



Cross Cutting Topics:

Reselling of Services

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1. INTRODUCTION

- 1.1 The purpose of this paper is to discuss the treatment of the resale of services within Turnover statistics and Producer Price Indices. We attempt to broadly define the issue and present information on how the challenges impact classification, turnover, prices and the National Accounts within the Australian context.
- 1.2 Structural shifts in the Australian economy over the past 30 years have seen Services based industries assume greater shares of economic contribution – growth in gross value added over the 30 years to June 2014 for Services industries exceeded other combined industries by 51.5%. Measurement of Services industries and activity presents statisticians with complex conceptual and methodological challenges, including the reselling of services enabled by emerging technologies and business models.
- 1.3 Services, unlike goods, are not separate entities over which ownership rights can be established. The 2008 System of National Accounts (2008 SNA) defines the term services as follows (2008 SNA, paragraph 6.17): *"Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets. These types of services may be described as change-effecting services (transformation) and margin services, respectively."* This view holds that services cannot be held in inventory as they cannot be traded separately from their production, which is completed simultaneously with their delivery to the consumer.
- 1.4 In practice though, reselling of services occurs in a number of industries. Reselling can be beneficial to both parties as it allows the producer to sell in bulk without the additional costs of marketing, customer services, etc. which the reseller includes in their margin. Reselling of services has been increasing, particularly with the increasing accessibility of the internet. As such, the issue has not been clearly defined by any international manuals at present. The relevant classifications, possible approaches and recommendations are discussed in this paper.

2. DEFINITION: RESELLING OF SERVICES

- 2.1 We define reselling of services as an arrangement where the entity buys services from a supplier and resells them to a customer without any significant transformation. This is in line with the parallel definition of reselling of goods found in the International Standard Industrial Classification (ISIC Rev. 4) in the description of wholesale and retail trade as the *"sale without transformation"* of any type of good. The distinction between wholesale and retail trade is the type of customer.
- 2.2 According to ISIC the sale without transformation is considered to include *"the usual operations (or manipulations) associated with trade, for example sorting, grading and assembling of goods, mixing (blending) of goods (for example sand), bottling (with or without preceding bottle cleaning), packing, breaking bulk and repacking for distribution in smaller lots, storage (whether or not frozen or chilled), cleaning and drying of agricultural products, cutting out of wood fibreboards or metal sheets as secondary activities"*. We can apply the same approach to services when considering when a 'sale without transformation' has occurred. For example, in the Web Hosting Services industry some web operatives will buy a large amount of hosting space from an Internet Service Provider (ISP) and then resell some of this space to clients without any other transformation. It can be difficult to distinguish

between the 'usual operations' of a sale and the bundling or other transformation of services. The issue is discussed later in this paper.

- 2.3 It is important to distinguish between resellers of services and agents. The role of an agent is to arrange a transaction to be carried out between two other units in return for a fee from one or both parties in the transaction. In this case ownership rights are never transferred from the producer to the agent. The agent is acting only as an intermediary, whereas a reseller establishes a legally binding liability with the producer to acquire the service (or the ability to provide the service to a third party). As part of that liability a reseller assumes credit risks for services rendered but not paid, as well as potential holding losses on any inventory – i.e. a price fall in the value of any service purchased but not yet resold. An agent or broker who receives fees and commission does not bear such risks, as such these revenue sources are out of scope of a reseller agreement.
- 2.4 Much of the literature available on reselling of services refers to the issue of 'merchandising of services' and has a specific focus on the resale of services across country borders. For the most part we consider the term interchangeable with 'reselling of services', however we make the important distinction that in this paper reselling of services is only discussed in the domestic context. When considering reselling of services in an international context there is a strong focus on the roles of the transactors in global production and supply chains (e.g. the relationships between parent companies and their regional offices) which is not as important a factor in the domestic context.

3. CHALLENGES

Industry Classification

- 3.1 Industry classifications such as the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC 2006) are limited in prescribing industries where a reselling of services activity takes place. Nonetheless statistical compilers should be aware of industries and circumstances where elements of reselling of services are taking place and potential measurement issues.
- 3.2 ANZSIC 2006 does not identify a separate category for resellers of services. For the majority of industries, and unless otherwise specified, the reseller of a service is categorised in the same industry as the original producer of the service.
- 3.3 There are some exceptions to this treatment where specific classes are dedicated to resellers in particular industries. For example ANZSIC Class 5809 - Other Telecommunications Services specifically includes units of telecommunications resellers purchasing access and network capacity from telecommunications carriers as the primary activity. Telecommunications resellers purchase network capacity from network providers and resell it via their own channels. Telecommunications services have elements of a utility service where the produced service (i.e. network capacity) is bought, stored and on-sold. Telecommunications services also increasingly enabling the trade of intangible knowledge capturing products in various formats. From an Input-Output framework perspective the telecommunications services industry will exhibit high levels of inputs of other telecommunications services. Some of these inputs are legitimate intermediate use (such as inter-connection that transforms the service) whilst others are more consistent with the wholesale cost of on-selling a produced service.

Bundling of Services

- 3.4 It can be difficult to separate bundling of services from transformation of services. Bundling occurs when a service provider (or arranger) packages various types of services and/or goods together so the final client pays one price for the complete package. In this case it is important to identify the degree of transformation of the service to determine the appropriate pricing methodology. We have already discussed that reselling can involve some 'usual operations' which are not considered to be transformative. For example, a freight forwarding company is contracted to arrange the transportation of goods for other enterprises. The freight forwarding company may purchase the transport capacity of an entire carrier and then on-sell that capacity in smaller lots to several other enterprises. The distribution of the transport capacity in smaller lots is not considered to have transformed the transport service.
- 3.5 The draft Chapter 5 *Merchandising of Services* prepared by the World Trade Organisation provides some guidance on identifying the degree of transformation of a bundled product. As a general rule, if it is possible to unbundle the transaction and collect prices for each component then we consider that no transformation has occurred. Conversely, if it is not possible to unbundle the various components then it is considered to be a strong indication that transformation has occurred to the original service. It is now a different product and therefore the transaction should not be considered to be the resale of a service.

Example: Web Hosting Services

- 3.6 For example, within industries such as Class 5921 - Data Processing, Web Hosting and Electronic Information Storage Services it is common for hosting capacity (i.e. bandwidth) to be bought and on-sold in smaller parcels to retail customers. Some web operatives will buy a large amount of hosting space from an Internet Service Provider (ISP) and then resell some of this space to clients. Their hosting is often managed through a Virtual Private Server (VPS) which allows them to administer bandwidth, databases, passwords, etc., for the client as one service. The popularity of this business model grew with the rise of freelance web designers as it enabled them to be the sole service provider for the client. After an initial consultation with the client they could subsequently design, develop and host the site as a single operation. The distinction between ISP's and web hosting services is difficult to determine. In this situation it may be unclear whether the two are actually providing two distinct services – ie. is the second company providing a significantly transformed service from the original hosting space provided by the ISP?

Example: Travel Agency and Tour Arrangement Services

- 3.7 Travel agency and tour arrangement services consist of selling travel, tour and accommodation services as well as providing travel arrangement and reservation services for airlines, cars, hotels and restaurants. The industry may also arrange packaged tours that are the subject of wholesaling and retailing. The services are typically of an intermediary nature with significant portions of revenue earned from margins as a result of reselling travel products.
- 3.8 The packaging of original tourism products (tour, flight) is quite common and these components are then on-sold. These products tend to be packaged in bulk and advertised as a single bundle that customers buy without further refining the components.
- 3.9 In the European System of National Accounts (ESA 2010, paragraph 3.62) travel agencies and tour operator services are distinguished by the fact that travel agency services amount only to

intermediation on behalf of the traveller, while tour operators create a new product called a tour, in which travel, accommodation and entertainment services are bundled. This supports the view that bundling of services should be understood as a form of transformation of services. In this case, if unbundling is feasible the tour operator could be identified as being engaged in the reselling of tourism related services.

Subcontracting of Services

- 3.10 There is some debate about whether services sold as part of a subcontracting arrangement should be included in the definition of reselling of services. Traditionally these arrangements have been concentrated in the construction, mining and agricultural industries, however they have spread significantly to other industries.
- 3.11 ISIC Rev.4 refers to subcontracting in the context of outsourcing which is explained as a contractual agreement according to which the principal requires the contractor to carry out a specific production process. ISIC indicates (par.136) that outsourcing activities on a fee or contract basis may apply to both goods and services. ISIC makes the following recommendation about the principal of a subcontracting arrangement (par. 142): *“In general, if the principal outsources the complete production process of a good or service, it is classified as if it were carrying out the production process itself. This applies in particular to all service-producing activities, including construction”*. In other words, a principal outsourcing part (or all) of its production of services to a contractor is still regarded as being the producer of the service, and this classification principle is in line with the gross recording of related foreign purchases and sales of services in the balance of payments as recommended in the Balance of Payments and International Investment Position Manual 6th Edition (BPM6).
- 3.12 Subcontracting is treated the same way as contracting in ANZSIC 2006 – the unit is classified according to the predominant activity of the subcontractor and not to the industry of the client business they are contracted to.

Example: Software Development Services

- 3.13 The complexity of large software development projects can be such that dedicated software developers must be subcontracted for taking care of particular parts of the project. The principal is responsible for bringing the different parts together, and takes the responsibility of the final product. Under such conditions the principal is considered to be the producer. In the Input-Output tables the purchases of software development services would be recorded as intermediate consumption.

4. TREATMENT IN TURNOVER STATISTICS

- 4.1 The reselling of services presents significant issues for turnover statistics in that gross recording can inflate the economic contribution of certain industries. In that sense the conceptual treatment of reselling services should be analogous to established practices around the reselling of goods in the 2008 SNA. The major output of the resellers is the intermediary service as captured by the margin – i.e. ‘the difference between the actual or imputed price realised on a service[sic] purchased for resale and the price that would have to be paid by the distributor to replace the service [sic] at the time it is sold’.
- 4.2 At a foundational data level many practical steps can be taken to identify, treat and quantify the impact of reselling services activity in various industries. The Australian Bureau of

Statistics (ABS) uses a variety of methods in its major annual economic collection to update National Accounts benchmarks, each providing tools for statistical compilers for treating the reselling of services.

Surveys

- 4.3 As part of its annual Economic Activity Survey program the ABS run a rolling program of surveys that target product level detail for selected industries. The flexibility of the dive-in surveys allows survey managers the opportunity to address difficult conceptual issues often unique to a particular industry but that have important implications for updating aggregates such as the Input-Output tables.

Example: Information Media and Telecommunications Survey

- 4.4 In the Information Media and Telecommunications Survey from 2013-14 known issues around bundling and reselling of services were addressed with targeted form design and improved guidelines for respondent businesses. Using an Input-Output framework survey managers were able to identify specific categories of goods and services with significant amounts of that service being recorded as intermediary input. Questions were designed so that potential reselling of services could be identified and broken down so as to allow the derivation of a proxy margin (including any impact of finished product inventory).
- 4.5 Providing clear guidelines for businesses in terms of the type of information that is required will allow compilers to record the net amount of turnover and capture the true 'margin' activity of service resellers. A simple example of the approach taken and results is shown below where turnover activity is recorded on a gross basis but separately identified. Questions on the expense side are structured so that a 'Cost of Sales' for telecommunications services is recorded – allowing a net amount to be derived by compilers during data analysis.

Table 1: Tailored question design for Telecommunications turnover

4 Income from fixed network services

(a) Telecommunications (excluding ISP)

<i>Including</i>	<i>Excluding</i>
<ul style="list-style-type: none"> • Installation charges • Subscription, access and usage fees • Wholesale, intercarrier and backhaul services • Transmission of voice, data, text, sound and video (e.g. ISDN services) 	<ul style="list-style-type: none"> • Internet access services (include in Question 4(b)) • Sales of goods and equipment (include in Question 10) • Rent, leasing and hiring income (include in Question 11)

(i) Provided via a fixed network operated by **this** business
(e.g. as a carrier)

(ii) Provided via a fixed network operated by **another** business
(e.g. as a reseller).....

5 Income from mobile network services

(a) Telecommunications (excluding ISP)

<i>Including</i>	<i>Excluding</i>
<ul style="list-style-type: none"> • Subscription, connection and usage fees • Income from mobile services (e.g. voice, data, messaging (SMS, MMS), international roaming and other mobile services) • Wholesale access and interconnection services • Other wireless network services (e.g. satellite) 	<ul style="list-style-type: none"> • Mobile internet access services (include in Question 5(b)) • Sales of goods and equipment (include in Question 10) • Rent, leasing and hiring income (include in Question 11)

(i) Provided via a mobile network operated by **this** business
(e.g. as a carrier)

(ii) Provided via a mobile network operated by **another** business
(e.g. as a mobile virtual network operator)

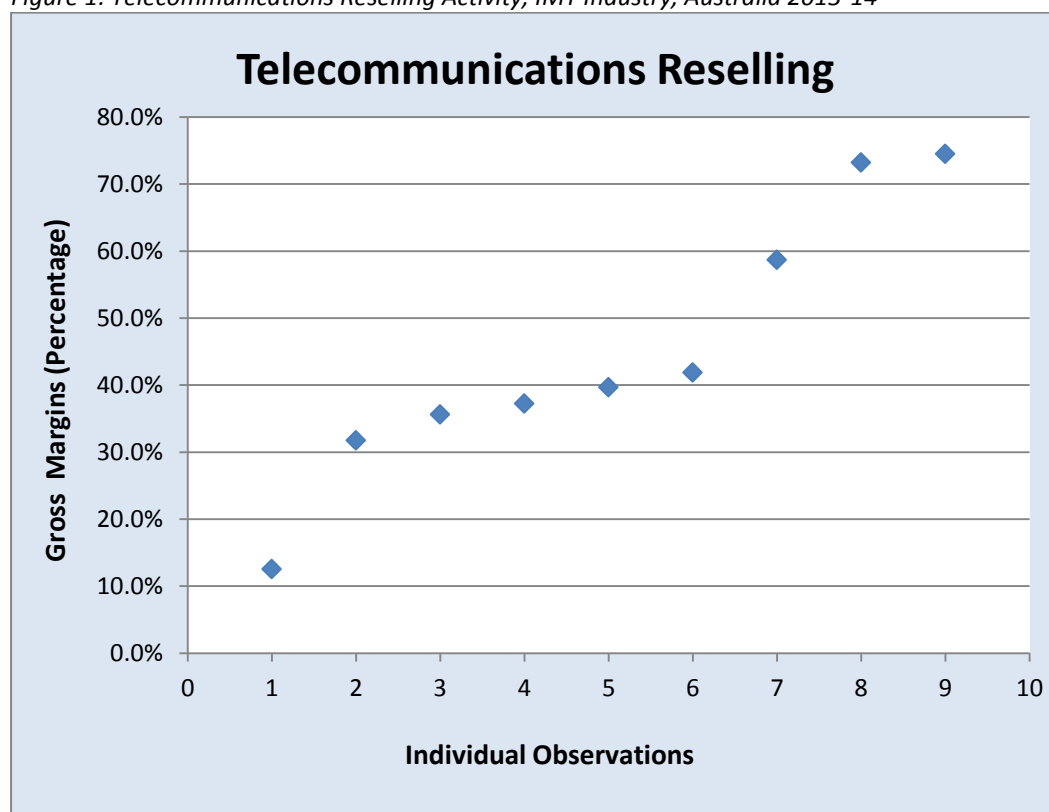
19 Telecommunication expenses

<i>Including</i>	<i>Excluding</i>
<ul style="list-style-type: none"> • Wholesale intercarrier, interconnection and network payments • Purchases of bandwidth • Land-line and mobile telephone service costs • Internet and web hosting services 	<ul style="list-style-type: none"> • Repair and maintenance expenses (include in Question 20) • Costs of leasing telecommunications equipment (include in Question 22)

(a) For fixed networks

(b) For mobile and satellite networks

Figure 1: Telecommunications Reselling Activity, IMT Industry, Australia 2013-14



- 4.6 A gross reselling margin for Telecommunications resellers was calculated to be around 39.4% as part of validation of the Information Media and Telecommunications Survey, 2013-14. This is higher than typical reselling margins on goods observed in Australia of approximately 20%-25%. It is worth exploring if services reselling presents greater complexity and value add than the reselling of goods or other factors (such as market structures are at play). Data validation processes should highlight instances where sales incomes of specific services are matched by purchases of the same services and assess whether reselling of services activity is present
- 4.7 The stylised question design above went to all business classified to the ANZSIC 2006 equivalent of ISIC Division 61 Telecommunications, in a tailored web form for that industry. This allowed the ABS to capture telecommunications reselling activity even where it was a secondary activity to network operation. Smart web based collections are a central tenant of the current ABS Transformation Program. Improving functionality around question sequencing and modularisation will allow more detailed targeting of industries and reporting units to capture activity such as reselling of services.

Case Studies

- 4.8 As part of its annual economic collections the ABS runs a case studies program that targets specific sub-industries, issues or requirements of the National Accounts (primarily the Input-Output product data). The advantages of a case study approach are that they can meet requirements for fine level industry and product data in a cost effective and timely manner. Case studies entail comparatively less provider burden than surveys and only a small number of providers are required for enumeration. Case studies also allow the discussion and validation of complex industry concepts – such as reselling of services – in real time through the use of personal interviews. Case studies are typically applied to industries where the primary activity is dominated by a small number of businesses (such as passenger airlines) or

where industry activity is fairly homogenous and patterns of input and output are relatively consistent (i.e. production functions).

- 4.9 Example of industries where case studies proved an effective approach in tackling services measurement – particularly issues around gross vs. net reporting – include; travel agency and tour arrangement services, freight forwarding services and labour supply services.
- 4.10 Major companies in the travel agency and tour arrangement services would package products (bulk pricing power) and wholesale them through to retail agents for a fixed price. The retail agent would include their margin and often additional services from original tourism product suppliers (flights, accommodation). Margins depended on the nature of the tours provided and the customer type, but at an aggregate level wholesale and retail gross margins were similar at 25.1% and 25.2% respectively in 2011-12.

Administrative Data

- 4.11 In compiling turnover statistics the ABS relies on Australian Taxation Office data collected through the Business Activity Statement. The data is used in Frame production and unit selections, as well feeding into estimation calibration, and strategies for imputation and editing. The key data variables available to annual economic collections from this data source are 'total employment', 'wages' and 'turnover'. This data can be used to treat issues around reselling of services through helping identify which units and industries are likely to exhibit inflated turnover. This has implications for both editing (net values) and also on adjustments to estimation calibration that might need to be made. This is important because it can directly impact on important calculations of economic contribution such as value-add.
- 4.12 A quality gate that is used by annual economic collections are checks in administrative taxation data of the turnover per person, and turnover as a proportion of wages. Where these ratios are high, it indicates potential issues with the data, and the presence of margin activity. For example turnover totals can be up to twenty times the reported value for wages and salaries in the Retail Trade and Wholesale Trade industries. Taxation data can also be useful in identifying the reselling of services between related entities – particularly around head office cost centres - that are likely to artificially inflate totals.
- 4.13 Within the Services sector of the ANZSIC 2006 classification the Information Media and Telecommunications industry has notably higher turnover ratios than comparable services industries. This reflects the myriad of activities that could fall under a reselling services concept - network access wholesaling, licensing, reselling software through hosted platforms (cloud services), intangible content distribution and royalty collection and disbursement.
- 4.14 More determined thought and analysis in turnover statistics to identify and quantify reselling of services also raise questions about treatment in other macroeconomic variables. Should the ABS amend the Input-Output Product Classification to include a specific trade margin to reflect reselling of services? If it is recognised that services can be resold one would have to reconsider the conceptual treatment of inventories for services such as telecommunications capacity and television programming. Improved recording of net turnover at a lower product level also potentially allows price indexes to be re-weighted at a more disaggregated commodity level.
- 4.15 Conceptual issues around services measures such as reselling are likely to become even more pronounced as Internet platforms enable the buying and selling of services at increasing speed

and scale. Examples include 'freelance' and 'outsourced' services that are intermediated over the internet, as well as the purchasing in bulk of services that are on-sold through the internet. The challenge for turnover statistics and broader economic statistics is picking up the true economic contribution and value add provided by these services.

5. TREATMENT IN PRODUCER PRICE INDEXES

- 5.1 In Australia, PPIs are classified according to the Australian and New Zealand Standard Industrial Classification 2006 (ANZSIC 2006). As a general rule, the classification is used to determine the treatment of reselling of services.
- 5.2 In the majority of industries the industry classification provides no distinction between the production and reselling of services. Where the original-seller and the reseller are classified in the same ANZSIC class the reseller is treated as a producer of the service since they are providing the service to the consumer, in accordance with the traditional definition of a service as being produced at the point of delivery and consumption. In this case the price change of the service provided by the original producer could be recorded in both an input price index and an output price index while the services produced by the reseller would be recorded in an output price index. The specifications in any output price index in which the sample includes both the producer and the reseller must be carefully weighted – the reseller should be weighted according to their marginal revenue, while the producer would be weighted according to their total revenue.
- 5.3 In some specific industries (eg. telecommunications services) the industry classification specifically identifies reselling of services as a distinct class. In this case both the original producer and the reseller are treated as primary producers of the service. The price change of both the producer and the reseller are recorded in an output index under their respective classes. The price change of the service provided by the original producer could also be recorded in an input price index as an input into the reselling class.

6. A POTENTIAL APPROACH

- 6.1 The current approaches are inconsistent both within the services industries and when compared to the treatment of reselling of goods, which are categorised in Division F - Wholesale Trade and Division G - Retail Trade respective of the type of customer.
- 6.2 An alternative approach is to treat the resellers of services as providing a margin service (i.e. playing the role of a retailer or wholesaler). Resellers of goods have distinct parallels with resellers of services. Both are essentially engaging in intermediation between the producer of the service and the consumer. When retailers and wholesalers resell the goods purchased with only minimal processing they do not consume the goods in any production process and therefore their purchases of inventory are not treated as part of their intermediate consumption. Wholesalers and retailers are treated as supplying services to their customers by storing and displaying a selection of goods in convenient locations and making them easily available for customers to buy. Their output is measured by the total value of the trade margins realised on the goods they purchase for resale. A trade margin is defined as the difference between the actual or imputed price realised on a good purchased for resale and the price that would have to be paid by the distributor to replace the good at the time it is sold or otherwise disposed of. In practice, the output of a wholesaler or retailer is given by the following identity: $Output = Sales - Cost\ of\ Goods\ Sold$. This concept is also known as the *value added*.

- 6.3 When this concept is applied to services we would consider the inventory of the reseller to be their legal liability to provide the service on demand. For example, if a Telecommunications reseller is contracted to provide the buyer with 300 minutes of calls, they must have the network capacity to provide that service on demand at the point when the buyer makes a call. The outputs of the reseller would be measured by the value added.
- 6.4 This contradicts the traditional view of services as being unable to be held in inventory; however it acknowledges similarities between the reselling of services and the reselling of goods by applying the same treatment to both. The role of the reseller is as an intermediary, bringing the producer and consumer of services together. The intermediary purchases the service on behalf of a client without actually consuming the service themselves.
- 6.5 In this case the industry classification needs to be reviewed to expand the Wholesale Trade and Retail Trade divisions to include services, as well as goods. This approach would provide consistency across all industries as to the treatment of reselling of services.

7. NATIONAL ACCOUNTS CONCEPTS AND MEASUREMENT ISSUES

- 7.1 Ideally, measures of turnover and price change for reselling of services should be consistent. As primary inputs into the National Accounts, the treatment of this issue has a direct impact on the calculation of GDP and industry Input-Output tables. Double-counting is a real issue if sales by both the original producer and the reseller are counted.
- 7.2 Currently reselling of services is classified as a primary activity in their industry on a margin basis with the original purchase recorded as intermediate consumption. While this does not affect the measurement of Gross Domestic Product (as the originally produced service will be deducted from the re-sold service as an input cost), there is a risk of the output of the industry appearing inflated.
- 7.3 Should the approach recommended in Section 6 be used, this would address the issue of inflated outputs in services industries where reselling is a common occurrence by clearly and consistently separating producers from margin sales.

8. SUMMARY

- 8.1 Reselling is emerging as a significant issue in services industries. Reselling of services needs to be treated uniformly and requires further clarification from international guidelines.
- 8.2 We recommend capturing the reselling of services on a net or margin basis - through the recording of net receipts in turnover statistics, and through weighting resellers based on marginal revenue in an output price index.
- 8.3 As inputs into the National Accounts, the treatment of this issue must be consistent across turnover and price statistics.

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