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**Large and complex enterprises units and international profiling****Profiling Multinational Corporations in Australia and the  
Impacts on the Australian National Accounts****Prepared by Australian Bureau of Statistics<sup>1</sup>***Summary*

In order to produce the expected suite of economic statistics, national statistical offices need to maintain registers of statistical units on both a production and an ownership (institutional units) basis. The Australian Bureau of Statistics (ABS) has a dedicated program that profiles large complex firms. This document discusses practices that occur in the profiling program and how the national accounts through the Supply and Use framework provides further consolidation to ensure accuracy within the National Accounts. The document then gives practical examples of how the ABS profiles multinational, large and complex organizations within the manufacturing and online content streaming industries before concluding with a discussion of the benefits of consolidating their data within a supply-use framework.

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## **I. Introduction**

1. The Australian Bureau of Statistics (ABS) has a dedicated program that profiles large complex firms. This document discusses practices that occur in the profiling program and how the national accounts through the Supply and Use framework provides further consolidation to ensure accuracy within the National Accounts. Further work is required in this area as, particularly as more off-shoring occurs in Australia with the decline in Manufacturing, this is becoming more difficult. Additional complexity is also experienced as international online content is imported in Australia, including intellectual property products that are purchased for capital formation, and determining what local activity is actually occurring.

2. This document begins with an explanation of how the ABS uses the Type of Activity Unit (TAU) as the statistical unit for deriving production data from businesses and how it profiles organizations using the ABS Business Register, which is the frame from which business surveys are drawn. The future work program of the ABS and new initiatives in profiling multinational corporations are also discussed.

3. The document then gives practical examples of how the ABS profiles multinational, large and complex organizations within the manufacturing and online content streaming industries before concluding with a discussion of the benefits of consolidating their data within a supply and use framework.

## **II. The Economic Units Model and Conduct of Business Profiling in the ABS**

### **A. Well-Defined Economic Units Model for Accurate Profiling**

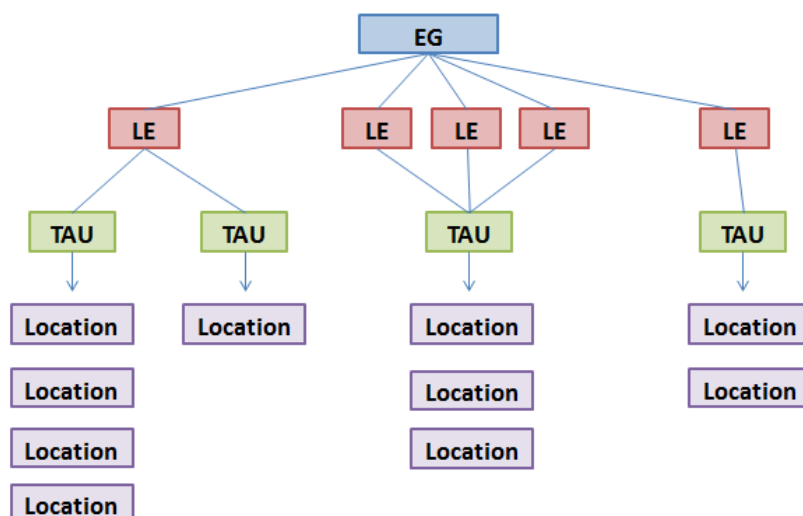
4. The profiling of large, complex firms and the compilation of high quality and coherent economic statistics relies on the use of standardised, well-defined statistical units in order to collect, compile, analyse and disseminate data. The ABS Economic Units Model forms the conceptual framework underpinning the ABS Business Register.

5. The Economic Units Model used by the ABS in determining the structure of businesses is consistent with Australian Corporation Law and with the definition of institutional units recommended by the 2008 System of National Accounts (*2008 SNA*). It was developed in consultation with the Australian Tax Office in 2002 and further refined in 2013. The model consists of the Enterprise Group (EG), one or more Legal Entities (LE), one or more Type of Activity Units (TAUs) and one or more location units (see Figure 1.).

6. The EG and LE are institutional units which are based on ownership and control and are used, for example, when compiling financial and balance sheet accounts. The primary classification of institutional units is to institutional sector, rather than to industry. The TAU, which is the focus of this document, and the location unit are producing units.

7. There is no fixed relationship between the LE and TAU, which is a limited departure from paragraph 5.12 of the 2008 SNA, which stipulates a hierarchical relationship between the institutional and producing unit. However, there is a hierarchical relationship between the TAU and the Enterprise Group, with one or more TAUs comprising one Enterprise Group.

Figure 1  
ABS Economic Units Model



## B. The Type of Activity Unit is the Basis for Compiling Industry Statistics

8. The ABS uses the Type of Activity Unit (TAU) as its producing unit to collect industry and some other economic statistics. The TAU is comprised of one or more legal entities, sub-entities or branches of a legal entity that can report productive and employment activities via a minimum set of data items. TAUs may have operations in one or more states/territories.

9. TAUs undertaking the same type of activity are grouped together to form industries. The ABS uses the Australian and New Zealand Standard Industrial Classification 2006 ('ANZSIC 2006') to classify these units into industries. The ABS maintains a concordance between ANZSIC and the International Standard Industrial Classification of All Economic Activities (ISIC) (Revision 4). Ideally, all TAUs are constructed so that two-digit ANZSIC (Subdivision) homogeneity is observed which ensures that good quality industry estimates can be calculated by the ABS at this level.

## C. The ABS Business Register is the Frame for Business Surveys

10. Economic units are maintained on statistical business registers. With the introduction of a new tax system in Australia in 2000, the Australian Tax Office created a whole-of-government register of businesses, the Australian Business Register (ABR). This register is an extensive database of identity information on businesses, government agencies, not-for-profit institutions and other organisations. Organisations are included on the ABR when they register with the Australian Tax Office for an Australian Business Number (ABN). Only registered organisations are eligible to participate in the Australian Goods and Services Tax (GST) system and claim GST credits. In practice, the Legal Entity is generally the ABN registrant.

11. The ABR is the administrative dataset which is used by the ABS as its primary source to identify new businesses. Information from the ABR flows through to the ABS Business Register. The ABS Business Register includes comprehensive structural information about Australian businesses, including industry, sector and size benchmarks.

The key outputs of the ABS Business Register are the quarterly Common Frame, a point in time snapshot of the ABS Business Register used to create survey frames for the business-based economic collections, as well as annual, sub-annual and irregular Survey Frames. It is a dynamic register with at least monthly maintenance and is intended to reflect as close as possible the characteristics of business within the real world economy.

**D. The ABS Business Register uses a Two Population Model**

12. The profiling program undertaken by the ABS Business Register Unit underpins the ABS’s economic statistics work program by providing accurate and up-to-date business structures for use by the business survey program. Current world best practice is for statistical business registers to be populated and updated from administrative data and enhanced by profiling activity. The ABS Business Register follows this practice by using a two population model, dividing businesses into profiled and non-profiled populations. These populations are mutually exclusive and cover all organisations in Australia which have registered for an ABN.

13. The non-profiled population is maintained by the Australian Tax Office and includes smaller or less complex businesses and is updated with administrative data. Approximately 5 million active businesses are in the non-profiled population. Units within the non-profiled population are regarded as single legal entity, single enterprise group and single TAU units.

14. In contrast, the profiled population is comprised of larger or more complex businesses. Approximately 13,000 TAUs, which are less than 1% of all businesses, are included in the profiled population. However, these businesses contribute over 50% of total Industry Value-added. Multinational corporations with complex or unusual legal and reporting structures are included within the profiled population.

Figure 2  
**ABS Economic Units Model**

<b>Profiled Population</b>	<b>13,000 active business units (TAUs)</b>
<b>Non profiled Population</b>	<b>5.0 million active businesses (ABNs)</b>

**E. The ABS Profiling Program**

15. The main activity in profiling is establishing and maintaining the business profile to keep up to date with changes in unit structures and industry activity. Ongoing profiling ensures the ABS Business Register can support the organisational need for timely and high quality business structure information that facilitates the collection of accurate and coherent

statistical data. Both new and updated profiles may be developed through face to face or phone contact or through information provided via a mail profiling form. The frequency of the re-profiling of Enterprise Groups in ABS has changed over time. Initially every Enterprise Group in the profiled population was re-profiled every second year. Over time the timing has become more refined so that Enterprise Groups are scheduled for re-profiling based on their significance and likelihood of change (from every year up to a four year cycle). The ABS is increasingly emphasising the use of external events to trigger updates to a profile.

16. Current triggers for profiling include survey feedback, changes in Goods and Services Tax groups, Business Register Unit major projects, registers of mergers, acquisitions and transfers and significant changes in reported Business Activity Statement data. Triggers may result in a simple update of information on the ABS Business Register to a full re-profile where there has been a major structural change.

17. In addition to collecting structural information and contact details, the ABS has added a question to the profiling form to identify enterprise groups and TAUs that engage in international investment and trade in services to respond to the increasing globalisation of value chains. These questions are used to scope businesses in the profiled population to receive coverage forms to better understand the nature of their activity.

## **F. Future Direction of ABS Profiling and the ABS Business Register**

18. The Australian Government is investing \$250 million over five years to transform the ABS infrastructure, systems and processes used to produce official statistics.

19. The ABS Profiling Program is evolving in line with its transformation objectives. The long-term vision of the ABS is to profile the largest businesses concurrently with business survey editing while profiling smaller businesses on an ‘as needs’ basis, resulting in an overall reduction in the level of profiling. To that end, in 2016 the ABS conducted a joint editing/profiling trial to test the feasibility of combining these functions within a single team. The overall conclusion of the trial was that combining profiling and annual industry editing has delivered a range of benefits including reduced costs, improved data coherence and a better provider experience and shows promise as a viable way of working in the longer term. The ABS is undertaking further trials in 2017 to advance this vision.

20. The ABS is also redeveloping its Business Register to go beyond its traditional role of providing survey frames into providing a central ‘spine’ for linking data, including data collected from outside of ABS collections. Using the ABN as the linking variable, the ABS is exploring the potential to integrate information included in the ABS Business Register with economy wide transaction data, survey-specific data and profiling information as well as linking the Business Register with other registers such as the ABS Address Register, which was originally designed to support the compilation of social and population statistics. Integrating data from a range of administrative and transactional data sets will allow the ABS to produce new statistical products while reducing provider burden by making multiple use of survey responses.

## **III. How Business Profiling and the Supply-Use Framework Improve the Quality of the Australian National Accounts**

21. The remainder of this document discusses the practical work undertaken by the ABS to validate its data to meet the stringent quality demands of its stakeholders, focusing on the manufacturing and online content streaming industries. It then concludes with a discussion on how the processing of data in a consolidated supply-use framework complements

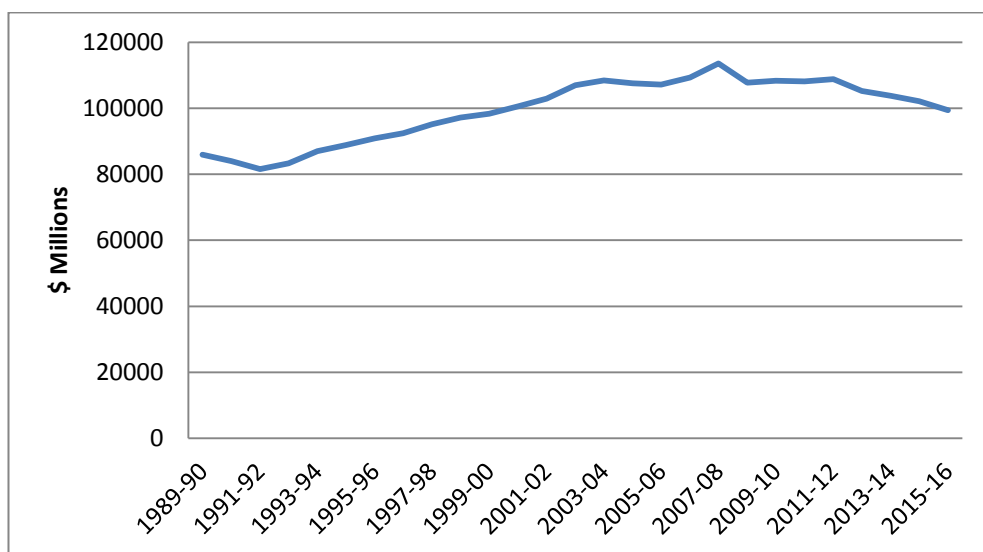
regular profiling and liaison with the larger and more complex businesses to ensure the accuracy, coherence and timeliness of ABS outputs.

## A. The Decline of the Manufacturing Industry and Challenges for Profilers

22. Gross Value Added of the Australian manufacturing industry as a whole began to decline in 2004-05 in chain volume terms after 12 years of uninterrupted growth (ABS Cat no. 5204.0). There have since been some limited recoveries, although the manufacturing industry has resumed its decline since 2013-14 driven by, among other things, high domestic input costs and fierce competition from imports.

Figure 3

### Manufacturing Gross Value Added (Chain Volume Measures)



23. As manufacturing in Australia has become increasingly unviable, multinational corporations have shut down domestic plants and shifted to wholesaling. For example, the three car manufacturing companies in Australia, Ford, Holden and Toyota, ceased domestic production in 2016-17 and switched their Australian operations from manufacturing to wholesaling. Ongoing provider contact was required to accurately record the timing of this shift and to split reported revenue data between wholesaling and manufacturing activity in the lead-up to the shutdown.

24. The immediate effect of a shift from manufacturing to retailing or wholesaling activity is to lower Gross Domestic Product, as the value added from transforming raw materials into finished goods is moved offshore and replaced by a margin on the resale of finished goods, which usually has a lower value added.

## B. Developing an Accurate Profile of Petroleum Companies

25. Even in cases where multinational corporations have not ceased domestic manufacturing operations, the ABS devotes significant resources to accurately profiling and recording their business activities where those corporations are complex and major contributors to industry activity, as in the case of the petroleum industry.

26. The Australian downstream petroleum industry is dominated by four firms: BP, Caltex, Viva Energy and Mobil ('the Big 4') which engage in the refining, distribution and wholesale/retail sale of petrochemicals and petroleum products. Due to increasing costs and growing competition from the Asian super-refineries, the domestic industry has been facing increasing pressure to move away from local refining towards wholesale import and storage of refined products in import terminals.

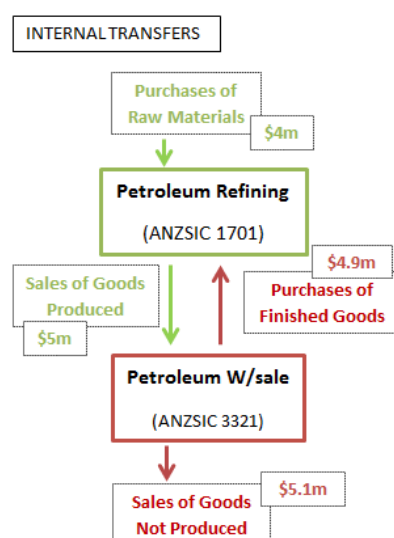
27. The vertically integrated nature of the petroleum industry complicates reporting to the ABS, due to transfer pricing arrangements where individual units of a corporate group conduct inter-segment transactions of refined petroleum between the refining and wholesaling divisions of the business at non-market prices. Such transactions can be at the expense of the individual unit but for the overall benefit of the corporate group. Reporting by the industry is further complicated by the presence of reciprocal buy-sell arrangements between the major companies to provide back-up supplies in the event of unexpected demand or unplanned refinery shutdowns. The ABS takes care to ensure such arrangements are recorded on a net rather than gross basis to reflect the actual cash flow situation for the accounting year.

28. In order to develop a reporting structure which aligns with economic reality, the ABS Business Register Unit commenced an investigation in 2009 to define an ideal model for the reporting of transaction data between refining and retailing/wholesaling activity for the Big 4. One proposal by Business Register Unit in consultation with ABS national accounts and survey areas was to define an 'Internal Transfers' model, which would aim to capture inter-segment transactions and according to 2008 SNA requirements treat them at arm's length (ie. fair market value) if necessary. Including internal transfers in company reporting is standard ABS practice in other industries where there is vertical integration between the affiliates, as occurs in the mining industry.

29. By working closely with data providers, the Business Register Unit was able to separate the Big 4 Group structures into TAUs along ANZSIC class divisions for manufacturing, wholesaling and retailing lines and defined how transaction data should be shown to flow between these TAU units, which aligned in practice with the internal transfers model. The work of the ABS Business Register has significantly improved and standardised the reporting by the major petroleum industries, leading to publication of more accurate industry activity in the national accounts.

Figure 4

#### Example of Activity Captured by Internal Transfers model



### C. Classifying Online Content Streaming Companies

30. The challenges to the ABS in profiling emerging industries in information media are just as pertinent. According to the Australian Communications and Media Authority (ACMA), the increasing appetite of Australians for digital content is driving profound changes in mobile device use, network infrastructure and content delivery, with annual growth in data download volumes of over 50% in 2015-16. There has been a notable shift towards consuming entertainment online through streaming services, with ACMA reporting 2.7 million paid, free or trial subscriptions to video on demand services as at June 2016 and the Australian Recording Industry Association noting that music streaming revenue has become the dominant consumption format of music in Australia, accounting for 38.5% of overall market by value in 2016.

31. Business profilers are challenged with classifying online audio and visual media streaming companies based on an industry classification, the ANZSIC 2006, which was developed when streaming was in its infancy. There are two ANZSIC classes within Division J – Information Media and Telecommunications of the ANZSIC 2006 to which such companies can potentially be classified, ANZSIC Class 5700 Internet publishing and broadcasting and ANZSIC Class 5921 Data processing and web hosting services.<sup>2</sup> While the description in ANZSIC Class 5921 explicitly lists streaming activities, which aligns with the treatment in ISIC Class 6311 Data processing, hosting and related activities, the ABS Business Register Unit views this class as applying to units which mainly provide data processing and web hosting services by storing content for client use on a server and that streaming is ancillary to this activity.

32. The ABS view is that the primarily household, as opposed to business, consumption of online entertainment streaming and the fact that companies usually own the copyright and distribution rights of the streamed content sufficiently distinguishes such companies from other units in ANZSIC Class 5921. The better view is that online streaming companies provide internet-based access to intellectual property which is aligned closer conceptually with the internet-based broadcasting units included in ANZSIC Class 5700 Internet publishing and broadcasting, which is therefore where most Australian online streaming companies are currently classified by the ABS.

33. Ultimately, however, the classification of each statistical unit depends on its individual characteristics and its predominant activity. For example, the ABS classifies the Australian branch of one prominent video streaming company to ANZSIC Class 7293 Credit Reporting and Debt Collection Services based on the fact that its Australian operations are limited to collecting and remitting funds to an overseas parent company which provides the actual streaming service.

34. Where the intellectual property rights to the streamed content are originally held overseas, additional complexity is introduced in determining whether such rights have been transferred to the domestic subsidiary as part of the streaming process. For example, Netflix, a video streaming company based in the United States operates an Open Connect program in which its Netherlands branch enters into partnerships with local internet service providers (ISP) such as Optus and iiNet to physically move the Netflix catalogue into their data centres via server hardware known as Open Account Appliances, thereby reducing internet traffic and improving the quality of the streaming service.

35. In the absence of specific guidance on the treatment of such content delivery networks in the 2008 SNA, the question of whether the ABS records an import of

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<sup>2</sup> The full definitions of the ANZSIC classes are included in the appendix.



intellectual property and corresponding gross fixed capital formation of artistic originals in such instances is resolved by applying first principles to the individual circumstances of the case as determined from profiling and provider contact. The ABS considers such factors as whether there has been a sale of the artistic original, the nature and terms of the licensing agreement between the overseas and domestic branches of the streaming company and, in accordance with paragraph 10.100 of the 2008 SNA, the degree to which the domestic subsidiary is able to assume responsibility for the distribution, support and maintenance of the artistic original when determining whether economic ownership of intellectual property has been transferred to the domestic subsidiary.

36. The classification of online streaming services is an example of the challenges faced by the ABS in adapting existing national accounting standards to classify and measure the economic activity of businesses in the rapidly changing digital economy.

#### **D. Business Profiling and the Supply-Use Framework both Contribute to Higher Quality Estimates**

37. Regular and targeted profiling of complex organizations is only one dimension of the ABS's multi-pronged approach to assuring the quality of its outputs. Once survey data of businesses drawn from the ABS Businesses Register is obtained, it is combined with administrative and other data into the supply-use framework.

38. Supply-use tables present a comprehensive picture of the supply and use of goods and services in the economy, as well as the incomes generated from production. They have been compiled by the ABS since 1998 and provide a framework in which the total supplies and uses of individual products have to balance with each other, thus yielding a consistent measure of GDP without a statistical discrepancy. Confrontation of data and resolution of differences occurs at a very detailed level in a supply-use framework, resulting in improvements in the overall accuracy of the National Accounts. Such confrontation can identify areas where there are implausible or inconsistent data, thereby highlighting areas for further case studies, flexible surveys and/or business profiling depending on the significance of the inconsistency.

39. Supply-use tables are not currently published by the ABS, although they are further disaggregated into input-output tables, which are published and provide a snapshot of the Australian economy at a point in time.

### **IV. Conclusion**

40. This document has outlined current ABS practice in profiling multinational corporations and the challenges with producing quality data to measure growing and declining industries. The ABS has devoted significant resources to transforming its infrastructure and business to meet these challenges and welcomes the opportunity to collaborate and share knowledge with other national statistical offices and data users in this area.

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