a) rural* | *Merchandise exports f.o.b.(a) non-rural* | *Merchandise exports f.o.b.(a) total* | *Services credits* | *Total* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 16,759 | 29,149 | 45,908 | 10,361 | 56,269 |
| 1988–89 | 15,925 | 29,674 | 45,599 | 11,417 | 57,016 |
| 1989–90 | 15,344 | 33,220 | 48,564 | 11,568 | 60,132 |
| 1990–91 | 16,439 | 38,043 | 54,482 | 12,311 | 66,793 |
| 1991–92 | 18,151 | 41,703 | 59,854 | 13,037 | 72,891 |
| 1992–93 | 18,978 | 43,963 | 62,941 | 13,808 | 76,749 |
| | | QUARTERLY — SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | |
| December | 4,647 | 10,451 | 15,098 | 3,327 | 18,425 |
| March | 4,349 | 10,242 | 14,591 | 3,292 | 17,883 |
| June | 4,455 | 10,843 | 15,298 | 3,281 | 18,579 |
| *1992–93—* | | | | | |
| September | 4,559 | 10,755 | 15,314 | 3,195 | 18,509 |
| December | 4,979 | 11,150 | 16,129 | 3,480 | 19,609 |
| March | 4,620 | 10,771 | 15,391 | 3,503 | 18,894 |
| June | 4,888 | 11,301 | 16,189 | 3,635 | 19,824 |

(a) Balance of payments basis.
*Source:* ABS, *Balance of Payments, Australia* (5302.0).

# Explanatory Notes

Exports are goods and services that are provided to foreign residents. In the balance of payments they appear as a credit item on the current account and are presented separately to assist analysis.

In balance of payments publications, goods are categorised as merchandise exports and classified into rural and non-rural exports. Within each of these classifications a further, more specific break-up is published so that the trading performance of different commodity groups can be monitored. The term merchandise exports refers to all movable goods which change ownership from residents to non-residents. These are valued in f.o.b. (free on board) terms which means that transportation and insurance costs are excluded.

Exports of services are services provided by Australian residents to non-residents. These are shown in the balance of payments as services credits and categorised into groups such as shipment, other transportation, travel, and other services.

Exports are important because they are an added source of income for domestic producers and because they provide the foreign exchange needed to pay for imports. Export levels are dependent on the demand for Australian products and services in the world market and on the price charged for those goods and services. This price can alter if there are fluctuations in the exchange rate of the Australian Dollar. If the Australian Dollar depreciates (falls in value), Australian exports will generally become cheaper for foreign residents and consequently they may demand more Australian goods and services. Alternatively, if the Australian Dollar appreciates (rises in value), Australian exports will generally become more expensive for foreign residents and they may demand less of our goods and services as a result.

# Further Reading

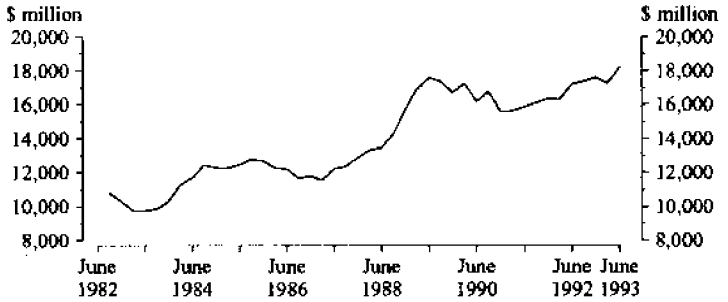
- ☐ *International Merchandise Trade, Australia* (5422.0)
  Provides quarterly information on the value of exports of goods with selected countries and country groups classified by commodity and details of exports by State. Historical data for the latest twelve years are also included.

# 2.2.5 Imports of Goods and Services

## Comment

In seasonally adjusted constant price terms, total imports of goods and services generally rose over the period between the June quarter 1983 and the September quarter 1989, with the strongest increase taking place after the June quarter 1988. From the September quarter 1989, imports of goods and services slightly declined until the June quarter 1991, after which they again started to increase.

**TOTAL IMPORTS OF GOODS AND SERVICES AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 5302.0, Quarterly data*

**IMPORTS OF GOODS AND SERVICES AT AVERAGE 1989–90 PRICES ($ million)**

| *Period* | *Merchandise imports f.o.b.* | *Services debits* | *Total* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 39,406 | 12,571 | 51,977 |
| 1988–89 | 49,021 | 15,219 | 64,240 |
| 1989–90 | 50,991 | 16,428 | 67,419 |
| 1990–91 | 48,629 | 15,305 | 63,934 |
| 1991–92 | 50,684 | 15,219 | 65,903 |
| 1992–93 | 55,145 | 15,216 | 70,361 |
| | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92* | | | |
| December | 12,549 | 3,798 | 16,347 |
| March | 12,594 | 3,715 | 16,309 |
| June | 13,303 | 3,911 | 17,214 |
| *1992–93* | | | |
| September | 13,610 | 3,758 | 17,368 |
| December | 13,708 | 3,893 | 17,601 |
| March | 13,521 | 3,728 | 17,249 |
| June | 14,354 | 3,846 | 18,200 |

Source: ABS, *Balance of Payments, Australia* (5302.0).

# Explanatory Notes

Imports are goods and services that are acquired from foreign residents. Other things being equal, an increase in imports will increase a current account deficit or reduce a current account surplus.

In balance of payments publications, imports of goods are referred to as merchandise imports, and include all movable goods that change ownership from non-residents to residents. These imports are valued in f.o.b. (free on board) terms, which excludes the transportation and insurance costs (considered to be services) of bringing the goods to Australia. Merchandise imports are classified into broad commodity groups such as food, chemicals, textiles, metals and metal manufactures, machinery, transport equipment, other manufactures, and other imports.

Imports of services are services provided by non-residents to Australian residents. These are shown in the balance of payments as services debits and categorised into groups such as shipment, other transportation, travel, and other services.

# Further Reading

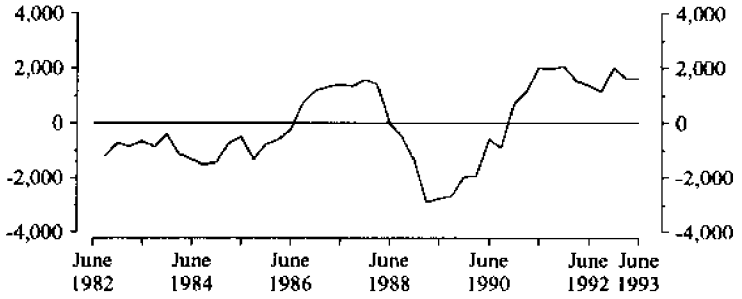
- *International Merchandise Trade, Australia* ( 5422.0)
  Provides quarterly information on the value of imports of goods with selected countries and country groups classified by commodity and details of imports by State. Historical data for the latest twelve years are also included.

# 2.2.6 Balance on Goods and Services

## Comment

Australia's balance on goods and services, in seasonally adjusted constant price terms, deteriorated rapidly from the March quarter 1988 to reach a deficit of $2,908m in the March quarter 1989. A strong improvement in the balance of goods and services was recorded after the March quarter 1989 increasing to a surplus peaking at $2,078m in the December quarter of 1991.

**BALANCE ON GOODS AND SERVICES AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 5302.0, Quarterly data*

**BALANCE ON GOODS AND SERVICES AT AVERAGE 1989–90 PRICES ($ million)**

| *Period* | *Balance on merchandise trade* | *Net services* | *Balance on goods and services* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 6,502 | –2,210 | 4,292 |
| 1988–89 | 3,422 | –3,802 | 7,224 |
| 1989–90 | –2,427 | 4,860 | –7,287 |
| 1990–91 | 5,853 | –2,994 | 2,859 |
| 1991–92 | 9,170 | –2,182 | 6,988 |
| 1992–93 | 7,796 | –1,408 | 6,388 |
| | QUARTERLY SEASONALLY ADJUSTED | | |
| *1991–92—* | | | |
| December | 2,549 | –471 | 2,078 |
| March | 1,997 | –423 | 1,574 |
| June | 1,995 | 630 | 1,365 |
| *1992–93—* | | | |
| September | 1,704 | –563 | 1,141 |
| December | 2,421 | –413 | 2,008 |
| March | 1,870 | –225 | 1,645 |
| June | 1,835 | –211 | 1,624 |

*Source:* ABS, *Balance of Payments, Australia* (5302.0).

# Explanatory Notes

The balance on goods and services refers to the net sum of exports and imports of goods and services. It is a useful and immediate indicator of a nation's overall trading position and appears in the current account section of the balance of payments.

A net debit (–) figure is referred to as a goods and services deficit and indicates that total imports of goods and services exceed total exports of goods and services. A surplus on the balance of goods and services appears as a credit item and indicates that total exports of goods and services exceed total imports of goods and services.

Within the balance on goods and services two other balances are presented, reflecting the division between goods and services.

*Net services* is the net sum of services credits (exports) and debits (imports) and identifies the extent of any surplus (+) or deficit (–) in the trade of services.

The *balance on merchandise trade* is the net sum of merchandise exports and merchandise imports. A merchandise trade surplus indicates that exports of merchandise exceeded imports of merchandise in the reference period and is shown as a credit in the balance of payments. A trade deficit is shown as a debit (–) and means that merchandise imports have exceeded merchandise exports.

# Further Reading

- ☐ *Balance of Payments, Australia* (5302.0)
  Presents detailed quarterly data on the balance on goods and services for the last 10 quarters. Historical summaries of the latest sixteen years are also included.

- ☐ *Balance of Payments, Australia* (5303.0)
  Presents detailed yearly data on the balance on goods and services.

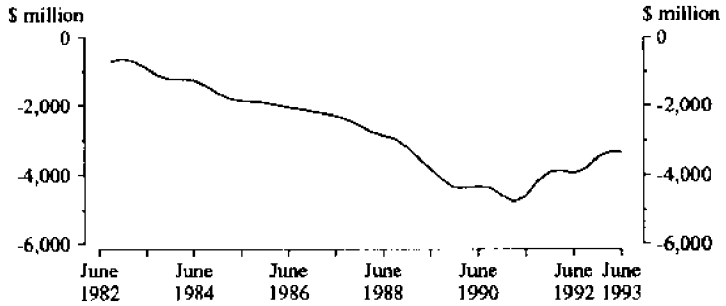
- ☐ *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)
  Provides a comprehensive description of the concepts and structure of the Australian balance of payments, including the data sources and methods used to compile the goods and services statistics, as shown in Australian balance of payments publications.

# 2.2.7 Net Income

## Comment

Australia's net income deficit in trend estimate terms increased significantly from a low of $709m in the September quarter 1982 to -$4,783m in the March quarter 1991. Since the March quarter 1991, the net income deficit has decreased to -$3,344m in June 1993.

NET INCOME
TREND




*Source: ABS 5302.0, Quarterly data*

NET INCOME
($ million)

| *Period* | *Income credits* | *Income debits* | *Net income* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 4,042 | -14,553 | -10,511 |
| 1988–89 | 4,358 | -17,938 | -13,580 |
| 1989–90 | 4,681 | -21,889 | -17,208 |
| 1990–91 | 3,935 | -22,154 | -18,219 |
| 1991–92 | 4,114 | -20,059 | -15,945 |
| 1992–93 | 3,976 | -18,054 | -14,078 |
| | QUARTERLY — TREND | | |
| *1991–92—* | | | |
| December | 1,056 | -4,969 | -3,913 |
| March | 1,040 | -4,909 | -3,868 |
| June | 1,028 | -4,983 | -3,955 |
| *1992–93—* | | | |
| September | 1,047 | -4,853 | -3,806 |
| December | 1,049 | -4,552 | -3,503 |
| March | 1,000 | -4,339 | -3,339 |
| June | 923 | -4,267 | -3,344 |

*Source:* ABS, *Balance of Payments, Australia* (5302.0).

# Explanatory Notes

The *income* item of the Balance of Payments covers income earned by Australian residents from non-residents (credits) and income earned by non-residents from Australian residents (debits). In broad terms, income relates to the return to the owner of a resource from the use of that resource by either the owner or another economic entity.

In the balance of payments current account, income is divided into three categories: investment income, other property income, and labour and other income.

Investment income refers to the earnings by owners of financial assets and commonly includes such items as dividends and interest. Earnings received by Australian residents from the ownership of foreign financial assets are shown as credits and the earnings received by non-residents from their ownership of Australian financial assets are shown as debits.

Other property income refers to the earnings by owners of intangible assets (i.e. patents, film rights, trademarks) or what is usually termed royalties. Royalties payable by residents to non-residents are debits and royalties received by residents from non-residents are credits.

Labour income refers to wages and salaries earned by residents from non-resident employers (credits) or wages and salaries earned by non-residents from resident employers (debits). Other income includes items such as extraordinary insurance claims.

The sum of the income debits with the income credits gives net income. Where income debits exceed income credits, a net income deficit occurs and where income credits exceed income debits, a net income surplus occurs. Australia has traditionally shown a net income deficit, mainly due to interest payments to non-residents to service our foreign debt.

# Further Reading

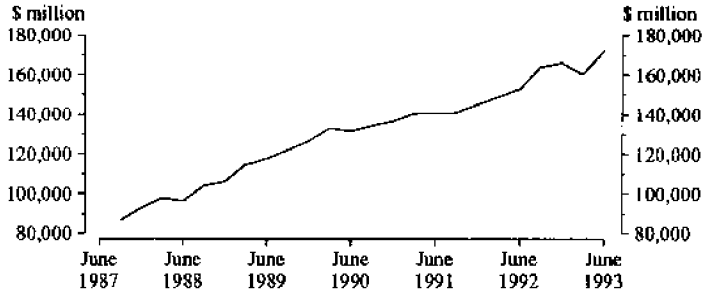
- ☐ *Balance of Payments, Australia* (5302.0)
  Provides detailed quarterly balance of payments tables on current and capital transactions for the latest 10 quarters, including seasonally adjusted and constant price estimates of the current account. Historical summaries for the latest sixteen years are also included.
- ☐ *Balance of Payments, Australia* (5303.0)
  Contains detailed annual balance of payments tables on current and capital account transactions for the latest 6 years.
- ☐ *Balance of Payments, Australia: Concepts, Sources and Methods* (5331.0)
  Provides a comprehensive description of the concepts and structure of the Australian balance of payments, including the data sources and methods used to compile the income statistics as shown in Australian balance of payments publications.

# 2.2.8 Foreign Debt

## Comment

Australia's net foreign debt has been rising steadily. However the difference between gross debt and net debt has decreased slightly since 1990-91, due mainly to the reduction in reserve assets. The ratio of net foreign debt to GDP(I) has continued to rise and the ratio of interest payable to exports of goods and services ratio has continued to fall.

**NET FOREIGN DEBT AT END OF PERIOD**




*Source: ABS 5306.0, Quarterly data*

**LEVELS OF FOREIGN DEBT AT END OF PERIOD AND SELECTED RATIOS**

| *Period* | *Total gross debt(a) ($m)* | *Reserve assets ($m)* | *Lending abroad ($m)* | *Net foreign debt(a)(b) ($m)* | *Ratio of net foreign debt to GDP(I)(c) (%)* | *Interest payable to exports of goods and services(d)(%)* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 123,288 | 20,182 | 6,626 | 96,480 | 32.3 | 15.3 |
| 1988–89 | 147,304 | 20,410 | 9,038 | 117,856 | 34.7 | 17.5 |
| 1989–90 | 162,800 | 21,871 | 9,525 | 131,404 | 35.5 | 21.0 |
| 1990–91 | 178,200 | 24,047 | 13,354 | 140,798 | 37.1 | 19.6 |
| 1991–92 | 189,415 | 22,240 | 14,485 | 152,690 | 39.3 | 16.0 |
| 1992–93 | 208,635 | 20,842 | 15,468 | 172,325 | 42.9 | 12.3 |
| | | | QUARTERLY | | | |
| *1991–92—* | | | | | | |
| December | 183,968 | 25,451 | 13,560 | 144,956 | 38.0 | 18.1 |
| March | 183,547 | 21,314 | 13,359 | 148,875 | 38.7 | 16.9 |
| June | 189,415 | 22,240 | 14,485 | 152,690 | 39.3 | 16.0 |
| *1992–93—* | | | | | | |
| September | 202,217 | 21,566 | 16,488 | 164,163 | 41.9 | 14.9 |
| December | 201,218 | 20,123 | 14,952 | 166,143 | 42.0 | 14.2 |
| March | 195,029 | 18,904 | 15,767 | 160,358 | 40.3 | 13.2 |
| June | 208,635 | 20,842 | 15,468 | 172,325 | 42.9 | 12.3 |

(a) As a result of a change in the methodology used to value non-equity securities on foreign capital markets, levels from December quarter 1991 are not strictly comparable with levels from earlier periods. (b) Equals total gross debt less reserve assets and lending abroad. (c) Ratio derived by expressing net foreign liabilities at a particular date as a percentage of GDP for the year preceding this date. (d) Ratio derived by expressing net investment income payable as a percentage of exports.

*Source:* ABS, *International Investment Position, Australia* (5306.0).

# Explanatory Notes

Foreign debt is the amount borrowed from non-residents by residents of a country. It is distinguished from other components of international investment by the obligation to pay interest and/or repay principal. Components of Australia's international investment position excluded from foreign debt are equity investment, accounts payable or receivable and prepayments made or received.

Gross foreign debt is the total amount borrowed from non-residents. Net foreign debt is equal to gross foreign debt minus official reserve assets and lending by residents of Australia to non-residents.

A country borrows from overseas in order to spend more than it earns. The funds can be used to increase investment or consumption.

The level of debt is often expressed as a percentage of the national accounting measure of domestic production, Gross Domestic Product (GDP). This is done to place the extent of foreign debt in context and to enable valid comparisons over time and between countries. Movements in this ratio indicate the changing significance of foreign debt.

An economy's capacity to pay the costs associated with debt are portrayed by its debt service ratio. The debt service ratio shows the percentage of export earnings being used to meet interest payments on debt. The higher the proportion of export earnings used to service the debt, the lesser the economy's capacity to pay.

The level of foreign debt is important due to its effect on the Balance of Payments. The size of the current account deficit shows the excess of payments we have made to other nations over the payments we have received. Interest payments on debt owing to non-residents add directly to the current account deficit. The captial account shows how much we have had to borrow to finance the excess of payments over receipts.

# Further Reading

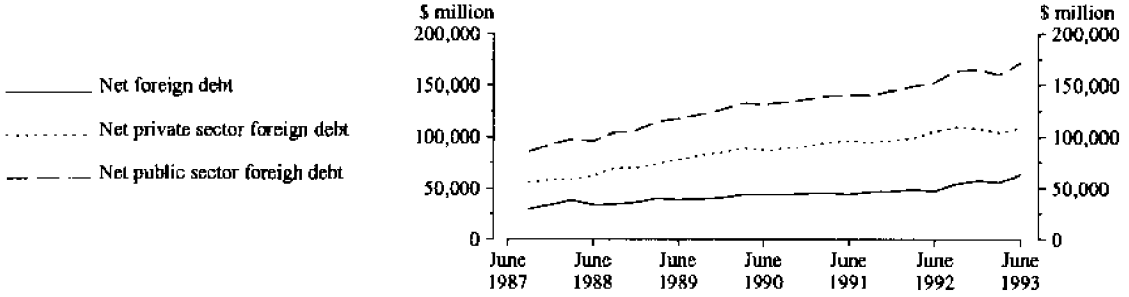
- ☐ *International Investment Position, Australia* (5306.0)
  Contains quarterly detailed analysis of Australia's gross and net foreign debt position by sector. See the feature article in the June 1988 issue for explanation of foreign debt ratios.
- ☐ *International Investment Position, Australia* (5305.0)
  Contains comprehensive annual data on Australia's gross and net foreign debt position by sector.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
  Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

# 2.2.9 Composition of Net Foreign Debt

## Comment

Net foreign debt has been increasing steadily. Both private and public sector net debt have increased over the past 6 years, with private sector debt being the major component of net foreign debt. Private sector debt has grown more slowly than public sector debt over the five years to 30 June 1992. However, the level of public sector debt increased by 33.9% to $63,402m at 30 June 1993 while the level of private sector debt increased by 3.4%. At 30 September 1987, private sector debt comprised 65.2% of net foreign debt compared with 63.2% at 30 June 1993.

**LEVELS OF NET FOREIGN DEBT AT END OF PERIOD**




*Source: ABS 5306.0, Quarterly data*

**LEVELS OF NET FOREIGN DEBT AT END OF PERIOD**
**($ million)**

| *Period* | *Public sector debt (a)* | *Private sector debt* | *Net foreign debt (b)* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 34,155 | 62,325 | 96,480 |
| 1988–89 | 39,471 | 78,385 | 117,856 |
| 1989–90 | 43,844 | 87,560 | 131,404 |
| 1990–91 | 44,543 | 96,256 | 140,798 |
| 1991–92 | 47,354 | 105,336 | 152,690 |
| 1992–93 | 63,402 | 108,922 | 172,325 |
| | QUARTERLY | | |
| *1991–92* | | | |
| December | 47,464 | 97,493 | 144,956 |
| March | 48,884 | 99,991 | 148,875 |
| June | 47,354 | 105,336 | 152,690 |
| *1992–93* | | | |
| September | 54,751 | 109,412 | 164,163 |
| December | 58,004 | 108,138 | 166,143 |
| March | 56,062 | 104,296 | 160,358 |
| June | 63,402 | 108,922 | 172,325 |

(a) Official plus non-official public sector debt. (b) Equals total gross debt less reserve assets and lending abroad.
*Source:* ABS, *International Investment Position, Australia* (5306.0).

# Explanatory Notes

Australia's net foreign debt consists of net foreign debt incurred by the private sector and by the public sector.

Net public sector debt is the gross debt of Commonwealth, State and Local governments (which is termed official sector debt), and government business enterprises (which is termed non-official public sector debt) less official reserve assets and lending abroad by these resident entities.

The official sector debt makes up a relatively small share of Australia's net foreign debt. The largest share of net foreign debt is owed by the private sector and is the result of foreign borrowing by firms or individuals substantially exceeding their lending abroad.

Statistics on the composition of foreign debt are used to analyse the nature of our foreign debt. For example, having a large private sector debt is considered by many as more desirable than having a large official sector debt, since it is assumed that the private sector is more likely to borrow to finance investment rather than consumption.

The composition of foreign debt may also be examined by industry, country, currency and maturity structure.

# Further Reading

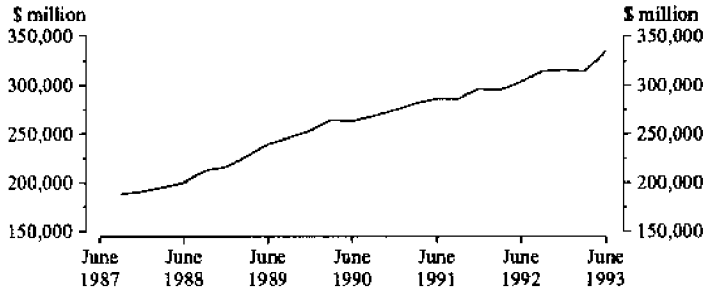
- ☐ *International Investment Position, Australia* (5306.0)
  Contains quarterly detailed analysis of Australia's gross and net foreign debt position. See the feature article in the June 1988 issue for explanation of foreign debt ratios.
- ☐ *International Investment Position, Australia* (5305.0)
  Contains comprehensive annual data on Australia's gross and net foreign debt position.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
  Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

# 2.2.10 Foreign Investment in Australia

## Comment

The level of foreign investment in Australia showed steady growth, increasing 77.8% between the end of September 1987 and the end of June 1993. In the 5 years ending June 1993, an annual average growth rate of 10.9% was recorded.

**LEVEL OF FOREIGN INVESTMENT IN AUSTRALIA AT END OF PERIOD — TOTAL**




*Source: ABS 5306.0, Quarterly data*

**LEVEL OF FOREIGN INVESTMENT IN AUSTRALIA AT END OF PERIOD ($ million)**

| *Period* | *Equity* | *Borrowing (a)* | *Other* | *Total* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 69,666 | 123,288 | 7,454 | 200,408 |
| 1988–89 | 85,066 | 147,304 | 7,405 | 239,775 |
| 1989–90 | 93,538 | 162,800 | 6,425 | 262,763 |
| 1990–91 | 101,497 | 178,200 | 6,615 | 286,311 |
| 1991–92 | 106,773 | 189,415 | 6,893 | 303,082 |
| 1992–93 | 118,686 | 208,635 | 7,047 | 334,368 |
| | | QUARTERLY | | |
| *1991–92—* | | | | |
| December | 104,523 | 183,968 | 7,673 | 296,164 |
| March | 104,301 | 183,547 | 7,086 | 294,934 |
| June | 106,773 | 189,415 | 6,893 | 303,082 |
| *1992–93—* | | | | |
| September | 104,702 | 202,216 | 7,244 | 314,163 |
| December | 106,911 | 201,218 | 7,668 | 315,797 |
| March | 111,600 | 195,029 | 7,345 | 313,975 |
| June | 118,686 | 208,635 | 7,047 | 334,368 |

(a) Levels of borrowing from the end of December quarter 1991 are not strictly comparable with levels for earlier periods because of changes to the method used to value non-equity securities issued on foreign capital markets.

*Source:* ABS, *International Investment Position, Australia* (5306.0).

# Explanatory Notes

Foreign investment in Australia refers to the stock of Australian liabilities owed to non-residents; and capital transactions and other changes which increase or decrease this stock.

Foreign investment can take many forms and involves both public and private sectors of the Australian economy. The type of investment will affect the amount of influence or control the foreign investor has over Australian physical assets.

For example, foreign investment in government securities does not result in foreign control of Australian physical assets, while equity investment in companies may involve the transfer of control.

The concept of direct investment is broadly one of capital invested in an enterprise by an investor having a significant influence, either potentially or actually exercised, over the key policies of the enterprise. Direct investment is defined as any investment between two enterprises (or an individual and an enterprise) in a direct investment relationship.

For foreign investment in Australia, a direct investment relationship is deemed to exist between a resident enterprise and a foreign individual or enterprise having an equity interest in that resident enterprise of at least 10 per cent.

The level and composition of foreign investment in Australia are important in their own right in assessing, for example, the effectiveness of government policy, changing finance patterns and relationships with other countries. They are also important in terms of their impact on the balance of payments. For example, earned income by non-residents on their investments in Australia are payments we make to other nations and cause a rise in a current account deficit or a decline in a current account surplus.

# Further Reading

- ☐ *International Investment Position, Australia* (5306.0)
  Contains quarterly detailed analysis of foreign investment in Australia, by institutional sector and type of investment.

- ☐ *International Investment Position, Australia* (5305.0)
  Contains comprehensive annual data on foreign investment in Australia, by institutional sector and type of investment.

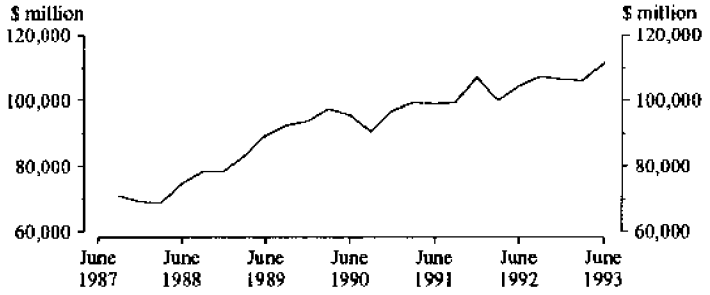
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
  Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

# 2.2.11 Australian Investment Abroad

## Comment

The level of Australian investment abroad increased steadily between March 1988 and March 1990. From March 1990 to June 1993 Australian investment abroad generally increased with a series of falls in investment being offset by increases in subsequent quarters.

**LEVEL OF AUSTRALIAN INVESTMENT ABROAD AT END OF PERIOD — TOTAL**




*Source: ABS 5306.0, Quarterly data*

**LEVEL OF AUSTRALIAN INVESTMENT ABROAD AT END OF PERIOD ($ million)**

| *Period* | *Equity* | *Reserve assests and lending (a)* | *Other* | *Total* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 41,531 | 26,808 | 6,353 | 74,692 |
| 1988–89 | 52,720 | 29,448 | 7,278 | 89,446 |
| 1989–90 | 56,411 | 31,396 | 7,857 | 95,664 |
| 1990–91 | 53,893 | 37,401 | 7,666 | 98,960 |
| 1991–92 | 61,117 | 36,725 | 6,590 | 104,432 |
| 1992–93 | 67,880 | 36,310 | 7,194 | 111,384 |
| | | QUARTERLY | | |
| *1991–92* | | | | |
| December | 61,028 | 39,011 | 7,084 | 107,124 |
| March | 58,334 | 34,673 | 6,934 | 99,941 |
| June | 61,117 | 36,725 | 6,590 | 104,432 |
| *1992–93—* | | | | |
| September | 62,500 | 38,054 | 6,726 | 107,279 |
| December | 64,470 | 35,075 | 6,932 | 106,476 |
| March | 64,582 | 34,671 | 6,752 | 106,005 |
| June | 67,880 | 36,310 | 7,194 | 111,384 |

(a) Levels of lending from the end of December quarter 1991 are not strictly comparable with levels for earlier periods because of change in the method used to value non-equity securities issued on foreign capital markets.

*Source:* ABS, *International Investment Position, Australia* (5306.0).

# Explanatory Notes

Australian investment abroad refers to the stock of foreign financial assets (claims on non-residents) owned by Australian residents; and capital transactions and other changes which increase or decrease this stock.

Australian's invest in foreign countries for a variety of reasons including: the securing and maintenance of market share, sales promotion, effective marketing, avoidance of tariffs and import restrictions, securing of raw materials and to take advantage of cheaper inputs or higher rates of return on investments or to spread their risk.

Earnings from Australian investment abroad form a component of the current account of the balance of payments. The income earned by Australia's investments abroad is income payable to Australia. A rise in earnings increases a current account surplus or reduces a current account deficit.

# Further Reading

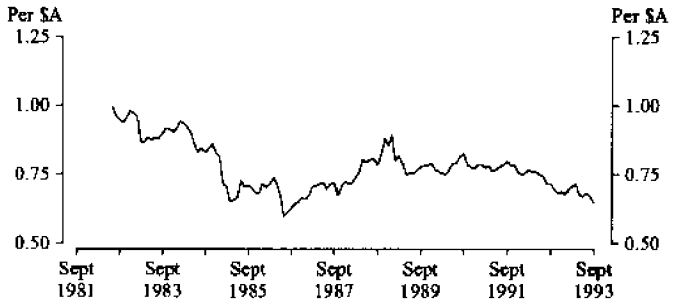
- ☐ *International Investment Position, Australia* (5306.0)
  Contains quarterly detailed analysis of Australian Investment Abroad, by institutional sector and type of investment.
- ☐ *International Investment Position, Australia* (5305.0)
  Contains comprehensive annual data on Australian Investment Abroad, by institutional sector and type of investment.
- ☐ *Foreign Investment, Australia: Summary of Concepts, Sources and Methods* (5355.0)
  Presents a summary description of the concepts underlying foreign investment statistics and of the data sources and methods used to compile the statistics.

# 2.2.12 Exchange Rates

## Comment

The value of the Australian dollar ($A), as measured against the United States dollar ($US), depreciated sharply after January 1982 to $0.60 in July 1986. The very sharp depreciation in 1984 followed the floating of the Australian dollar. Within three months of reaching $0.89, the $A had fallen to $0.75 in May 1989. Since the January 1989 peak, the $A has generally continued to decline against the $US, reaching $0.65 in September 1993.

**UNITED STATES DOLLAR PER AUSTRALIAN DOLLAR**




*Source: ABS 5302.0, Quarterly data*

**EXCHANGE RATES: CURRENCY PER AUSTRALIAN DOLLAR (a)**

| *Period* | *United States dollar* | *United Kingdom pound* | *German mark* | *Japanese yen* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 0.79 | 0.46 | 1.44 | 105.17 |
| 1988–89 | 0.76 | 0.49 | 1.48 | 108.79 |
| 1989–90 | 0.79 | 0.45 | 1.32 | 120.41 |
| 1990–91 | 0.77 | 0.47 | 1.38 | 106.19 |
| 1991–92 | 0.75 | 0.40 | 1.14 | 94.05 |
| 1992–93 | 0.67 | 0.45 | 1.14 | 71.54 |
| | | MONTHLY | | |
| *1992–93* | | | | |
| July | 0.74 | 0.39 | 1.10 | 94.69 |
| August | 0.71 | 0.36 | 1.01 | 88.00 |
| September | 0.71 | 0.40 | 1.01 | 85.29 |
| October | 0.70 | 0.45 | 1.07 | 85.64 |
| November | 0.68 | 0.45 | 1.09 | 85.08 |
| December | 0.69 | 0.46 | 1.11 | 85.81 |
| January | 0.68 | 0.45 | 1.08 | 84.42 |
| February | 0.70 | 0.49 | 1.14 | 81.92 |
| March | 0.71 | 0.47 | 1.14 | 81.51 |
| April | 0.71 | 0.45 | 1.12 | 79.06 |
| May | 0.68 | 0.44 | 1.08 | 72.60 |
| June | 0.67 | 0.45 | 1.14 | 71.54 |
| *1993–94* | | | | |
| July | 0.68 | 0.46 | 1.19 | 72.41 |
| August | 0.67 | 0.45 | 1.12 | 69.93 |
| September | 0.65 | 0.43 | 1.05 | 67.85 |

(a) Rates are for the last trading day of the reference period.
*Source:* RBA, *Reserve Bank of Australia Bulletin.*

# Explanatory Notes

The price of one currency against another is known as the exchange rate. For example, at the end of September 1992 one Australian dollar would purchase 0.71 United States dollars, 0.40 United Kingdom pounds, and 85 Japanese yen. Similarly, 0.71 United States dollars would purchase one Australian dollar. Therefore, the exchange rate can be used as a measure of a currency's value.

Exchange rates vary over time. When the exchange rate for the Australian dollar against another currency rises (appreciates) it will buy more of the foreign currency.

Exchange markets in which currencies are bought and sold facilitate world trade. When selling goods and services abroad Australian residents receive foreign currencies which can be used as payment for imports of goods and services.

The value of the exchange rate affects the price that Australia receives for its exports and pays for its imports. Generally when the exchange rate for a country's currency appreciates the price residents pay for imports declines, while for non-residents our exports become more expensive. Alternatively, a currency depreciation will cause the price of imports into Australia to rise and lower the international price of our exports. These changes can affect the demand for imports and exports and, hence, the balance of payments.

# Further Reading

- ☐ *Average Monthly Exchange Rates* (5654.0)
  Available by subscription. Contains averages of daily exchange rates for approximately 35 currencies, including both the buying and selling rates, and final day trading values against major currencies.

- ☐ *Balance of Payments, Australia* (5302.0)
  Contains quarterly average and end of quarter exchange rates for the latest 10 quarters of the major currencies.

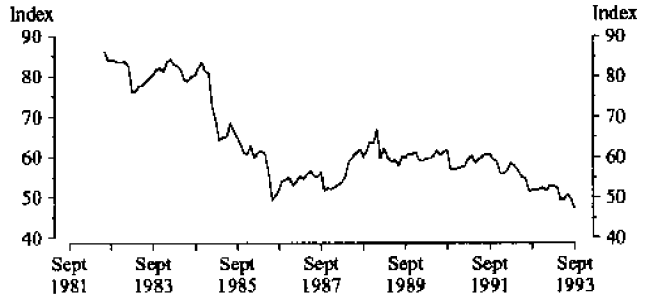
- ☐ *Balance of Payments, Australia* (5303.0)
  Contains yearly average and end of year exchange rates for the latest 6 years of the major currencies.

# 2.2.13 Trade-weighted Index

## Comment

The value of the Australian dollar ($A), as measured against other currencies by the trade-weighted index fell sharply following the floating of the Australian dollar in 1984. This marked the beginning of a volatile period but the index has declined overall to reach its lowest level (49.5) at the end of the June quarter 1993. The previous low (51.7) was recorded at the end of the September quarter 1992.

**TRADE-WEIGHTED INDEX**
**(MAY 1970 = 100)**




*Source: ABS 5302.0, Quarterly data*

**TRADE WEIGHTED INDEX AND UNITED STATES DOLLAR EXCHANGE RATE AT END OF PERIOD (a)**

| *Period* | *Trade weighted index (b)* | *United States dollar (per $A)* |
|---|---|---|
| | ANNUAL | |
| 1987–88 | 59.80 | 0.79 |
| 1988–89 | 59.40 | 0.76 |
| 1989–90 | 61.60 | 0.79 |
| 1990–91 | 59.70 | 0.77 |
| 1991–92 | 55.20 | 0.75 |
| 1992–93 | 49.55 | 0.67 |
| | QUARTERLY | |
| *1991–92—* | | |
| December | 55.9 | 0.76 |
| March | 58.6 | 0.77 |
| June | 55.2 | 0.75 |
| *1992–93—* | | |
| September | 51.7 | 0.71 |
| December | 52.4 | 0.69 |
| March | 52.9 | 0.71 |
| June | 49.5 | 0.67 |

(a) Rates are for the last trading day of the reference period. (b) May 1970 = 100.0.
*Sources:* ABS, *Balance of Payments, Australia* (5301.0) and RBA, *Reserve Bank of Australia Bulletin.*

# Explanatory Notes

The Australian exchange rate is usually quoted in terms of its exchange with the United States dollar ($US).

However to get a more comprehensive indication of Australia's exchange rate a trade-weighted index (TWI) is used. The TWI measures changes in our currency relative to the currencies of our main trading partners. Taken into account is the relative importance of trade occurring between each country and Australia. Over time, international trade patterns tend to alter, making it necessary to modify the weights to reflect the new trade patterns. The last update by the Reserve Bank of Australia (RBA) occurred in October 1992.

The RBA's trade-weighted index includes 23 countries that account for at least 90 per cent of Australia's two-way trade.

The TWI is an absolute number and does not express the price of any one currency in another. Calculation of the TWI is based on the exchange rates for the $A against the chosen currencies at 4 p.m. for each trading day.

# Further Reading

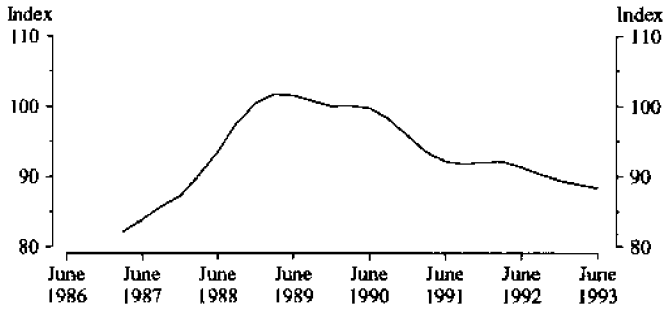
- ☐ *Balance of Payments, Australia* (5302.0)
  Contains the quarterly average and end of quarter trade-weighted index for the latest 10 quarters.

- ☐ *Balance of Payments, Australia* (5303.0)
  Contains the yearly average and end of year trade-weighted index for the latest 6 years.

## Comment

Australia's terms of trade for goods and services, in trend terms, increased rapidly between the March quarter 1987 and the March quarter 1989. Since then, Australia's terms of trade have declined in most quarters with the result that the terms of trade in June quarter 1993 had fallen by about 13% from the peak in March quarter 1989.

**TERMS OF TRADE FOR GOODS AND SERVICES, TREND (1989–90 = 100)**




*Source: ABS 5206.0, Quarterly data*

**TERMS OF TRADE FOR GOODS AND SERVICES (1989–90 = 100.0)**

| *Period* | *Terms of trade* |
|---|---|
| ANNUAL | |
| 1987–88 | 89.4 |
| 1988–89 | 100.7 |
| 1989–90 | 100.0 |
| 1990–91 | 94.9 |
| 1991–92 | 92.2 |
| 1992–93 | 89.1 |
| QUARTERLY — TREND | |
| *1991–92—* | |
| December | 92.0 |
| March | 92.1 |
| June | 91.3 |
| *1992–93—* | |
| September | 90.3 |
| December | 89.5 |
| March | 88.9 |
| June | 88.4 |

*Source:* ABS, *Australian National Accounts: National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

A country's terms of trade shows a country's export prices relative to its import prices. It is expressed as an index, which is calculated by dividing an index of prices received for exports by an index of prices paid for imports.

A rise in the index implies an improvement in a country's terms of trade, so it becomes possible to purchase more imports with the same amount of exports. Improvement in a country's terms of trade occurs when export prices rise, when import prices fall or when export prices rise at a faster rate than import prices, or when export prices fall at a slower rate than import prices.

A fall in the index occurs when a country's terms of trade deteriorates. It is necessary to export more to purchase the same amount of imports. A deterioration occurs when import prices rise, when export prices fall or when import prices rise at a faster rate than export prices, or when import prices fall at a slower rate than export prices.

# Further Reading

- ☐ *Balance of Payments, Australia* (5302.0)
  Provides estimates of the price indexes of exports and imports and also a measure of terms of trade for the latest 10 quarters. See the feature article in the September 1990 issue for an explanation of the measurement of Australia's terms of trade.

- ☐ *Foreign Trade, Australia: Merchandise Exports and Imports* (5410.0)
  Contains comparative time series for the latest 6 years covering export and import price index information as well as terms of trade statistics.

- ☐ *Australian Economic Indicators* (1350.0)
  See the feature article in the December 1991 issue on the review of the Import Price Index.

- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Provides estimates of the terms of trade back to September quarter 1984. A "Technical Note" in the September quarter 1993 issue explains the concept of "real gross domestic income" which involves adjusting GDP for the effects of changes in the terms of trade.

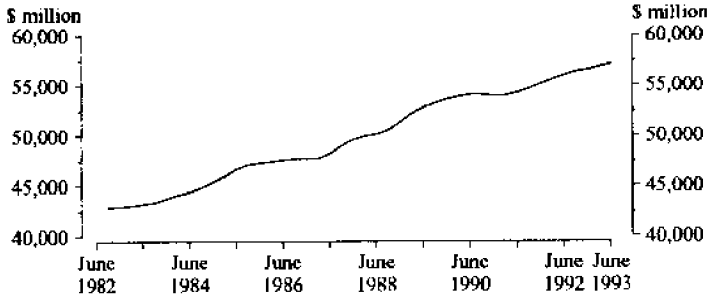
# Section 2.3
# Domestic Consumption and Investment

# 2.3.1 Private Final Consumption Expenditure

## Comment

Private final consumption expenditure in trend estimate constant price terms has shown steady growth during the 1980s and early 1990s. From September quarter 1982 to June quarter 1993, decreases in private final consumption expenditure were recorded in only three quarters, December 1986, September 1990 and December 1990.

**TOTAL PRIVATE FINAL CONSUMPTION EXPENDITURE AT AVERAGE 1989–90 PRICES, TREND**




*Source: ABS 5206.0, Quarterly data*

**SELECTED COMPONENTS OF PRIVATE FINAL CONSUMPTION EXPENDITURE AT AVERAGE 1989–90 PRICES ($ million)**

| *Period* | *Food* | *Clothing, fabrics and footwear* | *Health* | *Dwelling rent* | *Total* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 31,142 | 12,947 | 13,690 | 36,156 | 199,140 |
| 1988–89 | 31,133 | 12,821 | 14,471 | 37,441 | 206,750 |
| 1989–90 | 32,130 | 12,482 | 15,019 | 38,810 | 214,830 |
| 1990–91 | 32,968 | 12,198 | 15,535 | 39,956 | 216,127 |
| 1991–92 | 34,553 | 12,660 | 16,065 | 40,962 | 221,388 |
| 1992–93 | 35,371 | 12,674 | 17,071 | 42,161 | 226,834 |
| | | QUARTERLY TREND | | | |
| *1991–92—* | | | | | |
| December | 8,559 | 3,144 | 3,980 | 10,208 | 55,115 |
| March | 8,699 | 3,192 | 4,021 | 10,272 | 55,581 |
| June | 8,828 | 3,195 | 4,105 | 10,342 | 56,024 |
| *1992–93—* | | | | | |
| September | 8,877 | 3,179 | 4,167 | 10,419 | 56,327 |
| December | 8,834 | 3,167 | 4,220 | 10,500 | 56,545 |
| March | 8,803 | 3,174 | 4,308 | 10,581 | 56,835 |
| June | 8,815 | 3,183 | 4,407 | 10,661 | 57,167 |

*Source:* ABS, *Australian National Accounts: National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

Private final consumption expenditure measures current expenditure by households and producers of private non-profit services to households, such as charities, clubs, trade unions and private schools. The outlays covered include expenditure on consumer durables such as cars, furniture and long lasting household appliances; consumer semi-durables such as clothing and other appliances; single use goods such as food; and services of all kinds, for example hairdressing and public transport.

Private final consumption expenditure makes up over half of GDP(E) and is the largest component of aggregate demand. Consequently, changes in private final consumption expenditure from one period to another have a significant impact on overall changes in GDP(E). A fall in demand for consumer goods and services will be reflected in falling private final consumption expenditure. On the other hand a rise in demand for consumer goods and services will be reflected in increasing private final consumption expenditure.

The level of private final consumption expenditure is dependent on a number of factors including: present and anticipated future levels of income, expenditure and saving habits, relative price levels and the rate of inflation.

Economic policy makers may attempt to influence the level of private final consumption expenditure to dampen or stimulate the economy by altering the level of household disposable income through taxation or wages policy.

# Further Reading

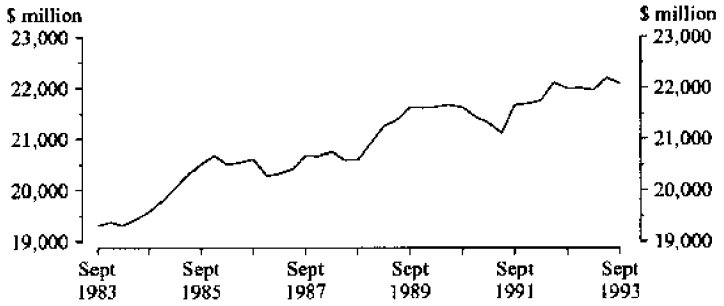
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5204.0)
  Contains annual data for the last 12 years of the components of private final consumption expenditure.
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains quarterly data for the last 9 quarters of the components of private final consumption expenditure.
- ☐ *Australian National Accounts, Concepts, Sources and Methods*, (5216.0)
  Contains a detailed explanation of the system of Australian national accounts outlining major concepts and definitions.

# 2.3.2 Retail Turnover

## Comment

Between 1983 and 1993 turnover of retail establishments in seasonally adjusted constant price terms, has recorded variable movement with an overall upward trend. Following seven consecutive quarterly increases to the December quarter 1985, the series remained relatively unchanged from $20,682.2m in the December quarter 1985 to $20,595.9m in the September quarter 1988. Since then, a slow upward trend has appeared. More recently, retail turnover alternately increased and decreased from a low of $21,750.6m in March quarter 1992 to a high of $22,204.7m in June quarter 1993.

**TURNOVER OF RETAIL ESTABLISHMENTS AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 8501.0, Quarterly data*

**TURNOVER OF RETAIL ESTABLISHMENTS AT AVERAGE 1989-90 PRICES ($ million)**

| *Period* | *Total* |
|---|---|
| ANNUAL | |
| 1987–88 | 83,052.4 |
| 1988–89 | 84,410.1 |
| 1989–90 | 86,659.7 |
| 1990–91 | 85,357.2 |
| 1991–92 | 87,289.2 |
| 1992–93 | 88,152.5 |
| QUARTERLY — SEASONALLY ADJUSTED | |
| *1991–92*— | |
| March | 21,750.6 |
| June | 22,108.0 |
| *1992–93*— | |
| September | 21,981.0 |
| December | 21,991.4 |
| March | 21,956.5 |
| June | 22,204.7 |
| *1993–94*— | |
| September | 22,078.3 |

*Source:* ABS, *Retail Trade, Australia* (8501.0).

# Explanatory Notes

This series presents estimates of turnover for retail (i.e. grocers, clothing stores, department stores, etc.) and selected service businesses (such as cafes and restaurants, hotels and licensed clubs, etc.) for each State and Territory. Turnover includes retail sales, wholesale sales, takings from repairs, meals and hiring of goods (except for rent, leasing and hiring of land and buildings) and commissions from agency activity (e.g. commissions received from collecting dry cleaning).

The data are provided in original terms and in seasonally adjusted terms, the latter removing the estimated effects of normal seasonal variation, such as Christmas or Easter trading, from the series. Seasonal adjustment also takes account of trading effects arising from the varying length of each month and the varying number of Fridays, Saturdays , Sundays, etc. during the month. Seasonally adjusted data still contain the effects of irregular influences such as strikes. These irregular influences are significantly dampened in trend series of retail turnover produced by the ABS.

To enable the analysis of retail activity in 'real terms', estimates of retail turnover at constant (average 1989–90) prices are compiled each quarter. This removes the effects of price increases over time.

The retail trade series dates back to 1965 and is one of the main economic indicator series of the ABS. It provides economists with an indication of the current economic picture and enables them to make assessments, in conjunction with other economic indicators, of the direction the Australian economy is taking.

# Further Reading

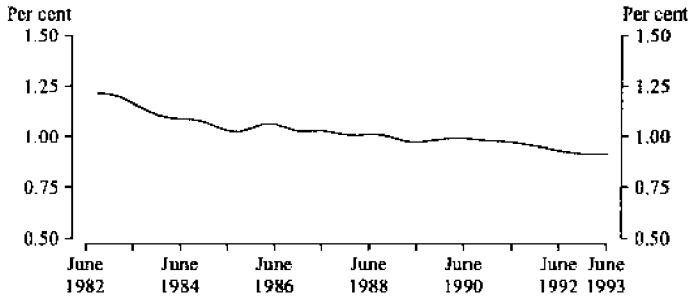
- ☐ *Retail Trade, Australia* (8501.0)
  Contains monthly estimates of turnover for retail establishments for Australia, each State and Territory, and by industry.
- ☐ *Retail Trade, Commodity Details 1988–89 and 1989–90, Australia* (8512.0)
  Contains details by industry of the value of retail sales by commodity item.
- ☐ *Australian Economic Indicators* (1350.0)
  See the feature article in the August 1991 publication for a time series decomposition of retail trade.

# 2.3.3 Private Non-Farm Stocks to Sales Ratio

## Comment

The trend private non-farm stocks to sales ratio has declined steadily from September 1982 to June 1993. This decline was more pronounced between the December quarter 1982 and the September quarter 1985. One of the likely factors behind the general decrease in the non-farm stocks to sales ratio is the adoption by businesses of more cost-effective stock management systems.

**PRIVATE NON FARM STOCKS TO SALES RATIO, TREND**




*Source: ABS 5206.0, Quarterly data*

**PRIVATE NON-FARM STOCKS TO SALES RATIO**
**($ million)**

| *Period* | *Private non-farm stock levels* | *Sales (derived)* | *Private non-farm stocks to sales ratio* |
|---|---|---|---|
| | QUARTERLY — TREND | | |
| *1991–92—* | | | |
| December | 55,725 | 58,413 | 0.954 |
| March | 55,548 | 58,875 | 0.943 |
| June | 55,558 | 59,586 | 0.932 |
| *1992–93—* | | | |
| September | 55,690 | 60,411 | 0.922 |
| December | 56,068 | 61,137 | 0.917 |
| March | 56,542 | 61,733 | 0.916 |
| June | 57,042 | 62,219 | 0.917 |

*Sources:* ABS, *Australian National Accounts: National Income, Expenditure and Product* (5206.0) and *Stocks, Manufacturers' Sales and Expected Sales, Australia* (5629.0).

# Explanatory Notes

The private non-farm stocks to sales ratio gives the indication of the value of stocks (or inventories) held by private sector businesses other than those in farming compared with sales in a given period of time.

Private non-farm stocks are defined to include goods for sale (either of own production or purchased for resale), work in progress, raw materials and stores of all non-farm industries. All private non-farm industries are covered, with the major stock-holding industries being manufacturing, wholesale trade, retail trade and mining. Sales are defined as private final consumption expenditure on goods plus private fixed capital expenditure on dwellings, non-dwelling construction and equipment plus public gross fixed capital expenditure plus exports of non-rural goods.

Private non-farm stock levels may fluctuate significantly with changes in economic activity. Such periodic fluctuations in the level of non-farm stocks are often referred to as the 'stocks cycle'. It should be noted that there has been a general decline in the private non-farm stocks to sales ratio since the early 1980s as businesses have adopted more cost-effective stock management systems.

The private non-farm stocks to sales ratio is an important indicator of future business intentions. An increase in the ratio may indicate that businesses have decided to build up stocks in anticipation of increased sales. On the other hand, the ratio may fall as businesses decide to run down their stocks if sales are expected to weaken.

Of course, at times there will also be some unplanned stock build-ups or run-downs. If sales are higher than expected, then stock levels will be less than planned. Conversely, if sales are lower than anticipated, then there will be an increase in stock holdings in the short term. In this way, stocks act as the buffer between changes in demand and the supply of goods available to meet that demand.

# Further Reading

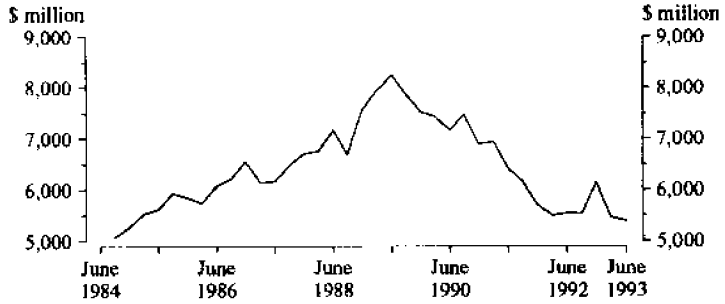
- ☐ *Australian National Accounts: National Income, Expenditure and Product* (5206.0)
  Contains stocks to sales ratio in 1989 90 seasonally adjusted and trend terms.

# 2.3.4 Private New Capital Expenditure

## Comment

Business confidence grew strongly during the 1980s with actual new private capital expenditure, seasonally adjusted in constant prices, growing from $5,083m in the September quarter 1984 to $8,243m in the June quarter 1989. In the 4 years since the June quarter 1989, seasonally adjusted private new capital expenditure has fallen by over one third to $5,385m.

**ACTUAL PRIVATE NEW CAPITAL EXPENDITURE AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 5626.0, Quarterly data*

**ACTUAL PRIVATE NEW CAPITAL EXPENDITURE AT AVERAGE 1989–90 PRICES ($ million)**

| *Period* | *Buildings and structures* | *Equipment, plant and machinery* | *Total* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 10,526 | 16,603 | 27,129 |
| 1988–89 | 11,637 | 18,832 | 30,469 |
| 1989–90 | 11,452 | 18,550 | 30,002 |
| 1990–91 | 10,670 | 16,976 | 27,646 |
| 1991–92 | 8,070 | 14,818 | 22,888 |
| 1992–93 | 7,475 | 15,084 | 22,558 |
| | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | |
| December | 1,988 | 3,719 | 5,707 |
| March | 1,880 | 3,610 | 5,491 |
| June | 1,920 | 3,617 | 5,537 |
| *1992–93—* | | | |
| September | 1,988 | 3,531 | 5,519 |
| December | 1,940 | 4,194 | 6,134 |
| March | 1,733 | 3,725 | 5,457 |
| June | 1,775 | 3,610 | 5,385 |

*Source:* ABS, *Private New Capital Expenditure, Australia, Actual and Expected Expenditure* (5626.0).

# Explanatory Notes

Private new capital expenditure is also referred to as business fixed investment. It is defined as all spending by Australian business on new fixed tangible assets. The quarterly ABS business survey produces data by industry and by State.

Investment spending is classified into two types of assets: buildings and structures; and equipment, plant and machinery. The level of investment in these assets has a major impact on the future productive capacity of the economy.

In the Australian national accounts, the measure of fixed investment used in the expenditure based method of determining gross domestic product is referred to as gross fixed capital expenditure. This is equal to new capital expenditure plus acquisitions of second hand assets, minus disposals of second hand assets.

As well as collecting details of actual expenditure, the survey also collects data from businesses on expected capital expenditure for periods up to 18 months in advance.

Investment is largely a reflection of the level of business confidence about future demand. Capital expenditure may be for assets which will increase production, increase efficiency or replace old equipment.

Businesses need to take into account many factors when planning their investment. Data analysts therefore see this series as a very useful summary indicator.

# Further Reading

- ☐ *Private New Capital Expenditure, Australia. Actual and Expected Expenditure* (5626.0)
  Contains estimates of actual and new capital expenditure by type of asset and selected industry.

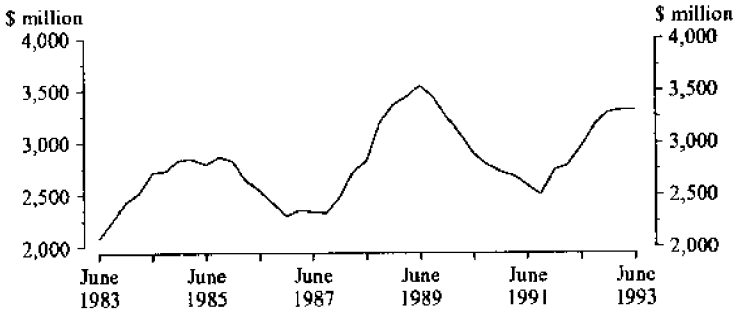
- ☐ *State Estimates of Private New Capital Expenditure* (5646.0)
  Contains a break-up by State of the Australian estimates contained in the above publication (5626.0).

# 2.3.5 Residential Building Construction

## Comment

In seasonally adjusted constant price terms, the value of new residential building work done has experienced three peaks. These were $2,863m in September quarter 1985, $3,547m in June quarter 1989 and most recently, the value of work done has risen to $3,313m in March 1993.

**VALUE OF WORK DONE ON NEW RESIDENTIAL BUILDINGS AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 8731.0, Quarterly data*

**NEW RESIDENTIAL BUILDING APPROVALS AND COMMENCEMENTS AT AVERAGE 1989–90 PRICES**

| *Period* | *Number of new dwelling unit approvals* | *Value of work done ($m)* | *Number of new dwelling unit commencements* | *Value of work commenced ($m)* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 151,168 | 10,335 | 135,812 | 11,281 |
| 1988–89 | 186,358 | 13,516 | 174,963 | 14,554 |
| 1989–90 | 140,016 | 12,681 | 137,702 | 11,289 |
| 1990–91 | 126,046 | 10,795 | 121,346 | 9,901 |
| 1991–92 | 150,201 | 10,969 | 140,247 | 11,318 |
| 1992–93 | 170,557 | 13,073 | 161,261 | 13,213 |
| | | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | | |
| December | 35,909 | 2,738 | 33,803 | 2,766 |
| March | 35,467 | 2,780 | 35,496 | 2,872 |
| June | 41,662 | 2,963 | 38,466 | 3,103 |
| *1992–93—* | | | | |
| September | 42,313 | 3,167 | 39,251 | 3,168 |
| December | 43,043 | 3,289 | 39,197 | 3,230 |
| March | 40,759 | 3,313 | 40,962 | 3,366 |
| June | 44,442 | 3,312 | 41,971 | 3,460 |

*Source:* ABS, *Building Approvals, Australia* (8731.0) and *Building Activity, Australia* (8752.0).

# Explanatory Notes

A residential building is defined as a building which is predominantly used for long-term residential purposes, and can contain one dwelling unit (i.e. house) or more than one dwelling unit (i.e. flats).

Residential building construction depends on the demand that exists for new places of residence. When the population is expanding rapidly the level of residential construction needs to be increased in order to meet the demand for new homes.

The willingness of individuals and investors to undertake residential building construction is affected by the interest rate and the economic climate. During times of economic expansion individuals and investors are more willing to invest in residential construction than during periods of economic decline.

When construction is being financed by borrowed funds the interest rate affects the cost of investing. When interest rates are high, investors and developers need to determine whether the return on their investment will make it viable to proceed with construction. Measures of the return on their investment are house prices (for those who sell) and the level of rents (for those who rent dwellings). Other factors which affect investment are the cost of land, labour and building materials. All of these are affected by the prevailing economic climate.

Residential construction statistics are used by both government and private organisations. One of these organisations is the Indicative Planning Council for the housing industry which uses building statistics to assist in forecasting the demand and supply of new housing. The Government uses the Council's forecasts as one input to determine future policy adjustments regarding residential construction or the economy in general.

The housing sector is seen to be a leading indicator of the general state of the economy. Because housing is seen as a basic requirement for all Australians, there has been a continuing demand for more houses as the population has grown. As economic conditions become more favourable, the housing sector is one of the first areas to pick up as it meets the pent-up demand which generally occurs.

# Further Reading

- ☐ *Building Approvals, Australia* (8731.0)
  Contains monthly information on the number of dwelling units and the value of residential building approved for the private and public sectors.

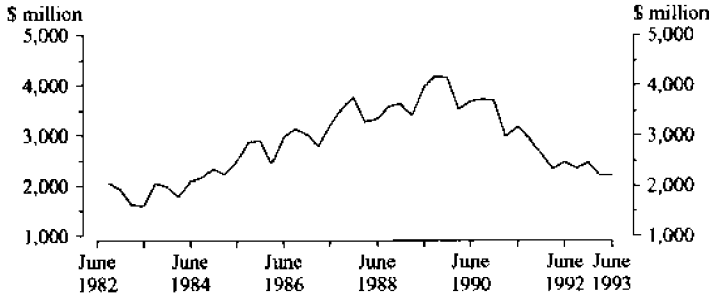
- ☐ *Building Activity, Australia* (8752.0)
  Contains quarterly data on the number of dwelling units and the value of residential buildings by private and public sector ownership for Australia and each State and Territory.

# 2.3.6 Non-residential Building Activity

## Comment

The value of non-residential building activity in seasonally adjusted constant price terms has recorded a variable movement with an underlying upward trend which peaked in the September quarter 1989. Since then, non-residential building activity has been declining at a faster rate than that at which it rose prior to the September quarter 1989. The most significiant decrease in non-residential building activity was recorded between the December quarter 1989 and the March quarter 1990.

**VALUE OF NON-RESIDENTIAL BUILDING ACTIVITY AT AVERAGE 1989–90 PRICES, SEASONALLY ADJUSTED**




*Source: ABS 8752.0, Quarterly data*

**VALUE OF NON-RESIDENTIAL BUILDING ACTIVITY AT AVERAGE 1989–90 PRICES ($ million)**

| *Period* | *Private sector* | *Public sector* | *Total* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 10,081 | 3,825 | 13,906 |
| 1988–89 | 11,254 | 3,337 | 14,590 |
| 1989–90 | 12,000 | 3,548 | 15,548 |
| 1990–91 | 9,689 | 3,899 | 13,588 |
| 1991–92 | 6,945 | 3,441 | 10,386 |
| 1992–93 | 6,122 | 3,140 | 9,263 |
| | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | |
| December | 1,683 | 848 | 2,530 |
| March | 1,714 | 844 | 2,558 |
| June | 1,671 | 771 | 2,445 |
| *1992–93—* | | | |
| September | 1,536 | 744 | 2,277 |
| December | 1,626 | 737 | 2,362 |
| March | 1,494 | 953 | 2,439 |
| June | 1,459 | 733 | 2,197 |

*Source:* ABS, *Construction Activity at Constant Prices, Australia* (8782.0).

# Explanatory Notes

Non-residential buildings are defined as buildings other than residential buildings and include hotels, shops, factories, offices, etc. The level of non-residential building construction is an indicator of the level of investment and activity occurring in the economy. Non-residential buildings are used by businesses (both private and public) who participate in economic activity and services (hospitals, schools, etc.) which are essential for the community.

Construction of non-residential buildings varies with the demand for particular types of buildings and with the level of economic activity. While overall economic conditions generally determine whether the return on an investment will be greater than the costs of investment, the demand for particular types of buildings varies considerably.

Thus the demand for construction of new hotels depends on the perceived level of future tourism activity, the demand for factories on the state of the manufacturing industry and the demand for shops and offices on the current (over or under) supply of these buildings and some feel for future demand. The demand for construction of community and public services (hospitals, schools, etc.) tends to be more constant and more affected by government budget considerations.

Since most construction activities are funded by borrowed funds, the rate of interest could also affect the level of non-residential building construction. The interest rate is part of the cost of construction and could encourage investment in non-residential buildings when low and discourage investment when high. However, interest rates remained at a fairly high level throughout the period of growth in non-residential building, but have fallen during the 1990s. Non-residential building has also been falling in this latter period, suggesting that activity is more dependent on demand, or supply.

The level of non-residential building is used by public and private sector bodies as a measure of economic activity and an indicator of business confidence and growth.

# Further Reading

- ☐ *Building Approvals, Australia* (8731.0)
  Contains monthly information on the number and value of non-residential building by class of building approved.

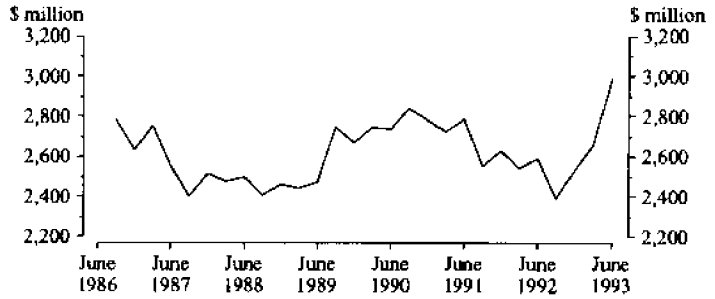
- ☐ *Building Activity, Australia* (8752.0)
  Contains quarterly data on the value of non-residential buildings by class of building by private and public sector ownership for Australia and each State and Territory.

# 2.3.7 Engineering Construction

## Comment

The value of engineering construction activity, seasonally adjusted constant price, fell to $2,402.6m in September quarter 1987 and remained low for the next seven quarters before recovering to $2,746.3m in the September quarter 1989. Activity began to decrease again in September quarter 1991, eventually falling to $2,391.6m in September quarter 1992. Subsequent rapid growth saw the value of engineering construction activity rise to the highest estimate ever recorded since the series commenced at $2,993.7m in June quarter 1993.

**ENGINEERING CONSTRUCTION ACTIVITY**
**VALUE OF WORK DONE AT AVERAGE 1989–90 PRICES**
**SEASONALLY ADJUSTED**




*Source: ABS 8762.0, Quarterly data*

**ENGINEERING CONSTRUCTION ACTIVITY**
**VALUE OF WORK DONE AT AVERAGE 1989–90 PRICES**
**($ million)**

| *Period* | *Total private sector* | *Total public sector* | *Total* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 4,944 | 4,938 | 9,883 |
| 1988–89 | 4,816 | 4,982 | 9,798 |
| 1989–90 | 5,115 | 5,812 | 10,927 |
| 1990–91 | 5,423 | 5,714 | 11,137 |
| 1991–92 | 5,427 | 4,903 | 10,330 |
| 1992–93 | 5,334 | 5,276 | 10,610 |
| | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | |
| December | 1,389 | 1,240 | 2,629 |
| March | 1,282 | 1,263 | 2,545 |
| June | 1,347 | 1,243 | 2,590 |
| *1992–93—* | | | |
| September | 1,209 | 1,183 | 2,392 |
| December | 1,239 | 1,297 | 2,535 |
| March | 1,372 | 1,283 | 2,655 |
| June | 1,517 | 1,477 | 2,994 |

*Source:* ABS, *Construction Activity at Constant Prices, Australia* (8782.0).

# Explanatory Notes

Engineering construction can be defined as infrastructure construction. It includes construction other than buildings, e.g. roads, bridges, railways, telecommunications, water and sewerage, electricity generation and distribution facilities.

The level of engineering construction gives an indication of the economy's capability to grow and expand in the future. A modern economy needs a highly efficient infrastructure to ensure the economy can operate to its capacity and that the population is adequately serviced.

Before September 1986, data on engineering construction was limited to projects valued at $100,000 or more undertaken by private contractors only. From September 1986, the collection was expanded to include all engineering construction work undertaken by both the private and public sectors, irrespective of the value of the individual projects.

A significant proportion of engineering construction is funded by government although much of the work is contracted out to private sector firms.

The level of engineering construction does not appear to be affected by interest rates to any significant degree. Changes in the level of activity in engineering construction are a reflection of government and business commitment to increasing infrastructure.

# Further Reading

- ☐ *Engineering Construction Activity, Australia* (8762.0)
  Presents the value of engineering construction work done classified by State and Territory, commodity (roads, bridges, pipelines, etc.) and sector (level of government/private) and by sector undertaking work and sector for whom the work is being done.

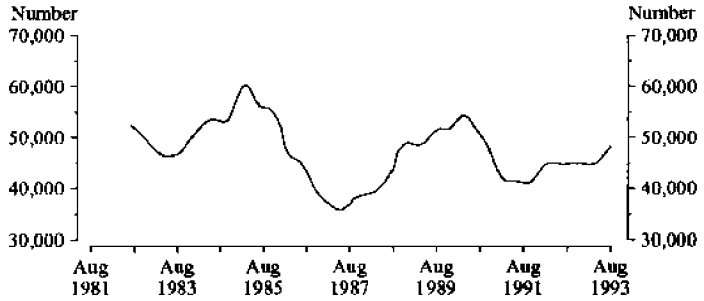
- ☐ *Construction Activity at Constant Prices, Australia* (8782.0)
  Contains general measures of activity within the building and construction sectors, including engineering construction. Data is in original and seasonally adjusted forms.

# 2.3.8 New Motor Vehicle Registrations

## Comment

In trend estimate terms, new motor vehicle registrations rose by over 30% in 22 months, from 46,342 in May 1983 to a peak of 60,387 in March 1985 and fell to 35,885 in May 1987. Following this low, registrations of new motor vehicles entered the second growth stage, peaking at 54,322 in April 1990. After falling to 40,929 in September 1991, new registrations have again risen to 48,204 in August 1993.

NEW MOTOR VEHICLE REGISTRATIONS
TREND




*Source: ABS 9303.0, Monthly data*

NEW MOTOR VEHICLE REGISTRATIONS

| *Period* | *Total vehicles (a)* |
|---|---|
| ANNUAL | |
| 1987–88 | 470,820 |
| 1988–89 | 569,221 |
| 1989–90 | 627,824 |
| 1990–91 | 542,196 |
| 1991–92 | 521,186 |
| 1992–93 | 541,508 |
| MONTHLY — TREND | |
| *1991–92* | |
| June | 44,909 |
| *1992–93—* | |
| July | 44,813 |
| August | 44,872 |
| September | 44,931 |
| October | 44,939 |
| November | 44,899 |
| December | 44,872 |
| January | 44,924 |
| February | 44,802 |
| March | 44,792 |
| April | 45,037 |
| May | 45,626 |
| June | 46,424 |
| *1993–94—* | |
| July | 47,318 |
| August | 48,204 |

(a) Excludes motor cycles, tractors, plant and equipment, caravans and trailers.
*Source:* ABS, *Registrations of New Motor Vehicles, Australia* (9303.0).

# Explanatory Notes

When a new car is purchased, it is normally registered with the relevant motor vehicle registration authority. Statistics on registrations give an indication of the number of new motor vehicle sales.

A significant part of consumer spending is on buying new motor vehicles. Since consumer spending is an early indicator of trends in the economy, new motor vehicle registrations are an early indicator of the level of economic activity. During times of recession purchases of new cars fall; when the economy is booming new car purchases increase.

Both Commonwealth and State Government Treasury offices and other policy departments use registration statistics for economic planning. The statistics are also used by motor vehicle manufacturers and distributors for market research and by financial institutions in setting lending policies.

# Further Reading

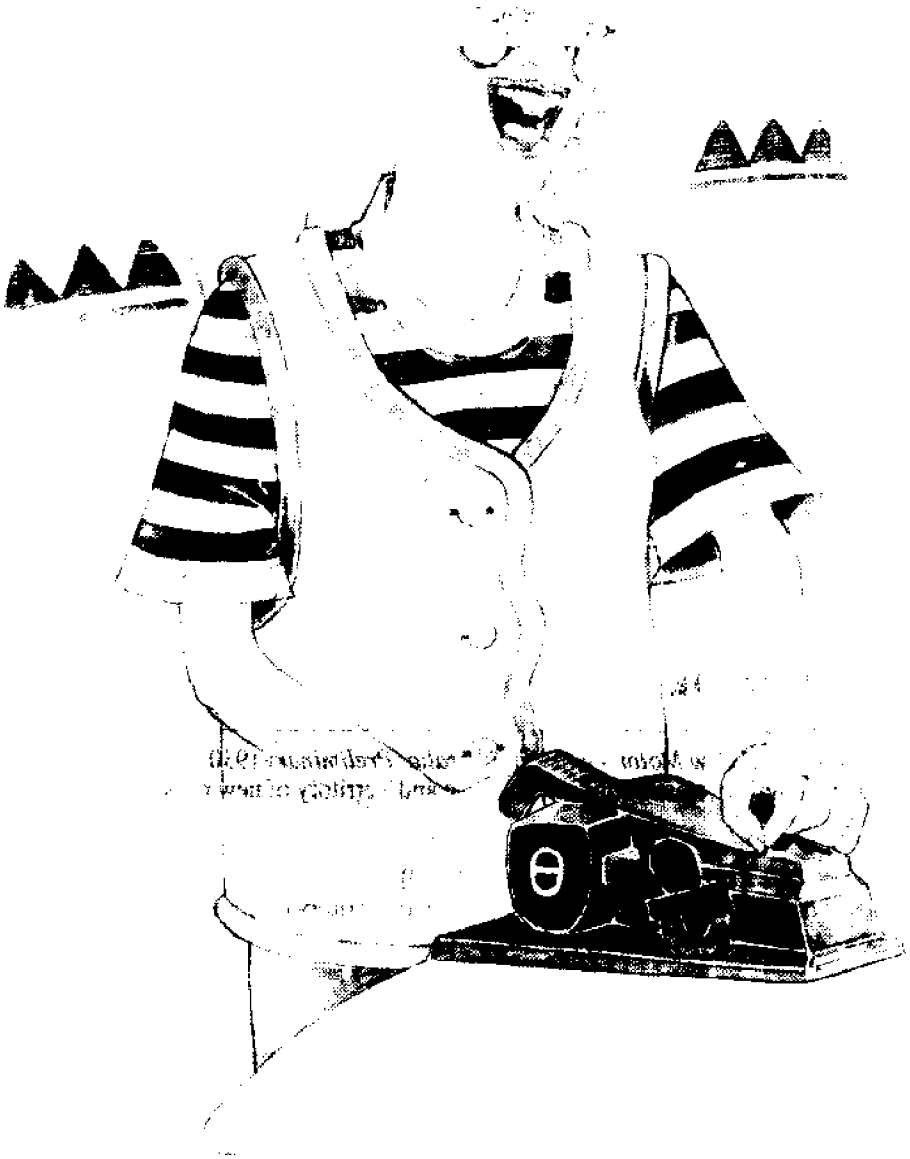
- ☐ *Registrations of New Motor Vehicles, Australia, Preliminary* (9301.0)
  Contains monthly registrations in each State and Territory of new passenger vehicles and other vehicles.

- ☐ *Motor Vehicle Registrations, Australia* (9303.0)
  Presents detailed information for each State and Territory on the number of registrations of new motor vehicles by vehicle type by make and selected make/model.

- ☐ *Motor Vehicle Census: Australia* (9309.0)
  Contains data for each State and Territory for the number of vehicles on register by type of vehicle and year of manufacture, by type of vehicle and make.

- ☐ *Personal Finance, Australia* (5642.0

- ☐ Includes finance commitments to individuals by type of lender, purpose of loan, including purchase of new motor vehicles, and State.



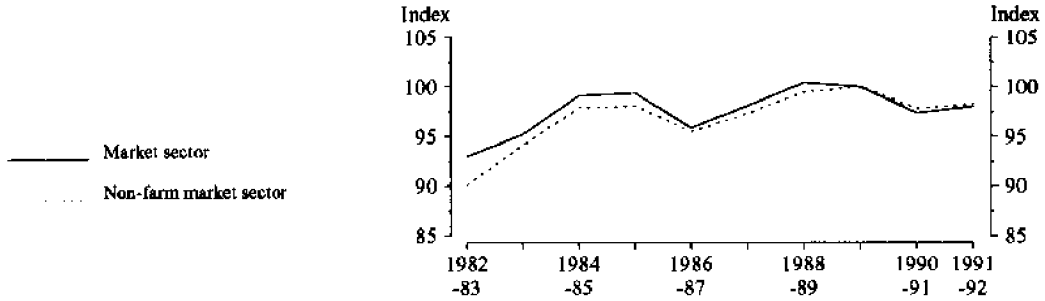
# Section 2.4
# Production

# 24.1 Productivity

## Comment

Multifactor productivity indexes for the market and non-farm market sectors have generally increased since 1982–83 apart from 1986–87 and 1990–91. The market and non-farm market sectors recorded very similar movements, although the index for the non-farm market index fell below the total market sector index from 1989–90.

**MULTIFACTOR PRODUCTIVITY INDEXES, MARKET SECTOR AND NON-FARM MARKET SECTOR**
**(1989–90 = 100.0)**




*Source: ABS 5234.0, Annual data*

**PRODUCTIVITY INDEXES**
**(1989–90 = 100.0)**

| *Period* | *Labour - market sector (a)* | *Capital – market sector (b)* | *Multifactor – market sector (c)* | *Labour – non-farm market sector (a)* | *Capital – non-farm market sector (b)* | *Multifactor – non-farm market sector (c)* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1986–87 | 96.3 | 93.9 | 95.5 | 96.7 | 94.3 | 95.9 |
| 1987–88 | 97.7 | 96.5 | 97.3 | 98.5 | 97.1 | 98.1 |
| 1988–89 | 99.8 | 99.0 | 99.5 | 100.8 | 99.7 | 100.4 |
| 1989–90 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1990–91 | 99.9 | 94.0 | 97.8 | 99.6 | 93.2 | 97.4 |
| 1991–92 | 101.9 | 91.8 | 98.3 | 101.9 | 91.0 | 98.0 |

*(a) Constant price gross product per hour worked. (b) Constant price gross product per unit of capital stock. (c) Constant price gross product per combined unit of labour and capital.*
*Source:* ABS, *Australian National Accounts: Multifactor Productivity* (5234.0).

# Explanatory Notes

Productivity is the relationship between the output of an economic unit and the inputs, such as labour and capital, which have gone into producing that output. Productivity is increased through better utilisation of resources.

Multifactor productivity (MFP) is a measure of the efficiency of the production process considering a number of inputs (factors). It is expressed as a ratio of outputs to a combined measure of two or more factor inputs (e.g. capital and labour).

The ABS measures MFP as the ratio of gross product to a combined measure of capital stock and hours worked. It includes technical progress, improvements in the work force, improvement in management practices, economies of scale and so on. It can be affected in the short to medium term by elements such as the weather and the business cycle which influence the amount produced.

Labour productivity is usually measured as the amount produced per hour worked. Quite clearly, this can be affected by technological changes and changes in other inputs (e.g. capital), as well as changes in labour efficiency.

Capital productivity is measured as the amount of output produced per unit of capital employed. Equipment, structures, land and inventories are forms of capital goods used in the production of goods and services.

Productivity measures are used by both government and private organisations to gauge the effect of changes in work practices, technology, education and training.

# Further Reading

- ☐ *Australian National Accounts: Multifactor Productivity* (5234.0)
  This annual publication contains indexes of multifactor productivity for the market and non-farm market sectors. It also includes associated indexes such as labour productivity, capital productivity and the capital-labour ratio.

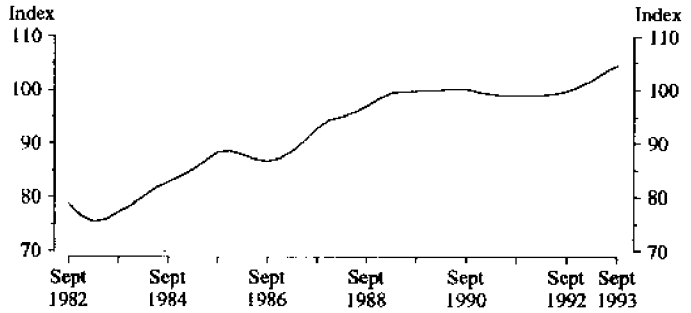
- ☐ *Occasional Paper: Estimates of Multifactor Productivity, Australia* (5233.0)
  This paper describes what the ABS indexes of multifactor productivity actually measure and provides full details of the methods used to derive them. It also examines the limitations of the indexes and attempts to quantify them. Alternative measures of MFP are described briefly.

# 2.4.2 Indexes of Industrial Production

## Comment

The index of industrial production, in trend constant price terms, has generally increased from the March quarter 1983 apart from two periods. The index decreased from 88.6 in December quarter 1985 to 86.7 in September quarter 1986 before continuing to rise to its second plateau. After reaching 100.3 in June quarter 1990, the index remained flat for 9 quarters before significantly increasing again.

**INDEX OF TOTAL INDUSTRIAL PRODUCTION AT AVERAGE 1989–90 PRICES, TREND (1989–90 = 100)**




*Source: ABS 8125.0, Quarterly data*

**INDEXES OF INDUSTRIAL GROSS PRODUCT AT AVERAGE 1989–90 PRICES (1989–90 = 100.0)**

| *Period* | *Mining (excluding services to mining)* | *Manufacturing* | *Electricity, gas and water* | *Total* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 89.5 | 96.5 | 90.9 | 94.4 |
| 1988–89 | 91.7 | 101.5 | 95.2 | 98.8 |
| 1989–90 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1990–91 | 102.6 | 98.0 | 103.0 | 99.5 |
| 1991–92 | 105.0 | 96.4 | 105.1 | 99.2 |
| 1992–93 | 105.6 | 99.5 | 106.7 | 101.6 |
| | | QUARTERLY — TREND | | |
| *1991–92—* | | | | |
| March | 105.9 | 95.9 | 105.6 | 99.1 |
| June | 106.6 | 96.1 | 105.7 | 99.3 |
| *1992–93—* | | | | |
| September | 106.1 | 97.0 | 105.3 | 99.8 |
| December | 105.2 | 98.4 | 105.8 | 100.7 |
| March | 105.2 | 100.1 | 106.9 | 102.0 |
| June | 106.2 | 101.7 | 108.0 | 103.4 |
| *1993–94—* | | | | |
| September | 107.5 | 102.9 | 108.7 | 104.6 |

*Source:* ABS, *Quarterly Indexes of Industrial Production* (8125.0).

# Explanatory Notes

The indexes of industrial production provide estimates of the rises and falls in output by the mining, manufacturing and electricity, gas and water industries.

The indexes are expressed in terms of constant prices. By eliminating the effects of price increases, the change in the real volume of output from industry groups can be determined.

Analysts in the public and private sectors use the indexes to determine the level of economic activity at both an overall and broad industry level.

Where demand for products from a specific industry group increases, we would expect production to expand to meet the extra demand. The indexes reflect the growth and decline of output from specific industry groups.

# Further Reading

- ☐ *Quarterly Indexes of Industrial Production, Australia* (8125.0)
  Presents indexes of gross product at constant prices for the industrial sector and each of its major component industries i.e. mining, manufacturing, electricity, gas and water. Also presents indexes for individual manufacturing subdivisions.

- ☐ *Manufacturing Production, Australia: Principal Commodities Produced* (8365.0)
  Contains statistics of the value of sales and transfers out of approximately 700 selected principal manufacturing commodities.

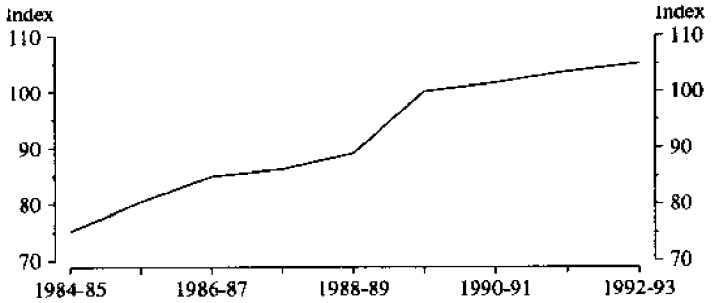
- ☐ *Manufacturing Industry, Australia* (8221.3)
  Contains annual estimates of the structure and performance of Australia's manufacturing industry

# 2.4.3 Mineral Production Indexes

## Comment

The index for total mineral production increased 39.6% from 75.2 in 1984–85 to 105.0 in 1992–93. Although indexes for specific minerals have grown at different rates the overall picture for total mineral production is one of steady growth reflecting continuing increases in the level of mineral production by the major mines in Australia.

**MINERAL PRODUCTION INDEX**
**(1989–90 = 100)**




*Source: Australian Mining Industry Council, Quarterly data*

**SELECTED MINERAL PRODUCTION INDEXES (1989–90 = 100.0)**

| *Period* | *Coal* | *Bauxite* | *Iron ore* | *Gold* | *Uranium* | *Total* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 85 | 88 | 93 | 58 | 103 | 86 |
| 1988–89 | 93 | 93 | 89 | 83 | 110 | 89 |
| 1989–90 | 100 | 100 | 100 | 100 | 100 | 100 |
| 1990–91 | 104 | 105 | 101 | 107 | 107 | 102 |
| 1991–92 | 111 | 100 | 105 | 108 | 106 | 104 |
| 1992–93 | 113 | 103 | 106 | 109 | 66 | 105 |
| | | | QUARTERLY | | | |
| *1991–92—* | | | | | | |
| December | 106 | 100 | 117 | 109 | 104 | n.a. |
| March | 112 | 101 | 95 | 107 | 99 | n.a. |
| June | 116 | 94 | 99 | 106 | 100 | n.a. |
| *1992–93—* | | | | | | |
| September | 120 | 103 | 108 | 110 | 29 | n.a. |
| December | 106 | 100 | 106 | 111 | 40 | n.a. |
| March | 111 | 107 | 102 | 104 | 98 | n.a. |
| June | 113 | 102 | 108 | 109 | 97 | n.a. |

*Source:* Australian Mining Industry Council.

# Explanatory Notes

Mineral production indexes give an indication of the rise and fall of the levels of output for major mine products in Australia. A rise in the indexes indicates an increase in the level of mineral production, a fall in the indexes indicates a fall in the level of mineral production.

The mining industry is an important contributor to national income and in particular to export income. Mineral resources make up approximately 8 per cent of Australia's gross domestic product and provide us with approximately 44 per cent of our export income.

The important position mining holds in the economy makes it essential for governments (Commonwealth and State) to keep track of developments in the industry. Governments are interested in the level of royalties they will receive, as well as in the export income that will be earned from mining. They are also concerned with developments in the industry for the purpose of planning services such as roads, railways, port facilities, housing, schools, etc.

# Further Reading

- ☐ *Quarterly Indexes of Industrial Production* (8125.0)
  Contains indexes of gross product at constant prices for the mining industry.

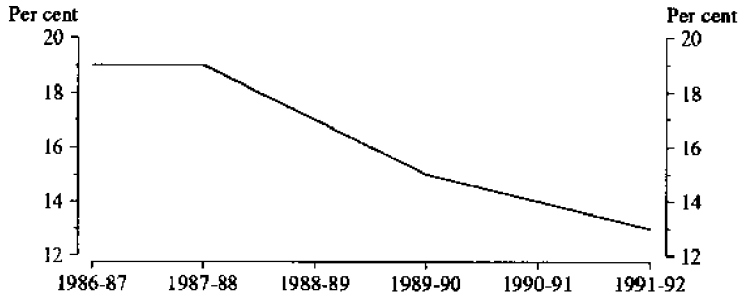
- ☐ *Mineral Production, Australia* (8405.0)
  Contains quantity and value of production of major metallic minerals, coal, oil and gas and non-metallic minerals, as well as comparative world statistics for selected minerals.

# 2.4.4 Effective Rate of Assistance

## Comment

The average effective rate of assistance to the manufacturing sector was stable at 19% in 1986–87 and 1987-88. It then declined to 17% in 1988–89. After the break in series the rate of assistance to the manufacturing sector was at 15% in 1989–90 and has continued to decline to 13% in 1991–92.

**AVERAGE EFFECTIVE RATE OF ASSISTANCE MANUFACTURING**




*Source: Industry Commission Annual Report, Annual data*

**AVERAGE EFFECTIVE RATES OF ASSISTANCE TO SELECTED INDUSTRY SECTORS**
**(per cent)**

| *Period* | *Agriculture (a)* | *Manufacturing (b)* | *Mining* |
|---|---|---|---|
| | ANNUAL | | |
| 1986–87 | 18.0 | 19.0 | n.a. |
| 1987–88 | 11.0 | 19.0 | n.a. |
| 1988–89 | 8.0 | 17.0 | –3.5 |
| 1989–90 | 8.0 | 15.0 | –3.2 |
| 1990–91 | 16.0 | 14.0 | –3.0 |
| 1991–92 | 12.0 | 13.0 | –2.8 |

(a) From 1989–90, the agriculture series is based on an updated cost structure and is not directly comparable with previous series. (b) From 1989–90, the manufacturing series is based on most recently available data on materials usage from the ABS 1989–90 manufacturing census and is not comparable with previous issues.
*Source: Industry Commission Annual Report.*

# Explanatory Notes

The Industry Commission measures assistance provided to Australian industries by the Commonwealth Government.

The effective rate of assistance is an indicator of the net assistance to an industry. It is the percentage by which returns to resources (i.e. land, labour and capital) used in an industry are increased by assistance. It takes into account the assistance provided to an industry, less the extra costs the industry must pay for its inputs as a result of assistance to other industries.

The effective rate of assistance is positive if benefits provided by government to an industry outweigh costs imposed to that industry by government assistance to other industries. When the effective rate of assistance is negative, the benefits the industry receives from government assistance are outweighed by the extra costs it must pay for its inputs as a result of assistance to other industries.

The Commission's estimates of assistance include assistance provided by tariffs, quantitative import restrictions, bounties, export incentives and local content schemes and, for agricultural commodities, domestic pricing arrangements. Due to their differing impacts on particular sectors and data limitations, some other forms of assistance, such as government purchasing preferences, offset arrangements and anti-dumping procedures, are excluded from the Commission's estimates.

The Government uses the effective rate of assistance to determine how much assistance is actually provided to an industry. When the Government formulates policy on protection for an industry, it must take into account the effect that the assistance will have on other industries. Lobby groups use effective rate of assistance estimates to argue for increases or decreases in industry protection.

# Further Reading

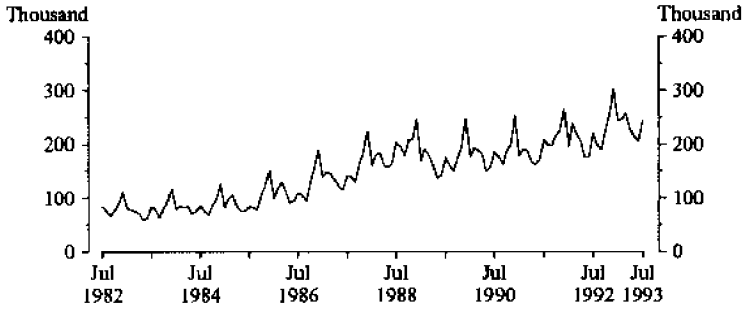
- Industry Commission, *Annual Report*
  Contains the average effective rate of assistance, analysis of recent movements, and explanatory notes.

# 2.4.5 Tourism

## Comment

Short-term overseas visitor arrivals into Australia shows seasonal variations with an overall upward trend. The number of short-term visitor arrivals showed strong improvement during Australia's 1988 Bicentenary celebrations, and continued to increase reaching 302,400 visitor arrivals in December 1992. Hotels, motels and guest houses are a major provider of short-term commercial accommodation in Australia. In the June quarter 1993, there were 167,000 hotel, motel and guest house rooms available compared with 33,800 holiday flats and units.

**SHORT-TERM OVERSEAS VISITOR ARRIVALS**




*Source: ABS 3401.0, Monthly data*

**TOURISM**

| *Period* | *Capacity – hotels, motels and guest houses (guest rooms)(a)(b)* | *Capacity – holiday flats, units and houses (number)(a)* | *Room occupancy rates – hotels, motels and guest houses (b)(c) (%)* | *Unit occupancy rates – holiday flats, units and houses (%)* | *Number of short-term overseas arrivals ('000)* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 131,510.0 | 29,533.0 | 56.3 | 56.5 | 1,990.5 |
| 1988–89 | 142,662.0 | 31,012.0 | 56.0 | 55.7 | 2,220.3 |
| 1989–90 | 150,686.0 | 32,137.0 | 52.7 | 50.4 | 2,147.2 |
| 1990–91 | 158,608.0 | 32,313.0 | 50.1 | 48.7 | 2,227.4 |
| 1991–92 | 164,739.0 | 33,147.0 | 50.3 | 50.1 | 2,519.7 |
| 1992–93 | 167,006.0 | 33,775.0 | 51.7 | 50.9 | 2,785.6 |
| | | MONTHLY | | | |
| *1991–92—* | | | | | |
| May | n.a. | n.a. | 47.5 | 37.7 | 175.2 |
| June | 164,739.0 | 33,147.0 | 46.0 | 39.8 | 176.9 |
| *1992–93—* | | | | | |
| July | n.a. | n.a. | 50.3 | 55.1 | 219.3 |
| August | n.a. | n.a. | 49.7 | 51.9 | 199.1 |
| September | 165,128.0 | 33,232.0 | 55.1 | 54.2 | 190.0 |
| October | n.a. | n.a. | 56.1 | 52.6 | 229.3 |
| November | n.a. | n.a. | 53.0 | 47.2 | 255.0 |
| December | 166,597.0 | 33,975.0 | 46.3 | 52.4 | 302.4 |
| January | n.a. | n.a. | 53.2 | 71.6 | 242.8 |
| February | n.a. | n.a. | 50.6 | 47.3 | 245.5 |
| March | 166,195.0 | 34,321.0 | 53.5 | 44.8 | 257.9 |
| April | n.a. | n.a. | 53.4 | 51.2 | 226.3 |
| May | n.a. | n.a. | 49.9 | 38.5 | 213.4 |
| June | 167,006.0 | 33,775.0 | 49.0 | 43.5 | 204.6 |
| *1993–94—* | | | | | |
| July | n.y.a. | n.y.a. | n.y.a. | n.y.a. | 244.6 |

(a) All annual data are end of period. (b) All annual data are annual averages.

*Sources:* ABS, *Tourist Accommodation, Australia* (8635.0) and *Overseas Arrivals and Departures, Australia* (3401.0).

# Explanatory Notes

Tourism is short-term travel away from the normal place of work and residence. This includes both domestic and international travel. Tourists spend money on a wide range of goods and services provided by many businesses.

Domestic tourism is the largest contributor to Australia's overall tourist market. When Australians holiday in Australia rather than going overseas, they spend money in Australia instead of overseas, that is Australia does not lose foreign exchange.

International tourism earns Australia foreign exchange. When tourists from overseas spend money in Australia, their currency is exchanged for Australian dollars. The foreign exchange earned from tourism can be used to finance imports and to service foreign debt.

The foreign exchange earned from tourism in Australia now exceeds earnings from many of Australia's more traditional export commodities. Tourism is seen as a growth industry which could play a role in securing Australia's future prosperity.

In order to identify the market that exists for Australia as a tourist destination, statistics on the country of residence of our international tourists are collected. This information is used to market and tailor our goods and services accordingly.

Statistics are collected on the capacity, occupancy rates and takings of tourist accommodation. The statistics are collected in order to observe the level of activity in the industry, geographical trends and seasonal trends. The information is used by government and private bodies to plan investment, marketing and policy for the tourism industry.

# Further Reading

- ☐ *Directory of Tourism Statistics* (1130.0)
  Contains comprehensive information on sources of tourism statistics together with brief articles showing how each source may be used in relation to tourism.

- ☐ *Overseas Arrivals and Departures, Australia* (3402.0)
  Provides a summary of quarterly data for all movements into and out of Australia. This includes details of overseas visitors by country of residence as well as other information.

- ☐ *Tourist Accommodation, Australia* (8635.0)
  Contains quarterly data about establishments providing short-term accommodation for each State and Territory and Australia.

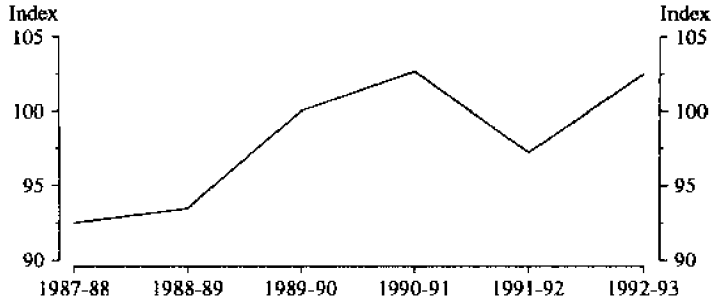
- ☐ *Tourist Attractions* (8661.0)
  Provides for each State and Territory the number of attractions and visitors to those attractions.

# 2.4.6 Volume of Farm Production

## Comment

The total farm production volume index grew strongly from 93.5 in 1987–88 to 102.7 in 1990–91. This reflected good conditions in the rural sector which resulted in increased production levels. Despite a decrease in the index in 1991–92, the 1992–93 index number remains at around the same level experienced in 1990–91.

**VOLUME OF TOTAL FARM PRODUCTION INDEX**
**(1989–90 = 100)**




*Source: Australian Bureau of Resource Economics*

**VOLUME OF FARM PRODUCTION INDEXES**
**(1989–90 = 100.0)**

| *Period* | *Crops* | *Livestock Slaughterings* | *Livestock Products* | *Total farm* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 94.4 | 95.9 | 87.1 | 93.5 |
| 1988–89 | 97.8 | 91.8 | 90.3 | 92.5 |
| 1989–90 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1990–91 | 107.3 | 102.5 | 98.0 | 102.7 |
| 1991–92 | 101.4 | 106.1 | 85.7 | 97.2 |
| 1992–93 | 112.5 | 108.2 | 87.2 | 102.5 |

*Source*: Australian Bureau of Agricultural and Resource Economics.

# Explanatory Notes

A large share of Australia's total export income is generated from industries in the farm sector. The prosperity of farm industries therefore has a significant impact on incomes in the rest of the economy.

Economic performance of the farm sector can be measured by the volume of farm production, which is produced in the form of an index by the Australian Bureau of Agricultural and Resource Economics (ABARE). The farm production index is broken into three categories: crops, livestock slaughterings and livestock products. Changes in the production of farm products which make up these categories cause the index to rise or fall, depending on whether production increases or decreases.

A rise in the volume of production is not always in the best interest of the producer. When a commodity has a large share of the world market, an increase in supply causes a fall in the price of the commodity, unless demand also increases.

The majority of Australia's farm commodities do not have a large share of the world market. The quantity of these commodities exported can increase without having a significant effect on the supply of the commodity on the world market and therefore no effect on the price received.

The Government and producer groups use the volume of farm production to estimate farm incomes. This information is used to formulate policy for farm industries and the general economy.

# Further Reading

- ☐ *Agriculture and Resources Quarterly*
  Contains Australian Bureau of Agricultural and Resource Economics (ABARE) forecast and historical data for agriculture and resource commodities. Includes data on quantity and value of production, quantity and value of exports, value of imports of selected commodities, annual and quarterly prices and world production and consumption, stocks and trade for selected commodities.

- ☐ *Livestock and Livestock Products, Australia* (7221.0)
  Contains livestock numbers, livestock slaughterings, production of meat and dairy products, beekeeping, wool and other livestock statistics, herd sizes and the number of establishments reporting livestock.

- ☐ *Summary of Crops, Australia* (7330.0)
  Contains data on agricultural land use, area and production of crops and pastures, tree numbers and production of orchard fruit, area and production of other fruit and grapes and fertilizer usage.

- ☐ *Value of Agricultural Commodities Produced, Australia* (7503.0)
  Contains detailed statistics of the gross and local value of agricultural commodities, average unit gross values (i.e. prices) of principle crops, livestock slaughterings and livestock products and indexes of values at constant prices.

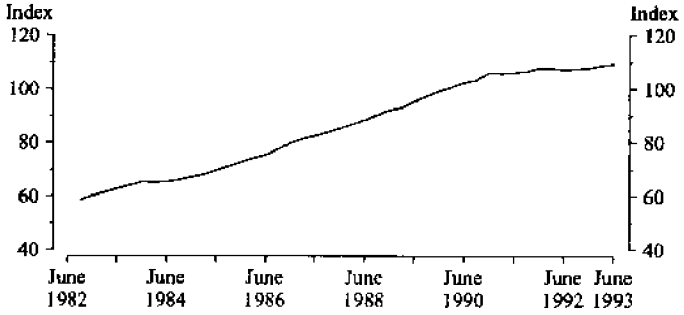
# Section 2.5
# Prices and Incomes

# 2.5.1 Consumer Price Index

## Comment

The Consumer Price Index (CPI) has increased steadily from the September quarter 1982 to the December quarter 1990, except for a small decrease in the March quarter 1984 of 0.5%. Since December quarter 1990, the rate of growth in the CPI has slowed considerably with the all groups actually falling in the March and June quarters 1991 ( -0.2% and –0.3% respectively).

**CONSUMER PRICE INDEX: ALL GROUPS**
**(1989–90= 100)**




*Source: ABS 6401.0, Quarterly data*

**CONSUMER PRICE INDEX: SELECTED GROUPS (a)**
**(1989–90 = 100.0)**

| *Period* | *Food* | *Clothing* | *Housing* | *All groups* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 85.3 | 88.8 | 77.2 | 86.3 |
| 1988–89 | 93.4 | 95.1 | 86.9 | 92.6 |
| 1989–90 | 100.0 | 100.0 | 100.0 | 100.0 |
| 1990–91 | 103.3 | 104.6 | 103.5 | 105.3 |
| 1991–92 | 105.8 | 106.4 | 98.9 | 107.3 |
| 1992–93 | 107.4 | 107.5 | 94.6 | 108.4 |
| | | QUARTERLY | | |
| *1991–92*— | | | | |
| December | 105.5 | 106.5 | 100.4 | 107.6 |
| March | 106.1 | 106.3 | 98.1 | 107.6 |
| June | 106.4 | 106.8 | 96.2 | 107.3 |
| *1992–93*— | | | | |
| September | 106.0 | 106.6 | 94.6 | 107.4 |
| December | 106.7 | 107.8 | 94.0 | 107.9 |
| March | 109.0 | 107.5 | 94.4 | 108.9 |
| June | 108.0 | 108.1 | 95.2 | 109.3 |

(a) Weighted average of eight capital cities.
*Source:* ABS, *Consumer Price Index* (6401.0).

# Explanatory Notes

The Consumer Price Index (CPI) is a general indicator of the rate of change in prices paid by household consumers for the goods and services they buy. The simplest way of thinking about the CPI is to imagine a *basket of goods and services* of the kind bought by Australian households. As prices vary, the total price of this basket will also vary.

This basket of goods and services has been selected to represent purchases by metropolitan employee households and covers expenditure on the following broad items: food, clothing, housing, household equipment and operation, transportation, tobacco and alcohol, health and personal care as well as recreation and education. To ensure the basket remains representative of current spending habits, it is revised every 5 years.

The price of the CPI basket in the base period (currently 1989–90) is assigned a value of 100.0 and prices in other periods are expressed as percentages of the price in the base period. For example, if the price of the basket had increased by 15 per cent since the base period the CPI would read 115.0.

The actual index number for any given period is therefore equal to:

$$\frac{\text{total cost of fixed basket in given period}}{\text{total cost of fixed basket in reference base period}} \times 100$$

The CPI has always been an important economic indicator and in recent years actions related to movements in the CPI have had direct or indirect effects on all Australians. For example, it has been used as a starting point in wage negotiations, to adjust Social Security and superannuation payments and in a range of business contracts.

The CPI is often loosely referred to as a 'cost of living index' but strictly speaking this is not correct. A true cost of living index, among other things, would need to take into account changes in standards of living and the substitutions that consumers make in order to maintain their standard of living in the face of changing market conditions (for instance, buying chicken instead of beef when beef prices are high). In contrast, the CPI assumes the purchase of a constant basket of goods and services and measures changes in the price of the goods and services in that basket alone.

# Further Reading

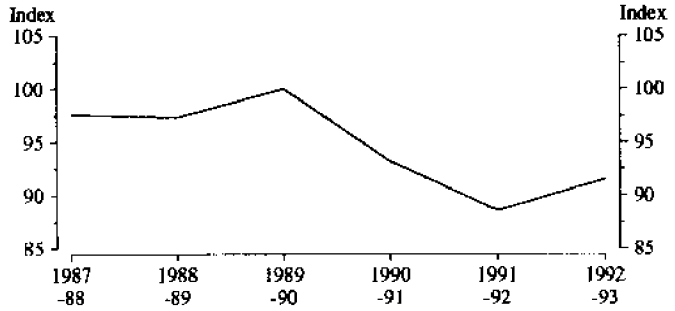
- ☐ *Consumer Price Index* (6401.0)
  Presents quarterly movements in retail prices of goods and services commonly purchased by metropolitan wage and salary earners. Indexes are published for each of the State capitals, Canberra and Darwin.
- ☐ *A Guide to the Consumer Price Index* (6440.0)
  Contains information designed to promote the understanding of the CPI among general users.
- ☐ Information Paper: *Review of the Consumer Price Index* (6450.0)
  Explains the review and re-weighting of the CPI, which was to be completed during 1992.

# 2.5.2 RBA Commodity Price Index

## Comment

The RBA index of commodity prices decreased significantly from 100.0 in 1989–90 to 88.6 in 1991–92, reflecting the decline in prices received for Australia's exports. In 1991 - 92 the index began to increase reaching 91.5 in 1992–93.

**RBA INDEX OF COMMODITY PRICES**
**(1989–90 = 100)**




*Source: Reserve Bank of Australia Bulletin, Monthly data*

**RBA INDEX OF COMMODITY PRICES (a)**
**(1989–90 = 100)**

| *Period* | *All items* |
|---|---|
| ANNUAL | |
| 1987–88 | 97.6 |
| 1988–89 | 97.3 |
| 1989–90 | 100.0 |
| 1990–91 | 93.2 |
| 1991–92 | 88.6 |
| 1992–93 | 91.5 |

(a) Monthly average data.
*Source:* RBA, *Reserve Bank of Australia Bulletin.*

# Explanatory Notes

The Reserve Bank of Australia (RBA) developed the commodity price index to provide an early indication of trends in Australia's export prices.

There are 19 commodities included in the index representing approximately two-thirds of Australia's commodity exports and just over half of total merchandise exports. The commodities are weighted according to their share of exports by volume over the previous 12 months. The weights given to each commodity can vary over time to allow for changes in the composition of exports.

Rural and non-rural components are calculated as well as total commodities. Rural commodities make up approximately one-third of the index, with wool, wheat and beef being the main rural commodities. Non-rural commodities make up the rest of the index, with coking and steaming coal, iron ore and gold being the main non-rural commodities.

The Government and private enterprise use the RBA commodity price index to predict Australia's export earnings and future economic prospects.

# Further Reading

- ☐ *Reserve Bank of Australia Bulletin*
  Presents monthly estimates for the Reserve Bank of Australia commodity price index for rural, non-rural and all items. See articles in the December 1987 and February 1989 issues for explanations of the index.

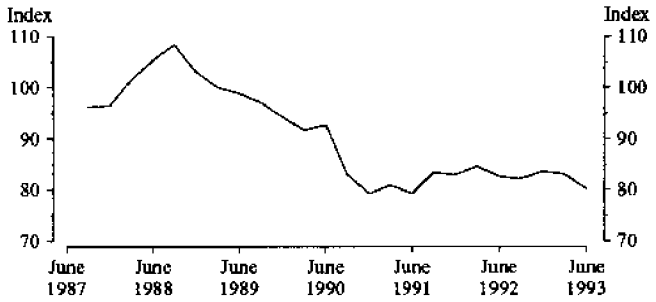
- ☐ *Reserve Bank of Australia Index of Commodity Prices*
  Monthly Reserve Bank of Australia press release containing the commodity price index.

# 2.5.3 Prices Received and Paid by Farmers

## Comment

Between the September quarter 1988 and December quarter 1990, the gap between prices received by farmers and prices paid by farmers widened considerably, resulting in a sharp decline in farmers' terms of trade. Between the September quarter 1990 and December quarter 1991, the farmers' terms of trade stabilized, fluctuating within a band of 4 index points. Since the March quarter 1992 the farmers' terms of trade has been slowly decreasing.

**FARMERS' TERMS OF TRADE INDEX**
**(1987–88 = 100)**




*Source: Australian Bureau of Agricultural and Resource Economics*

**INDEXES OF PRICES RECEIVED AND PAID BY FARMERS**
**(1987–88 = 100.0)**

| *Period* | *Prices received* | *Prices paid* | *Farmers' terms of trade (a)* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 100.0 | 100.0 | 100.0 |
| 1988–89 | 111.8 | 109.0 | 102.5 |
| 1989–90 | 109.1 | 116.2 | 93.9 |
| 1990–91 | 94.6 | 117.3 | 80.6 |
| 1991–92 | 97.0 | 116.3 | 83.4 |
| 1992–93 | 94.8 | 115.3 | 82.2 |
| | QUARTERLY | | |
| *1991–92—* | | | |
| December | 96.3 | 116.2 | 82.9 |
| March | 98.6 | 116.6 | 84.6 |
| June | 95.6 | 115.7 | 82.6 |
| *1992–93—* | | | |
| September | 94.4 | 115.0 | 82.1 |
| December | 95.9 | 115.2 | 83.6 |
| March | 96.1 | 115.8 | 83.0 |
| June | 92.6 | 115.4 | 80.2 |

(a) Ratio of index of prices received by farmers to index of prices paid by farmers.
*Source:* ABARE, *Indexes of Prices Received and Paid by Farmers.*

# Explanatory Notes

The Australian Bureau of Agricultural and Resource Economics (ABARE) produces indexes of prices received and prices paid by farmers. The indexes measure movements in the price of fixed baskets of goods and services that farmers sell and purchase respectively.

The indexes of prices received and paid by farmers are not indicators of farmers' incomes or costs, but are used to determine farmers' terms of trade. Farmers' terms of trade is equal to the ratio of prices received to prices paid. Farmers experience a rise in their terms of trade when the prices they receive increase, and the prices they pay remain constant or fall. Farmers experience a fall in their terms of trade when the prices they pay increase, and the prices they receive fall or remain constant.

ABARE use farmers' terms of trade along with other information to assist in the projection of income levels for producers of specific commodities. The Government uses the forecasts to formulate economic policy regarding marketing of primary products, guaranteed prices, subsidies to primary producers and overseas trade policy.

# Further Reading

- ☐ *Indexes of Prices Received and Paid by Farmers*
  Contains Australian Bureau of Agricultural and Resource Economics (ABARE) quarterly indexes of the prices received and paid by farmers, at the Australian and State level, as well as explanatory notes on the indexes themselves.

- ☐ *Agriculture and Resources Quarterly*
  Contains Australian Bureau of Agricultural and Resource Economics (ABARE) forecast and historical data for agriculture and resource commodities. Includes data on quantity and value of production, quantity and value of exports, value of imports of selected commodities, annual and quarterly prices and world production and consumption, stocks and trade for selected commodities.

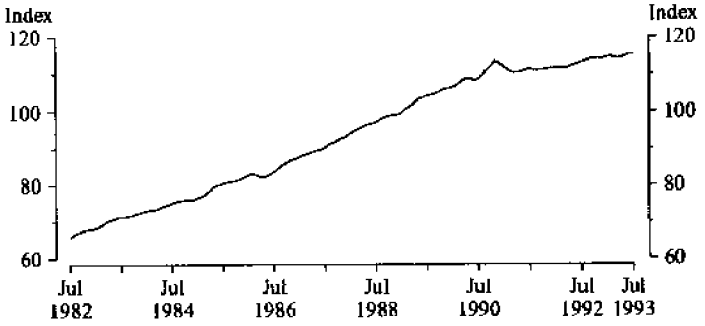
- ☐ *Agricultural Industries, Financial Statistics, Australia* (7507.0)
  Contains detailed information for farm businesses about income, expenses, profitability, capital spending, asset values, indebtedness and net worth. The information is available for individual agricultural industries at the State and national levels.

# 2.5.4 Producer Price Indexes

## Comment

The price index of articles produced by the manufacturing industry displayed steady growth during the 1980s. A slower rate of growth was recorded in the early 1990s with the exception of the period from June 1990 to November 1990 which recorded an increase of 5.2 index points.

**PRICE INDEX OF ARTICLES PRODUCED BY THE MANUFACTURING INDUSTRY (1988–89 = 100)**




*Source: ABS 6412.0, Monthly data*

**SELECTED PRODUCER PRICE INDEXES: ALL GROUPS**

| *Period* | *Price index of materials used in building (other than) house building)(a)* | *Price index of materials used in house building (b)* | *Price index of materials used in manufacturing (c)* | *Price index of articles produced by manufacturing (d)* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 196.8 | 113.8 | 111.4 | 93.6 |
| 1988–89 | 214.9 | 126.1 | 113.1 | 100.0 |
| 1989–90 | 231.9 | 135.8 | 119.0 | 106.5 |
| 1990–91 | 243.7 | 142.1 | 123.8 | 111.2 |
| 1991–92 | 245.2 | 142.4 | 120.7 | 111.6 |
| 1992–93 | 245.7 | 145.2 | 126.6 | 114.3 |
| | | MONTHLY | | |
| *1991–92—* | | | | |
| May | 243.9 | 142.7 | 122.4 | 112.3 |
| June | 244.0 | 142.8 | 124.6 | 112.7 |
| *1992–93—* | | | | |
| July | 244.6 | 143.2 | 126.2 | 113.2 |
| August | 245.0 | 143.4 | 127.1 | 113.6 |
| September | 244.7 | 143.5 | 126.9 | 114.0 |
| October | 245.4 | 143.7 | 127.8 | 114.1 |
| November | 245.0 | 143.7 | 127.9 | 114.2 |
| December | 245.2 | 144.1 | 127.0 | 114.1 |
| January | 245.3 | 144.4 | 126.7 | 114.5 |
| February | 246.0 | 145.5 | 126.7 | 114.8 |
| March | 246.5 | 146.3 | 125.9 | 114.3 |
| April | 246.7 | 147.6 | 125.0 | 114.3 |
| May | 247.1 | 148.3 | 125.3 | 114.7 |
| June | 247.3 | 148.8 | 127.2 | 115.3 |
| *1993–94—* | | | | |
| July | 247.8 | 149.9 | 127.2 | 115.5 |

(a) Base year 1979–80 = 100.0. (b) Base year 1985–86 = 100.0. (c) Base year 1984–85 = 100.0. (d) Base year 1988–89 = 100.0.

*Sources:* ABS, *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities* (6407.0), *Price Index of Materials Used in House Building, Six State Capital Cities and Canberra* (6408.0), *Price Indexes of Materials Used in Manufacturing Industries, Australia* (6411.0) and *Price Index of Articles Produced by Manufacturing Industry, Australia* (6412.0).

# Explanatory Notes

Producer price indexes measure movements in the prices of goods for various sectors of the Australian economy. They are important economic indicators.

The indexes relate to three broad sectors of the Australian economy; building industry, manufacturing industry and the coal mining industry. The producer price indexes measure changes in prices of materials used in the production processes for each of the sectors, as well as articles produced by the manufacturing sector.

Most of the prices used in the indexes are collected as at the mid-point of each month. They reflect, as far as possible, actual transaction prices, including all forms of discounting.

The indexes are used by both the public and private sectors, primarily for adjusting business contracts, as well as for economic analysis.

# Further Reading

- ☐ *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities* (6407.0)
  Contains measurements of monthly price movements of materials delivered on site for use in the construction of buildings other than houses.

- ☐ *Price Index of Materials Used in House Building, Six State Capital Cities and Canberra* (6408.0)
  Contains measurements of monthly price movements of materials delivered on site for use in the construction of houses.

- ☐ *Price Indexes of Copper Materials, Australia* (6410.0)
  Presents indexes which measure price movements in copper materials used in the manufacture of electrical equipment.

- ☐ *Price Indexes of Materials Used in Manufacturing Industries, Australia* (6411.0)
  Contains indexes which measure the price movements of materials and fuels used by establishments engaged in manufacturing.

- ☐ *Price Indexes of Articles Produced by Manufacturing Industry, Australia* (6412.0)
  Contains indexes which measure the price movements of articles produced by establishments engaged in manufacturing.

- ☐ *Price Indexes of Materials Used in Coal Mining, Australia* (6415.0)
  Contains measurements of price movements used in the mining of coal, for both underground mining and open-cut mining.

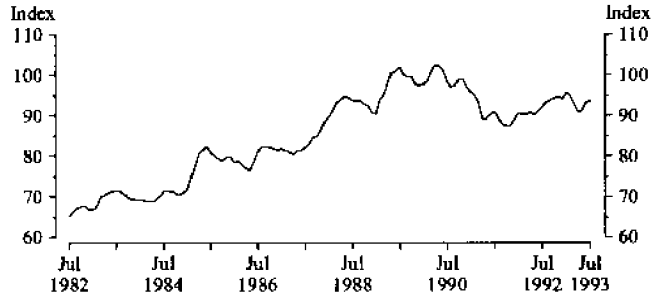
- ☐ *Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods* ( 6419.0)
  Provides a comprehensive description of producer price indexes.

# 2.5.5 Foreign Trade Price Indexes

## Comment

From 1983 until the beginning of 1985, the export price index showed little net movement. Since then, the movement in the export price index has been more variable, but with an overall upward trend until the beginning of the 1990's. Between 1990 and 1991, the export price index generally fell. During 1992 and 1993, the export price index has again increased.

**EXPORT PRICE INDEX**
**(1989–90 = 100)**




*Source: ABS 6405.0, Monthly data*

**FOREIGN TRADE PRICE INDEXES: ALL GROUPS (1989–90 = 100.0)**

| *Period* | *Export price index* | *Import price index* |
|---|---|---|
| | ANNUAL | |
| 1987–88 | 88.9 | 101.8 |
| 1988–89 | 94.7 | 95.3 |
| 1989–90 | 100.0 | 100.0 |
| 1990–91 | 95.1 | 103.2 |
| 1991–92 | 89.6 | 102.7 |
| 1992–93 | 93.5 | 112.1 |
| | MONTHLY | |
| *1991–92* — | | |
| May | 90.2 | 103.6 |
| June | 91.2 | 104.9 |
| *1992–93* — | | |
| July | 92.3 | 107.0 |
| August | 93.3 | 109.2 |
| September | 93.8 | 110.0 |
| October | 94.3 | 110.9 |
| November | 94.7 | 112.2 |
| December | 94.1 | 113.0 |
| January | 95.7 | 114.2 |
| February | 95.2 | 113.4 |
| March | 92.9 | 112.1 |
| April | 90.9 | 112.3 |
| May | 91.3 | 113.8 |
| June | 93.3 | 116.8 |
| *1993–94* — | | |
| July | 93.7 | 116.9 |

*Sources:* ABS, *Export Price Index, Australia (6405.0)* and *Import Price Index* (6414.0).

# Explanatory Notes

Foreign trade price indexes measure the price of goods leaving and entering Australia. There are two foreign trade price indexes, the export price index and the import price index.

The export price index measures changes in the prices of exports of merchandise from Australia. The import price index measures changes in prices of imports of merchandise into Australia.

In general, prices are obtained from major exporters and importers of the selected commodities included in each index. The prices used in the indexes relate to the month in which the goods physically leave and enter Australia. They are collected on a free on board (f.o.b.) basis. Freight and insurance charges involved in shipping the goods to and from Australian ports are excluded.

The prices used in both the export and import indexes are expressed in Australian dollars. For this reason changes in the relative value of the Australian dollar against overseas currencies will affect both price indexes. The import and export price indexes generally rise when the Australian dollar depreciates and fall when the Australian dollar appreciates.

The indexes are used by both the government and private sectors for both economic analysis and adjusting business contracts. The indexes are also used as input into other ABS statistics, such as constant price estimates of the national accounts.

# Further Reading

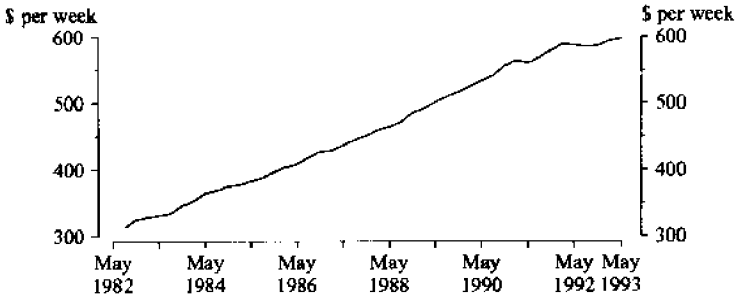
- ☐ *Export Price Index, Australia* (6405.0)
  Measures free on board Australian port-of-origin price movements for merchandise exports.
- ☐ *Import Price Index, Australia* (6414.0)
  Measures changes in free on board country-of-origin price movements of imports of merchandise into Australia.
- ☐ *Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods* (6419.0)
  Provides a comprehensive description of the foreign trade price indexes.

# 2.5.6 Average Weekly Earnings

## Comment

Average weekly earnings showed relatively constant growth during the 1980s. During the early 1990s, growth in average weekly earnings exceeded the increase in the CPI, resulting in real wages growth.

**FULL-TIME ADULT AVERAGE WEEKLY ORDINARY TIME EARNINGS — PERSONS**




*Source: ABS 6302.0, Quarterly data*

**FULL-TIME ADULT AVERAGE WEEKLY ORDINARY TIME EARNINGS ($ per week)**

| *Period* | *Males* | *Females* | *Persons* |
|---|---|---|---|
| | ANNUAL AVERAGE (a) | | |
| 1987–88 | 481.25 | 398.08 | 454.48 |
| 1988–89 | 515.70 | 428.48 | 487.30 |
| 1989–90 | 552.18 | 458.28 | 520.95 |
| 1990–91 | 588.25 | 491.38 | 555.40 |
| 1991–92 | 615.43 | 516.20 | 580.75 |
| 1992–93 | 627.15 | 525.75 | 591.03 |
| | QUARTERLY | | |
| *1991–92—* | | | |
| November | 612.20 | 514.80 | 578.80 |
| February | 625.20 | 523.90 | 589.20 |
| May | 624.80 | 519.70 | 587.30 |
| *1992–93—* | | | |
| August | 623.20 | 518.70 | 585.80 |
| November | 623.90 | 520.70 | 586.80 |
| February | 628.60 | 530.60 | 593.70 |
| May | 632.90 | 533.00 | 597.80 |

(a) Derived as annual average of average weekly earnings in the specified pay period in each quarter.
*Source:* ABS, *Average Weekly Earnings, States and Australia* (6302.0).

# Explanatory Notes

The ABS collects information from approximately 5,000 employers every quarter to determine estimates of average weekly earnings. Employers are asked to provide details of the total gross weekly earnings paid to employees (including weekly overtime earnings) and the number of employees involved (split into full-time adults and all other employees, by males and females).

The most obvious change in average weekly earnings occurs when wages have increased or decreased as a result of National Wage increases, or agreements between employers and employees, or because of changes to award conditions.

A change in average weekly earnings is not necessarily a reflection of changes in wages but may be due to changes in the composition of the wage and salary earner segment of the labour force. Changes in the type of employment (part-time, full-time), the age of the workforce, the occupational make-up of the workforce and the amount of overtime all affect average weekly earnings.

If average weekly earnings increase while the level of employment and composition of the wages and salary segment of the labour force remain the same, expenditure on wages rises. If the increase in expenditure on wages is not accompanied by an increase in production, labour costs per unit of output produced will rise.

Governments, unions, employer groups, researchers and private bodies use average weekly earnings as a guide to changes in the labour market, and as an indicator of the level of economic activity. Average weekly ordinary time earnings is used in some contracts to adjust for increases in labour costs.

# Further Reading

- ☐ *Average Weekly Earnings, States and Australia* (6302.0)
  Contains quarterly estimates of average weekly ordinary time earnings and average weekly total earnings for full-time adult employees and average weekly total earnings for all employees, males, females and persons, classified by sector and State and Territory, by sex.

- ☐ *Average Weekly Earnings of Employees, Australia* (6304.0)
  Contains results of a survey on average weekly earnings, classified by sex, adult/junior, industry, State and Territory, ordinary/overtime and full-time or part-time status. This series was discontinued with publication of the November 1991 results.

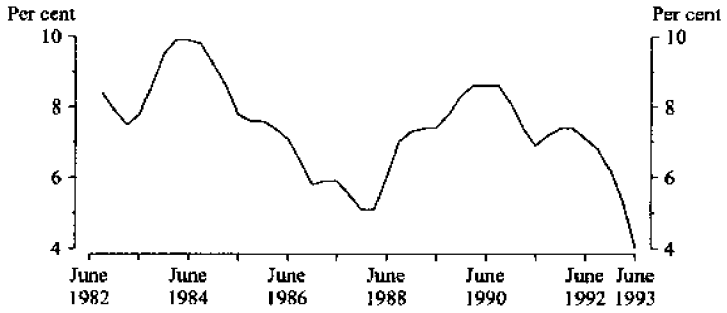
- ☐ *Average Weekly Earnings* (6350.0)
  Contains an historical series of average weekly earnings for all males for Australia from the September quarter 1941 to November 1990, as well as average weekly earnings estimates for all employees from September quarter 1981, classified into a number of categories.

# 2.5.7 Saving

## Comment

The household saving ratio in trend estimate terms has remained low throughout the 1980s and early 1990s. The household saving ratio remained around 10% during the 1983–84 financial year, and then fell to a low of 5.1% in the December quarter 1987. The series increased to plateau at 8.6% for the 3 quarters ending September 1990. Since then the household saving ratio has fallen to 4% in June quarter 1993.

HOUSEHOLD SAVING RATIO, TREND




*Source: ABS 5206.0, Quarterly data*

HOUSEHOLD SAVING

| *Period* | *Saving (a) ($m)* | *Household disposable income ($m)* | *Household saving ratio (%)* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 10,671 | 186,257 | 5.7 |
| 1988–89 | 15,307 | 209,807 | 7.3 |
| 1989–90 | 18,125 | 232,955 | 7.8 |
| 1990–91 | 18,358 | 245,233 | 7.5 |
| 1991–92 | 18,465 | 256,203 | 7.2 |
| 1992–93 | 16,126 | 263,697 | 6.1 |
| | QUARTERLY — TREND | | |
| *1991–92—* | | | |
| December | 4,721 | 63,813 | 7.4 |
| March | 4,762 | 64,603 | 7.4 |
| June | 4,596 | 65,099 | 7.1 |
| *1992–93—* | | | |
| September | 4,487 | 65,519 | 6.8 |
| December | 4,080 | 65,634 | 6.2 |
| March | 3,449 | 65,648 | 5.3 |
| June | 2,634 | 65,585 | 4.0 |

(a) Savings is derived as a balancing item.

*Source:* ABS, *Australian National Accounts: National Income, Expenditure and Product* (5206.0).

# Explanatory Notes

Saving is the excess of income over outlays for each sector in the economy during a given period. Saving can be seen as giving up current consumption to derive a future benefit because it is used to finance investment which, at the national level, will increase the productive capacity to produce a greater quantity of goods and services in the future.

Household disposable income is the amount of income that households have available for spending after deducting from total income any taxes paid, interest payments and transfers to overseas. The ratio of household income saved to household disposable income is called the household saving ratio. Australia's household saving ratio has generally been on a downward trend since reaching a high point in the mid-1970s.

For businesses, saving is referred to as undistributed income or retained earnings. For governments, saving is referred to as the surplus on current transactions.

If total saving in the domestic economy from the above sources and from depreciation allowances (sometimes referred to as 'consumption of fixed capital') is not enough to cover planned investment, then the nation must borrow from foreign countries to finance its investment. Historically, Australia has relied heavily on foreign borrowing to finance its investment. In effect, we have chosen to consume now rather than to save for investment.

Governments and private organisations are interested in changes in the level of saving because of the effect on investment and Australia's borrowing requirements from overseas.

# Further Reading

- *Australian National Accounts: National Income, Expenditure and Product* ( 5206.0) Contains quarterly data, including household income and expenditure, for the last 13 quarters. Measures of national saving and saving for individual institutional sector (government, businesses and households) are derived as balancing items in the income and outlay accounts of the national accounts.

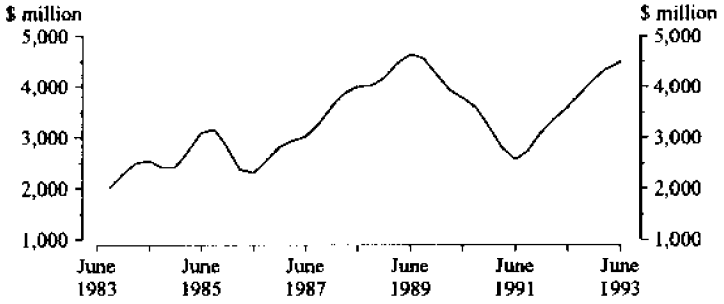
- *Australian National Accounts: National Income, Expenditure and Product* (5204.0) Contains annual data, including household income and expenditure, from 1959 60.

# 2.5.8 Company Profits

## Comment

Company profits in trend estimate terms rose to $4,635.4m in June quarter 1989 after a period of strong growth. Following the 1988 stock market crash, company profits fell sharply to $2,570.1m in June quarter 1991 but have since recovered to near 1989 levels.

**COMPANY PROFITS BEFORE TAX, TREND**




*Source: ABS 5651.0, Quarterly data*

**COMPANY PROFITS BEFORE INCOME TAX (a)**
**($ million)**

| *Period* | *Mining* | *Manufacturing* | *Wholesale and retail trade* | *Other selected industries* | *Total* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 3,816 | 6,613 | 2,716 | 1,511 | 14,655 |
| 1988–89 | 3,540 | 8,607 | 3,348 | 1,695 | 17,190 |
| 1989–90 | 5,043 | 7,766 | 2,954 | 570 | 16,333 |
| 1990–91 | 5,927 | 4,956 | 1,850 | 449 | 12,284 |
| 1991–92 | 5,048 | 5,790 | 1,804 | 201 | 12,843 |
| 1992–93 | 5,449 | 7,835 | 2,828 | 720 | 16,833 |
| | | QUARTERLY — TREND | | | |
| *1991–92*– | | | | | |
| December | 1,274 | 1,433 | 110 | 75 | 3,099 |
| March | 1,288 | 1,540 | 245 | 77 | 3,367 |
| June | 1,319 | 1,629 | 331 | 65 | 3,597 |
| *1992–93*– | | | | | |
| September | 1,338 | 1,742 | 355 | 117 | 3,875 |
| December | 1,340 | 1,895 | 337 | 192 | 4,134 |
| March | 1,328 | 2,053 | 394 | 217 | 4,358 |
| June | 1,295 | 2,184 | 499 | 184 | 4,488 |

(a) Excluding public sector and unincorporated sector. Also excluding companies with 30 employees or fewer and all companies classified to agriculture, forestry, fishing and hunting, banking, non-bank finance, insurance, unit trusts, land trusts, mutual funds and community services.
*Source:* ABS, *Company Profits, Australia* (5651.0).

# Explanatory Notes

Company profits are defined as net operating profits or losses before income tax.

Statistics on company profits are collected quarterly by broad industry. Also collected in the survey of company profits are depreciation of fixed assets and net interest paid. Industries included are mining, manufacturing, wholesale and retail trade and other selected industries. Companies excluded are those primarily engaged in agriculture, forestry, fishing and hunting, banking, non-bank finance, unit trusts, land trusts, mutual funds, insurance and community services activities.

The data relates to companies employing more than 30 people. Smaller companies are excluded because they account for only about 10 per cent of total profits.

The Government and private bodies use statistics on company profits as a short-term indicator of economic activity. During periods of economic growth we expect a higher level of company profits than in periods of economic decline.

# Further Reading

- ☐ *Company Profits, Australia* (5651.0)
  Contains quarterly estimates of company profits of selected incorporated business enterprises. The data is presented by industry and expressed in original, seasonally adjusted and trend terms.

- ☐ *Business Operations and Industry Performance, Australia* (8140.0)
  Presents economic statistics based on profit and loss statements and balance sheet accounts of businesses in all industries of the Australian economy. Included is a measure of net profit and profitability.

VACANT

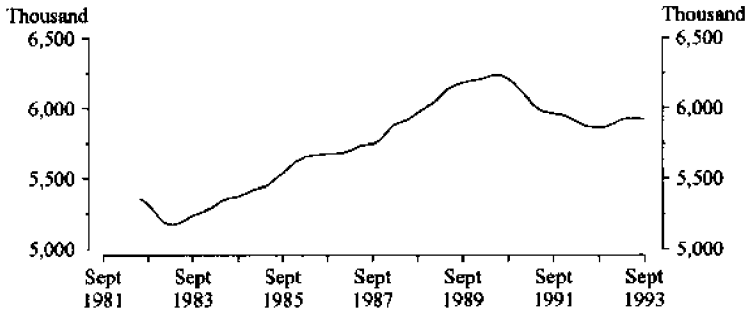
# Section 2.6
# Labour Force and Demography

# 2.6.1 Employment

## Comment

Following a downturn in 1982–83, the trend estimate of the number of full-time workers rose steadily until mid-1990. Since then full-time employment fell before levelling out in 1992 and 1993.

**FULL-TIME EMPLOYED PERSONS, TREND**




*Source: ABS 6203.0, Monthly data*

**EMPLOYED PERSONS ('000)**

| *Period* | *Full-time aged 15-19 years (a)* | *Full-time aged 20+ years (a)* | *Total full-time* | *Total part-time* | *Total* |
|---|---|---|---|---|---|
| | | ANNUAL AVERAGE | | | |
| 1987–88 | 425.9 | 5,396.8 | 5,822.7 | 1,433.6 | 7,256.3 |
| 1988–89 | 445.8 | 5,590.6 | 6,036.4 | 1,514.8 | 7,551.2 |
| 1989–90 | 436.5 | 5,765.2 | 6,201.8 | 1,638.5 | 7,840.3 |
| 1990–91 | 359.2 | 5,759.9 | 6,119.1 | 1,689.7 | 7,808.8 |
| 1991–92 | 273.3 | 5,654.1 | 5,927.4 | 1,756.7 | 7,684.1 |
| 1992–93 | 247.8 | 5,644.2 | 5,892.1 | 1,805.1 | 7,697.2 |
| | | MONTHLY — TREND UNLESS FOOTNOTED | | | |
| *1992–93—* | | | | | |
| July | 251.8 | 5,630.8 | 5,865.3 | 1,840.5 | 7,705.8 |
| August | 248.4 | 5,613.5 | 5,861.6 | 1,844.4 | 7,705.9 |
| September | 247.0 | 5,611.5 | 5,859.8 | 1,840.8 | 7,700.6 |
| October | 248.1 | 5,614.2 | 5,861.5 | 1,831.3 | 7,692.8 |
| November | 247.0 | 5,608.8 | 5,867.7 | 1,818.0 | 7,685.7 |
| December | 247.1 | 5,623.4 | 5,877.4 | 1,803.9 | 7,681.3 |
| January | 261.0 | 5,642.8 | 5,890.1 | 1,790.8 | 7,680.9 |
| February | 249.3 | 5,644.5 | 5,903.7 | 1,780.4 | 7,684.1 |
| March | 242.5 | 5,698.4 | 5,915.2 | 1,773.4 | 7,688.6 |
| April | 244.9 | 5,659.6 | 5,922.4 | 1,772.7 | 7,695.1 |
| May | 242.5 | 5,672.6 | 5,925.0 | 1,779.2 | 7,704.2 |
| June | 243.4 | 5,711.8 | 5,924.8 | 1,791.5 | 7,716.3 |
| *1993–94—* | | | | | |
| July | 233.0 | 5,684.8 | 5,923.4 | 1,807.3 | 7,730.6 |
| August | 228.9 | 5,680.0 | 5,921.3 | 1,823.7 | 7,745.0 |
| September | 228.3 | 5,688.5 | 5,917.3 | 1,837.7 | 7,755.0 |

(a) Data are seasonally adjusted, trend data are not available.
*Source:* ABS, *The Labour Force, Australia* (6203.0).

# Explanatory Notes

Each month the ABS collects data on the number of employed and unemployed persons. This information is gathered from the Labour Force Survey, a monthly sample survey of private dwellings and non-private dwellings (e.g. hotels, motels).

The survey is used to determine the labour force status of the civilian population aged 15 years and over. Not included are members of the permanent defence forces, diplomatic and defence personnel from overseas countries and overseas residents in Australia. The Labour Force Survey classifies individuals as employed, unemployed or not in the labour force.

Employed persons are persons aged 15 years and over, who during the reference week, (a) worked one hour or more for payment of any kind or profit in a job, business or farm or (b) worked one hour or more or without pay in a family business or farm or (c) were employees who had a job but were not at work for various defined reasons or (d) were employers, self-employed persons or unpaid family helpers who had a job but were not at work. Full-time workers are employed persons who usually work more than 35 hours a week or did so during the reference week.

The level of employment is used by the Government, unions and welfare groups to assess policy requirements and options. Estimates of employment indicate trends in full-time and part-time employment, as well as trends in the age and sex of workers.

# Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
  Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.

- ☐ *The Labour Force, Australia* (6203.0)
  Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.

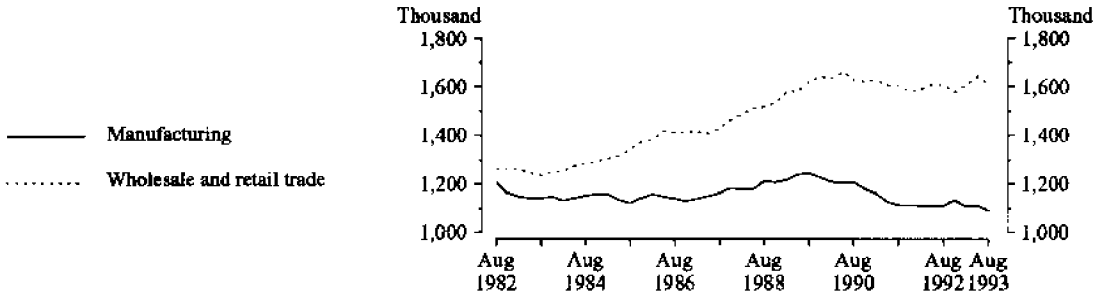
- ☐ Information Paper: *Measuring Employment and Unemployment* (6279.0)
  Provides information about the monthly Labour Force Survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.

# 2.6.2 Employed Persons by Industry

## Comment

During the 1980s, in seasonally adjusted terms, employment in the wholesale and retail industries grew from 1,264,400 persons in August 1982 to 1,633,800 persons in February 1990. Employment in the manufacturing sector reached a high of 1,242,900 persons in August 1989, two quarters prior to the wholesale and retail peak in February 1990. Manufacturing employment has since declined while wholesale and retail employment has remained more stable.

**EMPLOYED PERSONS BY SELECTED INDUSTRY, SEASONALLY ADJUSTED**




*Source: ABS 6203.0, Quarterly data*

**EMPLOYED PERSONS BY SELECTED INDUSTRY ('000)**

| *Period* | *Agriculture, forestry, fishing and hunting* | *Manufacturing* | *Wholesale and retail trade* | *Community services* |
|---|---|---|---|---|
| | | ANNUAL AVERAGE | | |
| 1987–88 | 416.7 | 1,174.6 | 1,473.9 | 1,266.2 |
| 1988–89 | 432.2 | 1,218.5 | 1,552.7 | 1,330.4 |
| 1989–90 | 425.7 | 1,220.8 | 1,640.7 | 1,367.9 |
| 1990–91 | 433.8 | 1,167.4 | 1,620.9 | 1,408.4 |
| 1991–92 | 409.0 | 1,111.6 | 1,596.5 | 1,452.7 |
| 1992–93 | 405.9 | 1,115.2 | 1,608.9 | 1,460.2 |
| | | QUARTERLY—SEASONALLY ADJUSTED | | |
| *1991–92—* | | | | |
| February | 409.2 | 1,109.6 | 1,592.0 | 1,473.0 |
| May | 396.3 | 1,111.2 | 1,611.4 | 1,439.3 |
| *1992–93—* | | | | |
| August | 409.5 | 1,111.4 | 1,604.6 | 1,470.3 |
| November | 407.8 | 1,132.5 | 1,579.2 | 1,462.7 |
| February | 418.7 | 1,107.1 | 1,605.9 | 1,455.4 |
| May | 387.9 | 1,109.6 | 1,645.9 | 1,453.0 |
| *1993–94—* | | | | |
| August | 423.1 | 1,089.9 | 1,610.1 | 1,468.0 |

*Source:* ABS, *The Labour Force, Australia* (6203.0).

# Explanatory Notes

Statistics are collected on the number of people employed by industry as at the mid-month of each quarter. The information is collected through the Labour Force Survey, and is used to determine trends in the labour market.

The Labour Force Survey collects information on the respondent's main job. The activity of this person's employer at the location of their main job is classified into one of the following industry divisions: agriculture, forestry, fishing and hunting; mining; manufacturing; electricity, gas and water; construction; wholesale and retail trade; transport and storage; communication; finance, property and business services; public administration and defence; community services and recreation; and personal and other services.

Changes in the number of employees per industry can be a reflection of the level of economic activity. When an industry is expanding it will usually increase its number of employees. When an industry is contracting it will usually reduce the number of employees.

Changes in the structure of the industry will also affect the number of employees per industry. Technology and new work practices are common reasons for industries increasing or decreasing the number of people they employ.

The ABS also collects information on employment and earnings from a sample of employers. That survey provides wage and salary employment statistics at industry, sector and State level. Information on employment in specific industries is also collected in certain annual or periodic censuses or surveys of those particular industries.

Statistics on employed persons by industry are used by the government to plan for changes in the labour market by industry sector.

# Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
  Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.

- ☐ *The Labour Force, Australia* (6203.0)
  Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.

- ☐ Information Paper: *Measuring Employment and Unemployment* (6279.0)
  Provides information about the monthly Labour Force Survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.

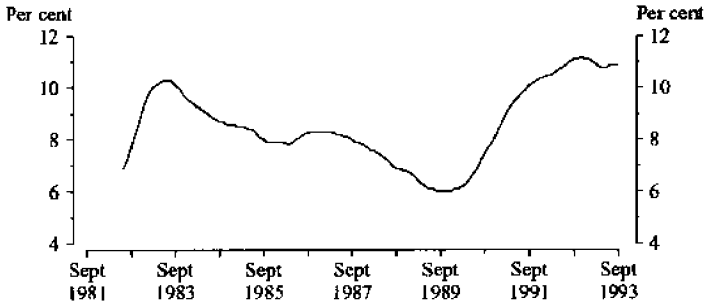
- ☐ *Employed Wage and Salary Earners, Australia* (6248.0)
  Contains estimates of employees by sex, full-time/part-time, industry and sector. Estimates of gross earnings classified by industry and sector are also shown. Estimates are available for Australia, States and Territories.

# 2.6.3 Unemployment

## Comment

In trend estimate terms, Australia's unemployment rate rose sharply during 1982. In 1983, the unemployment rate passed the 10% mark and remained above this level for six months. After this, the rate generally decreased during a period of strong economic growth in Australia. By early 1990, Australia's unemployment rate again began to climb sharply peaking at 11.2% in November 1992. This was the highest figure recorded since the data series commenced in 1978.

UNEMPLOYMENT RATE — PERSONS, TREND




*Source: ABS 6203.0, Monthly data*

LABOUR FORCE STATUS OF CIVILIAN POPULATION: PERSONS

| *Period* | *Unemployed ('000)* | *Employed ('000)* | *Labour force ('000)* | *Civilian population aged 15+ years ('000)(a)* | *Unemployment rate (%)* | *Participation rate (%)* |
|---|---|---|---|---|---|---|
| | | | ANNUAL AVERAGE | | | |
| 1987–88 | 610.5 | 7,256.3 | 7,866.8 | 12,652.5 | 7.8 | 62.2 |
| 1988–89 | 535.0 | 7,551.2 | 8,086.2 | 12,913.7 | 6.6 | 62.6 |
| 1989–90 | 515.0 | 7,840.3 | 8,355.2 | 13,155.3 | 6.2 | 63.5 |
| 1990–91 | 713.6 | 7,808.8 | 8,522.4 | 13,383.9 | 8.4 | 63.7 |
| 1991–92 | 888.9 | 7,684.1 | 8,572.9 | 13,598.3 | 10.4 | 63.0 |
| 1992–93 | 949.3 | 7,697.2 | 8,646.5 | 13,790.2 | 11.0 | 62.7 |
| | | | MONTHLY — TREND UNLESS FOOTNOTED | | | |
| *1992–93* | | | | | | |
| July | 942.7 | 7,705.8 | 8,648.5 | 13,705.8 | 10.9 | 63.1 |
| August | 951.1 | 7,705.9 | 8,657.0 | 13,722.2 | 11.0 | 63.1 |
| September | 957.7 | 7,700.6 | 8,658.3 | 13,738.6 | 11.1 | 63.0 |
| October | 962.6 | 7,692.8 | 8,655.4 | 13,753.6 | 11.1 | 62.9 |
| November | 965.2 | 7,685.7 | 8,650.9 | 13,768.6 | 11.2 | 62.8 |
| December | 963.8 | 7,681.3 | 8,645.1 | 13,783.6 | 11.1 | 62.7 |
| January | 958.5 | 7,680.9 | 8,639.4 | 13,799.3 | 11.1 | 62.6 |
| February | 949.5 | 7,684.1 | 8,633.5 | 13,814.9 | 11.0 | 62.5 |
| March | 940.5 | 7,688.6 | 8,629.1 | 13,830.6 | 10.9 | 62.4 |
| April | 935.4 | 7,695.1 | 8,630.5 | 13,842.8 | 10.8 | 62.3 |
| May | 935.6 | 7,704.2 | 8,639.9 | 13,855.0 | 10.8 | 62.4 |
| June | 939.0 | 7,716.3 | 8,655.4 | 13,867.2 | 10.8 | 62.4 |
| *1993–94—* | | | | | | |
| July | 943.4 | 7,730.6 | 8,674.0 | 13,879.4 | 10.9 | 62.5 |
| August | 947.5 | 7,745.0 | 8,692.5 | 13,892.0 | 10.9 | 62.6 |
| September | 951.9 | 7,755.0 | 8,706.9 | 13,904.7 | 10.9 | 62.6 |

(a) Series is non-seasonal. Original data provided.

*Source:* ABS, *The Labour Force, Australia* (6203.0).

# Explanatory Notes

Unemployment exists when there are people looking for work but unable to find employment. Once a month the Australian Bureau of Statistics conducts a Labour Force Survey in order to monitor the numbers of the employed, the unemployed and those not in the labour force.

The labour force is made up of the civilian population aged 15 years or over who are already working and people who do not have a job but are actively looking for work and are available to start work.

The individuals in the labour force who are not employed, but who are actively looking for work and are available to start work, are defined by the ABS as unemployed. The ABS follows international definitions. Actively looking for work includes writing, telephoning or applying in person to an employer or registering with the Commonwealth Employment Service. However, whether a person is unemployed or not is measured by the ABS independently of whether he or she is receiving a Jobsearch or Newstart allowance from the Department of Social Security or is registered with the Commonwealth Employment Service.

The unemployment rate is the percentage of the labour force that is unemployed.

Individuals who cease to actively look for work are defined as not in the labour force.

The participation rate for any group is the labour force expressed as a percentage of the civilian population aged 15 and over in the same group. It measures the number of people who are participating in the labour force by either working or looking for work.

Statistics on unemployment are used by governments, businesses, industrial tribunals, the media, academics and other research workers to provide a better understanding of the current economic situation when formulating policy.

# Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
  Presents a wide range of information, including time series statistics, on the Australian labour market, both in tabular and graphical form.

- ☐ *The Labour Force, Australia* (6203.0)
  Contains estimates of the civilian population aged 15 and over by sex, labour force status, age, marital status, States and Territories, capital cities, school and tertiary education, industry, occupation, full-time/part-time employed.

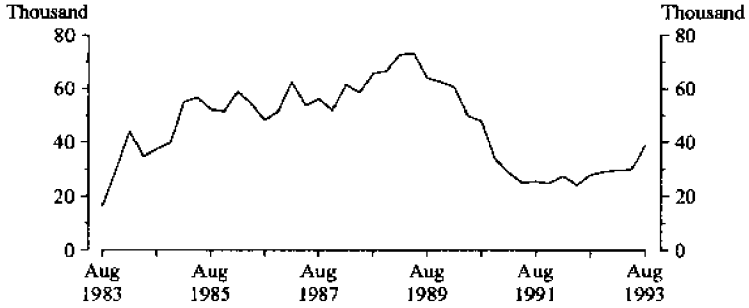
- ☐ Information Paper: *Measuring Employment and Unemployment* (6279.0)
  Provides information about the monthly labour force survey and discusses the Australian labour force framework including reference to the measurement of unemployment and underemployment.

# 2.6.4 Job Vacancies

## Comment

The economic recovery in the mid-1980s saw strong growth in the seasonally adjusted number of job vacancies with high levels of job vacancies continuing for most of the remainder of the 1980s. Job vacancies fell sharply from May 1989 and by August 1991 were at their lowest level since August 1983 before a slow turn-around emerged.

**JOB VACANCIES: ALL INDUSTRIES**
**SEASONALLY ADJUSTED**




*Source: ABS 6354.0, Quarterly data*

**JOB VACANCIES**
**('000)**

| *Period* | *Manufacturing(a)* | *All industries* | *Job vacancies per '000 unemployed* |
|---|---|---|---|
| | ANNUAL AVERAGE | | |
| 1987–88 | 13.8 | 57.2 | 95.0 |
| 1988–89 | 14.5 | 69.5 | 130.2 |
| 1989–90 | 11.3 | 59.5 | 117.7 |
| 1990–91 | 5.0 | 34.1 | 50.7 |
| 1991–92 | 3.0 | 25.6 | 29.1 |
| 1992–93 | 3.5 | 29.3 | 31.1 |
| | QUARTERLY — SEASONALLY ADJUSTED UNLESS FOOTNOTED | | |
| *1991–92—* | | | |
| February | 2.5 | 26.6 | 29.4 |
| May | 3.3 | 25.4 | 27.8 |
| *1992–93—* | | | |
| August | 3.4 | 26.8 | 28.4 |
| November | 4.5 | 30.2 | 31.1 |
| February | 2.6 | 28.9 | 30.2 |
| May | 3.4 | 31.6 | 34.2 |
| *1993–94—* | | | |
| August | 4.1 | 37.3 | 38.7 |

(a) Seasonally adjusted data not available.
*Source:* ABS, *Job Vacancies and Overtime, Australia* (6354.0).

# Explanatory Notes

One measure of the demand for labour is the number of job vacancies. When the demand for labour is low, the number of job vacancies is reduced. If the demand for labour is high, the number of job vacancies increases.

The demand for labour is an indicator of changes in the level of economic activity. Recessions are characterised by a low level of job vacancies, while periods of economic growth tend to be characterised by an increase in job vacancies.

A job vacancy is a job available for immediate filling on the survey reference date and for which recruitment action has been taken. Recruitment action includes efforts to fill vacancies by advertising, factory notices, notifying public or private employment agencies, notifying trade unions and by contacting, interviewing or selecting applicants already registered with the enterprise or organisation. Excluded are jobs available only to persons employed by the enterprise or organisation, e.g. the Australian Public Service and the Public Services of each of the States and Territories.

The job vacancy rate is calculated by expressing the number of job vacancies as a percentage of employees plus vacancies. The government, unions and private bodies monitor the job vacancy rates in order to get an indication of the level of future employment. A rise in job vacancies is usually followed by an increase in employment.

Job vacancy statistics are collected by sector (public and private), industry, State or Territory and as a national total. Industry statistics are used to identify the industries experiencing growth or decline. State and Territory statistics show employment prospects and the prospect of economic growth for each of the States or Territories by public and private sectors.

# Further Reading

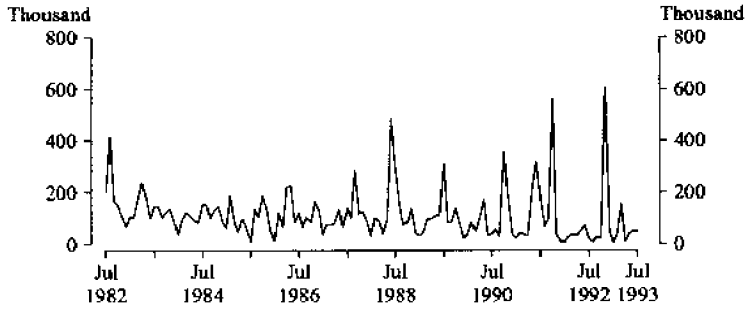
- ☐ *Job Vacancies and Overtime, Australia* (6354.0)
  Contains quarterly estimates of the number of job vacancies and job vacancy rates by sector, industry and State and Territory.

# 2.6.5 Industrial Disputes

## Comment

Working days lost due to industrial disputes have generally declined since the early 1980s. However, while there are fewer disputes, the 1990s saw larger numbers of employees involved leading to large numbers of working days lost in November 1992, October 1991 and June 1988.

WORKING DAYS LOST




*Source: ABS 6321.0, Monthly data*

INDUSTRIAL DISPUTES IN PROGRESS : AUSTRALIA

| *Period* | *Number of disputes (a)* | *Employees involved ('000)* | *Working days lost ('000)* | *Working days lost per '000 employees (b)* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 1,576 | 865 | 1,691 | 282 |
| 1988–89 | 1,467 | 670 | 1,285 | 206 |
| 1989–90 | 1,245 | 772 | 1,182 | 185 |
| 1990–91 | 1,201 | 856 | 1,574 | 254 |
| 1991–92 | 884 | 1,036 | 1,170 | 195 |
| 1992–93 | 642 | 999 | 1,016 | 169 |
| | | MONTHLY (b) | | |
| *1991–92* | | | | |
| May | 83 | 44 | 52 | 237 |
| June | 72 | 53 | 70 | 195 |
| *1992–93* | | | | |
| July | 65 | 21 | 17 | 169 |
| August | 64 | 9 | 9 | 159 |
| September | 69 | 17 | 26 | 148 |
| October | 70 | 16 | 19 | 57 |
| November | 63 | 645 | 603 | 152 |
| December | 45 | 38 | 47 | 158 |
| January | 38 | 5 | 6 | 158 |
| February | 58 | 38 | 34 | 159 |
| March | 68 | 152 | 156 | 179 |
| April | 46 | 9 | 8 | 175 |
| May | 67 | 60 | 41 | 173 |
| June | 64 | 60 | 50 | 169 |
| *1993–94* | | | | |
| July | 66 | 42 | 49 | 174 |

(a) Disputes affecting more than one industry have been counted as a separate dispute in each industry. (b) Working days lost per thousand employees is calculated for the 12 months ending each month listed.

*Source:* ABS, *Industrial Disputes, Australia* (6321.0).

# Explanatory Notes

An industrial dispute is defined as a strike or a lock-out. A strike is when employees refuse to work. A lock-out occurs when the employer does not allow the employees to work. In both cases the normal duties of the employee are not being performed.

The ABS collects information on industrial disputes according to the reason for work stoppage. Reasons are classified into: wages, hours of work, managerial policy, physical working conditions, leave, pensions and compensation, trade unionism and other. Statistics are collected for stoppages when the dispute takes up 10 employee working days or more, that is, when time lost at the establishments where the stoppage occurred is collectively equal to or more than 10 working days. This can involve a small number of employees over a long period of time, or a large group of employees over a short period of time.

Statistics on industrial disputes are used by government departments, industrial relations authorities, employer organisations, employee unions, etc. as broad indicators of the level of industrial unrest.

# Further Reading

- ☐ *Labour Statistics, Australia* (6101.0)
  Contains annual time series statistics on the Australian labour market in tabular and graphical form, including industrial relations.

- ☐ *Industrial Disputes, Australia* (6321.0)
  Contains monthly data on the number of disputes, workers involved and other industrial dispute measurements by State, industry, duration, cause and method of settlement.

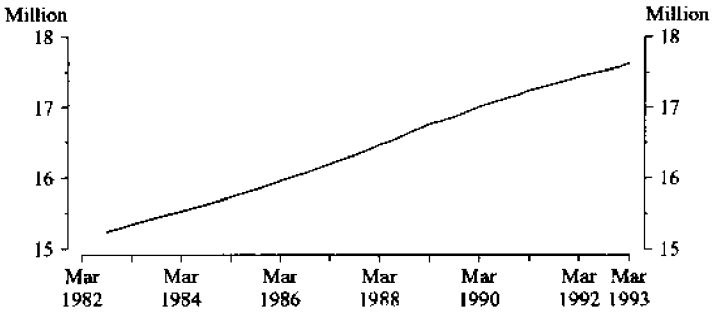
- ☐ *Industrial Disputes, Australia* (6322.0)
  Contains calendar year data on the number of disputes, workers involved and other industrial dispute measurements by State, industry, duration, cause and method of settlement. There are separate tables for disputes in progress during the year and disputes that ended during the year.

# 2.6.6 Population

## Comment

Australia's population has grown at a very steady rate with contributions from natural increase and net immigration. The average annual rate of growth in population from the March quarter 1983 to the March quarter 1993 was 1.4%.

**ESTIMATED RESIDENT POPULATION**




*Source: ABS 3101.0, Quarterly data*

**ESTIMATED RESIDENT POPULATION AND COMPONENTS OF POPULATION CHANGE ('000)**

| *Period* | *Natural increase* | *Net overseas migration* | *Total increase* | *Total population at end of period* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 125.7 | 149.3 | (a) 268.3 | 16,532.2 |
| 1988–89 | 131.4 | 157.4 | (a) 282.3 | 16,814.4 |
| 1989–90 | 132.4 | 124.6 | (a) 250.7 | 17,065.1 |
| 1990–91 | 141.6 | 86.4 | (a) 218.9 | 17,284.0 |
| 1991–92 | 134.8 | 63.8 | 198.6 | 17,482.6 |
| 1992–93 | 143.8 | 35.1 | 178.9 | 17,661.5 |
| | | QUARTERLY | | |
| *1991–92—* | | | | |
| December | 33.1 | 9.3 | 42.4 | 17,383.9 |
| March | 38.2 | 25.2 | 63.4 | 17,447.3 |
| June | 31.8 | 3.5 | 35.2 | 17,482.6 |
| *1992–93—* | | | | |
| September | 32.4 | 11.1 | 43.4 | 17,526.0 |
| December | 37.9 | 4.7 | 42.6 | 17,568.7 |
| March | 38.1 | 20.3 | 58.4 | 17,627.1 |
| June | 35.3 | –0.9 | 34.4 | 17,661.5 |

(a) Includes a statistical adjustment to balance the combined components against the intercensal increase indicated by the 1991 census.
*Source:* ABS, *Australian Demographic Statistics* (3101.0).

# Explanatory Notes

Population is defined as the total number of people residing in a country. The ABS bases its estimates of the population of Australia on the Census of Population and Housing. Between each census, estimates are made of the population using a range of data including migration levels, births, deaths and other indicators of population change.

While the census counts people at their actual place of location within Australia on census night, State or Territory population estimates are based on census counts according to where people usually reside in Australia. To obtain population estimates from these usual residence counts, adjustments are made for census undercount, overseas visitors are excluded and Australian residents temporarily overseas on census night are added. These population estimates, derived from census counts are then updated quarterly until the next census in five years time, by adding estimates of natural increase and net migration.

The population will vary as a result of natural increase and net migration. Natural increase is the number of births less the number of deaths. When net migration remains zero, and there are more births than deaths the population will increase; if there are more deaths than births the population will fall.

Net migration is the number of permanent and long-term movements to Australia, less the number of permanent and long-term movements out of Australia.

Population estimates are used by the Government to determine the number of seats allocated to each State in the House of Representatives and also to allocate Commonwealth funds to each State and local government authority. In addition, they are used to plan requirements for hospitals, schools, transport, housing development and other infrastructure and to formulate migration policy.

# Further Reading

- ☐ *Australian Demographic Statistics* (3101.0)
  Contains quarterly estimates of total population by States, Territories and Australia. Included are the most recent estimates of population in five-year age groups. Details of the components of population, vital statistics and migration are also included.

- ☐ *Estimated Resident Population by Sex and Age: States and Territories of Australia* (3201.0)
  Contains annual estimates of population for each State and Territory classified by sex and single years of age (0 to 84).

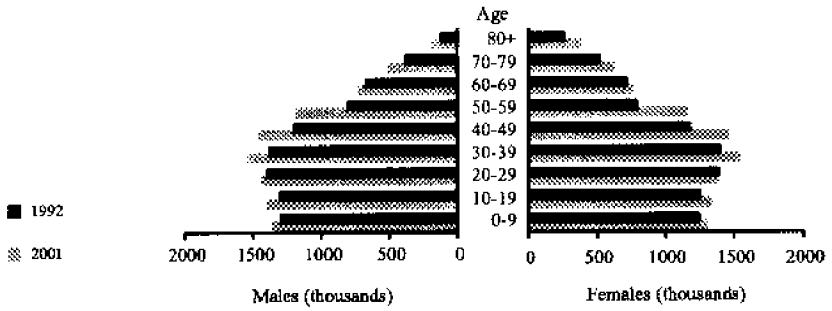
- ☐ *Projections of the Populations of Australia, States and Territories* (3222.0)
  Provides four alternative projections of the resident population by selected ages and sex by State for each year to 1996 and from 2001 at five-yearly intervals to 2041.

# 2.6.7 Demography

## Comment

The Australian population is continuuing to assume an older age profile. As at 30 June 1992 the number of persons aged 60 years or more was 2.7 million or 15.6% of the total population. This figure is projected to increase to 3.2 million or 16.2% of the total population in the year 2001. The proportion of children aged 0-9 years is projected to decrease from 14.6% of the total population as at 30 June 1992 to 13.4% in the year 2001.

**AUSTRALIAN POPULATION: AGE DISTRIBUTION**
**1992 AND 2001**




*Source: ABS 3201.0. Annual data and 3222.0. Annual data*

**DEMOGRAPHY**

| | *Net reproduction rate* | *Life expectancy at birth — males* | *Life expectancy at birth — females* | *Infant mortality rate* | *Crude marriage rate* | *Net overseas migration* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 0.88 | 73.06 | 79.53 | 8.7 | 7.0 | 125,730 |
| 1988–89 | 0.88 | 73.10 | 79.51 | 8.7 | 7.1 | 149,341 |
| 1989–90 | 0.88 | 73.32 | 79.60 | 8.0 | 7.0 | 157,436 |
| 1990–91 | 0.91 | 73.87 | 80.06 | 8.2 | 6.9 | 124,647 |
| 1991–92 | 0.89 | 74.40 | 80.39 | 7.1 | 6.6 | 86,432 |
| 1992–93 | 0.91 | 74.47 | 80.41 | 7.0 | 6.6 | 63,771 |

*Sources:* ABS, *Australian Demographic Statistics* (3101.0), *Births, Australia* (3301.0), *Deaths, Australia* (3302.0), *Marriages, Australia* (3306.0)

# Explanatory Notes

Demographic data assists researchers in studying the characteristics of the population. Examining this type of data over a period of time helps researchers and policy makers to understand the changing characteristics of the population.

An indication of the extent to which the population reproduces itself is the net reproduction rate. This rate measures the average number of daughters born by women. A net reproduction rate of 0.91 indicates the population is about 9% below replacement level.

Life expectancy at birth indicates how long a new born baby can be expected to live. Life expectancy is often used to indicate changes in the health status of a community or to make comparisons between communities.

Infant mortality measures the number of deaths of babies who are less than 1 year old per thousand live births.

The crude marriage rate measures the number of marriages registered during a calendar year per thousand of the mean population for the calendar year. The crude marriage rate includes first marriages and remarriages.

One of the most important factors in Australia's economic and social development has been the contribution made by overseas born Australians. Net overseas migration, i.e. the difference between permanent and long-term arrivals and departures and the natural increase in the population (excess of births over deaths) are the 2 components of Australia's population change.

# Further Reading

- ☐ *Australian Demographic Statistics* (3101.0)
  Contains quarterly estimates of the population by States, Territories and Australia. Details of the components of population, vital statistics and migration are also included.
- ☐ *Births, Australia* (3301.0)
  Contains annual data on births, characteristics of the parent(s) and also shows crude and age-specific birth rates and reproduction rates.
- ☐ *Deaths, Australia* (3302.0)
  Contains annual data on the number of deaths by State, Territory and Australia. Deaths are classified by age, sex, birthplace, marital status, occupation and cause of death.
- ☐ *Causes of Death, Australia* (3303.0)
  Contains annual data on the causes of death by selected age groups.
- ☐ *Marriages, Australia* (3306.0)
  Contains annual data on marriages by State and Territory of registration, characteristics of brides and bridegrooms and type of celebrant.
- ☐ *Overseas Arrivals and Departures* (3404.0)
  Presents travellers classified into category (settlers, residents or visitors); type of movement (permanent, long-term, short-term), country of residence, State of clearance, age and sex.

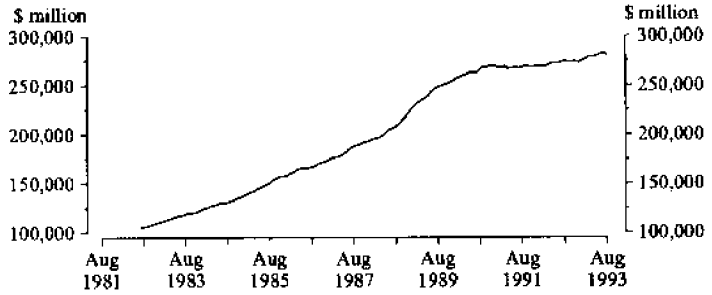
# Section 2.7
# Financial Markets

# 2.7.1 M3, Broad Money and Credit

## Comment

Over the period from 1982 to 1993 the amount of money in circulation in the Australian economy, as measured by the broad money supply, has risen from $105,013m in July 1982 to $280,528m in August 1993. The period from 1988 to 1990 was one of more rapid growth in the money supply although it has been relatively stable throughout the early 1990s.

**BROAD MONEY, SEASONALLY ADJUSTED**




*Source: Reserve Bank of Australia Bulletin, Monthly data*

**SELECTED FINANCIAL AGGREGATES**
**($ million**

| *Period* | *M3 (a)* | *Broad money (b)* | *Total credit (c)* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 130,163 | 203,393 | 248,399 |
| 1988–89 | 166,506 | 242,022 | 300,879 |
| 1989–90 | 190,410 | 261,917 | 332,932 |
| 1990–91 | 202,650 | 266,402 | 340,796 |
| 1991–92 | 208,523 | 270,167 | 335,858 |
| 1992–93 | 229,612 | 279,659 | 343,043 |
| | MONTHLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | |
| June | 208,853 | 271,478 | 335,201 |
| *1992–93—* | | | |
| July | 218,779 | 273,093 | 335,877 |
| August | 219,913 | 274,199 | 334,663 |
| September | 219,070 | 273,139 | 335,423 |
| October | 219,464 | 273,275 | 336,848 |
| November | 220,976 | 274,006 | 336,656 |
| December | 220,862 | 272,371 | 336,900 |
| January | 224,515 | 274,548 | 335,528 |
| February | 225,856 | 276,357 | 337,044 |
| March | 227,411 | 278,477 | 338,256 |
| April | 227,498 | 278,759 | 339,846 |
| May | 228,108 | 279,413 | 342,324 |
| June | 229,809 | 280,829 | 343,167 |
| *1993–94—* | | | |
| July | 232,022 | 282,464 | 343,034 |
| August | 230,090 | 280,528 | 344,354 |

(a) Currency plus bank deposits (including certificates of deposits with trading banks) of private non-bank sector. (b) M3 plus borrowings from private sector by non-bank financial intermediaries less the latter's holdings of currency and bank deposits. (c) Credit is equal to bank bills outstanding plus loans and advances by financial intermediaries whose liabilities are included in Broad Money.
*Source:* RBA, *Reserve Bank of Australia Bulletin.*

# Explanatory Notes

Financial aggregates have long been used by central banks as indicators of the effects of monetary policy. Aggregates can be useful if they have a stable relationship with income or spending, or with the aggregate price level. Aggregates currently used in Australia are currency, M1, M3, Broad Money and Credit.

The first four of these are monetary aggregates and refer mainly to liabilities of the finance sector while credit is a measure based on financial intermediaries' assets. Definitions are as follows:

- currency = non-bank private sector holdings of notes and coin.
- M1 = currency + deposits of the non-bank private sector in cheque accounts with banks.
- M3 = M1 + all other deposits of the non-bank private sector with banks.
- Broad Money = M3 + borrowing by non-bank financial intermediaries from the non-financial private sector.
- Credit = outstanding loans and advances from financial intermediaries to the private non-financial sector, plus bank bills outstanding.

(A former aggregate, M2, which combined currency with all private sector deposits with trading banks is no longer of use as the legal distinction between trading and savings banks has been abolished.)

Between 1976 and 1985 projections for M3 growth were established by the authorities in order to determine the stance of monetary policy. Relationships between money and credit, economic growth and inflation are complex, however, and in the period following deregulation of the financial system, these relationships appear to have broken down. Because of this, policies targeting a monetary aggregate are no longer pursued, though financial aggregates remain in the set of indicators used in setting and assessing the effects of monetary policy.

# Further Reading

- ☐ *Reserve Bank of Australia Bulletin*
  Contains monthly levels of selected monetary aggregates for Australia. See also the feature article *Recent Trends in Money and Credit* in the December 1991 issue of *Reserve Bank of Australia Bulletin.*

- ☐ *Financial Aggregates*
  Monthly Reserve Bank of Australia press release containing Australia's financial aggregates.

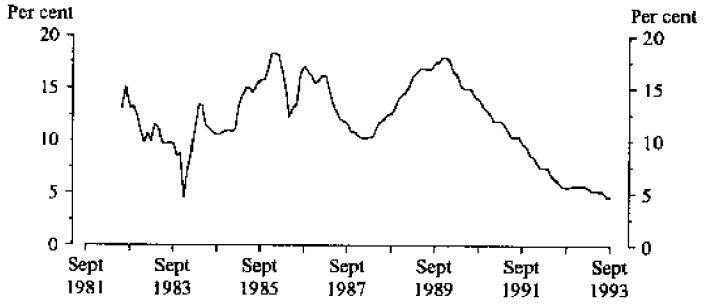
- ☐ *Australian National Accounts: Financial Accounts* (5232.0)
  Shows the level (stock) of financial assets and liabilities of each sector of the economy; the market for each of the conventional financial instruments; and inter-sectoral transactions in financial assets and liabilities.

# 2.7.2 Interest Rates

## Comment

The official cash rate fluctuated significantly between July 1982 and March 1987. During this period the series fell to 4.55% in December 1983, then rose to 18.37% in December 1985. A second peak was attained in November 1989 at 17.94%. From November 1989 the official cash rate has fallen steadily to 4.68% in September 1993.

**OFFICAL CASH RATE (a)**




(a) Authorised dealers, weighted average rate. Data are the weighted average of the month.
*Source: Reserve Bank of Australia Bulletin, Monthly data*

**KEY INTEREST RATES (a)**
**(per cent)**

| *Period* | *Private official cash rate (b)* | *Private prime rate* | *Private 90-day bank bills (c)* | *Commonwealth government 10-year treasury bonds* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | 11.79 | 15.00 | 13.15 | 11.95 |
| 1988–89 | 16.95 | 20.25 | 18.30 | 13.50 |
| 1989–90 | 14.98 | 18.75 | 15.10 | 13.40 |
| 1990–91 | 10.39 | 14.25 | 10.50 | 11.15 |
| 1991–92 | 6.41 | 10.75 | 6.40 | 8.90 |
| 1992–93 | 5.21 | 9.50 | 5.25 | 7.35 |
| | | MONTHLY | | |
| *1992–93—* | | | | |
| July | 5.97 | 10.75 | 5.55 | 8.30 |
| August | 5.61 | 10.00 | 5.90 | 8.95 |
| September | 5.54 | 10.00 | 5.95 | 8.95 |
| October | 5.59 | 10.00 | 5.85 | 8.85 |
| November | 5.69 | 10.00 | 5.85 | 9.15 |
| December | 5.73 | 10.00 | 5.90 | 8.95 |
| January | 5.70 | 10.00 | 5.85 | 8.60 |
| February | 5.71 | 10.00 | 5.80 | 8.00 |
| March | 5.53 | 10.00 | 5.35 | 7.80 |
| April | 5.21 | 10.00 | 5.25 | 7.55 |
| May | 5.21 | 9.50 | 5.15 | 7.70 |
| June | 5.21 | 9.50 | 5.25 | 7.35 |
| *1993–94—* | | | | |
| July | 5.19 | 9.50 | 4.95 | 6.90 |
| August | 4.72 | 9.00 | 4.75 | 6.65 |
| September | 4.68 | 9.00 | 4.85 | 6.85 |

(a) All data are end of period unless otherwise stated. (b) Authorised dealers, weighted average rate. Data are the weighted average of the month, annuals are from the last month of the year. (c) Data are the weighted average of the last week of the period.
*Source:* RBA, *Reserve Bank of Australia Bulletin.*

# Explanatory Notes

Interest is the compensation paid to a lender for deferring expenditure and the price paid by a borrower for the use of the funds saved by the lender.

There are different rates of interest which vary according to factors such as the amount borrowed, the length of time and the credit rating of the borrower. As a guide to the level of long-term interest rates, the yield (i.e. the equivalent of the interest rate) on a 10-year Treasury bond is shown. The cash rate, prime rate and 90-day bank bill yield are examples of short-term interest rates.

The cash rate measures the amount of interest paid on overnight or one-day loans. This short-term money market is where banks and other large corporations lend funds that are temporarily surplus to other banks, etc. which have a temporary shortfall.

The Reserve Bank of Australia operates in the short-term money market in order to influence the cash rate (by borrowing and lending funds itself). In turn, changes in the level of the cash rate affect other interest rates.

Interest rates on short-term investments, e.g. 90-day bank bills, are very closely related to the cash rate. Ultimately, interest rates on bank deposits and funds placed with building societies, credit unions and the like are also related to the cash rate to varying degrees. Changes in the cost of borrowing by intermediaries flow through to their loan rates. For example, the prime rate, which indicates the amount of interest charged by banks on loans to preferred customers, tends to move at an equal pace with the cash rate.

These interrelationships allow the Reserve Bank, through its operations in the short-term money market, to have an effect on many interest rates in the economy. This means that the Bank can influence the cost and hence the amount of borrowing and lending in the economy, with the aim of maintaining low inflation and contributing to a policy mix to achieve strong economic growth.

# Further Reading

- ☐ *Reserve Bank of Australia Bulletin*
  Contains monthly information on interest rates for the money market, capital market, banks and other financial institutions.

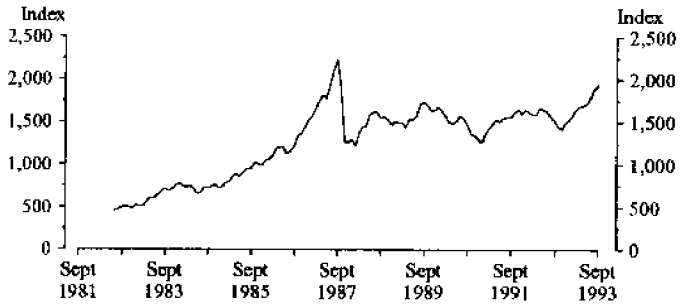
- ☐ *Monthly Statistics for Corporations Registered under the Financial Corporations Act* (5647.0)
  Contains monthly statistics, including interest rates, for all financial corporations registered under the Financial Corporations Act.

# 2.7.3 Share Price Indexes

## Comment

The all ordinaries index experienced strong growth from November 1986 to September 1987. This growth was brought to an abrupt halt with the stock market crash of October 1987, which resulted in an immediate fall in the all ordinaries index. From the time of the crash to November 1992, the index displayed modest fluctuations, with a stronger upward trend beginning in December 1992.

**ALL ORDINARIES INDEX**
**(31 Dec 1979 = 500)**




*Source: Australian Stock Exchange, Monthly data*

**SHARE PRICE INDEXES (a) (31 DEC 1979 = 500.0)**

| *Period* | *All industrials* | *All resources* | *All ordinaries* |
|---|---|---|---|
| | ANNUAL | | |
| 1987–88 | 2,506.0 | 885.2 | 1,585.3 |
| 1988–89 | 2,498.3 | 798.2 | 1,527.7 |
| 1989–90 | 2,367.9 | 855.3 | 1,508.8 |
| 1990–91 | 2,330.7 | 873.5 | 1,504.9 |
| 1991 92 | 2,550.0 | 965.7 | 1,652.7 |
| 1992–93 | 2,665.7 | 1,002.7 | 1,722.6 |
| | MONTHLY | | |
| *1992–93* | | | |
| July | 2,511.8 | 957.0 | 1,631.4 |
| August | 2,424.0 | 911.5 | 1,567.3 |
| September | 2,334.0 | 881.3 | 1,511.2 |
| October | 2,257.8 | 826.5 | 1,447.1 |
| November | 2,244.1 | 776.9 | 1,413.1 |
| December | 2,373.4 | 826.4 | 1,497.1 |
| January | 2,408.4 | 849.4 | 1,525.3 |
| February | 2,494.9 | 884.1 | 1,582.4 |
| March | 2,598.6 | 929.9 | 1,653.1 |
| April | 2,636.1 | 965.5 | 1,689.2 |
| May | 2,629.8 | 981.5 | 1,695.2 |
| June | 2,665.7 | 1,002.7 | 1,722.6 |
| *1993–94* | | | |
| July | 2,742.9 | 1,076.3 | 1,797.3 |
| August | 2,897.4 | 1,128.4 | 1,893.9 |
| September | 3,037.8 | 1,098.4 | 1,939.5 |

(a) Share prices on joint trading floors. Monthly figures are average of daily figures for the month. Annual index is from the last month of the year.

*Source:* Australian Stock Index, *Monthly Index Analysis.*

# Explanatory Notes

Share price indexes provide an indication of aggregate price movements for listed shares on the Australian Stock Exchange (ASX).

The most quoted index is the all ordinaries share price index. The all ordinaries is calculated from a sample of shares which include those of approximately 260 companies which account for over 90 per cent of the ordinary shares of domestic companies listed on the Australian market.

The all ordinaries sample is reviewed each month and is chosen mainly on the basis of the market value of the company and how often the shares are traded.

Another important index is the all resources index which measures the movement in share prices for leading mining and oil companies. The Australian Stock Exchange also produces 23 sub-indexes for specific sectors within the share market. These measure the rise and fall in the Aggregate Market Value (AMV) of shares included in the sub-index. Some industries (e.g. car manufacturers) have no publicly listed shares in Australia, so no share indexes can be produced for these industries.

Share price indexes only measure the capital gain or loss experienced by shareholders through fluctuations in share prices and do not take into account dividends earned. Share prices reflect business confidence in general, as well as in specific industries. A set of 28 accumulation indexes is also calculated by the Australian Stock Exchange. These are intended to indicate the total pre-tax returns (after reinvesting dividends) from investments in listed shares.

# Further Reading

- ☐ *Companies on the Australian Stock Exchange Indices*
  Presents a detailed explanation of the indexes produced by the Australian Stock Exchange and lists the index portfolio at the time of the publication (updated quarterly).

- ☐ *Monthly Index Analysis*
  Contains monthly records of all Australian share price and accumulation index movements, including sample changes, index weights comparisons with international indexes, currency adjusted indexes and exchange rates.

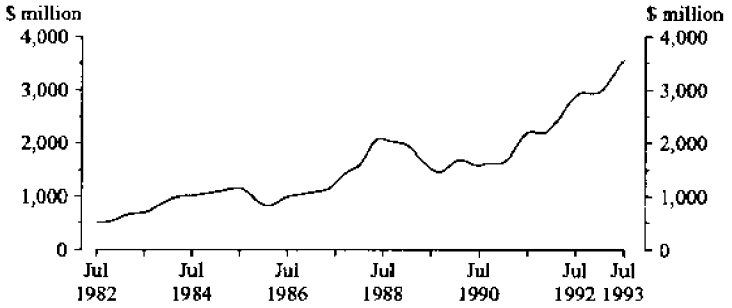
- ☐ *ASX Indices and Yields Book*
  Updates the popular *Stock Exchange Indices and Statistics* book published in 1986. It contains tabulations of historical data covering all ASX share price and Accumulation Indexes monthly from 1979 to 1992. It also provides longer monthly tabulations back as far as 1875 for selected indexes.

# 2.7.4 Home Loans

## Comment

Total secured housing finance commitments to individuals, in trend estimate terms rose steadily from the early 1980s to 1985 then grew strongly from March 1986 until June 1988. Matching the slow-down in the economy during the late 1980s, housing finance commitments fell from $2093.6m in June 1988 to $1626.4m in December 1990 before falling interest rates led to renewed growth in housing finance commitments.

**TOTAL SECURED HOUSING FINANCE COMMITMENTS TO INDIVIDUALS, TREND**




*Source: ABS 5609.0, Monthly data*

**SECURED HOUSING FINANCE COMMITMENTS TO INDIVIDUALS**

| *Period* | *Construction of dwellings ($m)* | *Purchase of newly erected dwellings ($m)* | *Purchase of established dwellings ($m)* | *Total ($m)* | *New bank home loans interest rate (%)(a)* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 3,219.0 | 1,058.0 | 15,832.0 | 20,110.0 | 13.5 |
| 1988–89 | 4,025.0 | 1,237.0 | 17,525.0 | 22,788.0 | 17.0 |
| 1989–90 | 3,536.0 | 1,085.0 | 14,339.0 | 18,960.0 | 16.5 |
| 1990–91 | 3,821.0 | 1,320.0 | 15,634.0 | 20,776.0 | 13.0 |
| 1991–92 | 4,828.0 | 1,636.0 | 22,074.0 | 28,538.0 | 10.5 |
| 1992–93 | 6,450.0 | 1,750.0 | 28,578.0 | 36,778.0 | 9.5 |
| | | MONTHLY — TREND | | | |
| *1991–92* | | | | | |
| May | 459.9 | 160.8 | 2,077.4 | 2,698.1 | 11.0 |
| June | 474.9 | 161.0 | 2,165.4 | 2,801.3 | 10.5 |
| *1992–93* | | | | | |
| July | 489.0 | 157.6 | 2,235.7 | 2,882.3 | 10.5 |
| August | 502.7 | 151.9 | 2,279.4 | 2,934.0 | 10.0 |
| September | 516.4 | 145.4 | 2,293.4 | 2,955.1 | 10.0 |
| October | 527.4 | 138.4 | 2,282.2 | 2,948.0 | 10.0 |
| November | 533.8 | 132.5 | 2,265.1 | 2,931.3 | 10.0 |
| December | 537.6 | 129.7 | 2,265.0 | 2,932.3 | 10.0 |
| January | 538.9 | 131.1 | 2,289.1 | 2,959.1 | 10.0 |
| February | 541.3 | 136.4 | 2,343.9 | 3,021.6 | 10.0 |
| March | 548.0 | 144.6 | 2,426.7 | 3,119.3 | 10.0 |
| April | 559.8 | 154.2 | 2,517.8 | 3,231.7 | 10.0 |
| May | 575.0 | 163.8 | 2,605.9 | 3,344.7 | 9.5 |
| June | 591.9 | 172.7 | 2,689.7 | 3,454.2 | 9.5 |
| *1993–94* | | | | | |
| July | 607.1 | 180.0 | 2,762.0 | 3,549.1 | 9.5 |

(a) Data are end of period.

*Sources:* ABS, *Housing Finance for Owner Occupation, Australia* (5609.0) and RBA, *Reserve Bank of Australia Bulletin*.

# Explanatory Notes

Housing purchases are most commonly financed by a loan from a financial institution. Housing finance statistics measure the supply of finance only, not the demand for housing finance. The supply is, however, influenced by both the availability of and the demand for housing finance. The demand for housing loans is dependent on people's perceived ability to repay the loan. The ability to repay the loan is affected by interest rates, the price of the house, the applicant's income level and the risk of losing their source of income.

Prior to April 1986, the Federal Government regulated the housing loan interest rate. Banks were given a maximum interest rate which they were allowed to charge borrowers. The Government was aiming to make housing more affordable. Since 1986, banks have been allowed to determine the interest rate levels for housing loans.

The Government still has an influence over the interest rate through its monetary policy stance. When monetary policy is tight, interest rates are high. The cost of housing, financed by borrowing, increases. When monetary policy is loosened, interest rates fall. The cost of housing, financed by borrowing, declines.

# Further Reading

- *Housing Finance for Owner Occupation, Australia* (5609.0)
  Presents data on secured finance commitments to individuals for construction of dwellings, purchase of new and established dwellings by banks, permanent building societies and other lenders.

# CHAPTER

# 3

# CHAPTER 3
# INTERNATIONAL COMPARISONS



NOTE: The statistics for Germany in these tables refer to *Western Germany* (Federal Republic of Germany before the unification of Germany), except where otherwise indicated.

Statistics relate to members of the Organisation for Economic Cooperation and Development (OECD). The OECD comprises European Economic Community members Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, and the United Kingdom plus Austria, Finland, Iceland, Norway, Sweden, Switzerland, Turkey, the United States, Canada, Japan, New Zealand and Australia. The major seven OECD countries are Canada, France, Germany, Italy, Japan, the United Kingdom and the United States.

**International Comparisons**

International comparisons show the economic performance of Australia against the performance of other countries.

Some care must be taken when comparing economic indicators between countries. Statistical systems vary considerably between countries and this will affect the extent of comparability of the data.

Australian and other government statistical agencies throughout the world produce and present national accounts based on the principles contained in the United Nations *A System of National Accounts* (SNA). Although a number of other international standards have been developed for specific areas of national accounts, such as the International Monetary Fund's *Balance of Payments Manual* and *Government Finance Statistics*, the SNA has a central position in the standard setting process for economic statistics generally. However, the degree to which the system is implemented varies considerably between countries.

# Further Reading

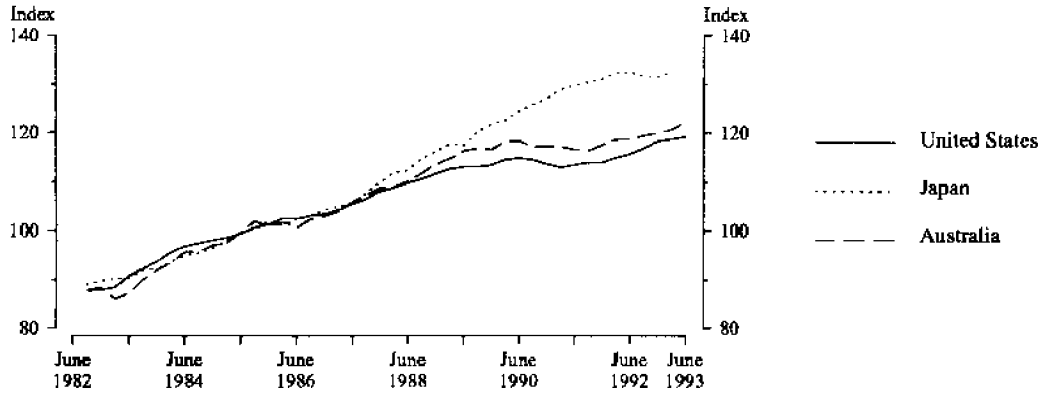
- ☐ *OECD Outlook*
  Presents data on OECD member nations, published in May and December of each year, including employment/unemployment, current account balance, inflation and real GDP.

- ☐ *OECD Economic Surveys: Australia*
  Reviews trends in the Australian economy and policy conclusions. Presents a calendar of the main economic events and Australian and international statistics in a statistical annex.

- ☐ *Australian Economic Indicators* (1350.0)
  A comprehensive, monthly compendium of economic statistics including international comparisons. Generally presents statistics for the last 9 years.

# 3.1 Real Gross Domestic Product

**REAL GROSS DOMESTIC PRODUCT VOLUME INDEXES**
**SEASONALLY ADJUSTED (1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

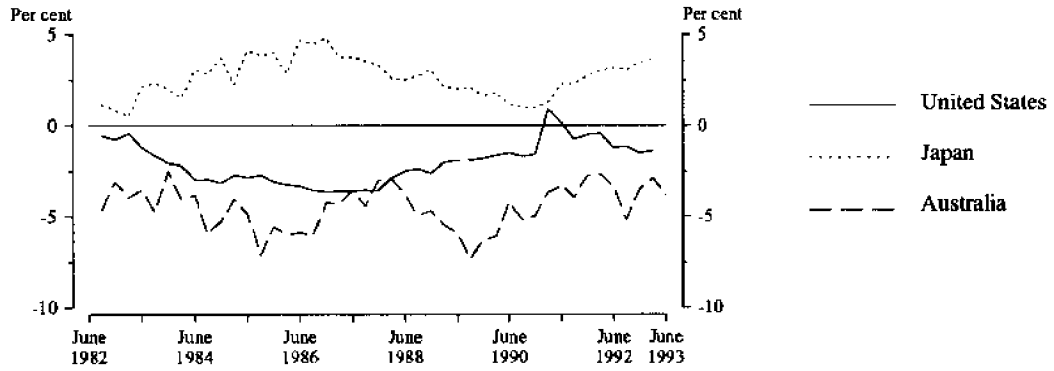
**REAL GROSS DOMESTIC PRODUCT VOLUME INDEX (a)**
**(1985 = 100.0)**

| *Period* | *United States* | *Japan* | *Germany* | *OECD major 7* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 108.3 | 110.5 | 105.3 | 108.7 | 111.9 | 108.8 |
| 1988–89 | 112.0 | 116.6 | 109.4 | 112.9 | 115.4 | 114.2 |
| 1989–90 | 114.0 | 122.3 | 113.5 | 115.9 | 117.4 | 117.6 |
| 1990–91 | 113.7 | 128.0 | 119.7 | 117.3 | 115.3 | 117.1 |
| 1991–92 | 114.7 | 131.7 | 122.3 | 118.7 | 113.9 | 117.8 |
| 1992–93 | 118.3 | n.y.a. | n.y.a. | n.y.a. | 114.5 | 120.6 |
| | | | QUARTERLY – SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | | |
| December | 114.0 | 131.1 | 121.3 | 118.2 | 114.2 | 117.5 |
| March | 115.0 | 132.5 | 123.3 | 119.2 | 113.5 | 118.7 |
| June | 115.8 | 132.5 | 123.0 | 119.5 | 113.4 | 118.8 |
| *1992–93* | | | | | | |
| September | 116.8 | 131.7 | 122.6 | 119.8 | 113.8 | 119.5 |
| December | 118.4 | 131.7 | 121.5 | 120.5 | 114.2 | 120.0 |
| March | 118.7 | 132.5 | 119.8 | 120.6 | 114.7 | 120.7 |
| June | 119.2 | n.y.a. | n.y.a. | n.y.a. | 115.3 | 122.2 |

(a) Data for the United States, Japan and Germany measure real gross national product.
*Sources:* Organisation for Economic Cooperation and Development and Australian Bureau of Statistics.

# 3.2 Balance on Current Account

**BALANCE ON CURRENT ACCOUNT AS A PERCENTAGE OF SEASONALLY ADJUSTED GDP**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

**BALANCE ON CURRENT ACCOUNT: PERCENTAGE OF SEASONALLY ADJUSTED GDP (a)**

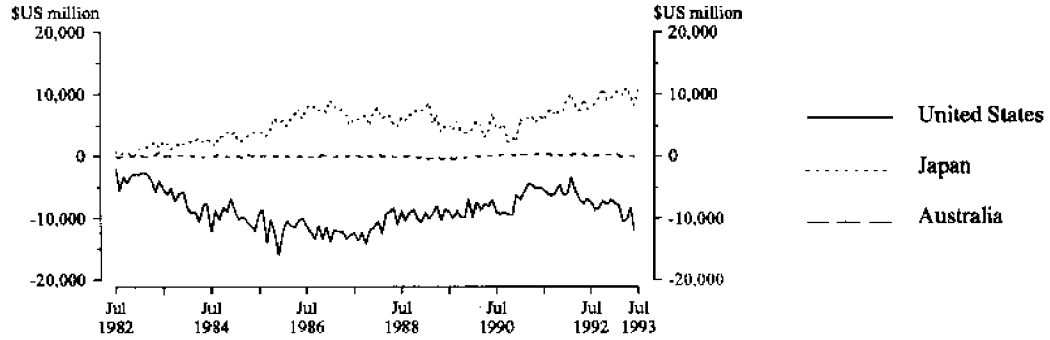
| *Period* | *United States* | *Japan* | *United Kingdom* | *Australia* |
|---|---|---|---|---|
| | | ANNUAL | | |
| 1987–88 | –3.1 | 3.0 | –2.3 | –3.5 |
| 1988–89 | –2.2 | 2.5 | –4.0 | –5.3 |
| 1989–90 | –1.7 | 1.7 | –4.3 | –6.0 |
| 1990–91 | –0.6 | 1.4 | –1.6 | –4.3 |
| 1991–92 | –0.7 | 2.8 | –1.5 | –3.2 |
| 1992–93 | n.y.a. | n.y.a. | n.y.a. | –3.9 |
| | | QUARTERLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | | |
| December | –0.5 | 2.7 | 0.2 | – 2.7 |
| March | –0.5 | 3.1 | –2.0 | – 2.7 |
| June | –1.2 | 3.2 | –2.5 | –3.4 |
| *1992–93—* | | | | |
| September | –1.2 | 3.1 | –2.3 | 5.2 |
| December | –1.5 | 3.5 | –1.0 | –3.5 |
| March | –1.4 | 3.7 | –2.7 | –2.9 |
| June | n.y.a. | n.y.a. | n.y.a. | –3.8 |

(a) Statistics are calculated as the original balance on current account as percentage of the seasonally adjusted current price gross domestic product, except for Japan and Germany where real gross national product replaces gross domestic product.

*Sources:* Organisation for Economic Cooperation and Development and ABS.

# 3.3 Balance on Merchandise Trade

**BALANCE ON MERCHANDISE TRADE**
**SEASONALLY ADJUSTED**




*Source: Organisation for Economic Cooperation and Development, Monthly data*

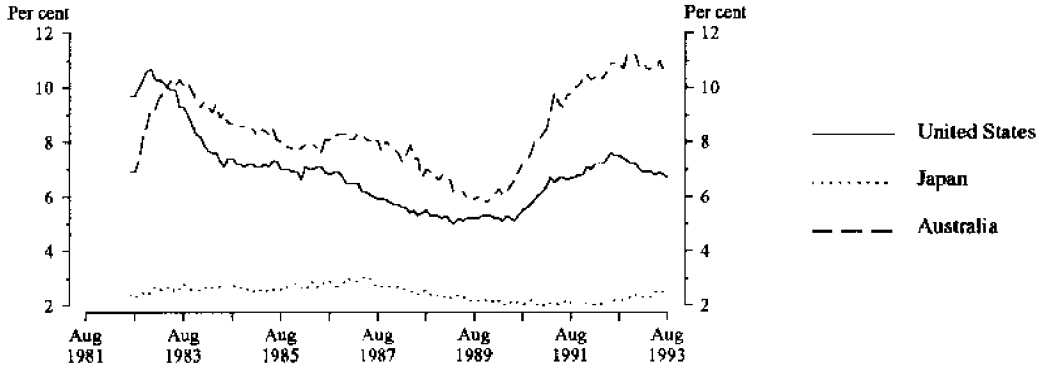
**BALANCE ON MERCHANDISE TRADE (a)**
**($US million)**

| *Period* | *United States* | *Japan* | *Germany (b)* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|
| | | | ANNUAL | | |
| 1987–88 | –136,797 | 73,749 | 69,431 | –34,132 | 232 |
| 1988–89 | –112,829 | 77,747 | 74,205 | –49,164 | –2,908 |
| 1989–90 | –103,029 | 56,755 | 73,369 | –41,606 | –1,583 |
| 1990–91 | –84,114 | 58,313 | 30,746 | –31,514 | 2,776 |
| 1991–92 | –70,972 | 93,358 | 17,905 | –26,381 | 3,022 |
| 1992–93 | –103,181 | 115,011 | n.y.a. | n.y.a. | 823 |
| | | | MONTHLY — SEASONALLY ADJUSTED | | |
| *1991–92—* | | | | | |
| April | –7,007 | 7,270 | 3,033 | –3,003 | 124 |
| May | –7,672 | 9,213 | 802 | –2,114 | 349 |
| June | –6,849 | 7,681 | 699 | –2,225 | –14 |
| *1992–93—* | | | | | |
| July | –7,507 | 8,084 | 1,405 | –2,761 | –96 |
| August | –8,684 | 8,424 | 4,410 | –3,004 | 125 |
| September | –8,307 | 9,554 | 3,109 | –2,425 | 167 |
| October | –7,233 | 10,910 | 3,240 | –2,356 | 51 |
| November | –7,837 | 8,971 | 1,134 | –2,640 | 297 |
| December | –6,965 | 9,426 | 63 | –3,153 | 115 |
| January | –7,672 | 10,410 | 1,547 | n.y.a. | 542 |
| February | –7,904 | 10,350 | 1,828 | n.y.a. | 128 |
| March | –10,453 | 9,897 | 1,882 | n.y.a. | –209 |
| April | 10,182 | 11,145 | 2,256 | n.y.a. | –175 |
| May | –8,376 | 9,648 | 3,238 | n.y.a. | 29 |
| June | –12,062 | 8,193 | n.y.a. | n.y.a. | –152 |

(a) All series are exports (f.o.b.) less imports (c.i.f.), except the United States and Australia where imports are also f.o.b. Data are measured on a foreign trade basis. (b) Excluding trade with the German Democratic Republic. From July 1990, data refer to Germany after unification.
*Source:* Organisation for Economic Cooperation and Development.

# 3.4 Unemployment Rates

**STANDARDISED UNEMPLOYMENT RATES**
**SEASONALLY ADJUSTED**




*Source: Organisation for Economic Cooperation and Development, Monthly data*

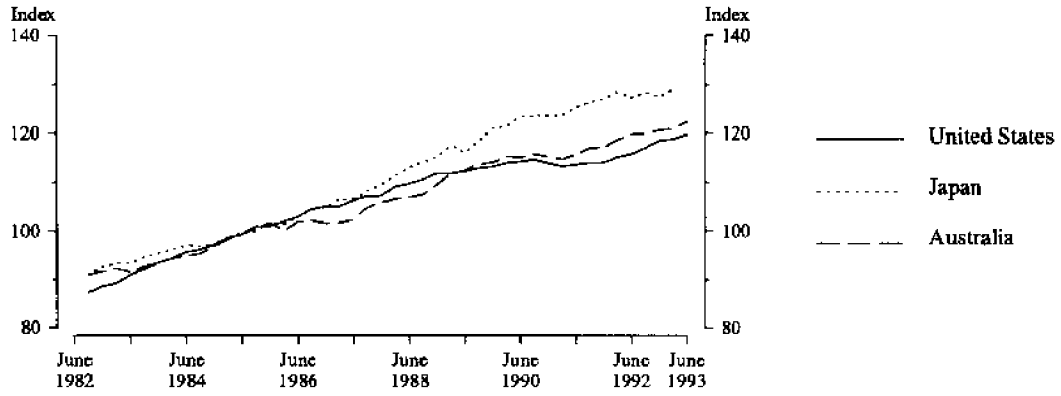
**UNEMPLOYMENT RATES (a)**
**(per cent)**

| *Period* | *United States* | *Japan* | *Germany* | *OECD Major 7* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 5.3 | 2.4 | 6.2 | 6.0 | 8.7 | 7.4 |
| 1988–89 | 5.2 | 2.2 | 5.6 | 5.7 | 7.2 | 6.0 |
| 1989–90 | 5.1 | 2.2 | 5.0 | 5.5 | 6.7 | 6.6 |
| 1990–91 | 6.7 | 2.1 | 4.4 | 6.4 | 8.8 | 9.3 |
| 1991–92 | 7.6 | 2.1 | 4.7 | 7.0 | 9.8 | 10.9 |
| 1992–93 | 6.9 | 2.5 | 5.9 | 6.9 | 10.4 | 11.0 |
| | | | MONTHLY — SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | | |
| April | 7.2 | 2.0 | 4.6 | 6.7 | 9.6 | 10.4 |
| May | 7.4 | 2.1 | 4.7 | 6.8 | 9.7 | 10.6 |
| June | 7.6 | 2.1 | 4.7 | 7.0 | 9.8 | 10.9 |
| *1992–93—* | | | | | | |
| July | 7.5 | 2.2 | 4.7 | 6.9 | 10.0 | 10.9 |
| August | 7.5 | 2.2 | 4.8 | 6.9 | 10.1 | 10.9 |
| September | 7.4 | 2.2 | 4.9 | 6.9 | 10.2 | 10.7 |
| October | 7.3 | 2.3 | 5.0 | 6.9 | 10.2 | 11.2 |
| November | 7.2 | 2.3 | 5.1 | 6.9 | 10.4 | 11.2 |
| December | 7.2 | 2.4 | 5.2 | 6.9 | 10.6 | 11.2 |
| January | 7.0 | 2.3 | 5.4 | 6.8 | 10.7 | 10.8 |
| February | 6.9 | 2.3 | 5.5 | 6.8 | 10.6 | 10.9 |
| March | 6.9 | 2.3 | 5.7 | 6.8 | 10.5 | 10.7 |
| April | 6.9 | 2.3 | 5.8 | 6.9 | 10.5 | 10.7 |
| May | 6.8 | 2.5 | 5.9 | 6.9 | 10.4 | 10.7 |
| June | 6.9 | 2.5 | 5.9 | 6.9 | 10.4 | 11.0 |

(a) All series are OECD standardised unemployment rates.
*Source:* Organisation for Economic Cooperation and Development.

# 3.5 Private Consumption Expenditure Volume Index

**PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEXES, SEASONALLY ADJUSTED (1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

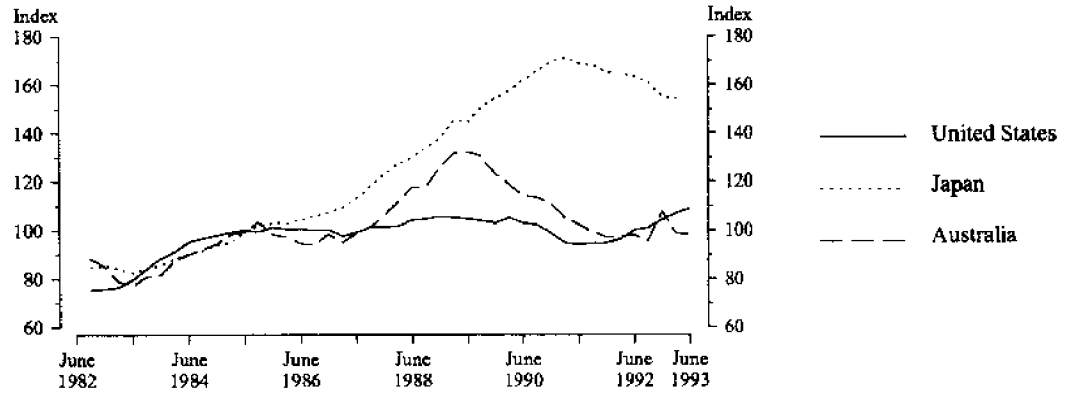
**PRIVATE CONSUMPTION EXPENDITURE VOLUME INDEX (1985 = 100.0)**

| *Period* | *United States* | *Japan* | *Germany* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 108.4 | 110.5 | 108.5 | 116.6 | 106.1 |
| 1988–89 | 111.6 | 115.7 | 111.2 | 123.3 | 110.3 |
| 1989–90 | 113.5 | 121.0 | 115.5 | 125.5 | 114.6 |
| 1990–91 | 113.9 | 124.0 | 121.8 | 124.3 | 115.3 |
| 1991–92 | 114.7 | 127.3 | 123.3 | 122.4 | 118.1 |
| 1992–93 | 118.5 | n.y.a. | n.y.a. | 124.3 | 121.0 |
| | | QUARTERLY — SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | |
| December | 114.0 | 127.1 | 123.1 | 122.4 | 117.2 |
| March | 115.2 | 128.4 | 123.9 | 121.8 | 118.6 |
| June | 115.7 | 127.3 | 123.3 | 122.9 | 119.7 |
| *1992–93—* | | | | | |
| September | 116.9 | 128.3 | 124.5 | 123.3 | 120.1 |
| December | 118.5 | 127.5 | 125.2 | 124.0 | 120.6 |
| March | 118.8 | 129.0 | 123.0 | 124.6 | 121.0 |
| June | 119.7 | n.y.a. | n.y.a. | 125.2 | 122.3 |

*Source:* Organisation for Economic Cooperation and Development.

# 3.6 Private Fixed Capital Investment Volume Index

**PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEXES SEASONALLY ADJUSTED (1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

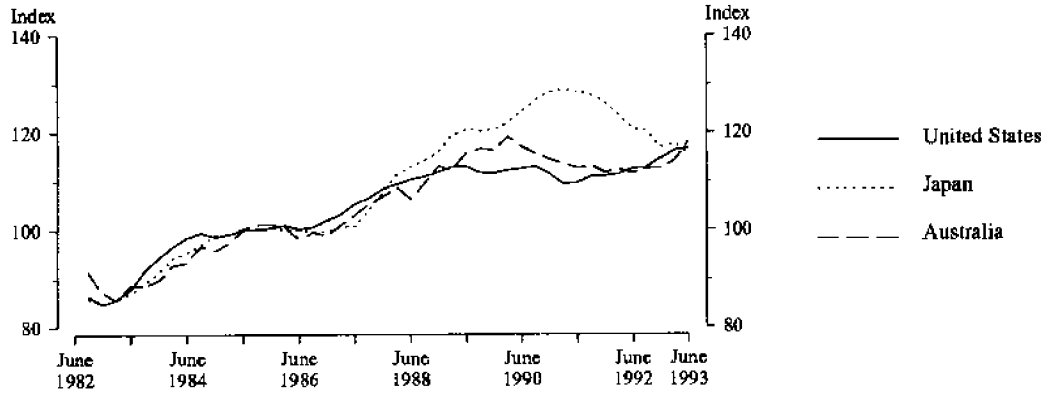
**PRIVATE FIXED CAPITAL INVESTMENT VOLUME INDEX (a) (1985 = 100.0)**

| *Period* | *United States* | *Japan* | *Germany* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 102.2 | 124.5 | 109.1 | 122.1 | 109.2 |
| 1988–89 | 105.1 | 140.5 | 114.5 | 134.5 | 126.9 |
| 1989–90 | 103.8 | 156.2 | 122.9 | 137.6 | 121.5 |
| 1990–91 | 97.5 | 168.8 | 132.9 | 124.8 | 108.0 |
| 1991–92 | 96.4 | 165.3 | 138.5 | 118.9 | 98.0 |
| 1992–93 | 105.2 | n.y.a. | n.y.a. | 120.4 | 99.9 |
| | | QUARTERLY — SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | |
| December | 94.7 | 165.2 | 136.9 | 118.7 | 97.1 |
| March | 96.3 | 164.6 | 140.5 | 119.6 | 97.4 |
| June | 100.1 | 163.3 | 138.0 | 118.4 | 98.1 |
| *1992–93—* | | | | | |
| September | 100.9 | 161.0 | 137.7 | 119.8 | 95.4 |
| December | 104.2 | 155.1 | 137.6 | 120.3 | 107.5 |
| March | 106.9 | 154.0 | 131.3 | 121.2 | 98.7 |
| June | 108.9 | n.y.a. | n.y.a. | 120.3 | 98.2 |

(a) Fixed capital investment volume indexes for Germany and the United Kingdom are for gross domestic fixed investment.
*Sources:* Organisation for Economic Cooperation and Development and ABS.

# 3.7 Industrial Production Volume Index

**INDUSTRIAL PRODUCTION VOLUME INDEXES**
**SEASONALLY ADJUSTED (1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

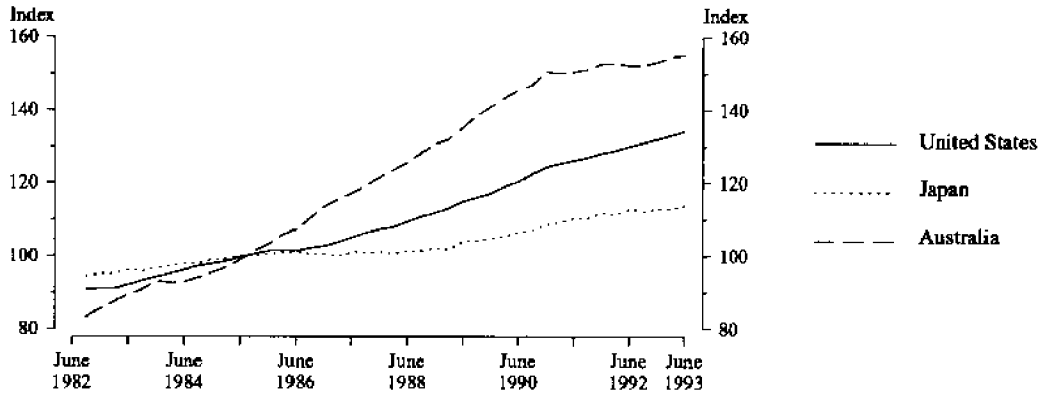
**INDUSTRIAL PRODUCTION VOLUME INDEX**
**(1985 = 100.0)**

| *Period* | *United States* | *Japan* | *Germany* | *OECD Major 7* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 108.7 | 109.0 | 104.0 | 108.1 | 108.0 | 106.8 |
| 1988–89 | 112.2 | 117.6 | 108.7 | 112.7 | 109.8 | 112.6 |
| 1989–90 | 112.1 | 121.9 | 114.1 | 114.5 | 110.6 | 117.3 |
| 1990–91 | 110.9 | 128.0 | 120.3 | 115.2 | 106.9 | 114.2 |
| 1991–92 | 111.5 | 124.6 | 120.5 | 114.7 | 105.7 | 112.3 |
| 1992–93 | 115.1 | 117.8 | 112.6 | 113.8 | 106.9 | 114.4 |
| | | | QUARTERLY - SEASONALLY ADJUSTED | | | |
| *1991–92—* | | | | | | |
| December | 111.1 | 126.2 | 119.1 | 114.7 | 106.2 | 111.8 |
| March | 111.4 | 123.6 | 122.1 | 114.8 | 105.4 | 112.4 |
| June | 112.6 | 120.7 | 120.1 | 114.3 | 105.0 | 111.7 |
| *1992–93* | | | | | | |
| September | 112.8 | 120.3 | 118.5 | 114.0 | 105.9 | 112.6 |
| December | 114.7 | 117.1 | 112.9 | 113.5 | 106.9 | 112.6 |
| March | 116.3 | 117.8 | 109.5 | 114.0 | 107.0 | 114.2 |
| June | 116.8 | 115.9 | 109.5 | 113.7 | 107.9 | 118.0 |

*Sources:* Organisation for Economic Cooperation and Development and ABS.

# 3.8 Consumer Price Index

**CONSUMER PRICE INDEXES (ALL ITEMS)**
**(1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Quarterly data*

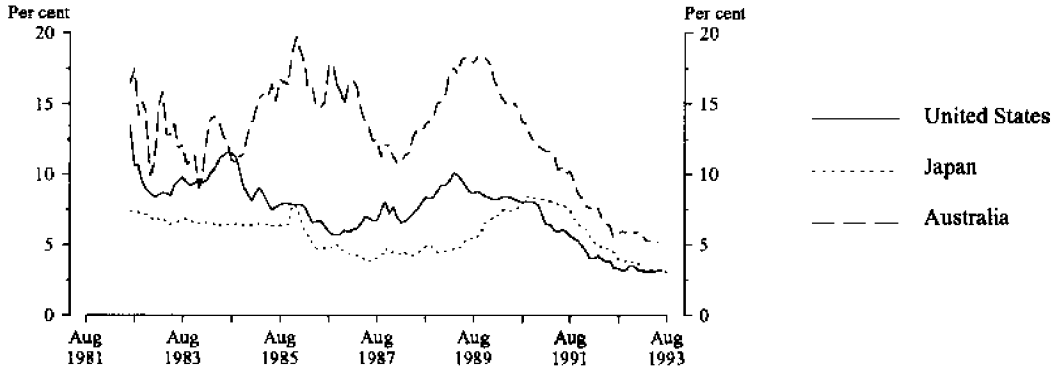
**CONSUMER PRICE INDEX (ALL ITEMS)**
**(1985 = 100.0)**

| *Period* | *United States* | *Japan* | *Germany* | *OECD Major 7* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|---|
| | | | ANNUAL | | | |
| 1987–88 | 107.7 | 101.0 | 100.6 | 106.7 | 109.8 | 122.4 |
| 1988–89 | 112.7 | 102.4 | 102.7 | 111.1 | 117.4 | 131.4 |
| 1989–90 | 118.0 | 105.3 | 105.5 | 116.2 | 127.0 | 142.0 |
| 1990–91 | 124.5 | 108.8 | 108.5 | 122.1 | 138.1 | 149.5 |
| 1991–92 | 128.5 | 111.5 | 113.1 | 126.4 | 144.1 | 152.3 |
| 1992–93 | 132.5 | 112.9 | 117.6 | 129.9 | 147.6 | 153.8 |
| | | | QUARTERLY | | | |
| *1991–92—* | | | | | | |
| December | 128.0 | 111.7 | 112.4 | 125.9 | 143.2 | 152.7 |
| March | 128.9 | 111.3 | 113.7 | 126.7 | 144.0 | 152.7 |
| June | 130.0 | 112.8 | 114.9 | 128.0 | 147.1 | 152.3 |
| *1992–93—* | | | | | | |
| September | 131.0 | 112.3 | 115.4 | 128.5 | 147.0 | 152.4 |
| December | 131.9 | 112.8 | 116.5 | 129.4 | 147.6 | 153.2 |
| March | 133.0 | 112.8 | 118.6 | 130.3 | 146.6 | 154.6 |
| June | 134.1 | 113.8 | 119.7 | 131.4 | 149.0 | 155.1 |

*Source:* Organisation for Economic Cooperation and Development.

# 3.9 Short-term Interest Rates

**SHORT-TERM INTEREST RATES**
**(per cent per annum)**




*Source: Organisation for Economic Cooperation and Development, Monthly data*

**SHORT-TERM INTEREST RATES**
**(per cent per annum) (a)**

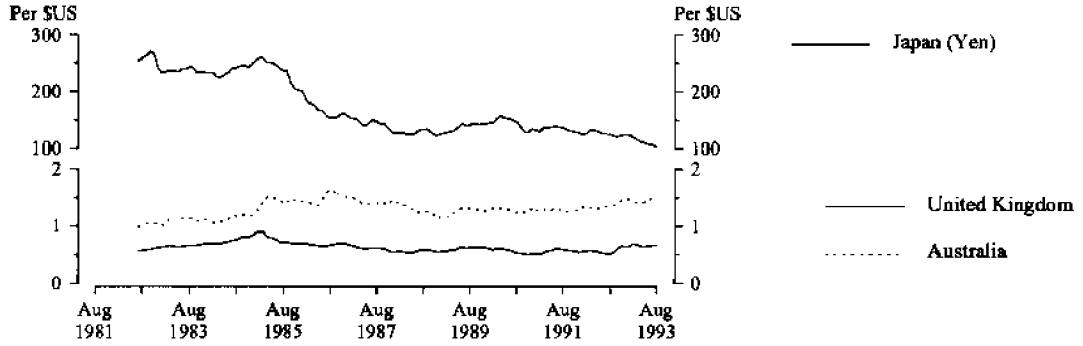
| *Period* | *United States* | *Japan* | *Germany (b)* | *United Kingdom* | *Australia* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 7.51 | 4.37 | 3.93 | 8.93 | 13.15 |
| 1988–89 | 9.20 | 5.29 | 7.02 | 14.15 | 18.30 |
| 1989–90 | 8.23 | 7.39 | 8.30 | 14.97 | 15.10 |
| 1990–91 | 6.07 | 7.77 | 9.06 | 11.24 | 10.50 |
| 1991–92 | 3.86 | 4.66 | 9.75 | 9.98 | 6.40 |
| 1992–93 | 3.21 | 3.23 | 7.60 | 5.89 | 5.25 |
| | | MONTHLY | | | |
| *1991 92* | | | | | |
| April | 4.00 | 4.78 | 9.75 | 10.62 | 6.95 |
| May | 3.82 | 4.73 | 9.79 | 10.06 | 6.50 |
| June | 3.86 | 4.66 | 9.75 | 9.98 | 6.40 |
| *1992 93* | | | | | |
| July | 3.37 | 4.43 | 9.78 | 10.15 | 5.55 |
| August | 3.31 | 3.99 | 9.88 | 10.35 | 5.90 |
| September | 3.13 | 3.84 | 9.50 | 9.99 | 5.95 |
| October | 3.26 | 3.88 | 8.94 | 8.32 | 5.85 |
| November | 3.58 | 3.79 | 8.94 | 7.21 | 5.85 |
| December | 3.48 | 3.76 | 9.04 | 7.16 | 5.90 |
| January | 3.19 | 3.74 | 8.59 | 6.94 | 5.85 |
| February | 3.12 | 3.25 | 8.40 | 6.16 | 5.80 |
| March | 3.11 | 3.27 | 7.98 | 5.98 | 5.35 |
| April | 3.09 | 3.23 | 7.92 | 5.98 | 5.25 |
| May | 3.10 | 3.23 | 7.51 | 5.97 | 5.15 |
| June | 3.21 | 3.23 | 7.60 | 5.89 | 5.25 |

(a) All rates are the 3-month treasury bills rate except Japan (3-month 'gensaki' rate), Germany (3-month loans rate) and Australia (90-day commerical bill rate). (b) Monetary, economic and social union between the Federal Republic and German Democratic Republic took place on 1 July 1990.

*Source:* Organisation for Economic Cooperation and Development.

# 3.10 Exchange Rates

**SELECTED EXCHANGE RATES**
**CURRENCY PER $US**




*Source: Organisation for Economic Cooperation and Development, Monthly data*

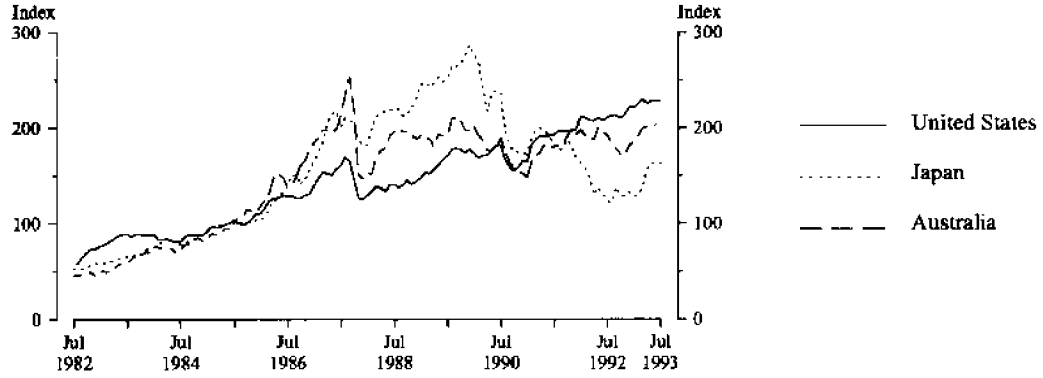
**EXCHANGE RATES — CURRENCY PER US DOLLAR (a)**

| *Period* | *Japan (Yen)* | *Germany (DM) (b)* | *United Kingdom (Pound)* | *Australia (Dollar)* | *New Zealand (Dollar)* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 126.84 | 1.75 | 0.56 | 1.24 | 1.43 |
| 1988–89 | 143.91 | 1.98 | 0.64 | 1.32 | 1.74 |
| 1989–90 | 153.76 | 1.68 | 0.59 | 1.28 | 1.72 |
| 1990–91 | 139.80 | 1.78 | 0.61 | 1.32 | 1.73 |
| 1991–92 | 126.91 | 1.57 | 0.54 | 1.32 | 1.85 |
| 1992–93 | 107.29 | 1.65 | 0.66 | 1.48 | 1.85 |
| | | MONTHLY | | | |
| *1991–92* | | | | | |
| April | 133.59 | 1.65 | 0.57 | 1.31 | 1.85 |
| May | 130.67 | 1.62 | 0.55 | 1.32 | 1.87 |
| June | 126.91 | 1.57 | 0.54 | 1.32 | 1.85 |
| *1992–93—* | | | | | |
| July | 125.66 | 1.50 | 0.52 | 1.34 | 1.83 |
| August | 126.34 | 1.45 | 0.52 | 1.38 | 1.85 |
| September | 122.67 | 1.45 | 0.54 | 1.38 | 1.85 |
| October | 121.14 | 1.48 | 0.60 | 1.40 | 1.85 |
| November | 123.82 | 1.59 | 0.65 | 1.45 | 1.92 |
| December | 123.95 | 1.58 | 0.64 | 1.45 | 1.94 |
| January | 125.02 | 1.62 | 0.65 | 1.49 | 1.95 |
| February | 120.97 | 1.64 | 0.70 | 1.46 | 1.94 |
| March | 117.02 | 1.65 | 0.68 | 1.42 | 1.89 |
| April | 112.37 | 1.60 | 0.65 | 1.41 | 1.86 |
| May | 110.21 | 1.61 | 0.65 | 1.43 | 1.84 |
| June | 107.29 | 1.65 | 0.66 | 1.48 | 1.85 |

(a) Monetary, economic and social union between the Fereral Republic and the German Democratic Republic took place on 1 July 1990. (b) Monthly data are daily averages of spot rates quoted for the US dollar on national markets.
*Source:* Organisation for Economic Cooperation and Development.

# 3.11 Share Price Index

**SHARE PRICE INDEXES**
**(1985 = 100)**




*Source: Organisation for Economic Cooperation and Development, Monthly data*

**SHARE PRICE INDEXES (a)**
**(1985 = 100)**

| *Period* | *United States (b)* | *Japan* | *Germany (b) (c)* | *United Kingdom (d)* | *Australia (b)* |
|---|---|---|---|---|---|
| | | ANNUAL | | | |
| 1987–88 | 141 | 219 | 105 | 151 | 192 |
| 1988–89 | 167 | 248 | 136 | 177 | 191 |
| 1989–90 | 182 | 239 | 174 | 186 | 181 |
| 1990–91 | 192 | 190 | 154 | 192 | 179 |
| 1991–92 | 208 | 130 | 152 | 205 | 195 |
| 1992–93 | 229 | 162 | 135 | 222 | 204 |
| | | MONTHLY | | | |
| *1991–92*— | | | | | |
| April | 208 | 130 | 151 | 201 | 188 |
| May | 211 | 138 | 153 | 213 | 200 |
| June | 208 | 130 | 152 | 205 | 195 |
| *1992–93*— | | | | | |
| July | 211 | 125 | 144 | 191 | 193 |
| August | 213 | 121 | 133 | 182 | 186 |
| September | 213 | 138 | 130 | 188 | 179 |
| October | 210 | 130 | 122 | 197 | 173 |
| November | 215 | 128 | 124 | 206 | 172 |
| December | 222 | 133 | 124 | 213 | 182 |
| January | 222 | 128 | 127 | 216 | 185 |
| February | 225 | 130 | 134 | 220 | 191 |
| March | 230 | 137 | 136 | 224 | 199 |
| April | 226 | 156 | 135 | 220 | 202 |
| May | 228 | 163 | 132 | 220 | 202 |
| June | 229 | 162 | 135 | 222 | 204 |

(a) Industrial share prices for the Germany, United Kingdom and Australia. For the United States and Japan, data refer to all shares. (b) Monthly data are daily averages. (c) Monetary, economic and social union between the Federal Republic and the German Democratic Republic took place on 1 July 1990. (d) 500 share index.
*Source:* Organisation for Economic Cooperation and Development.

# CHAPTER

# 4

# CHAPTER 4
# STATISTICS: CONCEPTS , SOURCES, METHODS AND USAGE

To assist your understanding of the statistics presented in chapters 2 and 3, some of the more important or regularly occurring statistical concepts, sources, methods and usage are explained in this chapter. However, the explanations provided here are very brief, so if you require a detailed understanding of a topic, you must be prepared to undertake further research.

The ABS has a range of publications that discuss the following issues in detail. Some of these are included in the Further Reading reference at the end of this chapter. In addition, the publications listed as sources in chapter 2 contain information on concepts, sources and methods of the statistics they relate to and, in some cases, provide reference to publications which explain the issues in further detail.

## STATISTICAL CONCEPTS AND METHODS

### Time Series

A data set is a collection of observations relating to a variable or group of variables. For example, a set of data could consist of observations of the population for each State and Territory in Australia at a single point in time, say census night 1991. This provides a snapshot view of the population of Australia which could be used to compare populations of the various States and Territories in terms of age, sex, etc.

A time series is a list of observations for the same variable or group of variables over a period of time. For example a time series could consist of the population for Australia for each year from 1980 to 1990. Time series enable recent estimates to be placed in a meaningful historical perspective, which permits analysts to see if the current situation is improving, deteriorating or staying much the same.

### Classifications

Classification is the grouping of data into classes or categories according to various characteristics. For example, retail businesses may be classified according to what they sell. Instead of just compiling data about 'retailers', data could be compiled separately for footwear stores, butchers, newsagents, etc.

The ABS has defined standard classifications that are used to present a wide range of data. Some examples of these are:

- Australian and New Zealand Standard Industrial Classification (ANZSIC);
- Australian Standard Geographical Classification (ASGC);
- Australian Standard Commodity Classification (ASCC);
- Standard Institutional Sector Classification of Australia (SISCA).

Classifications have a standard framework which enables clear scope (boundaries) for the collection and compilation of data. This makes it possible to compare and analyse data from different surveys over a period of time.

ABS classifications align closely with international classifications enabling comparability with international statistics. A wide variety of organisations (government, private sector, educational institutions, etc.) use the ABS classifications for a variety of purposes including the analysis of data and running their own surveys and censuses. This enables them to compare their data with data from the ABS and from other organisations which use the same standard classifications.

**Constant Price Estimates**

Constant price estimates provide a convenient way of measuring *real* change in various economic statistics, that is, the growth after adjusting values to remove the effects of price changes.

Many economic statistics, such as gross domestic product, relate to a wide range of goods and services. Our difficulty is how to aggregate different units of measurement, e.g. the number of cars produced with tonnes of steel produced. If we use a common unit of measurement, i.e. money values (or dollars), we can express transactions for a range of goods and services as a single aggregate.

However, change in money values from one period to another is generally a combination of change in price and a change in quantity. In most cases, we are interested in changes in the physical quantities underlying the dollar values, e.g. the change in the number of cars produced. As a result, estimates are adjusted to remove the direct effects of price changes. Such estimates are said to be *at constant prices* (or in real terms).

The constant price value of a transaction may be thought of as being the product of a price and a quantity. The value of a transaction at constant prices can be derived by substituting, for each current price, the corresponding price in the chosen base year.

It is not possible to derive constant price estimates for items such as interest rates or profits, that do not have price and quantity components. Nevertheless, such items can be expressed in real terms by using a more common method to derive constant price estimates.

This method is to divide the current price values by a price index such as the CPI or the implicit price deflator of GDP. The underlying assumption is that these price indexes are representative of price change of the goods and services that could be purchased with the money earned from profits, interest, etc. This method is called price deflation.

**Base Year Selection**

Most developed countries have chosen to rebase their constant price estimates either every 5 or 10 years. The ABS has chosen to rebase its estimates every 5 years. The current base year is 1989–90.

**Indexes**

An index number measures the value of a variable in relation to its value at a base period. The essential idea of index numbers is to give a picture of changes in a variable much like that drawn by saying "the price of petrol rose 5 per cent from June 1992 to December 1993". Index numbers measure change without giving the actual numerical value of the variable. Change is measured from a base period which is expressed as 100.0.

$$\text{The index number} = \frac{\text{current value}}{\text{base value}} \times 100$$

Because indexes summarise change, they are useful in economic analysis.

Movements in index numbers from one period to another can be expressed either as percentage changes or as changes in index points. It is important not to confuse the two methods because unless the comparison is with the base period, the two yield different results.

**Seasonal Factors**

Some data are influenced by the nature of the period to which they relate. For example, sales of sunblock are higher for January than for July. Normal seasonal influences on data are those effects that recur regularly one or more times a year. Data that are seasonal may reflect the influence of the seasons themselves (such as farm production) or social convention (such as the incidence of holidays) or economic factors (e.g. timing of tax payments and financial year timing). Some data reflect differences in the composition of the months or quarters in terms of the number of trading days in the period or accounting practices used.

This feature of the data can make interpreting monthly, quarterly and yearly changes difficult and so the ABS uses a special statistical tool called *seasonal adjustment* to standardise the data. Seasonally adjusted data has had all the calendar-related influences removed.

Seasonally adjusted data still contains the effects of irregular influences on the data. For example, sales of beer may have been affected by some large, one-off event such as a strike in several large breweries. Seasonal analysis does not remove such effects but the ABS is able to significantly

dampen such irregular influences in seasonally adjusted series by producing a *smoothed seasonally adjusted* or *trend* estimate.

**Trend Estimates**

The smoothing or trending procedure used by the ABS is based on a set of moving averages known as Henderson filters. These moving averages dampen the irregularity of data without distorting the timing, level or shape of turning points i.e. peaks and troughs. Trend estimates provide a simple yet very effective measure of the underlying growth or decline of a time series. They also provide a much wider basis for analysis than the more erratic seasonally adjusted or original data.

**National Accounts**

With separate indicators, particular aspects of economic activity can be monitored. Another important use of this information is as the building blocks of a set of accounts for Australia, called the national accounts. Just as a set of accounts for a business consolidate a lot of information about the business and present it in a set format, national accounts consolidate a range of statistics, from those involving individuals to those involving the whole nation, into a consistent format which describes the overall economic position of the nation.

The concept of national accounting is quite old, having been developed as far back as the 17th century. However its current look is relatively new, with welfare economists led by Pigou in the 1920s producing the first effective modern measurement of national income. A fundamental re-direction of emphasis in economic analysis and policy occurred after the acceptance and adoption of principles set down in John Maynard Keynes' 1936 publication *The General Theory of Employment, Interest and Money.*

As a result, national accounting has developed as an integral part of economic analysis and policy advising. Government interest focused on production and the allocation of resources to competing uses. Macro-economic policy, concerned with the maintenance of income, price and employment stability, was dependent for much of its effectiveness on timely and accurate information on the components of domestic production. To provide conceptually consistent information and to illustrate the relationships between the components, estimates were gathered into a system of national accounts.

Australia's national accounts are compiled in a manner which closely accords with the recommendations of the United Nations *A System of National Accounts* (SNA), which was published in 1968. Further work on the development of national accounting standards to reflect changing economic and policy requirements since 1968 has culminated in the endorsement of a Draft Revised SNA by the UN Statistical Commission in February1993. The revised SNA is expected to provide a framework for national account statistics into the 21st century.

At the summary level, the national accounts are designed to reflect the economic flows of the Keynesian system: production, consumption, investment and saving. The relationship which Keynes elaborated (that production is equal to the value of incomes received and in turn equal to the value of final expenditures) is summarised in the equation:

$$Y = C + I + X - M$$

In this equation, Y represents income, C represents consumption, I represents investment, X is exports, and M is imports. The relationship between Keynes' work and national accounts becomes apparent when the domestic production account from Australia's national accounts is examined.

On the **income side** of the account are the incomes accruing to the factors of production: wages, salaries and supplements earned by labour, operating surplus (profits) earned by capital and net indirect taxes accruing to government. On the **expenditure side** of the account are final consumption expenditure, investment (represented by gross fixed capital expenditure and increase in stocks), plus the value of Australia's exports (which are part of Australia's total production) minus the value of imports (which represent part of the production of other nations).

The various terms from the equation $Y = C + I + X - M$ are grouped into four major accounts in Australia's national accounts. The *domestic production account* summarises domestic production, income and expenditure. Consumption is examined in more detail in the *national income and outlay account*, saving and investment in the *national capital account* and exports and imports in the *overseas transactions account*.

National accounts estimates attempt to account for every monetary transaction of every economic agent in the economy, as well as imputing a value for a range of transactions that do not involve the exchange of money (for example, when producers consume their own products). The quality of national accounts statistics depends to a large degree on the quality of the original records maintained by businesses, governments and other institutions from which data are obtained.

## INTERPRETING STATISTICS

### Definitions

It is important that your understanding of relevant terms correspond to the ABS definitions. This ensures that interpretation of terms is uniform and the information is used in the right context. For example, how do you define 'unemployment'? Compare your definition with the ABS definition. Most ABS publications contain definitions of the information they include.

### Footnotes

Footnotes are used to add comments and/or explanations to the tables or graphs. Footnotes are indicated by the inclusion of a letter in brackets e.g. (a), (b), (c), etc. beside the figure or heading which requires explanation. This letter and its footnote are presented under the table or chart.

The position of the footnote reference is important in the table or graph. If the footnote reference is in the title of the table or graph, then the message in the footnote relates to the whole table or graph. If it appears next to a column heading, then the message in the footnote applies to the data within that column. When analysing statistics, it is important to give attention to the footnotes as they often point out limitations in the data which could significantly affect interpretation.

**Explanatory Notes**

Explanatory notes are designed to assist the user in understanding the data in the publication. They provide information on what data was collected and how and are useful in highlighting the limitations of the data. For example, explanatory notes generally include descriptions of the methodology and scope used to collect the data, data definitions, reliability of estimates, seasonal adjustment and comparability with other data.

**Averages**

An average (arithmetic mean) provides a useful summary measure of the contents of a set of data. However, averages can give a very deceptive picture of the meaning of statistics if they are misunderstood or misused. The average is affected by extremes in data (highest and lowest values) and unequal distributions. It may be beneficial in analysis to also examine the mode (most frequently occurring value) and the median (the value in the middle of an ordered data set) as a guide to the characteristics of the data.

**Composition of Totals**

Analysis of totals will give you an idea of overall trends in time series data. To gain a more complete understanding of the data, however, an analysis of the components making up the totals is necessary. For example, there were more women than men in Australia at the 1986 census. However, further analysis shows men outnumbered women in each age group up to the 50–59 years age group, but women outnumbered men greatly in the older age groups.

**Graphs**

Graphs are an excellent way of presenting data. They enable the user to get a feel for the data quicker than using tables or from text.

Graphs, however, can very easily be misleading and care should be taken in interpretation. Care must be taken to understand what the title and axis headings mean and what data series are actually represented in the graph. Attention must be paid to the units (e.g. millions of dollars, persons) and the scales used.

**Surveys and Censuses**

Ideally, if we want to find out something about a group of people or businesses, we would approach every person or business in the group (called the population). This is called a census. The best known census

is the Census of Population and Housing, which collects information from every household in Australia. However, by sticking to certain rules, a reliable picture of a population can be drawn from a selection or a sample of that population. The key lies in selecting a sample that is representative of the whole population.

An advantage of sample surveys over censuses is that they are cheaper and are easier to run. However, one main disadvantage is that the results contain *sampling error*, which is the difference in the results obtained from using a sample of the population and a census. In some instances this error can be quite large. Where information is being analysed from sample surveys, the size of this error should be taken into account when assessing the credibility of results. Sample survey and census results can also contain *non-sampling error*, which is error resulting from collection and processing errors e.g. respondents being unable to accurately recall information or mistakes made in recording or coding.

**STEPS IN ANALYSIS**

Although there are no hard and fast rules to the correct approach, the following steps may give you a starting point for analysing time series data.

(a) Determine what data are available and relevant to your topic. The ABS *Catalogue of Publications and Products* (1101.0) is a good place to start.

(b) Look at the layout of the table in order to understand how the data are arranged. Check the row and column names to get a clear idea of the variables being displayed.

(c) Scan the totals in the tables to get an overall idea of the trends in the data. A graph is often the most appropriate tool for this analysis. If no graph is presented, consider graphing the data yourself to get a clear picture.

(d) If the data are available by different frequencies (e.g. annually, monthly), decide which of the available frequencies is most appropriate for your purpose. Annual data may be appropriate for examining data over a long time; quarterly or monthly data may provide a better picture of more recent developments.

(e) Make sure you have a clear idea of the questions for which you seek answers in the data. For example:

- are the values of the variable rising or falling over time?
- when was the last peak (high point) or trough (low point)?
- has the rate of change risen or fallen over time?
- have the shares of components in the total changed over time?

It is important to conduct your analysis one logical step at a time. Do not try to take all the information in at once and try not to get side-tracked with minor issues as you do your analysis.

# Further Reading

- ☐ *An Introduction to Sample Surveys — A User's Guide* (1202.2)
  Contains a basic guide to the use of sample surveys. Topics covered include survey objectives, data collection methods, questionnaire and sample design, sources of error, survey testing, data collection and processing and analysis and presentation of results.

- ☐ *Concepts and Methods of Seasonal Analysis* (1315.0)
  Provides coverage of the theory underlying seasonal adjustment and the methods used by the ABS. Includes guidance for the interpretation of seasonally adjusted data.

- ☐ *Surviving Statistics — A User's Guide to the Basics* (1332.0)
  A comprehensive basic guide to understanding and using statistics.

- ☐ *Australian National Accounts: Concepts, Sources and Methods* (5216.0)
  Contains the history, conceptual framework and structure of the national accounts, including an explanation of constant price estimates.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# INDEX

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