INTRODUCTION

1 This publication, Manufacturing Industry, Australia, 2005-06 (cat. no. 8221.0), presents data of the economic and financial performance of the manufacturing industry.

2 Manufacturing, as specified in Division C of the 1993 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC) (cat. no. 1292.0), broadly relates to the physical or chemical transformation of materials or components into new products, whether the work is performed by power-driven machines or by hand.

3 From 2006-07 reference year the Economic Activity Survey (EAS) results will be compiled using the 2006 edition of ANZSIC (an updated version of the industry classification) and new methodologies. As a result, a new series of these estimates will commence from 2006-07. When 2006-07 data are released, they will be accompanied by data for 2004-05 and 2005-06 on a comparable basis.

4 The manufacturing collection is conducted annually as a component of the ABS's Economic Activity Survey (EAS):

- A sample of approximately 8,900 manufacturing businesses were asked by the ABS to provide employment details and data obtained from their financial statements, mainly via mail out questionnaires. (The sample comprised all businesses classified to the manufacturing industry and which were above a certain cut-off; see Technical Note 1.)
Key financial data, representing approximately 126,000 manufacturing businesses below the $500,000 cut-off, which had been supplied by them to the Australian Taxation Office (ATO) on business income tax returns (BIT data), were then used to supplement the ABS's directly collected information. Section 16(4)(ga) of the Income Tax Assessment Act 1936 provides for the ATO to pass information to the Australian Statistician for the purposes of the Census and Statistics Act 1905.

STATISTICAL UNITS USED

5 Statistical units are those entities from which statistics are collected, or about which statistics are compiled. In ABS economic statistics, the statistical unit is generally the business. All businesses in the EAS are recorded on the ABS Business Register (ABSBR).

6 The ABS uses an economic statistics units model on the ABSBR to describe the characteristics of businesses, and the structural relationships between related businesses. Within large and diverse business groups, the units model is used also to define reporting units that can provide data to the ABS at suitable levels of detail.

7 This units model allocates businesses to one of two sub-populations:

- Most businesses and organisations in Australia need to obtain an Australian Business Number (ABN). The vast majority of these businesses are simple in structure and are allocated to the population which is maintained by the ATO. These are termed (by the ABS) ABN units.

- The remaining businesses are in the ABS maintained population, and are termed type of activity units, or TAUs.

8 Together, these two sub-populations (of ABN units and TAUs) make up the ABSBR population, from which the EAS samples are taken.

9 For details about the ABSBR and how ABN units and TAUs contribute to the industry statistics in this publication, see Technical Note 1.
SCOPE AND COVERAGE

10 The scope of the 2005-06 manufacturing collection comprises all businesses (including non-employing businesses) on the ABSBR at time of selection, whose industry is classified to ANZSIC Division C Manufacturing. For details of the structure of this division, please consult the 1993 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC) (cat. no. 1292.0), which is also available through the ABS web site <http://www.abs.gov.au> (using the Home page Search facility to find Division C).

11 The ANZSIC-based industry statistics presented in this publication are compiled differently from activity statistics. Each ABN unit or TAU on the ABSBR has been classified (by the ATO and the ABS respectively) to a single industry irrespective of any diversity of activities undertaken. The industry class allocated is the one which relates to those activities that provide the main source of income. A manufacturing business is one predominantly engaged in manufacturing activities, but the data collected for it cover all activities of the business (including non-manufacturing activities). Conversely, there are some businesses predominantly engaged in non-manufacturing activities which also undertake limited manufacturing activities; these are excluded from the collection.

12 Some manufacturing businesses engage, to a significant extent, in activities which are normally carried out by different industries. For example, a predominantly manufacturing business may also undertake significant amounts of wholesaling. Similarly, a manufacturing business may produce significant volumes of goods which are normally produced in different manufacturing industries. However, where a business makes a significant economic contribution to industries classified to different ANZSIC subdivisions, the ABS includes the business in the ABS maintained population, and 'splits' the TAU's reported data between the industries involved. Significance is determined using total income.

13 A TAU's reported data will be split if the inclusion of data relating to the secondary activity in the statistics for the industry of the primary activity distorts (by overstating or understating) either the primary or secondary industry statistics at the ANZSIC subdivision level by:
3% or more, where the industries of the primary and secondary activities are in the same ANZSIC division
- 2% or more, where the industries of the primary and secondary activities are in different ANZSIC divisions.

14 Unincorporated joint ventures (UJVs) within the manufacturing industry are arrangements which allow the sharing of expertise, resources and risk associated with specific projects. This occurs through the participation of a number of organisations (by investment) in a specific operation. Some of these organisations may not otherwise be involved in that industry.

15 The manufacturing collection includes such businesses which are operators and/or participants in UJVs. Generally, each participant supplies data of its share of income, while the operator reports all expenses and employment.

16 The ABS attempts to maintain a current understanding of the structure of the large, complex and diverse business groups that form the ABS maintained population on the ABSBR, through direct contact with those businesses. Resultant changes in their structures on the ABSBR can affect:
- the availability of such businesses (or units within them) for inclusion in the annual economic collections
- the delineation of the units, within those groups, for which data are to be reported.

17 The ABS attempts to obtain data for those businesses which ceased operation during the year, but it is not possible to obtain data for all of them.

REFERENCE PERIOD

18 The period covered by the collection is, in general, the 12 months ended 30 June. Where businesses are unable to supply information on this basis, an accounting period for which data can be provided is used for data other than that relating to employment. Such businesses make a substantial contribution to some of the estimates presented in this publication. As a result, the estimates
can reflect trading conditions that prevailed in periods outside the twelve months ended June in the relevant year.

19 Although financial data estimates relate to the full twelve months, employment estimates relate to the last pay period ending in June of the given year. As such, any estimates of wages and salaries per person employed can be affected by any fluctuations in employment during the reference period.

20 Financial data presented incorporate all units in scope of the manufacturing collection that were at the production stage at any time during the year. They also include any temporarily inactive units, i.e. those units which were in the development stage or which were not in production, but which still existed and held assets and liabilities and/or incurred some non-operating expenses (e.g. depreciation, administration costs).

RELIABILITY OF ESTIMATES

21 For information about this subject, see Technical Note 2.

INDUSTRY PERFORMANCE MEASURES

22 This publication presents a wide range of data that can be used to analyse business and industry performance.

23 Differences in accounting policy and practices across businesses and industries can lead to some inconsistencies in the data input to the statistics. Although much of the accounting process is subject to standards, there is still a great deal of flexibility left to managers and accountants in the accounting policy and practices they adopt. For example, the way profit is measured is affected by management policy on such issues as depreciation rates, bad debt provisions and write off, and goodwill write off. The varying degree to which businesses consolidate their accounts may also affect any industry performance measures calculated.

24 A range of performance measures, usually expressed as ratios, can be
produced from the data available from businesses' financial statements. Others, relating to labour inputs, can be derived by expressing financial or economic variables on a per person employed basis. This issue presents a selection of such measures. They comprise:

- profitability ratios, which measure the rate of profit on sales
- debt ratios, which indicate the ability of businesses to meet the cost of debt financing
- labour measures, which relate output, labour costs and employment
- capital expenditure ratios, which indicate the extent of business investment in capital assets.

25 A further explanation of each ratio can be found in the Glossary.

26 Those ratios compiled from a combination of flow (whole period) and level (beginning or end of period) items need to be treated with additional caution. Ratios which include both level and flow items in their derivation may be volatile due to the timing and other differences involved. In particular, this should be taken into account when considering those measures expressed as values per person employed. For example, working proprietors and partners are included in estimates of employment but their drawings are not included in wages and salaries. This will affect estimates of wages and salaries per person employed for those industries where a substantial proportion of businesses are sole proprietorships. It may, therefore, be preferable to base any analysis on a range of data presented rather than focusing on one variable.

27 Similarly, the extent of change in inventories is a component of several of the measures of industry output and earnings. Although the closing inventories held by businesses in an industry in one period should, in concept, equate to its opening inventories in the next period, differences will be observed in many cases. These differences can arise from re-selection of the sample between years and/or changes in the structure of businesses selected, as well as revaluations of inventories in businesses' accounts.

28 The above limitations are not meant to imply that analysis based on these data should be avoided, only that they should be borne in mind when interpreting the data presented in this publication.
INTERNATIONAL FINANCIAL REPORTING STANDARDS

29 The new Australian equivalents to International Financial Reporting Standards (AIFRS) began to be progressively implemented in Australia from 1 January 2005. As a result, a number of items in the financial accounts of Australian businesses have been affected by changed definitions, which have in turn affected both Income Statements and Balance Sheets. A range of ABS economic collections source data from financial accounts of businesses, and use those data to derive economic statistics. There have been no changes in the associated economic definitions.

30 After monitoring data items since March quarter 2005 it has been concluded that most affected published data series have been affected by data breaks, but that the magnitude of such breaks cannot be determined without imposing disproportionate load upon data providers to ABS surveys and other administratively collected data. ABS will continue to monitor developments and report any significant identified impacts or changes in methodology as a result of AIFRS.

STATE AND TERRITORY ESTIMATES

31 State and territory summary estimates for manufacturing subdivisions are presented in table 3.1. To enable the production of these estimates for each year, selected businesses which received the mail out questionnaire (and which were considered to operate in more than one state and/or territory) were also asked to report data for employment, wages and salaries, and sales of goods and services for each state and/or territory in which they operated, if more than one. The relevant data for all other businesses, including those whose contribution was sourced from BIT data, were allocated to their state/territory of operations as recorded on the ABSBR.

32 The design of the manufacturing collection does not take into account the state/territory in which businesses are based or in which they operate. As a result, these state and territory estimates are particularly subject to variation from year to year because of rotation of businesses into and out of the sample.

http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8221.0Explanatory%20Notes1200... 02/07/2008
EMPLOYMENT SIZE DATA

33 Data classified by the employment size of individual manufacturing businesses are presented in table 2.3. Similarly, estimates of exports of goods produced classified by the broad employment size of individual manufacturing businesses are presented in table 4.2. The statistics in these two tables relate only to those manufacturing businesses which operated at 30 June 2006. As such, the data presented relate to a slightly different population from those presented in the other tables in this publication. These other tables include data for manufacturing businesses which operated at any time during the year ended 30 June 2006.

34 The treatment of unincorporated joint ventures (UJVs) under the ABS economic statistics model has an effect on data classified by employment size. This is because each of the joint venture participants reports details of its share of the sales of goods and services, but generally they have few or no employees or operating expenses. The labour for such operations is usually employed and paid for by the joint venture operator. Similarly, the operating expenses are usually reported by the joint venture operator. The number of UJVs in manufacturing industry is small, and at the aggregate level all activity is covered in the statistics.

35 However, this treatment does affect the employment size tables 2.3 and 4.2, as UJV participants with potentially significant sales of goods and services are included in the 0-4 persons category. These effects are particularly evident in the estimates for the Metal product manufacturing industry.

EXPORTS BY MANUFACTURERS

36 All businesses which received an ABS mail out survey were asked whether they exported and, if so, what percentage of their sales of goods produced was exported by the business or by an agent on its behalf. Because the ATO data do not contain this information, businesses whose contribution to manufacturing estimates was sourced from BIT data do not contribute to the export tables included in this publication. The effect of the exclusion of these businesses is likely to be minimal, in view of their small contribution to overall estimates.
The data presented in table 4.2 are derived by applying the percentage of exports reported for each exporting unit and then aggregating that figure. These data also exclude any contribution by those businesses which operated during 2005-06, but were not operating at 30 June 2006.

For the purposes of table 4.3, manufacturing businesses have been categorised by the extent (if any) of their involvement in exporting. For each such category, the tables present its share (relative to total Australian manufacturing) of the four key data items: employment at end of June, sales and service income, wages and salaries, and industry value added.

The statistics presented in tables 4.1 and 4.2, relating to the value of exports by manufacturers or their agents, are not intended to be directly comparable with the value of exports classified by manufacturing industry of origin as published by the ABS in international trade statistics. These latter statistics are intended to measure total exports regardless of which business or organisation does the exporting (and to identify the probable industry from which the goods originated), whereas the statistics in this publication's tables only relate to exports directly undertaken by the manufacturer or by its agent. The exports data in tables 4.1 and 4.2 can, therefore, be expected to show a much lower value than the exports data from the international trade series. The main reason is that for many exports of goods manufactured in Australia, the actual exporting activity is undertaken by a business other than the manufacturer.

Also, the value of goods produced on a commission or fee basis for non-manufacturing businesses and which are then exported is not included in any of these data. Examples of relevant commission arrangements are the slaughtering fee charged by an abattoir for processing livestock owned by a meat exporter, and the tolling fee charged by an aluminium smelter to process ores owned by other (e.g. mining) businesses. Also excluded from these tables are any exports by manufacturers of goods which were not produced by that manufacturer. These and other goods exported (e.g. re-exports) are included in the international trade data. Finally, differences in valuation of exports arise because the value of exports in the international trade series would include the value to the manufacturer plus profit margins for the exporter and for any intermediaries between the manufacturer and the exporter.

NEW BUSINESSES
Data in this publication have been adjusted to allow for lags in processing new businesses to the ABSBR. The effect of these adjustments on the Australian total manufacturing estimate of sales and service income is an increase of 0.8%.

Most states and territories and most industries were affected to a similar degree.

ACKNOWLEDGEMENT

ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated: without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in strict confidence as required by the Census and Statistics Act 1905.

RELATED PUBLICATIONS

The ABS produces industry estimates for a range of selected industries (including manufacturing) and these results are available in Australian Industry, 2005-06 (cat. no. 8155.0), released on 23 November 2007.

National estimates of employment, income, expenditure and associated ratios are available at the ANZSIC division level (with a greater range of data available via the ABS web site in spreadsheet form). Some data presenting greater detail are considered experimental at this stage, while the methodology used to produce them is reviewed and improved. These consist of national estimates of income, expenses, operating profit before tax (OPBT), and wages and salaries, at the ANZSIC class level, and state/territory estimates of these items at the ANZSIC division level.

The following publications and electronic releases also contain information about the manufacturing industry:
- **Australian Labour Market Statistics**, cat. no. 6105.0 - Quarterly publication
- **Australian National Accounts: State Accounts, 2005-06, Reissue**, cat. no. 5220.0, released on 13 November 2006 - Annual publication
- **Business Indicators, Australia**, cat. no. 5676.0 - Quarterly publication
- **Counts of Australian Businesses, including Entries and Exits, June 2003 to June 2006**, cat.no. 8165.0, released on 26 February 2007 - Annual publication
- **International Trade in Goods and Services, Australia**, cat. no. 5368.0 - Monthly publication
- **International Trade Price Indexes, Australia**, cat. no. 6457.0 - Quarterly publication
- **Job Vacancies, Australia**, cat. no. 6354.0 - Quarterly publication
- **Labour Price Index**, cat. no. 6345.0 - Quarterly publication - Irregular electronic publication
- **Manufacturing Indicators, Australia**, cat. no. 8229.0 - Quarterly electronic publication
- **Manufacturing Industry, New South Wales, 2001-02**, cat. no. 8221.1.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Industry, Victoria, 2001-02**, cat. no. 8221.2.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Industry, Queensland, 2001-02**, cat. no. 8221.3.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Industry, South Australia, 2001-02**, cat. no. 8221.4.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Industry, Western Australia, 2001-02**, cat. no. 8221.5.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Industry, Tasmania, 2001-02**, cat. no. 8221.6.55.001, released on 21 November 2005 - Quinquennial electronic publication
- **Manufacturing Production, Australia**, cat. no. 8301.0.55.001 - Quarterly electronic publication
- **Private New Capital Expenditure and Expected Expenditure, Australia**, cat. no. 5625.0 - Quarterly publication
- **Producer Price Indexes, Australia**, cat. no. 6427.0 - Quarterly publication
- **Research and Experimental Development, Businesses, Australia, 2004-05**, cat. no. 8104.0, released on 28 August 2006 - Annual publication
- **Year Book Australia, 2007**, cat. no. 1301.0, released on 20 January 2007 - Annual publication

http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8221.0Explanatory%20Notes1200... 02/07/2008
47 Current publications and other products released by the ABS are available from the Statistics View on the ABS web site <www.abs.gov.au>. The ABS also issues a daily Release Advice on the web site which details products to be released in the week ahead.

ABS DATA AVAILABLE ON REQUEST

48 As well as the statistics included in this and related publications, the ABS may have other relevant data available on request and for a charge. Inquiries should be made to the National Information and Referral Service on 1300 135 070.

BACK SERIES AND ADDITIONAL DATA

49 The ABS has data stored electronically from earlier manufacturing surveys collected using different statistical infrastructures. For relevant data, see the data cubes and spreadsheets released in conjunction with the 1999-2000 and 2000-01 issues of this publication. The publication text also provides useful descriptions of these changed collection arrangements. These publications and datasets are all available on the ABS web site.

50 By definition, these data series are not directly comparable with the current statistical series, which commences with data from the 2001-02 reference year.

51 For more information, please contact Phillip Lui on (02) 9268 4269.

ROUNDING

52 Where figures have been rounded, discrepancies may occur between totals and the sums of the component items. Due to data being adjusted for lags in processing new businesses to the ABS Business Register (see paragraph 41), this 'rounding rule' also applies to employment estimates.
Proportions, ratios and other calculated figures shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, calculations based on the rounded estimates.

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