
3 Services

While services are not amenable to assistance through tariffs, several services industries receive assistance in the form of occupational licensing and regulatory restrictions on trade. Services industries can also benefit from forms of budgetary assistance — as, for example, in government funding of tourism promotion.

The liberalisation of service sectors remains a topical issue in international fora. WTO negotiations on trade in services recommenced as scheduled last year, and will be given additional impetus by the decision of the recent WTO Ministerial Conference in Doha to conduct a new round of multilateral trade negotiations across a range of other sectors and issues too (chapter 5). The services negotiations will provide an opportunity for Australia to negotiate with its trading partners to build on the gains that can be achieved through unilateral liberalisation of trade in services. Australia's negotiating position can be strengthened where it is aware of barriers in other countries' services sectors and can draw attention to the effects of these barriers — on trading partners as well as on Australia.

The regulation of services is also important from a domestic perspective. Expenditure on services is significant and service sectors are large users of resources within the economy

In this chapter, the Commission:

- provides data on services output and trade;
- presents data on regulatory restrictions to trade in selected services for a range of countries, and estimates the impact of those countries' regulations on prices in their own economies; and
- sets out estimates of budgetary assistance to Australian services industries.

Its budgetary assistance estimates aside, the Commission's estimates of assistance to services are not as comprehensive or as robust as its estimates of assistance to other sectors. This reflects data limitations and methodological difficulties in measuring the effects of regulatory restrictions of the type that predominate in the services sector. Nevertheless, the estimates can help in building a picture of the effects of government intervention in the services sector.

3.1 Production and trade: a snapshot

The services sector's share of domestic economic activity has grown considerably over recent decades. Today it accounts for around 80 percent gross product and employment. *Property & business, finance & insurance, health & community services, transport & storage, and wholesale & retail trade* are some of the largest service industries in Australia (see table 3.1).

Services are recorded as accounting for around 22 percent of Australia's total trade (ABARE 2000), and account for around 1.2 percent of total world trade in services. World exports of services increased by 6 percent in the year 2000 to US\$1435 billion (WTO 2001b). In 2000, Australia's exports of services increased by 5 percent.

Table 3.1 **Services sectors' value of production and employment, 2000-01^a**

Services sector	Gross product ^b		Employment	
	\$m	Percentage share	'000 persons employed	Percentage share
Electricity, gas and water supply	15 988	3.4	66	0.9
Construction	29 534	6.3	683	9.2
Wholesale trade	32 332	6.9	439	5.9
Retail trade	32 901	7.0	1335	17.9
Accommodation, cafes and restaurants	14 679	3.1	471	6.3
Transport and storage	31 432	6.7	422	5.7
Communication	20 362	4.4	183	2.5
Finance and insurance	40 417	8.7	338	4.5
Property and business	73 829	15.8	1083	14.5
Government administration and defence	24 829	5.3	366	4.9
Education	27 540	5.9	622	8.3
Health and community	35 191	7.5	877	11.8
Cultural and recreation	12 105	2.6	226	3.0
Personal and other	15 415	3.3	343	4.6
Ownership of dwellings	60 478	12.9	na	na
Total services	467 032	100.0	7452	100.0
Total services as a percentage of total gross product and total employment		79.1		82.0

^a Figures may not add to totals due to rounding. ^b Gross product data are the industry gross value added at basic prices using 1999-2000 chain volume measures. The total output is the total gross value added.

Sources: ABS (2001b) and ABS (2001c).

3.2 Estimates of regulatory restrictions and their effects on selected services

In a collaborative project, researchers from the Commission and the Australian National University are estimating the size and effect of restrictions on trade in selected services, not just for Australia but also for a range of our trading partners. Over the last two years, studies have been completed on restrictions to trade in banking, maritime, telecommunications, the professions and distribution services. This year, Commission researchers explored the extent and price effects of regulatory restrictions in international air passenger transport, telecommunications and electricity supply.

Methodology

Measuring restrictions on trade in services is more difficult than measuring restrictions on trade in goods. International trade in goods involves an exchange of a product between a producer and a user or consumer, and restrictions on such trade usually take the form of a tariff. The effect of trade restrictions on the price of goods can be measured relatively easily by the amount of the tariff. In contrast, trade in services involves a less tangible exchange between the producer and the user or consumer, and restrictions on such trade are often difficult to identify and quantify.

To gauge the impact of restrictions on trade in services, a methodology has been developed which: classifies the different types of restrictions on trade in services; assesses the nature and extent of these restrictions; and estimates the effect of the restrictions on the profit margin or price of services. While the methodology aims to capture the economic significance of various restrictive measures across countries, it inevitably involves a degree of subjective judgment as to the relative importance of different restrictions. Estimates of the price effects of the restrictions also need to be interpreted with caution (box 3.1).

Table 3.2 **An example of classifying restrictions on professional services**

	<i>Establishment</i>	<i>Ongoing operations</i>
<i>Restrictions on market access</i>	Non-professionals may not be allowed to own and invest in professional firms.	Professionals may not be allowed to set fees freely or to advertise, and hence compete on price.
<i>Restrictions on national treatment</i>	Foreign professionals may not be allowed to partner with local professionals.	Foreign professional firms may be restricted in hiring local professionals or using international business names.

Box 3.1 The index-based methodology

Listing and classifying restrictions

Drawing on various international data sources, researchers compile lists of trade restrictions in different countries, and then classify the restrictions in two ways. Both align closely with the classification of restrictions under the WTO General Agreement on Trade in Services.

- Restrictions on trade in services are first classified by whether they apply to a business's *establishment*, or the *ongoing operations* of a service provider after it has entered the market.
- Restrictions are also classified according to whether they limit *market access* for new entrants (whether foreign or domestic), or whether they violate *national treatment* by treating foreigners less favourably than domestic service providers.

Table 3.2 provides an example of the resulting 2x2 classification matrix.

Trade restrictiveness indexes

The researchers then develop trade restrictiveness indexes (TRI) to measure the extent to which comparable economies have more or less restrictive trading regimes for services. A score is assigned to particular restrictions applied in an economy and an overall score is calculated for each economy. The greater the number of restrictions and/or the more these restrictions impede trade, the higher the index score for an economy. The scores aim to capture the relative economic significance of various restrictive measures, although in most cases the assignment is subjective.

An overall economy score is calculated for all restrictions on market access (a domestic score) and for restrictions on market access plus restrictions on national treatment (a foreign score). A domestic score measures the restrictions on local service providers entering and operating in a services market. A foreign score measures all the restrictions governing foreigners' entry and operation in the domestic market. These include requirements that apply to local service providers as well as those additional requirements that apply only to foreigners.

While trade restrictions can reduce competition or inflate costs in a services market, sometimes such regulation may be imposed to deal with 'market failure' and to meet particular social objectives. However, in arriving at an overall economy score, the TRI studies generally do not seek to determine which restrictions, if any, that contribute to the score might be justified to enhance the efficiency of a service sector.

Price–cost measures

In some of the studies, researchers proceed to estimate a price impact or price-cost impact measure to gauge the effect of trade restrictions on the price of services. The impact measure is normally estimated by taking a direct measure of price or profit across the various economies and statistically regressing that on a number of determinants, including a TRI. The determinants of price or profit can be decomposed to reveal the effect of trade restrictions, although conceptual, methodological and data issues mean that the resultant measures need to be interpreted with care.

Results for selected services industries

International passenger air transport

Air travel between economies has long been governed by a complex system of bilateral arrangements. Bilateral agreements typically specify the designated airlines, capacity and airfares, as well as regulating a wide range of airline activities, including safety and technical aspects of aviation.

A recent OECD study (Gonenc and Nicoletti 2000) modelled the influence of designation requirements (limits on the number of airlines that can provide services), capacity constraints, price controls, and restrictions on charter services on a number of international air routes linking OECD member economies. The study used econometric techniques to estimate the effects of *individual* regulations in the economies on price, taking into account certain relevant industry and economy-specific characteristics. The OECD results showed that, with some limitations, the bilateral restrictions have significant price-raising effects on airfares.

Drawing on the OECD work and additional data, Commission researchers (Doove et. al. 2001) developed a ‘bilateral restriction index’ for 35 OECD and non-OECD economies. The index results (table 3.3) indicate substantial variation in the application of measured restrictions across economies. The uneven pattern of bilateral restrictions is a direct consequence of the bilateral system, which has generally permitted the use of agreement-specific barriers while limiting the scope for wider multilateral reform.

- Most Asia-Pacific economies maintain a high level of bilateral restrictions. Australia also currently maintains a high level of restrictions, although the Australian Government has committed to reducing Australia’s restrictions on a bilateral and multilateral basis (Costello and Anderson 1999).
- Most American economies also have highly restrictive bilateral arrangements, with the United States being a notable exception.
- Economies in the European Union (EU) have the lowest index scores, reflecting the substantial liberalisation achieved in establishing a single aviation market from April 1997.

Doove et. al. (2001) also provided *tentative* estimates of the price impacts of restrictions in these economies on discount airfares (table 3.3). The price impacts of restrictions in international passenger transport vary between economies — ranging from 3 to 22 percent for discount fares. The estimates indicate that price effects of restrictions are significant in several economies. Australia’s bilateral restrictions are tentatively estimated to increase discount international fares by 15 percent.¹ (page 46)

Table 3.3 International aviation restrictions and price impacts

	<i>No. of routes / agreements</i>	<i>Bilateral restrictions index^a</i>	<i>Price impacts^b (%)</i>
Asia Pacific economies			
Australia	24	0.62	14.6
India	20	0.77	21.8
Indonesia	16	0.73	20.4
Japan	29	0.73	18.1
Korea	18	0.72	20.4
Malaysia	22	0.71	18.4
New Zealand	15	0.39	11.7
Philippines	20	0.79	20.9
Singapore	30	0.70	16.8
Thailand	25	0.68	16.2
American economies			
Argentina	12	0.74	17.5
Brazil	19	0.70	15.5
Canada	29	0.60	11.4
Chile	17	0.61	12.9
Mexico	19	0.82	18.4
Uruguay	32	0.52	12.3
USA	32	0.40	8.9
European economies			
Austria	28	0.32	6.1
Belgium	31	0.36	6.9
Denmark	30	0.34	7.0
Finland	22	0.23	3.8
France	32	0.35	8.3
Germany	32	0.37	8.1
Greece	26	0.31	7.2
Ireland	23	0.21	4.5
Italy	25	0.29	6.4
Luxembourg	23	0.24	4.2
Netherlands	31	0.39	10.0
Norway	28	0.32	4.4
Portugal	21	0.14	6.1
Spain	31	0.36	8.9
Sweden	29	0.32	6.1
Switzerland	32	0.75	13.8
Turkey	20	0.56	10.7
United Kingdom	32	0.30	7.6

^a Unweighted average of the route-level bilateral restriction indexes for each economy based on the number of agreements/routes shown in the preceding column. Ranges from 0 to 0.97, with a higher score indicating more restrictions. Separate foreign/domestic indexes not calculated. ^b Percentage increase in discount international airfares.

Source: Doove, Gabbitas, Nguyen-Hong and Owen 2001.

Other services

Results from the index-based studies of restrictions in banking, distribution, the professions, telecommunications and maritime were summarised in chapter 3 of *Trade & Assistance Review 1999-2000* (PC 2000e). Among other things, the studies suggest that trade restrictions in service industries can increase prices substantially — by as much as 60 percent in the case of banking services in Malaysia, and over 100 percent for telecommunications services in Indonesia. Summary statistics are provided in table 3.4.

Table 3.4 Trade restrictiveness indexes and their price effects for selected services

	<i>Domestic^a</i>		<i>Foreign^a</i>		<i>Price effect^b</i>	
	<i>Maximum (country)</i>	<i>Australia (rank^c)</i>	<i>Maximum (country)</i>	<i>Australia (rank)</i>	<i>Maximum (country)</i>	<i>Australia (rank)</i>
Legal	0.33 (Austria, Japan)	0.27 (24/29)	0.58 (France, Turkey)	0.42 (10/29)	ne	ne
Accountancy	0.31 (India)	0.16 (12/34)	0.63 (Philippines)	0.41 (18/34)	ne	ne
Architectural	0.25 (Canada)	0.03 (12/34)	0.44 (Austria)	0.15 (12/34)	ne	ne
Engineering	0.2 (Austria, Germany)	0.04 (15/34)	0.39 (Austria)	0.08 (6/34)	14.5 (Austria)	2.8 (6/20)
Distribution	0.26 (Korea)	0.03 (5/38)	0.40 (Malaysia)	0.10 (7/38)	ne	ne
Banking	0.27 (Malaysia)	- (1/38)	0.65 (Malaysia)	0.12 (22/38)	60.6 (Malaysia)	9.3 (21/38)
Telecommunications	0.47 (Turkey)	0.04 (7/38)	0.80 (Turkey)	0.04 (7/38)	138.4 (Indonesia)	0.3 (8/37)
Maritime	0.28 (Korea)	0.13 (14/35)	0.64 (Philippines)	0.42 (21/35)	ne	ne

^a The restrictiveness index scores range from 0 to 1. The higher the score, the greater are the restrictions for an economy. ^b The price effect of restrictions is measured as a percentage. ^c Rank refers to the position of Australia relative to other countries in the study, where 1 is the least restrictive economy. For example, 24/29 means Australia is the 24th least restrictive economy of the 29 economies included in the study — that is, there are five economies more restrictive than Australia. **ne** Not estimated. - Nil.

Sources: Kalirajan (2000); Nguyen-Hong (2000); Kalirajan et. al. (2000); McGuire and Schuele (2000); McGuire, Schuele and Smith (2000); Warren (2000a); Warren (2000b).

3.3 Budgetary assistance to Australian services

Budgetary assistance to Australian services industries in 2000-01 is set out in table 3.5. The methodology underlying these estimates is outlined in chapter 4. The services sector received \$970 million in total, or one quarter of total budgetary assistance to Australian industries, in 2000-01. This represents just 0.2 percent of total sectoral output, which is far less on a proportional basis than the budgetary assistance afforded to other sectors (see chapter 4). At the industry grouping level, *cultural & recreational services*, *communication services*, *transport & storage* and *property & business services* received most budgetary assistance within the sector in absolute terms. *Cultural & recreational services* and *communications services* received the most assistance as a proportion of industry output (table 3.5).

Table 3.5 Budgetary assistance to services, by industry grouping, 2000-01

<i>Industry grouping</i>	<i>\$m</i>	<i>% of gross value added</i>
Electricity, gas & water supply	97	0.6
Construction	63	0.2
Wholesale trade	51	0.2
Retail trade	39	0.1
Accommodation, cafes & restaurants	37	0.3
Transport & storage	102	0.3
Communication services	140	0.8
Finance & insurance	76	0.2
Property & business services	126	0.2
Government administration & defence	3	<0.1
Education	28	0.1
Health & community services	35	0.1
Cultural & recreational services	127	1.2
Personal & other services	6	<0.1
Unallocated services ^a	42	na
Total	970	0.2

^a Unallocated includes general programs where details of claimants and/or beneficiaries is unknown.

^b Totals may not add due to rounding. Sources: ABS (2001b) and Commission estimates.

¹ Doove et. al. (2001) also attempted to quantify the price effects of domestic regulatory regimes in telecommunications and electricity supply, by extending recent econometric research undertaken by the Organisation for Economic Co-operation and Development (OECD) into the effects of domestic regulation in these network industries. As one of the first attempts to assess the effects of domestic regulation across service industries and across economies, the study also examined various methodological issues. The authors noted that limitations associated with the original econometric modelling, the data used, and the way in which the impact measures are derived mean that the resulting price measures for telecommunications and electricity supply should be treated with some caution, and they are not published here. The estimates for (discount) international airfares, while also subject to qualification, are considered to be more robust.