Services International Linkages

The importance of embodied services in trade and paths to increased trade

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Key messages

This report addresses two aspects of Australia's trade in services. First, different ways Australian firms sell services to foreign nationals, with an emphasis on the export role of intermediate services inputs ('embodied services'). Second, the report examines different means of delivering services and areas for possible increased services trade and investment activity.

Much is known about Australia's recorded services exports: their value, key categories and key markets. Something is also known of the nature and value of services sold by foreign affiliates of Australian firms, though this is based on old data (a 2002-03 ABS survey). This area warrants further measuring to lift Australia to world's best practice.

Less is known about another category of services exports: embodied services. These intermediate services are used in the production of goods and services. For example, manufacturing steel requires services such as electricity, transport, and typically business services such as accountants. These inputs are said to be embodied in the final output or product that is exported.

This study finds services industries are 1.7 times as important to the Australian economy in terms of export performance as the level of cross-border services exports would suggest.

ITS Global estimates the value of services that are embodied in Australia's merchandise exports as about $35 billion, growing to around $50 billion by 2014-15. Together with reported cross-border exports of services, this means total services exports were around $89 billion in 2008-09 prices and may rise to around $120 billion by 2014-15.

Embodied services are primarily found to be in categories such as Property and business services, Transport and storage, Wholesale trade and Services to mining (These categories together account for over 10 per cent of total embodied services exports). Key 'carrier' exports (ie. exports that contain embodied services) are in mineral categories. Given the growth of and positive 'spillovers' associated with this sector, further services activity can be expected here.

The case studies illustrate the surprising extent to which Australian firms deliver services overseas through subsidiaries. Acquisition is their key to increased services sales. Indeed, Australia's foreign affiliate sales are estimated as already worth over $100 billion annually, rising to around $135 billion by 2014-15.

There is also a notable demand for services sourced from Australian head offices and either exported to subsidiary and joint venture foreign affiliates throughout Asia and other regions, or sourced through overseas offices of these Australian-based service providers.

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Abbreviations

ABARE	Australian Bureau of Agricultural and Resource Economics
ABS	Australian Bureau of Statistics
ANZSIC	Australia New Zealand Standard Industrial Classification
ASEAN	Association of South East Asian Nations
Austrade	Australian Trade Commission
BIE	Bureau of Industry Economics
DFAT	Department of Foreign Affairs and Trade
EC	European Community
EU	European Union
FATS	Foreign Affiliate Trade in Services
FDI	Foreign Direct Investment
GATT	General Agreement on Tariffs and Trade
GATS	General Agreement on Trade in Services
GDP	Gross domestic product
I-O	Input-Output tables
IMF	International Monetary Fund
ISIC	United Nations International Standard Industrial Classification of All Economic Activities
OECD	Organisation for Economic Cooperation and Development
R&D	Research and development
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organization

Executive Summary

This study by ITS Global extends the limited literature on trade in services. It does so by examining the level, sources and evolution of the services that are embodied in cross-border exports of goods and services. It also examines how services firms organise themselves and interact with other firms to export their services, and how they use investment — in particular outward foreign direct investment (FDI) — in doing so.

Embodied services are those intermediate service inputs essential to growing, mining, or making things. For example, energy, transport, communications and insurance are all things businesses use in order to produce other goods and services.

A review of the literature highlights how little is understand about trade in services compared to trade in goods. This is largely due to the highly heterogeneous nature of services themselves, which affects how services are classified and measured, their role in the economy, and the critical determinants of the international trade in services, including their modes of delivery.

A more comprehensive perspective on exports of services

ITS Global has estimated that exports of both embodied and cross-border services are $88.9 billion a year.[1] This is made up of cross-border services exports — 60 per cent — and exports of embodied services — 40 per cent. Services are therefore 1.7 times as important to the Australian economy in terms of export performance as the level of recorded cross-border exports of services would suggest.

The 'carrier' exports for these embodied services – that is, exports whose production uses services inputs – are concentrated in mining and, to a somewhat lesser extent, in manufacturing. Australia's minerals exports have the highest concentration of embodied services.

Services embodied in exports are relatively evenly contributed across all services categories. Property and business services — as defined by the Australia New Zealand Standard Industrial Classification (ANZSIC), see page 13 below — and Services to mining are the most prominent.

Sales of services by the foreign affiliates of Australian-based firms are the other major external contribution to the Australian economy by the services sector. The official statistics on this activity are limited to a single year. Allowing for global economic growth since that time, ITS Global estimates these sales to be of the order of $106 billion a year.

The outlook for services exports

On the basis of the latest IMF forecasts of growth in global GDP and trade volumes, ITS Global has projected that total embodied services exports and cross-border services exports could increase to $118 billion by 2014-15. Services embodied in goods exports would comprise $47.2 billion of this total. For their part, sales of services by foreign affiliates would be worth around $130 billion by 2014-15.

The outlook for the three types of international services transaction — cross-border services exports, services embodied in merchandise exports, and foreign affiliate sales — should be

[1] Unless otherwise indicated, all values in this section are measured in 2008-09 prices.

relatively buoyant over the medium term to 2014-15. However, growth for each type of services transaction is likely to vary significantly. This largely reflects the differences in evolution of the major overseas markets for each service-type.

The outlook for embodied services exports will also depend on any shifts in the intensity with which intermediate services are used to produce and deliver merchandise exports. The nature and extent of any shifts in intensity will have a substantial impact on the level and the composition of the services that end-up being carried in those exports.

ITS Global has estimated that every percentage point increase in the intensity of intermediate services use in production would adds a little over $1 billion a year to embodied services exports each year.[2] Should the increase in the intensity of services use, which occurred between 1998-99 and 2005-06, be repeated over the period to 2014-15, embodied services exports would be around $53 billion a year, in real terms, by the end of the period.

There is evidence that a convergence in production systems in manufacturing and services is well underway. Services are increasingly being embodied in the manufacture of goods, as a consequence of the trends towards greater outsourcing by business and the adoption of 'lean production' techniques, especially in manufacturing.

Modes of international service delivery used by Australian businesses

A snapshot of how Australian services firms deliver services for export is presented through four case studies — ANZ Banking Group Ltd representing the banking services; The Cox Group of Architects representing architectural services; Elders Ltd representing rural services; and Insurance Australia Group Ltd (IAG) representing insurance services.

The case studies reveal that, in these services sectors, the firms in question are primarily delivering services into foreign markets through overseas subsidiaries and joint ventures — foreign affiliates. For these firms, sales of services by their foreign affiliates were more important than being associated with an Australian-based exporter of a complementary good or service — being 'pulled' into exporting in the jargon — or by 'clustering' with other services firms — either in Australia or abroad — to produce an integrated product for sale overseas.

Importantly, no evidence of 'clustering' was uncovered in any of the case studies, and there were very few indications of domestically produced services being 'pulled' into export markets.

In large part, this reflected the relatively restrictive circumstances in which the study studies had to be conducted. There are extensive gaps in the official statistics on services and services exports and a paucity of empirical research on the various business models used by services firms for international services transactions. These limitations made it difficult to select a range of potential candidates for the case studies that were known *ex ante* to be involved in the types of business relationships that were to be addressed by the case studies.

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[2] The intensity of the use of intermediate services in production is measured by the proportion of a dollar's worth of output that is accounted for by intermediate services used to make it.

The policy implications

Greater effort is required to better understand the importance of services to the economy, including embodied services and foreign affiliate sales. Statistics on services exports are based on the foreign exchange transactions that make up the Balance of Payments. They therefore only capture the cross-border services transactions on a consistent basis. More work is also needed on the drivers of international trade in services, the extent of barriers to this trade, and therefore the size of prospective gains from further services liberalisation.

Improving the measurement and analysis of services trade and investment would be a valuable tool for policy reform. There is a case for the ABS gathering further data on embodied services and sales by foreign affiliates is warranted. Better measurement of foreign affiliates' activities is possibly of greater priority.

Policy reform for efficient domestic and international regulation will support services exports, including the regulation of access to network industries such as Transport services; Electricity, gas and water supply; and Postal services and telecommunications.

The area of greatest potential for expanding services trade appears to lie in the area of specialist mining services. The largest part – approaching 20 per cent – of the services embodied in metal and mineral commodity exports are specialist services provided to the mining sector. Efforts to develop clusters around these services could be further aided by targeted programs building on embodied services findings presented here.

Addressing international barriers to investment is critical to increasing external delivery of services by Australian firms. The case studies and the analysis of the statistics have reinforced the notion that overseas services sales through foreign affiliates play a more significant role for Australia than is generally recognised. The case studies illustrate the importance of foreign affiliates focussed on selected Asian markets, particularly in China and South-East Asia.

It is an open question as to whether Austrade should extend its role further with Australian firms planning to establish a foreign commercial presence in overseas services markets. Such a role may involve Austrade providing an information linkage between prospective Australian businesses and the regulatory bodies and investment promotion agencies in overseas markets. This could complement trade policy advocacy work with foreign governments (such as regulatory liberalisation by foreign governments) that DFAT pursues on behalf of Australian firms.

There appear to be opportunities to expand exports of professional services through linkages or contracts with the Australian headquarters of larger firms. Three of the case study firms revealed a notable use of Australian-based firms to deliver specialist services to the firm's foreign affiliates. Closer examination of these linkages would be worthwhile.

1. Introduction

The Department of Foreign Affairs and Trade (DFAT) together with Austrade have commissioned this study on Services International Linkages. The study assesses the importance of embodied services (see Box 1.1) in trade with a view to gaining a more detailed understanding of paths to increased services trade through embedded services linkages between products and services companies, and clustering of services firms.

Box 1.1: What is an embodied service?

Services are essential to growing, mining, or making things. Businesses need energy, a water supply, and their produce transported to market. Few can survive without modern communications, a bank account, or insurance. Most will consult a lawyer and an accountant when making a contract or obtaining capital.

All these services are said to be 'embodied' in the value of the final output of the business. Part of the value of the output is therefore created by the services used to produce it. As the output embodies certain services, when it is exported so too are the embodied services. The same is true for services used to produce other services.

'Carrier exports' refers to those goods and services (output) which are exported across borders. They contain, or carry, embodied services.

It aims to identify areas of possible greater services international activity by:

- identifying significant services inputs activity, particularly areas not already documented;
- extrapolating from this information trends and potential for growth; and
- describing the potential for partnerships and clustering between groups of services companies to supply overseas markets, or the potential for services clusters to attract international investment.

Based on research and case study analyses, the study will draw policy conclusions and assess potential opportunities for greater services trade and foreign direct investment that are associated with linkages between product and service companies and clustering of services firms.

The results of the study will help guide Australian Government efforts to facilitate greater trade and investment activity in this area.

Structure of the report

These aims and objectives are addressed through two parts to the report: first, how services are exported (in particular through embodied exports); and second, different means of delivering services exports (including international linkages).

How services are exported is addressed in Chapters 2, 3 and 4.

Chapter 2 –L*iterature on trade in services* sets out a framework for analysing services exports by examining the economics of services and international trade in services. This study aims to add to the limited existing literature on embodied services.

Chapter 3 – *Current situation for services exports* addresses what is known about direct services exports and sales through foreign affiliates. It also offers new analysis of embodied services exports.

Chapter 4 - *Outlook for exports of embodied services* provides the forward outlook based on economic forecasts of the International Monetary Fund.

The second part to the report examining different means of delivering services is addressed in Chapter 5.

Chapter 5 – *Delivery of services for export* includes four case studies to illustrate how Australian services firms offer their services overseas and how they draw in other service providers in Australia and in foreign markets.

Chapter 6 – *Conclusions and policy implications* offers conclusions relating to both parts of the report and draws out policy implications.

2. Literature on trade in services

This Chapter briefly reviews the critical literature that has been published on the economics of services, international trade in services, and the economic benefit of liberalising services for the host country. The review covers a typology of services, patterns of trade in services, and drivers of services trade. The review reveals the relative paucity in literature dealing with services more broadly, and embodied services in particular. The review draws extensively on a 2006 survey of the subject published by The World Bank.[3]

2.1 Typology of services

Many characteristics have been proposed to distinguish services from goods. They include their lack of materiality, the inability to store or transfer them, and the necessity for a direct interaction between the producer and the consumer. None of these, however, are without objection and none enjoy widespread acceptance. There are numerous exceptions to each and every one of them. For example much intellectual property — books, movies, recorded music, etc — can have a material manifestation, can be easily stored, and therefore do not require any direct interaction between the producers and their consumers.[4]

The extreme heterogeneity of services means there is neither any widely accepted definition as to what services are nor any widely accepted way of classifying them. As a consequence there are many gaps and anomalies in the statistics that are commonly compiled by national statistical agencies around the world on services production, exports and imports.[5] This extends to the statistics published by the Australian Bureau of Statistics (ABS).

Traditionally services have been described as the 'residual sector' of the economy.[6] This simply means that they are not part of the agriculture, mining and manufacturing sectors — which, in turn, grow things, dig things up, or make other things out of the first two things. It does not, of course, shed any light on the issue of what services actually are. In any event, as services collectively account for over three-quarters of GDP and four out of five jobs in Australia, it is misleading to describe such activities as a 'residual'.

[3] B. Hoekman, 2006, *Liberalizing Trade in Services: A Survey*, World Bank Policy Research Working Paper No. 4030, World Bank, Washington, DC, October.
[4] R. McLachlan, C. Clark and I. Monday, 2002, *Australia's Service Sector: A Study in Diversity*, Staff Research Paper, Productivity Commission, Canberra.
[5] By convention merchandise imports are generally valued on a c.i.f. basis, i.e. including the costs of the insurance and transport services that facilitate the import transactions in question. On the other hand, trade in computer software is treated as a service, even though its traded value includes the cost of the physical media that the software is recorded on.
[6] See for example, Department of Innovation Industry Science and Research, 2009, *Services Sector Overview of Structural Change, Industry Brief 2007-08*, July, DIISR, Canberra, p. 4.

Table 2.1 ANZSIC services industries, 1993 Revision

ANZSIC Group	Major Activities in Group
Services to agriculture; hunting & trapping	Cotton ginning, shearing services, aerial agricultural services, and other services to agriculture Hunting and trapping
Services to mining	Exploration for petroleum, gas or mineral resources Carrying out part of a mining operation, and specialist oilfield services
Electricity, gas & water supply	Electricity and gas supply Water supply, sewerage and drainage services
Construction	Building and non-building construction Construction trade services — site preparation, building structure, installation, building completion and other construction services
Wholesale trade	Basic material wholesaling Machinery and motor vehicle wholesaling Personal and household good wholesaling
Retail trade	Food retailing Personal and household good retailing Motor vehicle retailing and services
Accommodation, cafes & restaurants	Hospitality services including accommodation, pubs, taverns, bars Cafes, restaurants and clubs
Transport & storage	Road, rail, water, air, space and other transport Services to transport and storage
Communications services	Postal, courier and telecommunication services
Finance & insurance	Finance, insurance and services to finance and insurance
Property & business services	Property operators and developers, real estate agents, non-financial asset investors, machinery and equipment hiring and equipment. Scientific research, technical research, computer services, legal and accounting services, marketing and business management services, Other business services
Government administration & defence	Central, state and local government administration, judicial authorities and commissions, representations of overseas governments. The Army, Navy and Air Defence forces and civilian units engaged in defence administration
Education	Preschool, primary and secondary education; Post-school education and other education
Health & community services	Hospitals, nursing homes, medical and dental services, other health services Veterinary services Childcare services and community care services.
Cultural & recreational services	Motion pictures, radio and television services, libraries, museums and the arts Sport, recreation and gambling services
Personal & other services	Personal and household goods hiring, other personal services, religious organisations, interest groups, public order and safety services, and private households employing staff

Source: ABS, 1993, Cat. 1290.0

The traditional classification of services involves grouping entities that undertake similar economic activities. For this purpose, most countries base their national statistical collections related to services on the United Nations International Standard Industrial Classification of All Economic Activities (ISIC). Australia and New Zealand use an Australasian variation of the ISIC — the Australian and New Zealand Standard Industrial Classification (ANZSIC) — based on 109 industry classes arranged in seventeen industry divisions over a four-level hierarchy.[7]

The ANZSIC Divisions are: Agriculture, forestry and fishing; Mining; Manufacturing; and 14 service industry Divisions. In addition to the services Divisions, ANZSIC has two Sub-divisions in the merchandise Divisions that also produce services — Services to agriculture; hunting and trapping (ANZSIC 02); and Services to mining (ANZSIC 15). The economic activities of each of these 16 services groups are described briefly in Table 2.1.

2.2 Patterns of trade in services

2.2.1 Services dominate the economy

Cross-country empirical research on services confirms that, as countries have become richer, their services sectors have become more prominent in terms of their shares of gross domestic product and of employment.[8] These developments are thought to reflect the following diverse trends:

- an increasing specialization in production that is made possible by the expansion of economic activity;
- an increasing preference for firms to outsource many of their internal processes and activities that they do not regard as fundamental to their business objectives;
- increasing variety and quality of the services that are offered for sale; and
- the relatively limited scope for productivity gains in the production of many services.[9]

2.2.2 Delivery of services

Services are often thought to be 'non-tradeable' internationally — or at least much less so than merchandise — which explains why there is so little cross-border trade in Electricity, gas and water supply, Wholesale trade, Retail trade, or Public administration and defence.[10] It ignores

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[7] The discussion in this report is based on the 1993 Revision of the ANZSIC. The ABS has released a later version of the Classification (the 2006 Revision, which is based on 19 rather than 17 industry Divisions) but it is still in the process of being implemented. Many of the data series on service industries published by the ABS have yet to be reclassified. See ABS, 2006a, *1292.0 - Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 1.0)*, ABS, Canberra [accessed on 6 April 2010 at http://www.abs.gov.au/ausstats/abs@.nsf/39433889d406eeb9ca2570610019e9a5/a77d93484dc49d63ca25712300056842!OpenDocument].

[8] J. F. Francois and K. A. Reinert, 1996, 'The Role of Services in the Structure of Production and Trade: Stylized Facts from a Cross-Country Analysis', *Asia-Pacific Economic Review*, 2(1), May, pp. 1-9.

[9] W. J Baumol, 1967, 'Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis', *American Economic Review*, 57(3), pp. 415-426; and V. R Fuchs, 1968, *The Service Economy*, National Bureau of Economic Research, New York, NY.

[10] McLachlan et al, 2002, p. 62.

the fact, however, that international trade in services is not limited to economic transactions that span international borders, as is the case with goods. The WTO GATS recognises four fundamentally different modes of delivery for services and these are commonly adopted as a means for describing the way in which services are delivered internationally — see Box 3.1.

Box 3.1: GATS modes of services delivery

1. **Cross-border trade**: This most closely resembles trade in goods as it is conducted across national borders. Examples are international freight and insurance services on merchandise.
2. **Consumption abroad**: Typically this involves the consumer of the service having to cross a national border to enjoy it. The most prominent examples are International tourists and international students.
3. **Commercial presence**: This involves a supplier establishing an entity in another country to supply services to residents of the host country. Examples include international branch offices or agencies to provide services in banking, insurance, the professions, transport and telecommunications.
4. **Presence of natural persons**: This involves an individual travelling abroad temporarily to provide the service, for example, a consultancy assignment.

2.2.3 Size & composition of services trade

The WTO has estimated that global trade in commercial services — defined as those services delivered by cross-border trade or consumption aboard — was around US$3.8 trillion in 2008.[11] This represented around 20 per cent of the global trade in all goods and services in that year, as recorded by the WTO.[12] Since the 1980s, global trade in commercial services has grown faster than global output, but at about the same rate as global merchandise trade. Accordingly, the share of commercial services in global trade of goods and services, as measured by the WTO, has remained remarkably steady over this period.[13]

The sectoral composition of the global trade in commercial services has changed significantly over time. Under the sectoral classification specified in the International Monetary Fund's (IMF) *Balance of Payments Manual*, services transactions are divided between transport, travel, and other commercial services.[14]

2.2.4 Measurement of services trade

As we have seen, services transactions captured by the balance of payments understate the significance of trade in services as they fail to recognise those services delivered by way of 'commercial presence' or the 'presence of natural persons'. These modes of delivery are becoming increasingly important, particularly in Wholesale trade, Retail trade, Finance and

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[11] See WTO, 2009, *International Trade Statistics 2009*, WTO, Geneva. 'Commercial services' exclude those services that are provided by the public sector.
[12] OECD, 2001, *Open Services Markets Matter*, Policy Brief, OECD Observer, Paris.
[13] McLachlan et al, 2002.
[14] IMF, *Balance of Payments Manual*, 5th edition, IMF, Washington, D.C.

insurance, Property and business services, Transport and storage, Communications, and Education.

The identification and measurement of services that are delivered through a commercial presence involves a fundamental reorientation in perspective from a geographic location to ownership. The *Manual on Statistics of International Trade in Services* has developed the concept of Foreign Affiliates Trade in Services (FATS) for this purpose.[15]

The national statistical collections of most advanced countries, including Australia, pay relatively little attention to services or to trade in services. Most of these collections provide a finely grained picture of merchandise trade by product and by country of origin or destination but the corresponding picture of services trade is considerably coarser. Given what we do know about the importance of services to the Australian economy and to its external performance, this looks like a misallocation of statistical resources.

The definition of the services sectors in the *Balance of Payments Manual* are different from that used for other purposes. For example, the sectoral definitions used to compile the national accounts are generally based on the ISIC (or the ANZSIC in the case of Australia). The ISIC (and the ANZSIC) do not include travel, which accounts for a large proportion of the service transactions covered by the balance of payments, but the various transactions that make up travel in the balance of payments are attributed to a broad range of ISIC services sectors including Transport and storage, Accommodation, cafes and restaurants, Education, Cultural and recreational services, and Personal and other services.

Although the global share that is accounted for by transport services has been steady at around 24 per cent since 2000, the share of travel had declined to 25 per cent by 2008, and that for other commercial services had risen to over 51 per cent by that time.[16] Much of the trade in other commercial services has occurred in what are described in the literature as 'business process outsourcing services' — mostly Property and business services in terms of the ANZSIC.

Foreign affiliate sales

The literature shows that activities under FATS are measured by a range of variables – including sales, value added, and number of employees — which are broken down by country of origin or destination of the investment and also by type of primary activity. [17] Statistics on FATS are currently limited to OECD members and a small number of non-OECD economies. Moreover they are not collected on a continuous basis. For example the most recent FATS statistics for Australia are just for a single year (2003).[18] Of the available statistics, those published for the US are considered to be to be the most reliable and comprehensive.[19]

[15] UN, EC, IMF, OECD, UNCTAD, and WTO, 2002, *Manual on Statistics of International Trade in Services,* Geneva, Luxembourg, New York, Paris, Washington, D.C.

[16] WTO 2009.

[17] FATS seek to describe the activities of foreign affiliates in which foreign investors own more than 50 per cent of the voting power or equity interest. In doing so it distinguishes inward FATS — activities of foreign-owned affiliates in the compiling economy — and outward FATS — foreign affiliates of the compiling economy that operate abroad (WTO 2009).

[18] ABS, 2004, 5495.0 *Australian Outward Foreign Affiliates, 2002-03*, ABS, Canberra, [accessed on 1 April 2010 at http://www.abs.gov.au/ausstats/abs@.nsf/Latestproducts/5495.0Media%20Release12002-

In 2006 the sales of foreign affiliates of companies that were resident in the US amounted to US$760 billion. This was some 85 per cent higher than the cross-border exports of services from the US in that year, as recorded by its balance of payments.[20] Extrapolating the US figure to the rest of the world implies that globally FATS could be in excess of US3 trillion a year.[21] The US experience also suggests that FATS has grown at a faster rate than the cross-border trade in services.[22] Australian data is discussed in chapter 3.

Embodied services

The traditional approach to compiling statistics on trade in services also ignores the fact many services are 'embodied' in the goods and people that move across international borders. Estimates of embodied exports indicate that services sectors indirectly make a much larger contribution to a county's exports than the official statistics suggest.

Our review of the literature indicates that relatively little empirical research has been undertaken to illuminate the extent of embodied services exports. Most of this work was undertaken on Asia-Pacific economies in the 1980s and 1990s and is therefore somewhat dated.

Gruebel pioneered this research in 1988 by examining Canadian exports in 1973 and 1983.[23] He found that, over that decade, Canadian embodied services exports had increased substantially to the point where Canada enjoyed a surplus in embodied services trade but a deficit in cross-border services.

Tucker and Sundberg analysed embodied services exports by Australia and Thailand in 1975 and by Singapore in 1973.[24] They found that 50 per cent of all Australian services exports — defined here as the sum of the cross-border services exports and embodied services exports— were in embodied form. In the case of Thailand it was one third, and for Singapore a little less than 19 per cent of total services exports were embodied services. Later work on Australia in the mid-1990s found that the relationship had not changed and embodied and cross-border services together accounted for 40 per cent of all exports of goods and services by Australia.[25]

Sazanami and Urata looked at the embodied and the direct services trade for Japan in 1975 and 1985 and for the US in 1982.[26] Their results indicated that embodied services trade was significantly greater than the cross-border trade for both countries. They accounted for around 80 per cent of all services exports (embodied and cross-border) in both cases.

03?opendocument&tabname=Summary&prodno=5495.0&issue=2002-03&num=&view=]. See also chapter 3.1.

[19] Hoekman 2006.

[20] WTO 2009.

[21] The extrapolation was based on Hoekman 2006, p. 8.

[22] Hoekman 2006.

[23] H. G Gruebel, 1988, 'Direct and embodied trade in services', in C. H. Lee and N. Seiji (eds), 1988, *Trade and investment in services in the Asia-Pacific region*, Westview Press, Boulder Co,, pp. 53-76.

[24] K. Tucker and M. Sundberg, 1998, *International Trade in Services*, Routledge, London

[25] BIE, 1994, 'What do we really export?', Australian *Industry Trends*, April, Issue No. 20, AGPS, Canberra.

[26] Y. Sazanami and S. Urata, 1990, *Services Trade; Theory, present and future topics*, Toyokeizai Shinpo-sha, Tokyo.

Urata extended this analysis to the composition of the services sectors that were involved in the embodied services trade for Japan in 1990.[27] Unsurprisingly he found that the proportion of embodied services exports in total services exports was extremely high for electricity, gas and water supply, and for real estate services, high for financial services, but significantly lower for transport and communications.

More recently Urata and Kiyota have examined the embodied services trade for five Asian economies – China, Malaysia, the Philippines, Singapore, and Thailand –in 1990.[28] They found that embodied services account for a large share of total services trade for each country.

2.3 Drivers of trade in services

There has been little empirical work on the determinants of trade in services or the use of the different modes of service delivery identified in the GATS. As many services are highly differentiated, this complicates the analysis substantially. As a consequence there is considerable uncertainty about these issues.

While there has been an acceleration of research interest in these subjects since the mid-1980s, relatively little is known about the drivers of international trade in services, the extent of the barriers to such trade, and consequently the extent of the prospective gains from their liberalisation. In the absence of any significant policy change, the more important changes will reflect the influence of diverse trends in productivity growth, demographics, corporate and household savings rates, participation in education and training, and labour force participation.

2.3.1 FDI & services

The more recent literature has examined the role of Foreign Direct Investment (FDI) in services and has concluded that FDI is probably driven by the non-tradability of the services in question.[29] This work has shown, nevertheless, that FDI is beneficial to the recipient economy. FDI brings foreign ‘know how’ and increases competition in the relevant market of the recipient economy. This helps the recipient economy to produce and to export a range of more advanced products. FDI is also associated with technological transfers, ‘spillovers’, increased productivity, and access for firms in FDI host countries to global supply chains. [30]

The literature reviews the extent of FDI in Australia’s services sector (based on ANZSIC categories) and details Australia’s outward direct investment in services, but acknowledges it is hard to ascertain the impact this has on export performance.[31] A sectoral breakdown of FDI in

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[27] S. Urata, 1994, ‘Service trade embodies in merchandise trade: The case of Japan’, *World economic Critiques*, 38(5), pp. 50-56.

[28] S. Urata and K. Kiyota, ‘Services Trade in East Asia’, in T. Ito and A. O. Krueger (eds.), 2003, *Trade in Services in the Asia-Pacific Region*, NBER-East Asia Seminar on Economics, Vol. 11, University of Chicago Press, Chicago and London.

[29] J. Markusen, T. Rutherford and D. Tarr, 2005, ‘Trade and Direct Investment in Producer Services and the Domestic Market for Expertise, *Canadian Journal of Economics*, 38(3), pp. 758-777.

[30] A ‘spillover’ occurs when an economic transaction generates costs or benefits that accrue to those who were not a party to that transaction.

[31] DIISR, 2009, chapter 8. See Appendix 3 below for details.

Australian services industries suggests this investment occurs in those services that are important intermediate inputs into Australian exports.[32]

2.3.2 Services as intermediate inputs

The literature provides a very limited insight into the contribution that inputs of intermediate services can make to improve productivity at the firm level. The same is true for the economic 'spillovers' that can be generated by inwards FDI and trade in services. Relatively little is known about either the exact nature of such 'spillovers' or of their extent. Much the same is true about the role that services can play in broadening the variety of goods that are produced in Australia or in diversifying its export portfolio. Each of these relationships is potentially important to productivity, as published research indicates that they are strongly linked to economic growth.

In recent years one of the important developments in the delivery and use of services has been the increasing use of intermediate services in all aspects of business, better known in the popular media as 'outsourcing'. This trend reflects the increasing preference for individual businesses to outsource activities that were previously carried out internally, such as research and development, product design, product manufacturing, distribution, and marketing.

As a consequence of this trend, there is evidence that a convergence in production systems in manufacturing and services is well underway. Services are increasingly being embodied in the manufacture of goods and the delivery of services has always involved the use of capital goods to a greater — for example, telecommunications and transport — or lesser degree — for example, the delivery of professional services rely on commercial office space and information technology systems.

2.3.3 Outsourcing increases use of services

The trend in the outsourcing of services reflects changes in relative transaction costs that confront businesses when making the 'make or buy' decision. Transaction costs are the resource costs incurred by the business in managing the uncertainty associated with each option. In the outsourcing case they involve finding potential providers of the service, assessing the cost-effectiveness of their services to the business, selecting the best offer, negotiating a contract for delivery, monitoring the delivery of the services under the contract, and enforcing its terms.

In recent years, developments in the redesign of business processes and advances in information technologies have tended to shift these transaction costs significantly in favour of outsourcing over internal provision for an increasing number of businesses. Services tend to be embodied in goods, information flows, or people. Since the 1980s, however, technological changes have increasingly allowed such services to be 'splintered' or 'disembodied' from their 'carriers' in the form of goods or people. This separation has been made possible by the development of long-distance, cross-border telecommunications networks.[33] These trends may be expected to continue.

[32] DIISR, 2009, p. 86.
[33] J. N. Bhagwati, 1984, 'Splintering and Disembodiment of Services and Developing Nations', *The World Economy*, 7(2), pp. 133-144.

2.3.4 Multiplicity of delivery modes requires further research

The extreme heterogeneity of services means that different services play quite different economic roles and the markets in which services are traded are structured quite differently. Accordingly, the modes for exporting services differ from each other in fundamental ways, as the GATS makes plain. While many services are able to take advantage of more than one mode of export, there is relatively little in the literature on the interaction between the different export modes for particular services. This is unfortunate as this knowledge gap affects the ability to identify the binding constraint on the liberalisation of international trade in each service, as well as the optimal sequencing of the various policy reforms that would be required to undertake a major programme of liberalisation, even if confined to the one services sector.

3. Australia's services exports: current situation

Australia's services exports performance is only partly revealed from official statistics. A summary of what we know from those statistics is set out below. This shows that much is known about Australia's 'cross-border' services exports. That is, Australian services that are consumed by foreigners (whether they do so overseas or in Australia) are recorded in the balance of payments. And we have some very limited information about the sales by Australian foreign affiliates, albeit from a single year.

On the other hand, very little is known about the services that are used to produce the goods and services that are exported from Australia. This chapter adds to the existing literature by providing estimates of the value of Australia's embodied services exports.

3.1 What we know

Key sectors from Australia's recorded services exports in 2008-09 were Travel services ($31 billion), Transport (around $8 billion), and Other business services (in particular professional and technical business services) (around $8 billion).

Accounting, audit and tax consulting services are the fastest growing services having almost doubled in value (a 94 per cent average increase) each year since 1998-99.

The major markets for Australian services exports are: the United States (11 per cent), China (10 per cent), the United Kingdom (8 per cent), New Zealand and India (around 6 per cent each).

Services sales by foreign affiliates of Australian firms operating overseas through commercial presence are another major source of services sales. Data, however, is limited. The latest available data (2002-03) identified around 4,000 foreign affiliates with estimated services sales of $65 billion. In current prices and adjusting for global growth since then, we estimate sales to be around $106 billion.

Foreign affiliate sales are most important in the United States, the United Kingdom and New Zealand. On the other hand, key services export markets including Japan, China and India do not feature amongst major markets for services sales by foreign affiliates. One in four affiliates of Australian firms is located in the US.

3.1.1 Cross-border services exports

Australian services export credits in the balance of payments totalled $53.29 billion in 2008-09, having increased from $28.04 billion in 1998-99. Services exports grew at an average 9 per cent per annum in nominal terms; an increase of 90 per cent over the 11 years.[34]

The cross-border services exports recorded in 2008-09 were greatest in the following five categories:

- travel ($31 billion in 2008-09);
- transport (around $8 billion);
- other business services (particularly professional services and technical business services) ($7.7 billion);
- telecommunications, computer and information services ($2.1 billion); and
- financial services ($1.2 billion).

Exports in the other categories were each valued at less than $1 billion in 2008-09 and together accounted for exports worth $3.3 billion.

Trends in the categories of cross-border exports of services by Australia over the past decade — see Figure 3.1 — suggest there has been rapid growth in a number of services categories over this period in nominal terms. Of the top five categories, **Other business services** has increased by an average of almost 18 per cent each year, while **Travel services** has increased at an average of around 13 per cent each year.

Other business services include the fastest growing sub-category of services — accounting, audit and tax consulting services. This sub-category has, on average, almost doubled in value (a 94 per cent average increase) every year since 1998-99 and was worth $570 million in 2008-09. The sub-category also includes architectural services ($118 million) that have grown on average at 60 per cent per year.

Education services - a sub-sector of Personal, cultural and recreational services - accounted for over half a billion dollars of exports in most recent data. Education exports increased through the late 1990s, peaked in 2001-02 at $436 million, fell away from 2002-03 until 2005-06, and then increased in each of the last four years to a high of $553 million in 2008-09.[35] From a policy stand-point it is important to note the susceptibility of services exports in this sector to other areas of government policy unrelated to trade, namely immigration policy.

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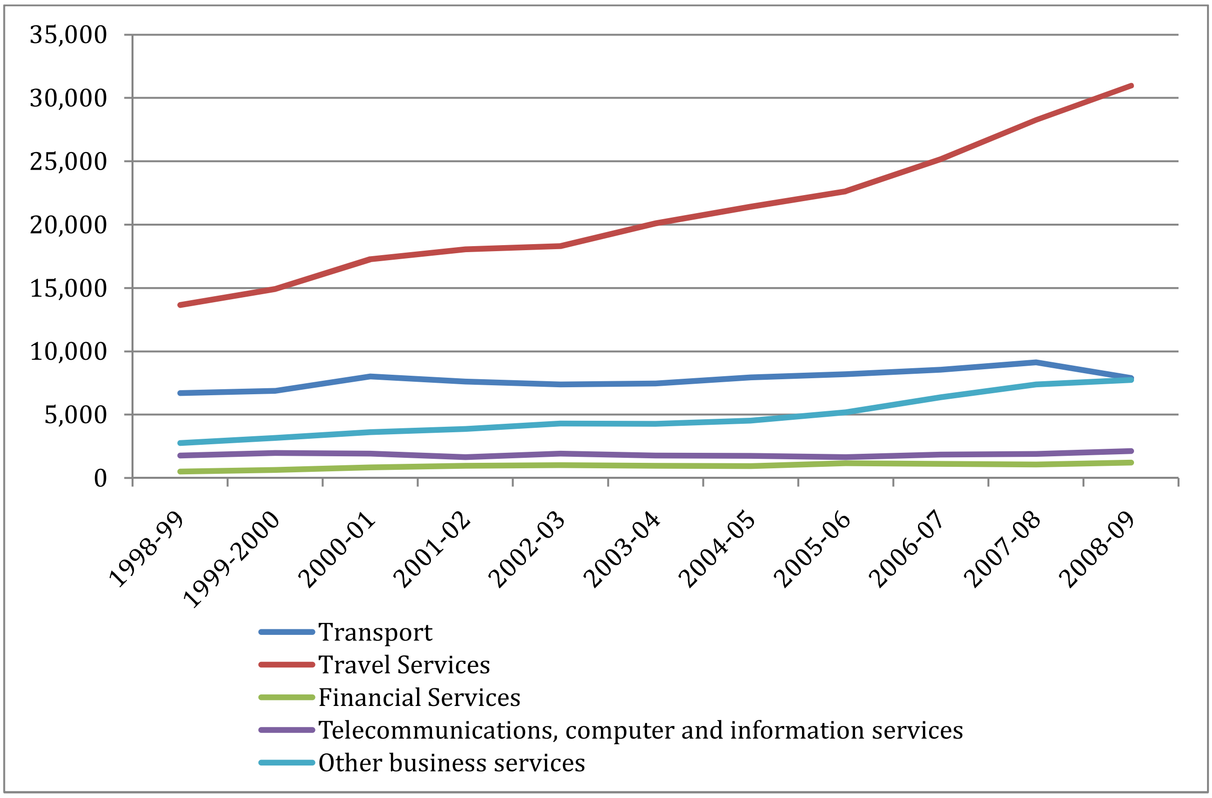
[34] ABS, 2009, *International trade in services by country, by state, and by detailed services category, financial year 2008-09*, Cat. 5368.055.003, ABS, Canberra, [accessed on 6 April 2010 at http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5368.0.55.0032008-09?OpenDocument]

[35] Importantly, Education services (from ABS Cat. 5368.0, Table 9.1) do not include travel services that are education related ($16.6 billion in 2008-09 and recorded under the Travel services category). Education related travel expenditure includes education-related expenditure on a range of services including tuition, food, accommodation, local transport, and health services. See Appendix 2 on the composition of travel services.

Figure 3.1 Services exports in key categories, 1998-99 – 2008-09, $million



Source: ABS Cat. 5368.0.55.003

One of the few types of services exports to exhibit sustained decline is **insurance and pension services**, and in particular **reinsurance services**. Insurance and pension services have fallen from around $950 million in 1998-99 to roughly $350 million in 2008-09. This represents a decline of 62 per cent since 1998-99 (or around 6 per cent per year). Around 60 per cent of Australia's services exports were sent to its ten **largest export markets** in 2008-09. These markets lie primarily in Asia, the Pacific and North America.

Table 3.2 shows that the United States accounted for around $5.8 billion (11 per cent of all cross-border services exports) in 2008-09. China consumed $5.1 billion (10 per cent), the United Kingdom $4.4 billion (8 per cent), and New Zealand and India around $3.4 billion (6 per cent) each.

Ranked as Australia's sixth largest market for cross-border services exports in 2000-01, China overtook Singapore in 2002-03, Japan and New Zealand in 2005-06, and the United Kingdom in 2008-09. In the process China has increased its market share from 3 per cent in 2000-01 to 9.6 per cent in 2008-09 (see Appendix 2).

Table 3.2 Services exports to top 10 export markets in 2008-09, 2000-01 to 2008-09, $million

Countries	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
China	1,075	1,380	1,741	2,261	2,812	3,186	3,616	4,426	5,120
Hong Kong	1,352	1,667	1,621	1,589	1,569	1,568	1,581	1,626	1,689
India	556	538	523	708	1,051	1,388	1,734	2,517	3,378
Indonesia	1,132	1,151	1,058	1,012	922	865	893	983	1,115
Japan	3,531	3,302	3,202	3,099	3,236	3,090	2,891	2,526	2,308
Korea	950	1,043	1,024	1,137	1,247	1,432	1,830	1,873	1,833
New Zealand	2,836	2,576	2,785	2,878	3,131	3,174	3,336	3,575	3,401
Singapore	2,133	2,269	2,161	2,113	2,342	2,646	2,868	3,784	3,154
UK	3,706	3,759	3,916	4,140	4,221	4,097	4,634	4,467	4,418
US	5,648	4,440	4,657	4,364	4,448	4,974	5,475	5,489	5,841
Total top 10	**22,919**	**22,125**	**22,688**	**23,301**	**24,979**	**26,420**	**28,858**	**31,266**	**32,257**
All others	12,789	12,663	13,033	14,011	14,310	15,221	17,098	19,379	21,030
Total	**35,708**	**34,788**	**35,721**	**37,312**	**39,289**	**41,641**	**45,956**	**50,645**	**53,287**

Source: ABS Cat. 5368.055.003

3.1.2 Services exports through foreign commercial presence

Firms may deliver services through a commercial presence in overseas markets as part of an internationalisation strategy. Such strategies typically evolve from service delivery on a fly-in fly-out basis, through establishing a representative or sales office, to a full local office or joint venture employing Australian nationals.[36]

Majority-owned foreign affiliates — where a single owner holds more than 50 per cent of ordinary shares or voting power — are not separated from minority-interest direct investments. Nor do official statistics annually record the services these foreign affiliates of Australian firms sell.

As stated in the previous chapter, sales by foreign affiliates were last measured in a 2002-03 ABS survey.[37] The key findings of the study are outlined below. The picture of foreign affiliate activities is further supported by ABS outward direct investment data for the services sector. This too is summarised below.

[36] Dunning, J.H., 1993, *Multinational Enterprises and the Global Economy*, Wokingham, UK, Addison-Wesley.

[37] ABS, 2004. Note that the survey methodology identified foreign affiliates, regardless of ownership. Foreign affiliates were therefore not necessarily 'commercial presence' operations. Commercial presence typically requires establishing that the foreign affiliate is sufficiently associated with the Australian firm to deliver income – through dividends, claims on profits, or wages and salaries - to Australian residents. As noted in chapter 2 of this study, an international framework for measuring Foreign Affiliate Trade in Services (FATS), adopted by many countries that collect this data, meets this requirement by focusing on majority-owned affiliates.

Sales by foreign affiliates of Australian firms

The ABS survey of foreign affiliates of firms based in Australia identified some 4,000 foreign affiliates with estimated services sales of $65 billion.[38] Sales of services by foreign affiliates in 2002-03 were therefore almost twice the level of services exports recorded in the balance of payments for that year ($36 billion). Bringing to present prices and adjusting for growth in the world economy, foreign affiliate sales are now estimated to be around $106 billion.[39]

The results of the 2002-03 survey are summarised in Tables 3.3 and 3.4. The types of services most commonly delivered through foreign affiliates are summarised in Table 3.3. For business confidentiality reasons the ABS survey does not offer a clear picture of the sales of services in different sectors. However, it does reveal that Financial and insurance services make up more than one third of services sales by foreign affiliates. Around $32 billion are also divided between those sectors for which data is not revealed, namely, travel services, communication services and 'services between affiliated enterprises'.

Table 3.3 Services sales by foreign affiliates, by type of service, 2002-03

Service type	Total sales of services ($m)
Transportation services	760
Travel services	np
Communication services	np
Financial and insurance services	25,398
Computer and information services	796
Royalties and license fees	105
Merchanting and other trade-related services	92
Operational leasing services	151
Legal, accounting, management consulting and public relations services	1,877
Advertising, market research, and public opinion polling services	282
Architectural, engineering and other technical services	1,119
Agriculture, mining and onsite processing services	664
Services between affiliated enterprises	np
Other business services	1,641
Other	32,398
Total	**65,282**

np = not available for publication but included in totals
Source: ABS Cat. 5495.055.003, Table 12

[38] Sales of goods by foreign affiliates worth $77 billion were recorded. ABS (2002-03), Table 1, p. 12.
[39] See Chapter 4, Table 4.2 for further information.

Table 3.4 Characteristics of Australian foreign affiliates, 2002-03 (selected countries)

Country	Affiliates	Employees	Sales of services by foreign affiliates	Sales of goods by foreign affiliates
	No.	No.	$m	$m
Canada	80	6,948	1,288	3,762
China	97	8,866	1,456	2,539
Germany	67	3,472	492	1,434
Hong Kong, China	111	5,900	1.797	919
Indonesia	83	24,330	1,440	2,962
Japan	31	821	451	1,358
Malaysia	134	10,016	206	1,215
New Zealand	718	86,763	10,784	19,228
Singapore	149	5,459	2,451	2,164
United Kingdom	473	38,621	11,426	7,092
United States	1,006	48,894	26,117	16,161
Total all countries	**4,012**	**321,924**	**65,282**	**77,039**

Source: ABS Cat. 5495.0, Table 1

Table 3.4 shows Australia's key markets for services delivery through commercial presence are the United States, the United Kingdom and New Zealand. In 2002-03, Singapore was a distant fourth. Other key markets for cross-border exports of services – China and Japan – accounted for only 138 Australian-owned foreign affiliates in that year. India was an even smaller market for Australian investors (the number of affiliates is included in an 'other' category). These findings are consistent with the latest findings in the World Bank's *Doing Business* report.[40]

Outward foreign direct investment in services

The ABS publishes annual data on inward and outward foreign direct investment in its international investment statistics publication including outward FDI in services industries abroad.[41] A 2009 Australian government report examined these data and found:

- outward FDI in services accounted for an increasing share of total outward FDI (nearly doubling between 2001 and 2007, to 48 per cent or $324 billion in 2007);[42]
- the United States represents by far the largest market for Australian outward FDI in services – almost 50 per cent (this is consistent with the overall outward FDI picture);[43]
- Finance and insurance accounts for three quarters of outward FDI in services industries; Transport and communications industries FDI has fallen from 20 per cent in 2001 to 5

[40] China is ranked 89 and India is ranked 133 in *Doing Business 2010*, see http://www.doingbusiness.org/economyrankings/
[41] ABS, 2009, 5352.0, *International investment position, Australia: supplementary statistics*, ABS, Canberra.
[42] DIISR, 2009, chapter 8, p. 81.
[43] DIISR, 2009, p. 83.

per cent in 2007; and Property and business services outward FDI has climbed from 2 per cent to 7 per cent over that same period.[44]

These and other findings on outward FDI in the DIISR report support the evidence from 2002-03 foreign affiliate sales (set out above): finance and insurance services continue to be of major importance to total services sales in foreign markets; and Australian subsidiaries sell far more services on the whole than in New Zealand, the United Kingdom and ASEAN markets.

Inward FDI critical to Australia's cross-border services exports and foreign affiliate sales

A 2004 ABS survey of the activities of majority foreign-owned businesses in Australia showed that in 2000-01 FDI in the services sector contributed to value added of:

- Wholesale and retail trade – 31 per cent;
- Electricity gas and water – 21 per cent;
- Property and business services – 18 per cent; and
- Transport, storage and communications – 13 per cent.[45]

Though in need of further study with more recent data, this offers solid evidence of the benefits of FDI in services industries, touched upon in chapter 2.

[44] DIISR, 2009, p. 84.
[45] DIISR, 2009, p. 81.

3.2 Services embodied in exports

Services industries are 1.7 times as important to the Australian economy in terms of export performance as the level of cross-border services exports would suggest.

ITS Global estimates the value of services that are embodied in the merchandise exported from Australia in 2008-09 was $35.6 billion — in 2008-09 prices. This excludes the services that were embodied in cross-border exports of other services.

ITS Global estimates indicate that services approaching $89 billion in value were exported from Australia by all services industries in 2008-09, both directly and indirectly.

Most of the embodied services exports were 'carried' in the merchandise exported by the Mining and Manufacturing sectors. A substantial amount of services were also embodied in the cross-border exports of other services.

Most of the services that were 'embodied' were Property and business, Transport and storage, and Wholesale trade services. Between 1998-99 and 2005-06, the exports of services embodied in the cross border exports of merchandise and other services grew by 68 per cent. Most of this growth occurred in Mining.

Services delivered over networks — such as electricity, gas, water, transport, and telecommunications — and based on knowledge — such as legal, accounting, and other professional services — collectively accounted for nearly three-quarters of the services embodied in the cross-border exports of goods and services.

Services are extensively used in the process of producing goods — and in preparing and delivering other services. Such services are known as the intermediate services inputs to production. This distinguishes them from the primary inputs of capital, labour and land, as they are sourced from outside the business that uses them.

ITS Global has estimated that services valued at $35.6 billion were embodied in Australia's cross-border merchandise exports in 2008-09.[46] This means that the exports of both embodied and cross-border services that year totalled $88.9 billion. This was 1.7 times the value of cross-border services exports for that year ($53.3 billion).

Using the approach explained in Box 3.1, below, the value of embodied services exports were estimated for 1998-99, 2001-02, 2004-05 and 2005-06 (the only years for which the ABS have published Input-Output Tables in this period). Table 3.5 summarises the results for 2005-06, and the results for all years are summarised in Table 3.7.

As the Input-Output data are in current prices, estimates have been converted to real terms, expressed in terms of the price level in 2008-09.[47] Estimates were also updated for 2005-06 to

[46] Unless otherwise indicated, all values in this section are measured in current prices, i.e. the prices prevailing in the year in question.

[47] This was done using the GDP deflator for Australia published by the International Monetary Fund (IMF) as part of its April 2010 *World Economic Outlook*. Its Outlook series is published twice a year. (See

2008-09 on the basis of the annual changes in the volume of trade between these two years. For this purpose, ITS Global has used the annual change in the volume of imports by Emerging and Developing Economies estimated by the IMF as part of its latest *World Economic Outlook.*[48] As Australia's merchandise trading partners are dominated by such economies, the IMF series was considered to be a good proxy for the annual changes in its merchandise exports.

Table 3.5 Exports of Services, by ANZSIC service group, 2005-06, $ million, current prices

ANZSIC Service Group	Services Embodied in Exports by				Total Embodied Exports	Cross-border Exports	All Services Exports (a)
	Agri-culture	Mining	Manuf-acturing	Services			
Services to agriculture; hunting and trapping	454	0	53	4	511	942	1,449
Services to mining	0	5,540	0	0	5,540	6	5,546
Electricity, gas & water supply	98	709	1,020	719	2,544	73	1,898
Construction	65	1,856	278	1,028	3,227	686	2,885
Wholesale trade	422	1,227	2,671	1,391	5,712	10,941	15,262
Retail trade	71	188	459	1,271	1,989	3,936	4,655
Accommodation, cafes & restaurants	43	140	461	442	1,087	4,961	5,606
Transport & storage	331	1,960	2,648	2,330	7,269	12,513	17,452
Communication services	41	148	322	1,280	1,792	1,197	1,709
Finance & insurance	197	686	493	1,573	2,950	1,890	3,267
Property & business services	228	1,755	3,502	6,617	12,102	6,793	12,278
Government administration & defence	6	140	104	290	540	174	424
Education (b)	2	48	101	177	328	3,846	3,997
Health & community services	2	0	60	26	89	564	627
Cultural & recreational services	8	52	110	606	776	906	1,076
Personal & other services	0	16	26	57	100	193	236
All ANZSIC Services	**1,966**	**14,467**	**12,309**	**17,812**	**46,554**	**49,622**	**78,364**

Source: ITS Global estimates, ABS, 2009.
Note: (a) To avoid double counting, the totals net out the services that were embodied in the cross-border exports of services. (b) The composition of cross-border exports based on the ANZSIC classification in the ABS *Input-Output Tables* differs from that published in ABS *International Trade in Services*.

IMF, 2010, *World Economic Outlook: Rebalancing Growth*, IMF, Washington, DC, April, and the April 2010 edition of the *World Economic Outlook Database* [both accessed at http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx]).
48 IMF 2010

Box 3.1 Calculating the value of embodied services exports in Table 3.5

Table 3.5 data is derived from the following calculations. Estimates of the share of intermediate services inputs in the domestic output of each of the ANZSIC industry groups in the Input-Output Tables published by the ABS.*

These shares were then applied to the cross-border exports by each of the industry groups in question, as recorded in the Input-Output Table. This provided an estimate of the embodied services exports in that year, the sources of the 'carrier exports', and the sources of the services embodied in them. The sources of the services were specified in terms of the fourteen services divisions in ANZSIC plus the two services sub-divisions in its merchandise divisions.**

* ABS, 2009, *Australian National Accounts: Input-Output Tables – Electronic Publication 2005-06*, Cat. 5909.0.55.001, ABS, Canberra, 7 October.
** The ANZSIC subdivisions are: Services to agriculture, hunting and trapping (ANZSIC 02); and Services to mining (ANZSIC 15). Each ANZSIC division is identified by a letter, each Sub-division by a two-digit code, each Sub-sub-division by a three-digit code, and each industry class (the finest disaggregation in the ANZSIC) by a four-digit code.

3.2.1 Industries whose exports embody services

In 2005-06 Australia's embodied services exports were mostly accounted for by the cross-border exports of the Mining (31 per cent of all embodied services exports that year), Manufacturing (26 per cent), and Services Divisions (38 per cent) of ANZSIC. In sharp contrast, Agriculture, forestry and fishing only contributed just over 4 per cent of the total.

Table 3.6 details the share of the total by the 'carrier' division in ANZSIC, as well as the shares of the leading seven industry groups at the four-digit level. Table 3.6 also includes the breakdown of the sources of the embodied services in question. The next section explains the breakdowns that have been used and discusses the results.

Collectively these seven 'carrier export' groups accounted for nearly 40 per cent of all embodied services exports in 2005-06. The smallest of the shares was only 2.5 per cent, which suggests that the distribution had a 'long tail' with most of the embodied services relatively evenly spread over most of the 'carrier exports'.

Virtually all of Australia's merchandise exports made a contribution to the exportation of embodied services in that year. The most significant contributors were, in rank order:

- Coal (12.2 per cent of all embodied services exports in 2005-06);
- Iron ore (10.9 per cent);
- Non-ferrous metal ores (4.7 per cent);
- Basic non-ferrous metal products (3.6 per cent);
- Oil and natural gas (3.2 per cent);
- Motor vehicles, engines and parts (2.9 per cent);
- Grains (2.3 per cent);
- Sugar, confectionary and seafood (1.9 per cent);

- Iron and steel products (1.8 per cent);
- Medical and pharmaceutical products (1.8 per cent);
- Wine, spirits and tobacco (1.3 per cent);
- Meat and meat products (1.2 per cent);
- Sheep (1 per cent);
- Dairy products (1 per cent); and
- Basic chemicals (0.9 per cent).

On other hand, the ANZSIC 'carrier goods' sectors that made little or no contribution were:

- Beef cattle (ANZSIC 0103);
- Pigs (ANZSIC 0105);
- Poultry (ANZSIC 0106);
- Forestry and logging (ANZSIC 0300);
- Bakery products (ANZSIC 2106);
- Soft drinks, cordials and syrups ANZSIC 2109);
- Beer and malt (ANZSIC 2110);
- Textile products (ANZSIC 2202); Knitting mill products (ANZSIC 2203);
- Other wood products (ANZSIC 2302);
- Paper containers and products (ANZSIC 2304);
- Plastic products (ANZSIC 2509);
- Ceramic products (ANZSIC 2602);
- Non-metallic mineral products (ANZSIC 260);
- Structural metal products (ANZSIC 2703);
- Sheet metal products (ANZSIC 2704);
- Fabricated metal products (ANZSIC 2705);
- Railway equipment (ANZSIC 2803);
- Household appliances (ANZSIC 2807);
- Pre-fabricated buildings (ANZSIC 2901); and
- Furniture (ANZSIC 2902).

Table 3.6: Share of embodied services exports by sector of intermediate service input & of carrier export, by ANZSIC division & selected industry classes, 2005-06, per cent

	ANZSIC Source of Carrier Exports											
ANZSIC Source of Intermediate Services Input	**0102 Grains**	**Agriculture forestry & fishing**	**1101 Coal**	**1201 Oil & gas**	**1301 Iron ores**	**1302 Non-ferrous metal ores**	**Mining**	**2702 Basic non-ferrous metal & products**	**2801 Motor vehicles & parts**	**Manufact-uring**	**All ANZSIC Services Divisions**	**All ANZSIC Divisions**
1501 Services to mining	0.0	0.0	3.5	0.1	5,2	2.3	11.9	0.0	0.0	0.0	0.0	11.9
Electricity, gas & water supply	0.2	0.2	0.6	0.1	0.4	0.4	1.5	0.9	0.1	2.2	1.5	5.5
Construction	0.1	0.1	0.7	0.2	2.7	0.3	4.0	0.1	(a)	0.6	2.2	6.9
Wholesale trade	0.5	1.0	1.2	0.3	0.6	0.5	2.6	0.8	0.8	5.7	3.0	12.3
Transport & storage	0.5	0.7	3.0	0.7	0.4	0.2	4.2	1.0	0.2	5.7	5.0	15.6
Finance & insurance	0.2	0.4	0.6	0.2	0.4	0.3	1.5	0.2	0.1	1.1	3.4	6.3
Property & business services	0.3	0.5	1.9	0.4	0.8	0.6	3.8	0.6	1.3	7.5	14.2	26.0
All ANZSIC Services Groups	**2.3**	**4.2**	**12.2**	**3.2**	**10.9**	**4.7**	**31.1**	**3.6**	**2.9**	**26.4**	**38.2**	**100.0**
Memorandum Items:												
Network-based services (b)	0.9	1.4	4.3	1.1	1.2	0.9	7.5	2.1	0.5	9.6	12.7	31.3
Knowledge-based services (c)	0.7	1.5	5.6	1.4	6.1	3.0	15.9	0.6	1.4	8.3	16.1	41.8

Source: ITS Global estimates

Note: (a) negligible.

(b) The sum of the following ANZSIC divisions: Electricity, gas & water supply: Transport & storage: Communications services; and Finance & insurance services.

(c) The sum of the following ANZSIC groups: Services to agriculture (0200): hunting & trapping: Services to mining (1501): and the Property & business services, Education, Health & community services, Cultural & recreational services, and Personal & other services divisions.

While all ANZSIC Divisions make a contribution to the exportation of embodied services, the proportion of their domestic production that was exported and the intensity of that production process — in terms of intermediate services use — were both critical to the final result. The issues are elaborated in Box 3.2.

Box 3.2 Intensity of intermediate services use

The intensity of the use of intermediate services in production is measured by the proportion of a dollar's worth of output that is accounted for by intermediate services used to make it.

In the case of coal (the category comprising most embodied services per dollar of output) to extract $100 worth of coal in 2005-06, the ABS Input-Output Tables indicate that the average mining company would have spent $11.40 on wages, superannuation and other labour on-costs, and $30.50 on intermediate inputs. This left $58.10 as the gross return that the mining company earned on its capital investment in that year.

Labour and capital also provide services to the production process. They are, however, described as primary inputs to production as their services are internal to the business. The business owns the capital and normally has the exclusive use of the labour that it employs. Intermediate services are, by definition, provided externally.

For coal, intermediate inputs are the materials and services that mining companies buy to enable its miners to extract coal with the company's plant and equipment. The average coal mining company spent a total of $6.10 on materials — including timber for construction, diesel fuel for its mobile plant, explosives, prefabricated buildings, and new machinery. It also spent a total of $24.40 on services. These included specialist mining expertise — such as geotechnical and mining engineering services, electricity to power the fixed plant and equipment, tradesmen to construct and maintain the plant, rail transport to take the coal to port, and property and business services such as legal and accounting work.

This makes coal mining a relatively intensive user of services inputs. Over 80 per cent of the intermediate inputs used to extract coal were services. Put another way, intermediate services accounted for 24.4 per cent of the final value of the cost of the coal produced in 2005-06. This is the measure of the intensity of their use in the productive process.

In 2005-06 the proportion of the value of domestic production that was exported varied significantly at both the Divisional level, as well as the four-digit level in ANZSIC. In that year export exposure varied from virtually zero in the case of Pig production (ANZSIC 0105) and many of the Services Divisions all the way up to 88.2 per cent in the case of Iron ores (ANZSIC 1301). Export exposure was highest by far in Mining at 53.2 per cent. Export exposure was 20.2 per cent in Manufacturing and 15.9 per cent in Agriculture, forestry and fishing, with the fourteen Services Divisions averaging only 3.5 per cent.

In 2005-06 the intensity of the use of intermediate services in Australia's direct exports also varied widely at the four-digit level in ANZSIC. It ranged from a low of 7.2 per cent in Basic non-ferrous metal products (ANZSIC 2702) to a peak of 55 per cent in Motion picture, radio and television services (ANZSIC 9101).

At the Divisional level, it was lowest in Agriculture, forestry and fishing and Manufacturing (an average of 22.8 per cent in each case), followed closely by Mining (26.4 per cent), but much more intense in Services (36.2 per cent).

ITS Global estimates that both of these indicators varied substantially across the ANZSIC hierarchy in 2005-06. The results are summarised in Table 3.7.

Some sectors exported little or nothing — Pigs (ANZSIC 0105) and Services to mining (ANZSIC 1500) were good examples — while some exported the vast majority of what they produced — such as Iron ores (ANZSIC 1301) and Coal (ANZSIC 1101). Some sectors used a relatively small amount of intermediate services to produce a dollar of output — such as Railway equipment (ANZSIC 2803) and Aircraft (ANZSIC 2804) — and others a relatively large amount — for instance, Knitting mill products (ANZSIC 2203) and Other construction (ANZSIC 4102). It is the combination of these two factors that determines how much embodied services are exported in any year.

Table 3.7 Intermediate Services Embodied in Selected Exports, 2005-06, $ million, current prices

ANZSIC Code	ANZSIC Industry Description	Intensity of Intermediate Services Use (%)	Value of Intermediate Services in Own Exports	Share of Embodied Services Exports (%)
A	**Agriculture, forestry & fishing**	17.5	1,966	4.2
B	**Mining**	26.4	14,467	31.1
1101	Coal	24.4	5,661	12.2
1201	Oil and gas	13.8	1,478	3.2
1301	Iron ores	41.5	5,088	10.9
1302	Non-ferrous metal ores	26.1	2,207	4.7
C	**Manufacturing**	22.8	12,309	26.4
21	Food, beverage & tobacco manufacturing	22.0	3,458	7.4
25	Petroleum, coal, chemical & associated product manufacturing	22.1	1,992	4.3
27	Metal product manufacturing	17.6	2,755	5.9
28	Machinery & equipment manufacturing	27.4	2,515	5.6
F	**Wholesale trade**	40.8	4,428	9.5
G	**Retail trade**	31.1	1,325	2.8
H	**Accommodation, cafes and restaurants**	32.4	1,608	3.5
I	**Transport & storage**	40.4	4,949	10.6
L	**Property & business services**	37.5	2,887	6.2
	All Services Divisions	36.2	17,812	38.3
	All Divisions	**33.0**	**46,554**	**100.0**

Source: ITS Global estimates, ABS Cat. 5909.0.55.001

The intuition behind these results is straightforward. Economic activity in Australia is heavily dominated by the production and delivery of services. Hence, the inputs that any industry purchases from the rest of the economy will tend to involve a relatively greater use of services, rather than goods. While an industry's reliance on purchased service inputs will clearly vary, it is clear, nevertheless, that virtually every economic activity relies on a broad range of services to facilitate its production and marketing activities.

For example, virtually all business firms will require premises to operate from, energy and water supplies, freight transport and couriers to send out and receive goods and documents, business travel, post and telecommunications to interact with their customers and suppliers, bank credit, insurance to cover potential economic losses, not to mention accounting and legal advice, at least from time to time.

On the other hand, the major exception to this inference — Agriculture, forestry and fishing — may be explained in terms of by the commodity nature of its output and the relatively low-input production techniques that tend to be adopted in an economic environment where agricultural land is relatively abundant but much of it is so remote from the country's major population centres that the cost of delivery for many services is relatively expensive.

3.2.2 Industries whose services are embodied in exports

ITS Global has estimated the contribution to the intermediate services inputs that were exported as embodied services in 2005-06. The contributions have been estimated for each of the sixteen ANZSIC services industry groups that were defined for this analysis.

A summary of the results is set out in Table 3.6 above. (The Table includes estimates of the contribution by two *ad hoc* services industry groupings created for this Report. They will be discussed at the end of this section.)

In 2005-06 the major sources of services embodied in cross-border exports were, in rank order:

- Property & business services (26.0 per cent of all embodied services exports);
- Transport and storage (15.6 per cent);
- Wholesale trade (12.3 per cent);
- Services to mining (11.9 per cent);
- Construction (6.9 per cent);
- Finance and insurance (6.3 per cent); and
- Electricity, gas and water supply (5.5 per cent).

These ANZSIC services Divisions supplied the majority of the services produced by the private sector in Australia in that year, as measured by their contributions to gross domestic product (GDP). Each of them contributed to the exports of embodied services by most of the other ANZSIC Divisions. In most cases their contributions to the cross-border exports by the other services ANZSIC Divisions dominated, accounting for more than half of their total contribution to the exports of embodied services.

At the four-digit level of ANZSIC, the more prominent sources of intermediate services inputs embodied in cross-border exports by the ANZSIC merchandise Divisions in 2005-06 included:

- Services to mining (ANZSIC 1501);
- Wholesale trade (ANZSIC 4501);
- Road transport (ANZSIC 6101);
- Rail, pipeline and other transport (ANZSIC 6201);
- Other property services (ANZSIC 7702);
- Scientific research, technical and computer services (ANZSIC 7801);
- Legal, accounting, marketing and business management services (7802); and
- Other business services (ANZSIC 7803).

On the other hand, less prominent sources of embodied services, by ANZSIC four-digit level were (in ascending order of their absolute contribution):

- Health services (ANZSIC 8601) and Community services (ANZSIC 8701);
- Personal services (ANZSIC 9501) and Other services (ANZSIC 9601);
- Education services (ANZSIC 8401);
- Services to agriculture, hunting and trapping (ANZSIC 0200);
- Government administration services (ANZSIC 8101) and Defence services (ANZSIC 8201);
- Motion picture, radio and television services (ANZSIC 9101), Libraries museum and the arts (ANZSIC 9201),and Sport gambling and recreational services (ANZSIC 9301); and
- Accommodation, cafes and restaurants (ANZSIC 5701).

Although the total value of the embodied services exported in 2005-06 was broadly comparable to that for cross-border services exports in that year, their composition differed, at least as far as the source of the services were concerned. In contrast to the above breakdown of the sources of embodied services, the ANZSIC services Divisions dominant in cross-border exports of services were:

- Transport and storage (25 per cent of all direct exports of services);
- Wholesale trade (22 per cent);
- Property & business services (13.7 per cent); and
- Retail trade (7.9 per cent).

3.2.3 Mapping sources of embodied services with sources of their 'carrier exports'

A broad perspective of embodied services exports in 2005-06 is gained from looking at the two sets of results presented above together, namely the main 'carrier' services export sectors alongside sectors which include embodied services. This is presented through a cross-tabulation of the results in Table 3.6, above.

At the finest level of detail in the ANZSIC, this analysis reveals that all sectors used a wide range of intermediate services and virtually all were exported across the border, at least sometimes. Almost all services sectors accounted for some embodied services that were exported.[49] However, for 95 per cent of the 'carrier' sectors at the four-digit level their share of total embodied services exports was less than one per cent. Further, no one sector had more than 25 per cent of the total.

No particular sectoral sources of intermediate services dominated the results, although the peaks (ie. sectors responsible for a larger percentage of embodied services) were more pronounced. At the four digit level there were many services sectors that contributed little or nothing to the output of other sectors and exported little or nothing themselves (as cross border exports) or through other sectors (as embodied services exports). Nevertheless each of the core services sectors generally contributed to each of the 'carrier' sectors of embodied services.

This is not surprising. Intermediate services often complement each other in production, rather than act as substitutes. For example, a business does not choose between using the telephone to take an order, using electricity to light the office, having a courier deliver the order, and employing an accountant to account for the financial result. All these services are necessary for the business to continue to operate. Here, the idea of specialisation is more about which capabilities the business should outsource and which should it provide in-house.

3.2.4 Disaggregation of the results

Greater sectoral detail is provided in Table 3.8. This Table presents disaggregated results for the two leading services divisions measured in terms of its contribution to all embodied services exports — Transport and storage; and Property and business services. ITS Global has broken down the results for these two divisions by the four-digit industry classes that make up each division. The results have been expressed in terms of the percentage contribution by each four-digit class to its divisional result.

The results for the Transport and storage division highlight the contributions of Services to transport (ANZSIC 6601), Road transport (ANZSIC 6101), followed by Rail, pipeline and other transport (ANZSIC 6201).

For Property and business services, the contributions were more evenly distributed, with substantial contributions by each of the four-digit classes.[50] The largest contribution was from Other property services (ANZSIC 7702) — covering real estate services and the leasing of commercial and industrial properties — followed by Legal, accounting, marketing and business management (ANZSIC 7802).

[49] The intensity with which sectors used intermediate services varies considerably as does the extent of their export orientation (see Box 3.1, above). These two effects often cancel each other out.

[50] This ignores Ownership of dwellings (ANZSIC 7701) as it represents the imputed rent to owner-occupiers and the net rent paid to landlords in respect of established housing and does not figure in any transactions with other sectors.

Table 3.8: Embodied services exports, ANZSIC class shares in Transport & storage and Property & business divisions, 2005-06, per cent

ANZSIC Source of Intermediate Services Input	ANZSIC Source of Carrier Exports											
	0102 Grains	Agriculture, forestry & fishing	1101 Coal	1201 Oil & gas	1301 Iron ores	1302 Non-ferrous metal ores	Mining	2702 Basic non-ferrous metal & products	2801 Motor vehicles & parts	Manufact-uring	All ANZSIC Services Divisions	All ANZSIC Divisions
Transport & storage	3.1	4.6	19.0	4.5	2.3	1.1	27.0	6.3	1.4	36.4	32.1	100
6101 Road transport	2.0	3.1	1.4	0.3	0.5	0.5	2.8	2.0	0.5	19.0	7.1	31.9
6201 Rail, pipeline & other transport	0.2	0.2	13.1	3.1	0.8	0.2	17.1	2.8	0.1	5.4	1.1	23.8
6301 Water transport	0	(a)	0.2	0.1	(a)	(a)	0.3	0.9	(a)	1.6	0.3	2.1
6401 Air & space transport	(a)`	0.1	0.4	0.1	0.3	0.1	0.9	0.1	0.1	1.0	2.8	4.8
6601 Services to transport ; storage	1.0	1.2	3.9	1.0	0.7	0.3	5.9	0.7	0.7	9.5	20.8	37.4
Property & business services	1.0	1.9	7.2	1.7	3.3	2.4	14.5	2.1	4.8	28.9	57.7	100
7701 Ownership of dwellings	0	0	0	0	0	0	0	0	0	0	0	0
7702 Other property services	0.3	0.6	3.6	1.1	2.2	0.6	7.5	1.3	1.9	7.5	19.4	34.9
7801 Scientific research, technical & computer services	0.2	0.3	0.4	0.1	0.1	0.2	0.8	0.3	1.2	5.7	9.2	16.0
7802 Legal, accounting, marketing & business management	0.5	0.9	2.3	0.1	0.7	0.9	4.3	0.2	0.4	6.8	16.7	28.8
7803 Other business services	(a)	0.1	0.9	1.4	0.8	0.7	1.9	0.3	1.4	9.0	9.3	20.3

Source: ITS Global estimates
Note: (a) negligible.

A new perspective on the results

Another perspective on the results is provided by the two *ad hoc* industry groupings reported as Memorandum Items in Table 3.6: network-based services and knowledge-based services.

Services delivered over networks include the following ANZSIC services divisions — Electricity, gas & water supply; Transport & storage; Communications services; and Finance & insurance services.

Networks are capital intensive and generally very costly to establish. Once established, the cost of admitting an additional user is relatively low and may even be effectively zero. The benefits to an individual user, however, increase rapidly with the number of other users of the network. Such network externalities give networks the characteristic of a 'bottleneck' or an 'essential facility' and government intervention may be required to ensure that third party access to the network can be obtained on economically efficient terms.[51]

The other group includes services that rely heavily on human capital for their delivery: Services to agriculture; hunting & trapping (ANZSIC 0200); Services to mining (ANZSIC 1501); Property and business services; Education; Health and community services; Cultural and recreational services; and Personal & other services.

Human capital requires a considerable investment of expense, time and effort in its creation. The process generally involves higher education or occupational training, complemented by formal or informal training on-the-job.

There are significant economic differences between the two concepts. In the case of networks the capital is fixed in space, whereas human capital, being embodied in its owner, is generally highly mobile.

In 2005-06 network-based services were the source of more than 31 per cent of all embodied services exports. Knowledge-based services comprised nearly 42 per cent. Between them these two groups provided nearly three-quarters of the services embodied in cross-border exports of goods and services in that year, and over 44 percent of those embodied in merchandise exports.

3.2.5 Recent trends in embodied services exports

Between 1998-99 and 2005-06 the value of embodied services exports grew by an estimated average of 68 per cent. A summary of the results is presented in Tables 3.7 and 3.8.

These estimates were based on the four Input-Output Tables of the Australian economy published by the ABS for the 1998-99, 2001-02, 2004-05 and 2005-06 financial years.[52] The methodology and approach used are described in Appendix 1. Substantial gaps in the annual coverage of this period by the ABS input-output data greatly limit the scope to decompose any

[51] The *Trade Practices Act* fulfils this role specifically with respect to telecommunications (Part IX), as well as more generally (Part IIIA).

[52] ABS, Australian *National Accounts: Input-Output Tables – Electronic Publication 1998-99, 2001-02, 2004-05 & 2005-06*, Cat. 5909.0.55.001 (various years), ABS, Canberra [accessed on 22 March 2010 at http://www.abs.gov.au/AUSSTATS/]

of the trends that are suggested in Tables 4.3 and 4.4, let alone seeking to estimate what has driven them.[53]

Table 3.7 Value of Intermediate Services Embodied in Exports, by ANZSIC Division, selected years from 1998-99, $m, current prices

ANZSIC Division	1998-99	2001-02	2004-05	2005-06	Change 1998-99 to 2005-06 (%)
Agriculture, forestry & fishing	2,127	2,351	2,338	1,966	-7.8
Mining	7,469	7,091	8,530	14,467	+93.7
Manufacturing	7,843	11,583	11,613	12,309	+56.9
Services	10,298	14,506	17,187	17,812	+73.0
All ANZSIC Divisions	27,738	49,403	39,668	46,554	+67.8

Source: ITS Global estimates, ABS Cat. 5909.0.55.001

Table 3.8 Share of Intermediate Services Embodied in Exports, by ANZSIC Division, selected years from 1998-99, per cent

ANZSIC Division	1998-99	2001-02	2004-05	2005-06	Change 1998-99 to 2005-06 (%)
Agriculture, forestry & fishing	25.0	23.0	33.0	24.7	-0.1
Mining	28.8	23.4	22.6	26.2	-9.0
Manufacturing	20.1	20.1	19.9	18.4	-8.3
Services	31.1	36.1	36.6	36.6	+17.5
All ANZSIC Divisions	25.8	24.0	24.8	24.8	-3.7

Source: ITS Global estimates, ABS Cat. 5909.0.55.001

The percentage changes experienced by ANZSIC Divisions over this period were quite different, both in terms of direction and size.

- The services embodied in Manufacturing exports increased consistently over this period but the total change was somewhat lower than for all ANZSIC Divisions.
- Mining experienced a near doubling of its embodied services exports over the whole period, with consistent increases in each and every sub-interval. In sharp contrast,
- Agriculture, forestry and fishing had a decline of around 8 per cent over the period. Its embodied services exports did increase by 20 per cent between 1998-99 and 2001-02 but was followed by an even sharper drop between 2000-01 and 2004-05. As the

53 Although the ABS compiles Supply-Use Tables for each of the missing years in this series, the industry disaggregation used in them is significantly less detailed than that used by the ABS for the Input-Output Tables. This means Supply-Use Tables could not be used to fill the temporal gaps in estimates.

estimates of change over the period are based on current prices, this is an even larger drop in real terms. The fall, however, largely reflected the impact of drought on the sector and its exports.

Explaining the underlying trends

These trends reflect the combined influence of three independent factors. First is the change in the volume of exports. Second is the change in value of intermediate services that is embodied in each unit of domestic production — the intensity of intermediate services use. And third is the proportion of domestic output that is exported from Australia. The intensity of intermediate services use is a proxy for any real changes that may have occurred in the use of intermediate services in domestic production. Over the period in question these two factors powerfully reinforced each other.

By far the more important of these factors, however, was the fact that the value of all goods and services exported from Australia grew by more than 74 per cent between 1998-99 and 2005-06. Over this period, the intensity of use of intermediate services in domestic production rose steadily. It was 28.7 per cent in 1998-99, 31.3 in 2001-02, 32.8 per cent in 2004-05, and 33.0 per cent in 2005-06. This represents an increase of over four percentage points — or 14.7 per cent in proportionate terms — over the whole period.[54] This means that, by the end of the period, one-third of every $100 of output was contributed by services.

Although this represented a significant shift in production intensity in favour of services, it was insufficient to change the share of intermediate services in the value of all cross-border exports (see Table 3.8). The expansion in cross-border exports over the period in question was concentrated on those goods and services whose production involved a less intensive use of intermediate services in their production. This is highlighted by the drop in the services share of the value of exports by Agriculture, forestry and fishing.

Similar mutually reinforcing trends were evident over this period in the case of intermediate services embodied in cross-border exports of services. The value of cross-border exports by the fourteen services divisions in ANZSIC rose by around 47 per cent over the period, on average.

On the other hand, the intensity of intermediate services use in domestic production of those services grew by nearly 17 per cent.

There were pronounced differences in these trends at the divisional level:

- For the Manufacturing Division, the increase in value of cross-border exports was 71 per cent, whilst the increase in intensity of intermediate services use was 6.9 per cent.

- In the case of Agriculture, forestry and fishing, the pattern was similar, although the *direction* of the changes were different, with a *fall* in both the value of the division's exports and the intensity of intermediate services use in production.

[54] The average intensity of services use averaged over Australia's exports was less than that averaged over domestic output. This reflects the fact that the composition of Australia's exports differs markedly from the composition of its domestic production.

- Mining, in contrast, experienced contradictory trends in its export performance and the intensity of its use of intermediate services in production.

In all three cases there is evidence of considerable volatility in the estimates of the intensity of intermediate services use, both in the divisions and at the lower more detailed levels of the ANZSIC hierarchy. See Box 3.3 for the details.

Box 3.3 Volatility of intermediate services use in production

At the four-digit level in the ANZSIC hierarchy, the trends in the intensity of the use of intermediate services in production over the period from 1998-99 to 2005-06 are less clear cut and more nuanced than is the case at the coarser (or higher) levels of the classification hierarchy.

The most prominent feature that emerges at the finest level of the classification is considerable volatility in the variables that underlie the estimates of embodied services exports. This means that there is considerable variation in the direction and the extent of the percentage change between observations for a given classification for the 1998-99, 2001-02, 2004-05 and 2005-06 financial years.

This volatility is evident in the variation in the estimates for a given industry class over time, as well as the estimates for different industry classes within an ANZSIC Division at a particular time. The volatility is most pronounced in the case of the estimates of the intensity of intermediate services use in production. At the four-digit level the estimates reveal both substantial rises in the services intensity measure for some over the time period of the analysis, along with equally substantial falls for others.

Most of the estimates of the intensity of the use of intermediate services suggest considerable volatility between the estimates in successive annual estimates, with few consistent trends, either up or down. The volatility is illustrated by two relatively straight-forward perspectives of the distribution of the estimates.

First, of the estimated changes in the intensity of use of intermediate services at the four-digit level of ANZSIC between 1998-99 and 2005-06, rises outnumbered falls by a ratio of 55 to 45. The margin gives confidence in a conclusion about the upwards direction of the overall trend.

Second, many of the individual changes, both up and down, were very large. They ranged from an increase in the intensity of intermediate services use of 149 per cent in the case of Residential building (ANZSIC 4101) to a decrease of 84 per cent for Other mining (ANZSIC 1400).

Nevertheless, volatility clearly dominated the picture at the four-digit ANZSIC level. Indeed, this volatility was so pronounced and widespread that it is difficult to be more precise about the nature and extent of any trends suggested by the results.

ITS Global has calculated that the volatility of its estimates of the intensity of intermediate services use increased for each year of those estimates. This calculation was based on the standard deviation of the estimates for each financial year.

The estimates indicated that the increase in volatility over the whole period was about 16 per cent, which is significant. This underlines the severity of the limitations imposed by the many annual gaps in the input-output data panel that were used for these calculations.

The diversity of the trends in the use of services

Manufacturing has shown a more consistent and a more substantial upwards trend in the intensity of its use of services at the four-digit level of ANZSIC. This is not surprising: manufacturing tends to produce more elaborate products than Agriculture, forestry and fishing or Mining — as its much higher use of intermediate inputs, both goods and services, demonstrates. On average, intermediate inputs represent over 55 per cent of the value of manufacturing output. This is at least 40 per cent higher than the equivalent measure for either of the other two merchandise divisions.

At the same time, the relatively low share of services in the intermediate input mix used in manufacturing means that manufacturers generally have more scope to substitute purchased services for material inputs, as well as the time of their own employees. This is part of the reason why outsourcing has been part and parcel of the adoption of 'lean manufacturing' techniques around the world.

At the four-digit level, a consistently upward trend in the intensity of the use of intermediate services in production over the period was apparent in:

- Beef cattle (ANZSIC 0103);
- Iron ores (ANZSIC1301);
- Fruit and vegetable products (ANZSIC 2103);
- Knitting mill products (ANZSIC 2203);
- Sawmill products (ANZSIC 2301);
- Printing and services to printing (ANZSIC2401);
- Petroleum and coal products (ANZSIC 2501);
- Medicinal and pharmaceutical products (ANZSIC 2504);
- Rubber products (ANZSIC 2508);
- Plastic products (ANZSIC 2509);
- Iron and steel (ANZSIC 2701);
- Motor vehicles and parts (ANZSIC 2801);
- Ships and boats (ANZSIC 2802);
- Photographic and scientific equipment (ANZSIC 2805);
- Electronic equipment (ANZSIC 2806); and
- Prefabricated buildings (ANZSIC 2901).

The consistently downward trends that were apparent were far fewer:

- Forestry and logging (ANZSIC 03);
- Non-ferrous metal ores (ANZSIC 1302);
- Meat and meat products (ANZSIC 2101);
- Pulp, paper and paperboard (ANZSIC 2303);
- Cosmetics and toiletry preparations (ANZSIC 2506); and
- Basic non-ferrous metal and products (ANZSIC 2702).

Very few of these structural changes in intensity can be attributed to macroeconomic factors. In the four years represented by the estimates, Australia experienced historically high rates of economic growth based on rising demand for its traditional exports across the board, rising commodity prices, strong domestic productivity growth, and an appreciating exchange rate in real terms.[55] The changes in question are extremely diverse, both in their nature and direction. Most probably they reflect the highly heterogeneous nature of the services sector and the opportunities and threats that it confronts.

[55] IMF, 2009.

4. Outlook for trade in services

The outlook for the three types of international services transaction examined in this report should be relatively buoyant over the medium term to 2014-15.

Demand- and supply-side determinants drive the outlook of exports of services. Demand-side variables include income growth in Australia's export markets, further liberalisation of regulation in these markets, and shifts in user preferences. On the supply-side, factors affecting the competition for primary resources and intermediate inputs are important.

There is evidence that a convergence in production systems in manufacturing and services is well underway. Services are increasingly being embodied in the manufacture of goods as a consequence of the trends towards outsourcing and 'lean manufacturing' techniques.

ITS Global concludes that in coming years, the level of Australia's services embodied in merchandise exports would be of the order of $35 billion per year, increasing towards $50 billion by 2014-15 (and over $50 billion once a likely increase in the intensity of intermediate services use is accounted for). The value of all services exports (cross-border and embodied) is approaching $90 billion and may be over $110 billion per year by 2014-15. Services sold by foreign affiliates of companies based in Australia may be worth around $130 billion.

This Chapter presents an assessment of the medium term outlook for those international services transactions that are discussed in chapter 3, namely:

- Cross-border exports of services, either by delivery abroad or consumption in Australia;
- Services embodied in the export of goods; and
- Sales of services by the foreign affiliates of businesses based in Australia.

4.1 Principal determinants of services exports

The outlook for the international services transactions depends on future developments on both the demand-side and supply-side of the markets for the goods and services that are produced in Australia. In all cases the final markets are global in nature, even where the service transaction takes place in an intermediate market in Australia.

4.1.1 Demand-side determinants

From a demand-side perspective, the most important considerations are the growth in gross domestic product (GDP) in each of Australia's export markets for goods and services and any structural shifts in user preferences in the markets for final products in which services are used as intermediate inputs. The critical markets are China (including Hong Kong), Japan, ASEAN, the United States, South Korea, India, the United Kingdom and Taiwan.

The sensitivity of the demand for services — whether it is the final or the derived demand — to changes in income and economic activity is critical. Empirical evidence as to how sensitive the demand for services is to changes in income is somewhat contradictory.[56] Nevertheless, the weight of evidence seems to suggest that the income elasticities for services are generally somewhat higher than those for goods.[57] Moreover, the demand for some services, such as air travel, has been found to be much more responsive to changes in income than other services. This is unsurprising, given the highly heterogeneous nature of services.

4.1.2 Supply-side determinants

On the supply-side, the key determinants are those that are expected to affect the choice between primary inputs — land, labour and capital — and intermediate inputs in Australian business. In the case of embodied services, the intensity of the use of intermediate services inputs will depend critically on any shifts in the 'make- or-buy' decisions that Australian business and those abroad make continuously.[58] In large measure, such decisions turn on the relative resource costs of these two options for the business in question.[59]

The following factors are the key determinants of the availability of intermediate services:

- the emergence of new goods and services requiring specialist support;
- transformations in the way goods and services are produced, arising from process innovations, which increase the scope for specialist services;
- increasingly complex and internationally integrated financial, production and distribution environments which require additional service support;
- changes in government regulation and intervention that increase the need for businesses to monitor and analyse changes; and
- the proliferation of tasks related to the internal management of firms, especially complex multinational businesses.[60]

The sustained shift by business over recent years to outsource services, previously provided internally, is characterised by the 'lean manufacturing' philosophy that has revolutionised production in the sector over recent decades. This philosophy is based on the principles that

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[56] Income elasticity is a measure as to how sensitive the demand for a good or service is with respect to a given change in income. For example, an income elasticity of 1.2 means that the demand for the good or service in question will grow at 1.2 times the rate of income growth.
[57] See McLachlan et al, 2002, for a recent survey. Based on an analysis of 110 commodity groups, the Industry Commission (IC) estimated relatively high income elasticities of demand for services in Australia such as air transport (2.2), repairs (1.4), finance (1.4) and business services (1.3) (See Industry Commission, 1986, *The Changing Structure of the Australian Economy*, AGPS, Canberra).
[58] The make-or-buy decision is the strategic choice between producing a good or service in-house and buying it in from an outside supplier. The 'buy-in' decision also is referred to as 'outsourcing'.
[59] The resource costs are the 'transaction costs' of producing a part, a component or a service internally compared to those involved in buying it in from outside the business. These are the time, effort and expense of finding an external supplier, negotiating a contract with the supplier, monitoring its observance, and enforcing its terms, compared to the equivalent costs for producing the part, component or service internally.
[60] J.N. Marshall and P.A. Woods, 1995, *Services and Space: Key Aspects of Urban and Regional Development,* Longman Scientific and Technical, New York.

underlie the Toyota Production System.[61] It has been widely adopted across the manufacturing sector globally, and is being extended to other sectors, including services.[62]

This shift to outsourcing suggests production systems in manufacturing and services are converging. Services are increasingly being embodied in the manufacture of goods, while the delivery of services has always involved the use of capital goods to a greater or lesser degree.[63]

Developments in business processes and information technologies have tended to favour outsourcing for an increasing number of businesses, both overseas and in Australia. Technological change has increasingly allowed services to be 'splintered' or 'disembodied' from their 'carriers' in the form of goods or people. This separation has been made possible by the development of high capacity, long-distance, cross-border telecommunications networks.[64] These trends can be expected to continue, notwithstanding the fact that some manufacturers are reassessing the supply chain risks associated with 'lean manufacturing' in the wake of the recent economic downturn.[65]

In broad terms, the strength of these trends is likely to be positively related to the strength of economic activity in the relevant export sectors — after all, the larger the market, the greater the scope for increased specialisation in producing for that market. The outlook for global economic growth will, therefore, be of overwhelming importance to the outlook for Australian services exports, broadly understood.

4.2 International macroeconomic outlook

The IMF publishes diagnoses and prognoses of the global economy on a twice-yearly cycle. They include medium term macroeconomic forecasts for each of its member countries. The Fund's most recent World Economic Outlook (WEO) was published in April 2010.[66]

The IMF has concluded that growth has returned to the global economy and is accelerating, driven by the strong performance of Asian economies, a better than expected recovery in the US, and stabilization or modest growth in the rest of the world. In large part, the rebound reflects an increase in manufacturing activity, a rebuilding of business inventories, and an apparent upturn in the US labour market.

As the prospects of the global economy have brightened, world commodity prices have retreated from the lows of 2009, particularly for metals and mineral products, and world trade is picking up.

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[61] J. P. Womack, D. T. Jones and D. Roos, 1990, *The Machine that Changed the World*, Macmillian, New York, NY.

[62] J. P. Womack and D. T. Jones, 2003, *Lean Thinking: Banish Waste and Create Wealth in Your Corporation*. Free Press, New York, NY.

[63] See chapter 3. For example, the rate of intermediate services use by Australian industry increased by about 15 per cent between 1998-99 and 2005-06. And services delivered over expensive and capital-intensive networks accounted for just over 30 per cent of all embodied services exports in 2005-06.

[64] J. N. Bhagwati, 1984, 'Splintering and Disembodiment of Services and Developing Nations', *The World Economy*, 7(2), pp. 133-1447,

[65] Economist Intelligence Unit, 2010, *Aiming higher: How manufacturers are adding value to their business*, The Economist Newspaper Limited, London.

[66] IMF [International Monetary Fund], 2010, *World Economic Outlook: Rebalancing Growth,* IMF, Washington, DC, April

The IMF considers that the policy responses since mid-2008 have significantly reduced the fears of a global depression but concerns remain. These fears had contributed to the steepest drop in global activity and trade flows since World War II. The key issues now are how durable will the recovery prove to be and will it foreshadow a return to consistently high rates of economic growth. Since the publication of the WEO, however, concerns about global stability have been re-ignited by the levels of sovereign debt in some of the members of the European Union.

The IMF concludes that the global recovery has been stronger than expected and will proceed but that recovery will be weak by historical standards. The Fund is projecting global economic growth of about 4¼ per cent in 2010 and 2011.[67] Over the remainder of its outlook horizon to 2014, the IMF sees global growth of just above 4 per cent. Table 4.1 sets out the IMF forecasts for real GDP growth to 2015 in each of Australia's major destinations for goods and services exports.

Table 4.1 Real growth in GDP for Australia's major destinations for exports of goods & services, IMF forecasts to 2015, per cent per annum

Country	2009 (a)	2010 (b)	2011 (b)	2012 (b)	2013 (b)	2014 (b)	2015 (b)
China (c)	8.7	10.0	9.9	9.8	9.7	9.6	9.5
India	5.7	8.8	8.4	8.0	8.1	8.1	8.1
Indonesia	4.5	6.0	6.2	6.5	6.7	7.0	7.0
Japan	-5.2	1.9	2.0	2.0	1.8	1.8	1.7
Korea, Republic of	0.2	4.5	5.0	4.1	4.1	4.0	4.0
New Zealand	-1.6	2.9	3.2	3.0	2.8	2.7	2.4
Singapore	-2.0	5.7	5.3	5.1	4.7	4.6	4.5
Taiwan	-1.9	6.5	4.8	4.9	4.9	5.0	5.0
Thailand	-2.3	5.5	5.5	5.4	5.3	5.2	5.0
United Kingdom	-4.9	1.3	2.5	2.9	2.8	2.7	2.5
United States	-2.4	3.1	2.6	2.4	2.5	2.4	2.4

Source: IMF 2010
Note: (a) actual
(b) forecast
(c) 2009 is an estimate

In the US, the IMF expects the rate of economic growth to reach 3 per cent in 2010 but to ease back to around 2.4 per cent over the rest of the forecast period as the fiscal stimulus peters out.[68] The Japanese economy is expected to grow by 2 per cent in 2010, supported by fiscal

[67] This represents a substantial upwards revision on the Fund's last Outlook, published in October 2009. At that time, the Fund's estimate of global growth in 2010 was 3 per cent (IMF, 2009, *World Economic Outlook: October 2009*, IMF, Washington, DC, October).
[68] Compared to the IMF's October 2009 forecast of 1½ per cent for the US in 2010 (IMF 2009)

stimulus and rising exports, with a more broadly-based recovery in 2011, following a moderate increase in business investment, then tapering off for the rest of the forecast period.

For the Asian economies, the IMF sees real GDP growth reaching 7 per cent in 2010 and 2011, driven by China, India, and a number of the other emerging Asian economies. The Fund expects GDP growth in China to be close to 10 per cent in both 2010 and 2011 and to remain there for the rest of the forecast period. It is forecasting growth of 8¾ per cent for India in 2010 and 8½ percent in 2011, stabilising at around 8 per cent for the out years of the forecast. In the case of the ASEAN economies, it sees them growing by 5½ percent in both 2010 and 2011.

After the volume of world trade in goods and services fell by nearly 12 per cent in 2009, the IMF is forecasting a rapid turnaround with increases of 7 per cent in 2010 and 6 per cent in 2011. Moreover, it expects that the volume of imports by the developing countries to grow by nearly 10 per cent in 2010, and by more than 8 per cent in 2011.

After collapsing in the second half of 2008, commodity prices bottomed in February 2009 then rebounded sharply. By the end of 2009, they had risen more than 40 percent from the trough, largely due to increases in oil (over 70 per cent) and metal prices (about 60 per cent). By the end of 2009, however, in real terms commodity prices were still 25 per cent below their peak in July 2008.

Over the medium term, the IMF is forecasting that commodity prices will remain high by historical standards. It expects that demand for commodities will accelerate with the global recovery but inventories and the growth in productive capacity will decline. The interaction of rapid demand and sluggish capacity growth is likely to sustain prices at historically high levels.

4.3 Outlook for trade in services

In light of these latest macroeconomic forecasts, the outlook for the three types of international services transaction examined in this report should be relatively buoyant over the medium term to 2014-15. As a consequence, prospects for significant growth in all three types of services transactions over this time horizon are good.

However, growth for each type of services transaction is likely to vary significantly. This largely reflects the differences in evolution of the major overseas markets for each service-type. Table 4.1 highlights the extent of these differences with the IMF expecting growth in Japan, the UK, the US, and NZ mostly to remain below 2.5 per cent a year, but growth of most others in Table 4.1 growing at more than twice that rate.

In the case of cross-border exports of services, advanced economies, led by the US, dominate the top ten destinations. As demonstrated in Chapter 3, the US, the UK, NZ, Singapore, Japan and South Korea collectively accounted for nearly two-thirds of all exports to the top ten destinations in 2008-09.

A similar picture emerges for the sale of services by foreign affiliates, albeit the composition of major advanced country markets differs from the equivalent group for cross-border services exports.

In contrast, Australia relies on emerging and developing economies to a significantly greater degree as destinations for its merchandise exports, and by implication, for the services embodied in those exports. In this case the same six advanced economy destinations accounted for around 40 per cent of all exports to the top ten destinations in 2008-09.

The outlook for embodied services exports will also depend on any shifts in the intensity with which intermediate services are used to produce and deliver merchandise exports. The nature and extent of any shifts in intensity will have a substantial impact on the level and the composition of the services that end-up being carried in those exports.

Estimated annual projections of all three types of services transactions over the period to 2014-15 are summarised in Table 4.2. Box 4.1 explains how the projections were derived.

Table 4.2: Projections of services exports and services sold by foreign affiliates of companies based in Australia, $ billion, 2008-09 prices

Services type	2008-09 (a)	2009-10 (b)	2010-11 (b)	2011-12 (b)	2012-13 (b)	2013-14 (b)	2014-15 (b)
Cross-border exports of services	53.3	52.3	55.7	59.1	62.7	66.6	70.6
Services embodied in merchandise exports	35.6	35.0	37.3	39.5	42.0	44.5	47.2
All services exports	88.9	87.3	93.0	98.7	104.7	111.1	117.9
Services sold by foreign affiliates of companies based in Australia	106	108	113	118	123	129	135
Memorandum Items: (c)							
World GDP, % change	1.2	1.8	4.3	4.5	4.6	4.6	4.6
Volume of trade in goods & services, % change	-4.0	-1.9	6.6	6.1	6.1	6.1	6.1
Volume of imports by Advanced Economies, % change	-4.5	-2.1	4.3	1.9	1.9	1.9	1.9
Volume of imports by Emerging & Developing Economies, % change	0	0.6	9.0	8.2	8.2	8.2	8.2

Source: ITS Global estimates, IMF 2010

Note: (a) Actuals for Cross–border exports and Memorandum Items, estimates for the rest.

(b) Projection

(c) IMF calendar year estimates were converted to a financial year basis by taking a simple average of the two years in question.

Box 4.1 Calculating the outlook projections for Table 4.2

The baseline for projections based on ABS data for cross-border exports is 2008-09. For embodied services exports and foreign affiliate sales, the baselines used are the 2008-09 estimates in Chapter 3.

In the case of cross-border and embodied services exports, projections are based on the latest IMF forecast for the percentage change in the volume of world trade for each year over the projection period.

The projection of the sales of services by foreign affiliates uses the equivalent forecast for the real growth in World GDP. Both sets of IMF forecasts, converted to a financial year basis, are in Table 5.2. (For purposes of comparison, the Table includes the equivalent forecasts for the volume of exports by the Advanced Economies, as well as the volume of imports by the Emerging and Developing Economies).

Table 4.2 projections indicate that the total value of cross-border and embodied services exports would approach $120 billion a year by the end of the projection horizon (2014-15) in 2008-09 prices. Just over 60 per cent of this would be accounted for by cross-border services exports. Sales of services by foreign affiliates are projected to be about $135 billion a year at the same time. These projections represent increases of 33 per cent for all services exports and 28 per cent for foreign affiliate sales of services over the outlook period.

The projection assumes that the intensity with which intermediate services are used in the production and distribution of goods for export is unchanged. However, between 1998-99 and 2005-06, this measure of services intensity increased by more than four percentage points — equivalent to an increase of 15 per cent over an eight-year period.

ITS Global has estimated that every percentage point increase in the intensity of intermediate services use in production adds a little over $1 billion a year to embodied services exports, other things being equal, based on 2008-09 trade volumes.[69] Should the increase in the intensity of services use which occurred between 1998-99 and 2005-06 be repeated over the period to 2014-15, embodied services exports would be around $53 billion a year, in real terms, by the end of the period on the basis of the IMF forecast of growth in the volume of world trade.

When assessing the likelihood of such a shift, one should recall that the intensity of intermediate services in Australian production increased by more four percentage points over an equivalent period but the share of intermediate services in Australian exports of goods and services did not increase materially. The effect of the increase in intensity was more or less offset by a shift in the composition of exports towards the less intensive products, such as the relatively lightly transformed agricultural and mineral commodities.

[69] This is after netting out the services that are embodied in cross-border exports of other services. The services embodied in cross-border exports of other services do not change the total of embodied and cross-border services exports, only their composition.

Outlook for foreign affiliate sales

Four key markets for services delivered across borders and through foreign affiliate commercial presence are also major recipients of Australian outward direct investment: the United States, the United Kingdom, New Zealand and Singapore. Notable by their absence from this group is Japan; another advanced economy in our region, though more highly regulated than the abovementioned. China and India are also absent. This suggests that despite a likely increase in the number of affiliates operating in these countries as a consequence of the rapid growth of these economies, investment conditions and services regulations present challenges to foreign firms. The bulk of services consumed by Chinese and Indian nationals are delivered across borders rather than through commercial presence in these markets. Key amongst those services consumed across-borders are education-related services purchased in Australia (captured in official data under travel services and education tuition categories of personal, cultural and recreational services).

Bringing outward FDI statistics and the 2002-03 foreign affiliate survey data from chapter 3 together with the estimates produced in Table 4.2, ITS Global concludes that foreign affiliate services sales are likely to have remained highest in the four largest markets identified in 2002-03, namely: the United States, the United Kingdom, New Zealand and Singapore. More in depth research - beyond the scope of the current research exercise – might indicate growth in foreign affiliate sales in a number of countries.

Measuring the effect of foreign affiliates' services trade is still in its infancy in Australia. More could be done to aid estimates of services exported through commercial presence. Further surveying of Australian foreign affiliates by the ABS would be a welcome development, and consideration might be given in future surveys to adopting the standard survey method of publishing data on majority-owned foreign affiliates.

Sales of services by foreign affiliates of companies that are based in Australia can be expected to have declined following the global financial crisis in 2008-09, particularly with key markets in North America and Europe experiencing a sharp downturn. Supporting the estimates presented in Table 4.2, above, are UNCTAD's forecasts of quarterly foreign direct outward investment suggesting FDI is recovering strongly over 2010.[70]

[70] UNCTAD (2009), *World Investment Report* presentation by J. Zhan to press conference and UNCTAD Trade and Development Board, September. [Access on April 10 at http://www.unctad.org/sections/diae_dir/docs/tdb09_wir_zhan_en.pdf]

5. Delivery of services for export

5.1 Introduction

Firms deliver services in overseas markets in a number of different ways and link with other firms locally and in overseas markets — see Box 5.1.

Services exporters or investors in services firms (inward and outward from Australia) are likely to be either:

a) a product company separately exporting services;
b) a service company independently providing a services overseas;
c) a company selling both product and related (embedded) services in an overseas market;
d) a company selling a service related to a product supplied by another company (pull-through effect); or
e) one of a group of service companies (a cluster).

This Chapter examines several of these services-firm types by way of four case studies: ANZ Banking Group Ltd representing the banking sector; The Cox Group of Architects representing architectural services; Elders Ltd representing rural services; and Insurance Australia Group Ltd (IAG) representing insurance services.

Importantly, no evidence of clustering was uncovered in any of the case studies, and there were few indications of services being 'pulled-through' into the export market.[71] In large part, this reflected the relatively restrictive circumstances in which the assignment had to be conducted — extensive gaps in the official statistics on services and services exports together with a paucity of empirical research on the various business models that are used by services firms for international services transactions. These limitations made it difficult to select potential candidates for the case studies that were known *ex ante* to have the types of business relationships that the case studies were supposed to examine.

On the other hand, the case studies reveal a large and very significant role in services delivery played by subsidiaries of Australian firms operating through a commercial presence in overseas markets – particularly in Asia. Partnerships are also a feature, though typically these firms use partnering to allow them to operate in foreign countries, or as a strategic first step towards acquisition.

[71] See the Elders study.

Box 5.1 Embedded services, pull-through services, and clusters

An *embedded service* is a service linked and related to the sale of merchandise or to the sale of another service. Examples include after-sales support, technical assistance, training and finance.

'Pulled through' service exports involve small to medium sized services firms who ride on the coat-tails of larger exporters to export. For example, the automotive manufacturing global supply chain includes many small car component businesses. Firms may also be pulled through into export markets by the presence in an overseas market of related businesses offering potential linkages.

'Clustering' is a concept widely examined in the literature on the development of small and medium sized enterprises (SME) and global value chains. Clusters are 'agglomerations of interconnected companies and associated institutions'. The firms in question produce similar or related goods or services and are supported by a range of dedicated institutions located in geographic proximity, such as business associations or training and technical assistance providers.*

Clustering can allow for a dynamic business network of firms. The classic example of an industry cluster is the information technology firms that have grown up around Stanford University in Palo Alto, California, popularly known as Silicon Valley.

* United Nations Industrial Development Organization website, accessed on 9 June 2010 at: http://www.unido.org/index.php?id=o4297

5.2 ANZ Banking Group Ltd

The ANZ Banking Group Ltd is one of the largest companies in Australasia and one of the 50 largest banks in the world.[72]

In 2007, ANZ launched a new business strategy to become a leading 'super regional bank' in the Asia Pacific over the next five or so years. As a consequence, the Group increased staff numbers in its Asia Pacific businesses by 45 per cent and is in the process of raising $2.9 billion in capital to fund strategic growth opportunities and to strengthen its capital base.

The Group is organised around four business divisions and two support groups:

- Australia division — provides retail, commercial, and wealth management services within Australia.
- Asia Pacific, Europe & America (APEA) division — provides banking products and services to ANZ's retail, business, corporate, and institutional clients in the region.

[72] Thanks to the ANZ Banking Group Ltd for its co-operation in the preparation of this case study and in particular to Joseph Abraham, CEO ANZ Indonesia and former Acting CEO South and South East Asia, and Kim Martina, Manager, Public Policy for generously giving their time to participate in the interview.

- New Zealand division — ANZ National provides the full spectrum of financial services within NZ. Its brands include ANZ, The National Bank of New Zealand, UDC Finance, EFTPOS New Zealand, Bonus Bonds and Direct Broking.
- Institutional division — provides sophisticated financial products and services to corporate and institutional clients around the world.
- Global Services & Operations — internal delivery of shared services globally, covering property, sourcing, accounts payable, environmental sustainability, and human resources.
- Technology division — responsible for the delivery of information technology solutions and infrastructure globally. It also has the functional oversight of Information Security.
- Corporate Centre — the functions that support the Group's strategic priorities, covering Risk, Group Financial Management, Strategy and Marketing, Human Resources, Corporate Affairs, Office, Office of the CEO, and Corporate Communications.

The Group reported an underlying profit of $3,772 million for 2008-09, representing an increase of 10 per cent on the result for previous year.[73]

That year the **Australia division** returned an underlying profit of $2,560 million, which was an increase of 13 per cent over the previous year. The division's Retail and Institutional businesses made the strongest contributions to the growth in underlying profit for the Group, with increases of 13 per cent and just over 100 per cent respectively.

In 2008-09 the underlying profit of its **NZ division** declined by 81 per cent to $159 million. This reflected the challenging economic conditions in that market.

The **Asia Pacific, Europe & America division** generated an underlying profit of $699 million in 2008-09 — an increase of 81 per cent over the previous year — with strong contributions from its Asian partnerships and its Institutional business.

During the year the Group continued to invest in Asia. Its investment included deepening its Institutional business, advancing its Retail and Wealth platforms, and continuing to build branch networks in Indonesia, Vietnam and China.

The **Institutional Division** realised an underlying profit of $1.4 billion in 2008-09, an increase of 82 per cent over the previous year.[74] A key feature of the turnaround was the growth in its Global Markets business, with strong rises in customer numbers and trading revenue. In 2008-09 the Institutional division used its strong revenue growth to make investments in improved systems and processes and to begin to grow frontline staff numbers.

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[73] Underlying profit reflects the effect of taxation, one-off items, hedging timing differences, and non-continuing businesses. The ANZ financial year is the 12 months to 30 September. Except where otherwise indicated, all the values quoted in this case study are expressed in Australian dollars

[74] Profit of the four business divisions cannot be added to obtain the Group total, as the profit of the three geographical divisions includes profit earned by the Institutional units in each of those regions.

This case study focuses on ANZ's outward direct investment in the Asia Pacific. Information regarding international services linkages and partnerships the bank has in the region is in many instances regarded as sensitive commercial information and limited information is available. Growth through acquisition where local in-market linkages and partnerships are already established constitutes the key to ANZ's 'super regional banking' strategy. The strategy is a critical determinant of ANZ's ability to expand its direct and indirect exports of financial services.

5.2.1 Services delivered by ANZ

ANZ Asia Pacific

ANZ provides a wide range of retail and business banking services in the Asia Pacific region, including:

- Retail banking: transaction and savings accounts, loans, mortgages, and credit cards;
- Wealth management and investments;
- Private Banking: tailored wealth and investment services;
- Commercial Banking: lending, transaction services, trade finance and foreign exchange services for businesses; and
- Institutional Banking: cash and transaction management; currency, commodities and interest rate risk management; lending; and trade finance.

In Asia, ANZ relies on a combination of wholly-owned banks or branches — in China, Hong Kong, Indonesia, Japan, Malaysia, the Philippines, Singapore, South Korea, Taiwan, Timor Leste, and Vietnam — together with strategic partnerships with selected business associates —in China, Cambodia, Indonesia, Laos, Malaysia, the Philippines, and Vietnam.

In the Pacific islands, ANZ has wholly-owned banks or branches in American Samoa, the Cook Islands, Fiji, Guam, Kiribati, New Zealand, Papua New Guinea, Samoa, the Solomon Islands, Tonga, and Vanuatu. Its New Zealand operation is the largest bank in that country.

A snapshot of the Asia Pacific operations is set out in Table 5.1, below. They generate 16 per cent of the underlying profit for the Group and employ around 8,000 staff (in terms of full-time equivalents). Its Asian operations alone contributed 10 per cent of the underlying profit for the Group in the first half of 2009. ANZ is looking to grow the Asia Pacific contribution to Group profit from to 20 per cent.[75]

In August 2009, ANZ reached agreement with the Royal Bank of Scotland (RBS) to acquire selected RBS businesses in East Asia for around US$550 million ($626 million). The acquisition includes the RBS Retail, Wealth and Commercial businesses in Taiwan, Singapore, Indonesia and Hong Kong and the RBS Institutional businesses in Taiwan, the Philippines and Vietnam. The businesses in question have deposits of US$7 billion, loans of US$3 billion, two million customers, and 54 branches. In 2008-09 they generated operating income of US$460 million.

[75] Richard Gluyas, 2010, 'ANZ to splurge on its Asian growth strategy', *The Australian*, 24 May

The implementation of the RBS acquisitions is proceeding on a country-by-country basis and ANZ expects them to be finalised by the middle of 2010. They will create a new delivery platform for the ANZ Retail and Wealth businesses in East and South-East Asia, which will strategically complement the existing ANZ businesses in Asia. As such they are a stepping stone in the transformation of ANZ into a leading 'super regional bank' in the Asia Pacific — see Table 5.1 for the details.

Table 5.1: Snapshot of merged ANZ Asia Pacific banking operations, $ million

Measure	ANZ Asia Pacific	RBS Asia	ANZ Asia Pacific + RBS Asia	Increase over pre-merger position (%)
Operating income	1,761	628	2,389	36
Operating expenses	774	501	1,275	64
Profit before provisions	987	127	1,114	13
Provisions	242	238	480	98
Net loans	22,583	3,996	26,579	18
Customer deposits	29,623	8,880	38,503	30
Risk-weighted assets	39,375	8,014	47,389	20
No. of customers ('000)	1,000	2,000	3,000	200

Source: ITS Global estimates; ANZ, 2010, *Acquisition of Selected RBS Businesses*, Presentation to financial analysts by Mike Smith and Alex Thursby, 4 August.

ANZ Institutional business

The Institutional Division services multinational corporations, institutions, and corporations with sophisticated financial needs around the world. It also manages the Group's exposure to interest rate risk.

The division has a major presence in Australia and New Zealand, together with operations in Asia, Europe and the United States. It employs more than 5,000 staff and services over 3,500 active Institutional and corporate customers around the world.[76]

The Institutional business covers:

- Transaction Banking provides working capital solutions, including lending and deposit products, cash transaction banking management, trade finance, international payments, securities lending, clearing and custodian services.

- Global Markets provides risk management services in foreign exchange, interest rates, credit, and commodities.

[76] ANZ, 2010, *Institutional Division: Institutional Briefing Pack*, ANZ Banking Group Ltd, May.

- Specialised Lending provides complex financing and advisory services, structured financial products, leasing, project finance, leveraged finance and infrastructure investment products.
- Balance Sheet Management manages the Institutional and Corporate balance sheets with a focus on credit quality, diversification and maximising risk-adjusted returns.
- Relationship and infrastructure provides client relationship teams for global institutional clients and corporate clients in Australia, and central support functions.

5.2.2 ANZ services partnerships & foreign affiliate activities

Given the size of ANZ's business and the number of overseas markets it operates in, details of ANZ's business including its network of partnerships and foreign affiliates (acquisitions and direct investments) in each of the markets are set out in Appendix 4.

ANZ's partnerships in foreign markets are commonly joint ventures. ANZ partners with local banks to meet foreign ownership regulations but where possible its strategy is to acquire joint venture partners and to go from minority shareholder to a majority stakeholder.

ANZ does have linkages with firms supplying a range of intermediate inputs across their business and across the region, including: property services (finding suitable locations for ANZ offices and branches), branding and signage, IT providers, personnel services, payroll, consulting services, accounting services, security, telecommunications, and travel agencies.

Where practicable, these service providers are sourced through ANZ's Australian head office to provide services for ANZ's foreign affiliates in an effort to drive for consistency across the business and across the region. However, not all Australia-sourced services providers have a presence in all of ANZ's overseas markets, so these services may also be locally sourced.

5.2.3 Situation & outlook for ANZ services exports

The ANZ Group is involved in the delivery of a range of services exports from Australia, either directly or indirectly:

- The Australia division delivers financial services to clients that reside overseas — **cross-border exports of services**. The value of these services is reflected in the fees or the gross interest margin charged for their delivery.
- The Australia division delivers financial services to clients that produce goods and other services for export — **cross-border exports of embodied services**. The value of these services is embodied in the value of the goods and services that are exported.
- The corporate support units based in Australia deliver or contribute towards the delivery of internal services to ANZ representative offices, branches, subsidiary banks, and partnership banks overseas — **cross-border exports of services to foreign affiliates**. Like most banks, the ANZ operates an internal pricing regime that charges each business division for its use of services provided by another unit of the bank.

- ANZ representative offices, branches, subsidiary banks, and partnership banks based overseas deliver financial services to clients that reside overseas — **foreign affiliates' sale of services**. As with the first category, the value of these services is reflected in the fees or gross interest margin charged for their delivery.

Most of the financial services sold by the Australia division are delivered to Australian residents and most of the banking services and financial services produced by ANZ's foreign affiliates are delivered to non-residents of Australia.

These home market biases reflect, in part, the regulation of financial services in the countries in question, although the regulatory barriers tend to be less pronounced in wholesale financial services — those directed at institutions and financially sophisticated corporate clients such as multinational corporations. For example, the ANZ Institutional unit of the Australia division services institutional and corporate customers, some of whom are likely to be based abroad.[77]

ITS global has estimated that, on average, only around 1.4 per cent of the value of banking services produced in Australia is delivered to non-residents.[78] Given the results for the Australia division for the first half of 2010, this suggests that ANZ is generating cross-border exports of financial services of about $140 million a year.

ITS global has also estimated that, on average, about 2.7 per cent of the value of financial services produced in Australia is embodied in cross-border exports of goods and other services from Australia. This together with the results for the Australia division in the first half of 2010 imply that the ANZ is generating cross-border exports of embodied services that are equivalent to about $275 million a year.

A number of ANZ support units based in Australia deliver internal services to ANZ affiliates abroad. For example, the ANZ Institutional unit of the Australia division manages the Group's exposure to interest rate risk and the Global Services & Operations manages the internal delivery of shared services to all the ANZ business units.

Of the internal services provided inside a bank, among the more critical involve the costing of capital and of funds for lending to its clients. Funds transfer pricing is an internal measurement and allocation process that assigns an opportunity cost to what the bank borrows and what it lends to its clients or invests in its own right. It is a critical component in measuring bank profitability particularly for large and broadly diversified banks such as the ANZ, as it allocates the major contributor to profitability — the net interest margin.

As financial intermediaries, Banks take in deposits and lend the funds out or invest them. The business units that receive the funds from the bank's depositors and other third parties are often not the same ones that make the loans and other investments that the bank makes.

[77] This is notwithstanding the fact that each of the other geographical divisions of the Group also has their own in-house Institutional capability.

[78] This estimate is based on the Input-Output Table for 2005-06 (ABS 2009).

Financial agreements between the bank and its depositors describe the amount, term and interest rate of funds collected and invested. The interest payments on these funds contribute to the overall net interest margin that the bank earns from its intermediation activities.[79]

The complex interaction between a bank's business units, its depositors, and its borrowers creates the net interest margin that it earns from intermediation. The contribution to the net margin, however, is not the same for all participants. Individual depositors and individual borrowers rarely provide exactly the same amount of funds — indeed depositors typically outnumber borrowers many times. The discrete contribution of the funds transformed within the intermediation process must therefore be measured and assigned when assessing their overall profit contribution of individual business units, financial products, and customers. This is the function of the funds transfer pricing process.

The extent of each of the internal exports of services by the Australian based units of the ANZ to its foreign affiliates cannot be readily determined with any precision. Not surprisingly information in the public domain, such as the ANZ Group annual and half-yearly reports, and its continuous disclosure announcements to the Australian Stock Exchange do not provide a sufficient degree of detail.

Based on the Group's half-year results to March 2010, the value of the financial services produced by ANZ foreign affiliates is about $4,254 million a year.[80] The NZ division generates $2,482 million a year (58 per cent of the total) with the balance from the Asia Pacific Europe and America division (42 per cent of the total). In absolute terms, sales of financial services by its foreign affiliates heavily dominate the overall services export picture as far as ANZ is concerned.

The outlook for the export of services by ANZ will be determined by its success in implementing its 'super regional banking' strategy. In the short to medium term this will depend upon how well it is able to bed down the Asian businesses it has acquired from RBS and the new banking subsidiaries it has established in China and India, and how well it is able to grow organically as a consequence in the Asian markets where it now has a local presence.

Key parts of the bedding down process will involve the realisation of scale economies from centralisation of systems and IT infrastructure, increasing the cross selling of products to ANZ customers, and reducing the credit risk in its retail and commercial loan book so as to lower the level of provisioning that is currently required.

The economic outlook appears to be conducive to success:

- The IMF is forecasting Asian GDP is expected to grow strongly in 2010 and beyond;
- As a conse1uence the demand for financial services in the region is also increasing;
- Trade flows between Australasia and Asia and intra-Asian are both continuing to grow;

[79] The net interest margin is the difference between the interest earned on funds lent or invested less the interest expense on deposits and other borrowings. A bank's net interest margin will fluctuate with money market conditions and changes in the underlying cash flow associated with its deposits and loans.

[80] This is based on the revenue earned by the New Zealand and the Asia Pacific Europe and America divisions.

- An affluent class of Asian customers is emerging; and
- Australasia is seen as an investment opportunity in Asia.

5.2.5 Implications for ANZ partnerships & foreign affiliate sales

ANZ's acquisitions in the rapidly growing economies of South, South-East, and East Asia represent the dominant conduit for the export of financial services by the Group, broadly defined. While ANZ's Australia-based business units will continue to generate cross-border exports of+ banking services both directly and indirectly — embodied in exports of goods and other services by their clients — this will continue to be a relatively small conduit for services exports broadly defined.

The more strategically important of the methods for delivering services are the subsidiary banks that ANZ owns and its interests in joint venture banks with its strategic partners. These are located in Cambodia, China, India, Indonesia, Laos, Malaysia, Taiwan and Vietnam. These economies are among the fastest growing economies in the world, have a rapidly emerging middle class, and are becoming increasingly integrated with Australia and New Zealand in terms of both inwards and outwards trade and investment.

If they are successful in expanding their domestic banking business in the host countries, the ANZ foreign affiliates in question will first and foremost generate sales of financial services in their own right. They will also, however, become a growing destination for the importation of internal services from ANZ business and corporate support units based in Australia.

These services exports will complement the cross-border exports of financial services by those Australian-based units, both directly and indirectly, as embodied services exports. These complementary transactions will, nevertheless, remain a very small part of the overall picture in terms of services exports, broadly defined.

The nature of banking and financial services markets and how those markets are regulated by governments in the region therefore mean that a commercial presence is essential for achieving any significant commercial penetration of banking markets overseas — particularly those in Asia. Such considerations underlie the decisions by ANZ to establish subsidiary and joint venture banks in the region as well as to acquire established banking businesses there, such as it did from RBS recently. Moreover, the Group is on record as stating that it is continuing to actively pursue the possibility of further banking acquisitions in the region.

ANZ is continuing to look for acquisition opportunities in the Asian region. The essentially *ad hoc* nature of the emergence of opportunities that might meet the requirements of ANZ and the uncertainties surrounding the terms on which they can be concluded makes it impossible to identify them in advance with any precision. For this reason, it is difficult to identify the markets, the services that would be affected, or the value of the additional services exports that might be in prospect were the prospects to be realised.

Nevertheless, any moves by the Australian Government to secure the agreement of countries in the Asia Pacific region to liberalise their trade and investment barriers in financial services are likely to be of considerable consequence in expanding trade and investment in the region to the mutual benefit of Australia and its economic partners in the region.

5.3 The Cox Group of Architects

The Cox Group of Architects (Cox) is an Australian professional services private partnership with 23 partners and 350 employees. Cox independently provides professional services in local and overseas markets through its offices in Sydney, Melbourne, Brisbane, Perth and Canberra.[81] It also has representative offices in Dubai and Abu Dhabi.

The firm was established in 1962. It expanded throughout Australia in the 1980s. In the 1980s and 1990s it undertook international projects in Singapore and China that grew the firm's international reputation and led to it opening offices in Beijing, Shanghai, Singapore and Dubai.

By 2000, the practice was one of Australia's largest architectural services firms. Its range of project types and services expanded considerably and now includes office, retail, residential, resort and mixed-use developments, planning, urban design, sport, and entertainment.

5.3.1 Type of services delivered by Cox

Cox offers three types of service:

- architectural consultancy services (designing buildings);
- urban design/master planning services; and
- interior design services.

The first two categories are supplied both in Australia and overseas, whilst interior design services are primarily provided in the Australia market. Architectural consultancy services are delivered across four phases of building projects — concept; design and/or development; preparation of drawings; and construction (where the services are delivered to the ultimate client or the principal contractor).

Cox's overseas work mostly involves the provision of services relating to phases one and two, however depending on the overseas market, they also work in the fourth (construction) phase visiting building sites to advise whether construction is consistent with concept and design. Cox undertakes less construction phase work in China, where the client and local providers invariably take over the process. As Singapore is largely a 'closed shop' where a license is required to provide architecture services, Cox is likely to work in partnership with local firms across multiple phases of the project.

5.3.2 Services linkages & strategic partnerships

Cox does not participate in strategic partnerships with other service providers in overseas markets. Nor does it have established linkages with other service providers in the building and construction sector in local or foreign markets. However, it does benefit from informal linkages with multinational companies in the engineering sector — for example, GHD, AECOM, KBR —

[81] Thanks to the Cox Group of Architects for its co-operation in the preparation of this case study and in particular to John Richardson, Director and Ian Connolly, Director, for generously giving their time to participate in the interview and to provide additional information and comments as part of the follow-up process.

with whom Cox does repeat work. These are valued relationships. Sometimes other sub-consultants on a project in the Middle East are Australia firms known to Cox.

Services are delivered to clients in three ways. Cox sometimes provides stand-alone services to a client. Building projects often involve as many as 15 to 20 types of services provider, however often these firms do not enter contractual relationships with each other. Rather they contract with the client independently. This approach is more likely in Asian markets, such as China, India and Singapore.

In the United Arab Emirates (UAE), as in the rest of the Middle East, consortia are almost always required. Here Cox acts as principal consultant overseeing a number of sub-consultants in about 80 per cent of its work. In 10 per cent of cases it acts as sub-consultant working to another principal consultant. Typically the principal consultant will contract other service providers. In the remainder of cases, Cox delivers services as a stand-alone provider to the client.

Table 5.1 Fees from Stand-alone v Associations (per cent)

Export Market	Stand Alone	Cox as Lead Consultant	Cox as Sub-consultant
China	90		10
Malaysia	40	60	
UAE	10	80	10
India	80		20
Singapore	50	20	30

Source: Cox estimates

5.3.3 Cross-border services exports

Cox's overseas offices are largely representative offices. Between 60 and 100 per cent of Cox's work for clients in foreign markets is technical work producing architectural concepts, designs and drawings that are carried out in one of the firm's five Australian branches. Its business primarily delivers cross-border services exports, though Cox does also provide services directly through its overseas offices.

In addition to its current offshore representative offices in Dubai and Abu Dhabi, the firm has a local representative in Singapore and Kuala Lumpur.

The firm's two China offices were closed five years ago after it became clear that Chinese businesses were learning from foreign firms then doing the architectural work themselves.

Table 5.2 Fees from Fly in fly out v Partnership (per cent)

Export Market	Fly in Fly Out	Local Office	Partnership with locals
China	90	-	10
Malaysia	80	20	
UAE	60	40	
India	100		10
Singapore	65	15	20

Source: Cox estimates

5.3.4 Contribution of Cox services exports

Approximately 25 per cent of Cox's total revenue is derived from services provided in foreign markets.[82] Of five foreign markets where Cox operates, the United Arab Emirates has over the last five years been the firm's largest foreign market and accounted for between 14 and 21 per cent of total revenue (Table 5.3).

Table 5.3 Fees by market, by financial year (per cent)

Export Market	2009-10 YTD	2008-09	2007-08	2006-07	2005-06
China	2	2	2	2	4
Malaysia	1	5	2	1	0
UAE	19	17	14	21	21
India	0	1	0	0	0
Singapore	1	1	5	2	2
Other Overseas	1	0	1	2	1
Total Overseas	24	26	24	28	29

Source: Cox estimates

Cox's export growth spiked in 2006-07, due to a large project, but it has generally enjoyed an upward trend in its offshore business notwithstanding the unevenness of the flow of their overseas projects in terms of size. The firm expects it may face more difficult conditions over the coming few years and notes that whereas previous slowdowns have either been domestic or international, but not both at the same time, the global downturn of 2008-09 has hit both domestic and foreign markets concurrently.

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[82] Note that this doesn't capture services provided to foreign nationals in Australia

Cox anticipates that domestic services sales — though 'lumpy' at the moment — will add more value to the firm in the coming five years.

5.3.5 Key export markets

The firm's approach to growth is typical of professional and technical services consultancies: the firm is opportunistic in its growth strategy rather than entering a market with the objective of winning that market.

Cox ranks its major export markets, in order of importance:

1. UAE,
2. Malaysia,
3. China and Singapore (on a par).

The firm expects there will be a shift back to Asian markets in the coming five years and expects that its exports to the UAE may fall once several existing project are completed. Still, continuing growth prospects in the Emirates remain possible.

5.3.6 Export drivers & services regulation

The most important drivers for growth in the firm's export sales over the next five years are expected to be technological change and innovation and the availability of key skills. Cox considers its suite of services as its biggest marketing point and the key to its continuing growth, together with the availability of specialised architectural skills within Australia to deliver those services.[83]

Historically, Cox's work overseas has been driven by a demand for high- level skills that could not be acquired domestically in those countries. Skills transfer was an important component of Cox's work. The firm reports that this has now changed, as countries such as China, Malaysia and Singapore now possess large numbers of highly skilled architects and urban designers.

The regulation of architectural services in Australia has no discernable impact on Cox's ability to export services.

Regulation of foreign entry into export markets is reportedly an irritant and the cause of some frustration, but not a major concern. Whereas Australia has an open building sector, other countries require a license to be able to offer architectural services. Cox therefore operates in the UAE with a local licensed joint venture partner. Foreign licensing requirements therefore present as a barrier to Cox increasing its services activity in certain Asian markets.

More important than foreign regulation, however, is the cost of construction in other countries. For example, construction costs in Singapore are similar to those in Australia, whilst in India they are 60 per cent of Australian construction costs. This cost structure makes it very difficult for an Australian company paying Australian wages to compete on fees in these markets.

[83] Cox can call on architectural and design expertise in about a dozen categories of architecture (e.g. sports venues, railways, etc.).

5.4 Elders Ltd

Elders Ltd (Elders) is a leading rural services company with a strong brand name and a well-developed national network.[84] It is listed on the Australian Securities Exchange (ASX) as an ASX 200 company and employs approximately 4,000 people (around 3,400 full time equivalents). Elders Ltd has three key business units: Rural Services; Forestry; and Automotive.

Rural Services is a leading provider of farm inputs and services to rural businesses in Australia and New Zealand. Elders' central focus is primary producers to whom it provides physical, financial and service inputs for them to achieve the most successful production and sales from their efforts; whilst its trading operations and joint ventures work to add value and achieve premium prices for Australasian agricultural produce in world markets. This business unit is the focus of this case study. Its services and operations include:

- retailing of farm supplies;
- marketing and sale of livestock, wool and grain;
- financial and real estate services;
- operation of feedlots in Australia and Indonesia; and
- international trade in both feeder and breeding stock cattle.

The Forestry division is one of Australia's largest hardwood plantation managers. Its automotive business, Futuris Automotive, is Australia's largest automotive component producer and supplies the major automotive producers — including Ford and General Motors. International operations in China, Thailand and South Africa are conducted through joint ventures.

Elders local competitors also include AWB (Landmark) and Gunns (plantation forestry MIS). Its automotive business competes against the major automotive component suppliers in export markets.

Elders Ltd is one of Australia's oldest companies. It was established as a trading company and commission agency in South Australia in 1839 by Alexander Lang Elder to take advantage of trading opportunities in wool and other agricultural commodities to Britain. The partnership was incorporated in 1955. In the 1980s the company moved into manufacturing with a series of bold acquisitions — the Ultrasound Group (1981), Henry Jones IXL (1982), Carlton and United Breweries (1982) and the brake division of James Hardie (1987). Elders IXL, as the company was then known, was Australia's largest industrial conglomerate at the time, overseeing a complex range of businesses in brewing, automotive, food manufacture, abattoirs as well as the original Elders rural services business. Following financial difficulties, the Group was restructured in 1989 with the sale of non-core assets. The restructuring of the group saw Elders rationalised and returned to the ASX in 1993 as an independent organisation, focussed once again on rural services.

[84] Thanks to the Elders Ltd for its co-operation in the preparation of this case study and to provide additional information and comments as part of the follow-up process.

Elders was acquired by industrial conglomerate Futuris Corporation Ltd in 1996. Futuris held interests in a number of different sectors including automotive (Air International), property and later forestry and telecommunications. Futuris' strategy did not deliver adequate results for its shareholders and the introduction of new management in 2008 saw Futuris elect to consolidate around its principal business, Elders, taking on that name (April 2009), collapsing management structures into a single organisation and beginning a program of divesting assets that fell outside its chosen strategic focus on the rural sector.

Elders, as the company was now known, flagged its strategic position as "standing at the farm gate, at where Australian productive capability meet international demand and supply for farm produce and inputs".

This strategy was supported by a plan to divest non-core assets, and concentrate on delivering services at the farm gate under the Elders brand and by way of the Elders network. In addition Elders undertook a financial restructuring to reduce debt and restore balance sheet strength. In September 2009 Elders announced a $800 million plus recapitalisation, including the issue of $550 million of new equity, the sale of a number of its non-core business interests, and plans to sell others.

Elders also restructured its financial services model, moving from a position where it owned financial services licenses including banking and insurance underwriting to a pure focus on distribution. In 2009 Elders entered into a strategic partnership with QBE Ltd. This involved the sale of Elders insurance underwriting, the joint venturing of insurance distribution under the Elders' brand, and an equity investment by QBE in Elders bringing its stake in Elders to 8.27 per cent. In 2010 Elders joint ventured its Elders Financial Planning operation with Millenium3, a subsidiary of ANZ. In October 2010 Elders announced the sale of its 40% shareholding in Rural Bank to fellow shareholder Adelaide and Bendigo Bank Ltd whilst retaining distribution rights and income. This latter transaction is expected to complete in November 2010.

For the 12 months ended 30 September 2010, Elders reported underlying Earnings before Tax (EBT) of $4.0 million (on sales of $2,069 million) compared to a loss of $39.9 million (on sales of $2,341 million) for the previous comparable period of 12 months to 30 September 2009 (PCP). As at 30 September 2010, Elders had reduced its gearing from 124% to 43%. The rural services business is showing gains as sales volumes in the Elders network recover and gross margins improve in line with generally good seasonal conditions in the agricultural sector in eastern and southern Australia.

5.4.1 Elders Rural Services

Elders Rural Services (ERS) conducts business through over 360 points of presence across rural and regional Australia and New Zealand. It also has representatives in China, Japan, Indonesia, Philippines, Turkey, Russia, Germany, Italy, Uruguay and North America.

ERS's branch network operations include the following product and service offerings:

- Farm supplies: Elders is a leading retailer of farm inputs, including seeds, fertilisers, agricultural chemicals, animal health products and rural merchandise. In doing so it provides professional advice on agronomy, genetics and animal health to primary producers. Elders Rural Services has an estimated 20 per cent of the market for rural supplies.

- Livestock: Elders provides a range of marketing services, from agency sales at the farm gate to feedlot and export options. These marketing services are complemented by advice on animal health, production management solutions, and breeding services.
- Wool: Elders is the largest seller of Australian greasy wool with a 25 per cent market share. Its services include wool handling, buying and selling of greasy wool, wool marketing and selling, and risk management.
- Grain: Elders exclusively accumulates grain for Elders Toepfer Grain, which offers grain growers a range of cash-based grain marketing options.
- Real Estate: Elders primarily services the broadacre, rural residential, and lifestyle property markets through 149 branches, 29 stand-alone locations, and 30 franchises across rural and regional Australia. It also operates 146 metropolitan residential franchises.
- Insurance: The Elders Insurance joint venture (outlined under 'Network Related' below) utilises the Elders network as a part of its distribution of a wide range of insurance cover to rural and regional Australia.
- Banking: Elders distributes banking products through the network under a distribution agreement with Rural Bank.

Elders' network operations are supported by Trading and Network Related supply chain interests that leverage or support its relationships with the Australian and New Zealand farm sectors. These operations are discussed in section 5.3.3.

In 2009-10 ERS had revenues from continuing operations of $1,712 million and gross margin of $339 million, the major sources being farm supplies (margin 35 per cent, revenue 52% share), livestock marketing (34 per cent), wool marketing (11 per cent), real estate (10 per cent), and financial services distribution (10 per cent). As at 30 September 2010, ERS had around 3,000 employees (2,485 full-time equivalents).

5.4.2 Elders Forestry & Automotive

Elders Forestry is one of Australia's largest hardwood plantation managers. Elders Forestry's operations have both Forestry Stewardship Council and Australian Forest Standard certification and, as of 30 September 2010 managed over 170,000 hectares of plantations in Western Australia, Victoria, South Australia and Queensland. About 28 per cent of the land is owned, with the balance leased.

Plantation operations consist of hardwood forest, managed on behalf of investors, who have funded the estate through subscription to managed investment schemes (MIS) or through direct investment. MIS sales account for the majority of the plantation funding raised.

The plantations are predominantly eucalypt, planted for woodchip, with smaller plantings in sandalwood which is grown for oil, and teak and red mahogany which produces high value timber. They are located in south-west Western Australia, Kununurra, the Green Triangle region of south-west Victoria and south-east South Australia and northern Queensland. The woodchips harvested are exported and sold to pulp and paper manufacturers in Japan.

Elders owns and operates the Albany Chipping Terminal, a woodchip handling and loading facility with a capacity in excess of one million tonnes per annum. Elders Forestry moved from 50% to 100% ownership of the Albany facility in September 2010. Elders Forestry also holds a 50% interest in the SmartFibre joint venture, which handles and exports woodchip from its port and loading facilities in Bell Bay, Tasmania.

In 2009-10 Elders Forestry earned revenue of $100 million and at 30 September 2010 employed 112 people.

Futuris Automotive is Australia's largest automotive component supplier. As Futuris Automotive is considered to be outside the focus of the company's revised business strategy, the Chairman of the Board has indicated that it will be divested.[85]

The Automotive operations encompass the design, manufacturing and supply of automotive seating, interiors, controls, aftermarket and manufacturing solutions in Australia, the United States of America and Thailand and through joint venture operations in China and South Africa, as well as infrastructure solutions for transport and communications. Current customers include GM Holden, Ford Australia, Toyota, Chery Automobile, JAC Motors and Mercedes Benz. New customers for whom Futuris has secured future supply contracts include GM (Thailand), Ford (Thailand), Tesla Motors and BMW (South Africa).

Australian operations include assembly at Edinburgh Parks South Australia (supplying the adjacent GM Holden facility), and Campbellfield Victoria (supplying the adjacent Ford Broadmeadows facility) and a design and technical centre at Port Melbourne Victoria.

Futuris Automotive also supplies its products through a number of joint venture partnerships with automotive market participants globally. They include:

- Anhui JV: a joint venture in Anhui province (China) that manufactures seating systems for Chery and JAC; and
- Feltex JV: a joint venture in South Africa that manufactures floor carpet and floor mats for Daimler (Mercedes Benz).

In 2009-10 Futuris Automotive earned revenue of $257 million and, at 30 September 2010, employed 738 people.

5.4.3 Elders services linkages, partnerships and outward FDI

Elders interests and partnerships in the supply chain for broadacre agricultural commodities support its network operations. Its major interests and partnerships include:

85 Elders Ltd, 2009, *Announcement to Australian Stock Exchange,* Chairman's Address & Chief Executive Officer's Presentation to Annual General Meeting, 18 December 2009

- **Rural Bank**: Elders has a 40 per cent interest in Rural Bank (formerly known as Elders Rural Bank), a joint venture with the Bendigo and Adelaide Bank. Rural Bank is an authorised deposit taking institution regulated by APRA that specialises in rural lending and providing a range of depository products tailored to rural and metropolitan customers. The shareholding is subject to the sale agreement announced on 26 October 2010. Under the agreement, Elders will sell its shareholding in Rural Bank to Bendigo and Adelaide Bank, whilst retaining existing distribution rights.

- **Elders Insurance**: Elders has a 25 per cent of the equity in Elders Insurance, its insurance distribution joint venture with QBE. Elders Insurance utilises the Elders network to distribute its products, including coverage of home contents, motor vehicles, businesses and farms, and a range of specialist coverage such as that for crop, livestock and landlords.

- **Elders Financial Planning**: a 51:49 joint venture between Millennium 3 (a subsidiary of ANZ) and Elders that provides financial planning solutions through advisors.

- **Australian Wool Handlers** (AWH): Elders has a 50 per cent interest in AWH — Australia's largest wool logistics company — which handles approximately half of the national wool clip.

- **Wool Trading**: Elders provides an indent buying function and exports greasy wool from Australia to all major wool importing countries. Elders exports wool from New Zealand to China and North Asia, and provides products and services to Australasian carpet producers.

- **Elders Toepfer Grain** (ETG): ETG is a joint venture between Elders (50 per cent) and Toepfer International (50 per cent). ETG leverages the accumulation capability of the Rural Services network and the international trading and risk management capabilities of Toepfer International.

- **Feedlots**: Elders operates cattle feedlots in Australia at Charlton, Victoria and Killara, New South Wales and in Indonesia (PT Elders Indonesia).

- **Live export** is conducted through North Australian Cattle Company and Universal Live Exports, which facilitate the trade of feeder and breeding cattle respectively to international markets, including Indonesia, Mexico, China and Russia.

- **Elders New Zealand:** Elders Rural Services operates from 26 locations in NZ and has interests in wool brokerage, wool exports, farm supplies, and the domestic and international trading of livestock.

- **China operations: Elders Fine Foods** is a wholly owned subsidiary of Elders that imports and distributes Australian food products in China. It is based in Shanghai and distributes Australian beef, lamb, meat, meat products, seafood, wine and beer to all the major population centres in China.

Further details on each of the Elders services linkages and partnerships that are directly involved in export are set out below.

Elders Toepfer Grain

The joint venture seeks to leverage the accumulation capability of the Elders Rural Services network with the international trading and risk management capabilities of Toepfer International. It is focused on building relationships with the leading two or three users of grain in its key markets. Its share of the Australian grains market has grown in the wake of the deregulation of the bulk market for wheat, and is gaining a substantial share of the market.

Toepfer International is based in Hamburg, has 40 branches, and employs more than 2,000 people around the world. Each year, Toepfer International handles more than 42 million tons of grains, oilseeds and feedstuffs.

The major shareholders in Toepfer International are Archer Daniel Midlands (80 per cent) and InTrade (20 per cent). Archer Daniel Midlands is headquartered in Decatur, Illinois, US and is one of the world's leading processors of agricultural products. It produces a wide range of processed products, from flour, malt, vegetable oil and feedstuffs to vitamins, amino acids and biodiesel. InTrade is a holding company for a number of significant agricultural cooperatives in the EU and the US.

Elders New Zealand

Elders Rural Services entered the NZ market in early 2006 by forming a 50-50 joint venture, with the then privately owned Elders business, which was modelled on Elders Rural Services Australian operations. The half interest was converted to full ownership in 2008.

Elders NZ has a 50 per cent interest in **Elders Primary Wool** — a joint venture in wool brokerage with Primary Wool Co-operative Ltd, a NZ farmers' co-operative. It also has wholly-owned subsidiaries in wool exports — **JS Brooksbank & Co —** and the domestic and international trading of livestock.

The NZ network (excluding wool trading of $47 million) has revenues of around $90 million a year, including $43 million in farm supplies, $19 million in livestock and $26 million in wool. It has a rural lending book of around $25 million, and underwrites insurance for about $20 million a year in gross premiums. Elders NZ associates have realised significant shares of the markets in domestic and international livestock trading (15 per cent), wool brokerage (20 per cent), and wool exports (30 per cent).

Australian Feedlots

Charlton Feedlot Pty Ltd is a 20,000 head facility on an 810ha property near Charlton in north central Victoria, which is 100 per cent owned by Elders. It supplies cattle to both the domestic and export markets with feeding programs ranging from 60 days through to 150 days. It sources the majority of its cattle and its feed from the Elders network. Some feed is sourced from producers in close proximity to the feedlot.

Killara Feedlot Pty Ltd is also a 20,000 head facility located 15 kilometres west of Quirindi and approximately 70 kilometres south of Tamworth in NSW, on the edge of the Liverpool Plains. The district is one of the most fertile farming areas in Australia and is well-positioned for livestock procurement. Killara Feedlot targets the domestic market and the short- and mid-fed regime export markets. Killara Feedlot is now wholly-owned by Elders, following acquisition of Taiwan Sugar Corporation's 47 per cent interest on 1 April 2010.

PT Elders Indonesia

PT Elders Indonesia is a company, which is registered in Indonesia and wholly owned by Elders Ltd. It was established in September 2000 and has a business license to import, fatten and sell beef cattle, and to process and sell boxed chilled and frozen beef. In the first years of its operation it leased small traditional feedlots in West Java as it acquired local knowledge and developed a customer base.

Today PT Elders Indonesia owns and operates a feedlot in Lampung Province, Sumatra. The feedlot has the capacity to feed 5,000 head. Its facilities include modern feeding systems, feed storage facilities, and two sets of cattle handling yards for induction and sales. A licensed quarantine facility allows cattle to be imported directly from Australia.

Typically the cattle are fed for an average of 90 days on a range of feed, mostly the by-products of the local agricultural and food industries — including copra, palm kernel cake, rice bran, tapioca waste, and corn chop. Most of the finished cattle are marketed in Sumatra and a small proportion is sold under Elders' own brand of boxed beef — 'Sterling beef by Elders'.

The cattle are shipped for slaughter to an abattoir at the Institut Pertanian Bogor — the Bogor Agricultural University, about 1½ hours south of Jakarta by road. The abattoir is wholly owned by PT Elders Indonesia. It is equipped with modern food processing equipment and employs modern food processing practices and procedures. In 2008 SAI Global awarded the abattoir HACCP and ISO 9000 certification.[86] It is the only abattoir in Indonesia that has been certified to these standards.

The 'Sterling beef by Elders' brand was developed with PT Sukanda Djaya — an Indonesian distributor of chilled and frozen food — and was launched in November 2005. The brand is targeted at the high-value hotel, restaurant, and institutional trade in Indonesia. Today 'Sterling beef by Elders' is available in almost every part of the country.

Elders International

Elders International has representatives in China, Japan, Indonesia, Philippines, and Russia. It is one of Australia's largest suppliers of export livestock and specialises in exporting cattle from Australia and New Zealand to all parts of the globe.

Elders International is also one of the world's largest exporters of dairy cattle. Elders International exports to China, Mexico, Middle East, Pakistan, Russia and Turkey and is one of the largest exporters of dairy livestock to China.

Elders International facilitates exports to South-East Asia through the North Australian Cattle Company (NACC) based in Darwin. Its services include: sourcing suitable livestock; preparation and quarantine of cattle for export; ensuring cattle comply with importing country protocols;

[86] SAI Global is an Australian company, which is listed on the ASX and which provides organizations around the world with information services and solutions for managing risk, achieving compliance and driving business improvement.

arranging shipment by sea and air; arranging insurance cover for the shipment; and providing technical support to the importers.

5.4.4 Situation and outlook for agribusiness services exports

Few of the agribusiness services provided by Elders are exported directly from Australia. Virtually all of their services are delivered to Australian residents and few are delivered to foreigners, either in Australia or overseas. There are several reasons, however, for concluding that a significant proportion of Elders' services are exported indirectly from Australia.

Firstly, many of the agribusiness services delivered by Elders at the farm gate are embodied in the commodities that are exported from Australia by the agricultural sector. Elders Rural Services distributes and retails many of the inputs that farmers purchase to produce agricultural commodities, such as fencing, seeds, fertilisers, pesticides, herbicides, veterinary products, insurance and banking services. The gross margin that Elders Rural Services earn from these services is embodied in the value of the commodities that their customers produce from the services they receive.

Secondly, many of the post-farm gate agribusiness services delivered by Elders become embedded in the downstream value of agricultural commodities produced in Australia. The most prominent examples are their marketing services for wool, grains, and livestock, which add value to the commodities in question after they have left the farm gate and, sometimes, after they have left Australia. Embedded services may be distinguished from embodied services by the fact that they do not alter the physical nature of the commodity in question but are more in the nature of after sales services. In contrast the services, which become embodied, help to manage the biological processes that create the commodity.

Finally, agribusiness services are delivered abroad by the foreign affiliates of Elders such as Elders NZ, Elders Fine Foods in China, and PT Elders Indonesia.

As 70 per cent of the gross value of agricultural production at the farm gate is exported,[87] it is reasonable to assume a similar proportion of Elders retail services — paid for by its gross margin on farm supplies — is ultimately exported as embodied or embedded services. On the basis of this assumption and Elders latest financial results, ITS global estimates that the Elders contribution to embodied agribusiness services exports from Australia would be of the order of $83 million a year.[88] Their contribution to embedded agribusiness services would be of the order of $170 million a year.[89] Elders overall contribution to agribusiness services exports from Australia would therefore be in the vicinity of $253 million a year.

[87] ABARE

[88] The estimate is based on ERS revenue of $1,800 million per year, a revenue share of ~55 per cent from farm supplies, a gross margin of 12 per cent on sales of farm supplies, and a commodity export share of 70 per cent [$83 million = $1,800 million x 0.55x 0.12 x 0.70]. The annual revenue, revenue share and gross margin figures are taken from Elders Ltd, 2010, '2010 Results', *Announcement to Australian Stock Exchange*, Elders Ltd, Adelaide, 15 November 2010.

[89] The estimate is based on ERS revenue of $1,800 million per year, a revenue share of 45 per cent from marketing services, a gross margin of 30 per cent on the sale of those services, and an commodity export share of 70 per cent [$170 million = $1,800 million x 0.45 x 0.30 x 0.70]. As before, the annual revenue, revenue share and gross margin figures are taken from Elders 2010.

The outlook for exports of services from Elders that have been embodied and embedded in commodity exports depends critically upon the volume of the 'carrier' exports from the agricultural sector and the expected prices for those exports on world commodity markets. This reflects the fact that the derived demand for Elders services is partly a function of the 'carrier' commodity volumes and partly a function of the 'carrier' commodity prices. The outlook also depends upon supply-side developments in the domestic markets for Elders services.

The expected prices for Australia's exports on world commodity markets are, in turn, highly sensitive to the rates of population and GDP growth in the major export markets, and the foreign exchange value of the Australian dollar. Our interview with Elders executives has confirmed the importance of these external macroeconomic variables to the outlook for Elders agribusiness services. It also confirmed the importance of the domestic macroeconomic variables for the supply-side of the markets for their agribusiness services, such as interest rates and wage rates.

With favourable seasonal conditions, the Australian Bureau of Agricultural and Resource Economics (ABARE)has forecast that agricultural exports will be $29.1 billion in 2010-11, a slight increase in real terms from what it estimated for 2009-10.[90] ABARE is also forecasting that export returns in 2010-11 will higher returns for broad-acre agricultural production across the board — including in barley, rice, raw cotton, sugar, wine, live cattle and dairy products. Over the medium term, ABARE sees agricultural exports reaching $32.2 billion in 2014-15, which would be an increase of 10.9 per cent over 2009-10.

The ABARE forecasts suggest a generally positive outlook for exports of embodied and embedded agribusiness services from Elders over the medium term. Subject to Elders being able to maintain the cost-competitiveness of its agribusiness services, ITS Global would expect that the embodied and embodied agribusiness services exports associated with the company would increase by around 11 per cent over the period to 2014-15.

5.4.5 Implications for services linkages and partnerships

Elders has established a number of international services linkages and partnerships. Some have the potential to increase indirect services exports from Australia, such as those that are embodied or embedded in commodity exports. There is also scope to increase the sales of services by Elders' foreign affiliates.

The most strategically important of these services linkages and partnerships is Elders joint venture with Toepfer International, which commenced operations in 2007 and which has since gained a significant share of the domestic market for grains and oilseeds. As the joint venture continues to expand its domestic market share, it is likely to become a growing source of embodied and embedded services exports.

The joint venture also gives Elders access to the international commodity trading network of Toepfer International, together with the global agricultural processing network of Archer Daniel Midlands, the major shareholder of Toepfer International. The volatility of global commodity

[90] Neil Thompson and Marina Kim, 2010, 'Economic overview — Prospects for world economic growth', *Australian commodities*, 17(1), Australian Bureau of Agricultural and Resource Economics, March. All the forecast values quoted here are in 2009-10 prices.

markets, however, means that the successful exploitation of any business opportunities that such access might provide for Elders Australian agribusiness services in the future is likely to have to be highly opportunistic. This includes opportunities in relation to Elders services that would be embodied or embedded in their Australian customers' commodity exports.

The opportunistic nature of the prospective business opportunities makes it impossible for Elders to plan their exploitation in advance of their emergence. For this reason, it is difficult to identify the markets, the services, or the value of the additional services that might be in prospect. They can really only be known with confidence in retrospect.

The other significant international services linkages and partnerships are Elders affiliates in New Zealand, Indonesia and China. All of them have been established relatively recently but all seem to have made progress in their local markets. The Indonesian and Chinese affiliates are located in emerging markets characterised by considerable uncertainty, particularly about the setting and administration of trade policy and technical barriers to trade.

The services export potential to these two markets is considerable but their realisation will require the resolution of the uncertainty over import access. The interview with Elders executives has confirmed the problems that such uncertainty in the Indonesian context has created for the feedlot operated by Elders Indonesian affiliate.

5.5 Insurance Australia Group Ltd (IAG)

IAG is an international general insurance group, with operations in Australia, New Zealand, the UK and Asia. It underwrites about $7.8 billion in premiums a year and employs 13,500 people.[91]

IAG's heritage dates back to 1925 when the National Roads and Motorists' Association (NRMA) started providing insurance to its members in NSW and the ACT. NRMA Insurance added home and contents insurance, expanded interstate by acquiring the State government insurers in WA (SGIO) and SA (SGIC), and acquired an interest in Thailand's Safety Insurance.

In 1999 the NRMA and Royal Automobile Club of Victoria (RACV) merged their insurance businesses in a joint venture. Also in 1999, the NRMA purchased an interest in the China Automobile Association (CAA). In July 2000 the NRMA Group demutualised and separated its road services from its insurance operations, which were listed on the Australian Securities Exchange (ASX). The Group expanded to New Zealand with the acquisition of State Insurance, New Zealand's largest general insurer, in 2001 and acquired HIH's Australian workers' compensation business.

In 2002 NRMA Insurance Group Ltd was renamed as Insurance Australia Group Ltd to better reflect its size, diversity and geographical distribution. In 2003 IAG acquired Aviva's general insurance businesses in Australasia — CGU in Australia, which also owned Swann Insurance, and NZI in New Zealand — and the NSW workers' compensation business of Zurich Insurance.

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[91] Thanks to the IAG Group Ltd for its co-operation in the preparation of this case study and in particular to George Karagiannakis, Senior Advisor, Group Strategy, for generously giving their time to participate in the interview and to provide additional information and comments as part of the follow-up process.

Subsequently IAG expanded its Asian business by acquiring NZI Thailand, buying a 30 per cent interest in AmAssurance — subsequently renamed AmG Insurance — in Malaysia, and increasing its stake in Safety Insurance in Thailand (to 98.5 per cent). It entered the UK market in 2006-07 by acquiring Hastings Insurance Services Ltd, Advantage Insurance Company Ltd and the Equity Insurance Group — trading as Equity Red Star and Equity Insurance Brokers.

Following the appointment of a new Chief Executive Officer in 2008, IAG refined its strategy to concentrate on Australasia, pursue selective growth opportunities, and drive operational performance and execution. As a consequence, IAG scaled back its UK operations.

In May 2009 IAG launched an online insurance business in Australia called The Buzz. The Buzz is a joint venture between IAG (70 per cent) and the RACV (30 per cent) that conducts all of its interactions with customers online — from buying a policy through to submitting a claim.

5.4.1 IAG in Australia

IAG's Australian operations distribute a range of personal and commercial insurance products, under several brands. The products distributed by its Australian business units are as follows:

- Insurance Australia Direct sells direct through branch and agency networks in Australia, call centres and online. It manages the NRMA Insurance, RACV Insurance (under a distribution agreement with RACV), SGIO and SGIC brands.
- Australia Intermediated Insurance sells indirectly through intermediary channels, including insurance brokers, authorised representatives, motor dealerships and financial institutions. It manages the CGU and Swann Insurance brands.

In 2009-10, the Insurance Australia Direct business unit wrote gross written premium of $3,653 million on which it earned a profit before tax of $569 million.[92] The same year the Australia Intermediated Insurance business unit (CGU) reported gross written premium of $2,264 million and a profit before tax of $148 million.

5.4.2 IAG outward direct investment and services linkages

IAG's services are delivered in foreign markets principally through foreign affiliates with a commercial presence in the market in which they sell insurance.

New Zealand

In New Zealand, IAG insurance products are predominantly sold directly to customers under the State brand, and through intermediaries such as brokers and agents under the NZI brand. It also distributes personal and commercial products under third-party brands by corporate partners such as large financial institutions — such as ASB and BNZ.

State was established in 1905 and was acquired by IAG in 2001. NZI is a leading commercial insurer in New Zealand and one of the country's oldest brands with a heritage dating back to 1859. IAG acquired NZI in 2003.

[92] The financial year for IAG is the 12 months ending on 30 June.

In 2009-10 the NZ business unit reported gross written premiums of $961 million, and NZ businesses accounted for 12 per cent of the Group.

United Kingdom

IAG owns or holds an equity interest in a number of insurance businesses in the UK:

- Equity Red Star is predominantly a motor insurer and is the largest personal lines syndicate at Lloyd's. It has been providing insurance to business and personal lines customers for more than 60 years. IAG owns 64.1 per cent of Equity Red Star, which was acquired in 2007.

- Equity Direct Broking enjoys affinity relationships with a number of household brand names, including Santander, Renault and First Direct.

- Barnett & Barnett offers full commercial insurance broking and risk management services to businesses. It also offers connected personal insurance lines to private clients along with financial planning, employee benefits and wealth management services. IAG acquired Barnett & Barnett in 2008.

In 2008-09 IAG divested itself of its interests in Hastings Insurance Services and Advantage Insurance Company. In that year the retained UK businesses recorded gross written premium of $787 million and a profit before tax of $1 million.

Asia

IAG is selectively pursuing growth opportunities across Asia, with a focus on Thailand, Malaysia, India and China. At present it offers personal and commercial insurance under local brands in two markets:

- Thailand — sells under the Safety Insurance and NZI Thailand brands.

- Malaysia — has an interest in AmG Insurance Berhad, a general insurance joint venture with AmBank. In 2008-09 IAG increased its stake in AmG Insurance to 49 per cent.

In 2009-10 the Asian businesses reported a profit before tax of $5 million with gross written premium of $185 million (up 8.1 per cent in local currency).

In India, IAG established a joint venture with the State Bank of India (SBI) in 2009 to provide general insurance in that country. SBI is the largest bank in India, with six associate banks and over 16,000 branches across the country.

IAG holds a 26 per cent stake in the joint venture, SBI General Insurance Company Ltd, and has an option to increase it to 49 per cent in future, subject to regulatory and other conditions. In late 2009, IAG paid 5.4 billion Indian rupees ($126 million) for its stake in the joint venture.

SBI General Insurance is headquartered in Mumbai, commenced limited commercial operations in March 2010 and expects to be fully operational towards the end of calendar 2010.

5.4.3 Situation and outlook for services exports and outward direct investment

The IAG Group is involved in the delivery of a range of services exports, either directly or indirectly that are not fully captured in Australia's current measures of services exports:

- The Australian businesses sell insurance to policy-holders that produce goods and other services for export — **embodied services exports**.
- The corporate support units based in Australia deliver or contribute towards the delivery of internal services to IAG affiliates overseas — **cross-border exports of services to foreign affiliates**.
- IAG affiliates overseas sell insurance to policy-holders who reside overseas — **foreign affiliates' sale of services**.

It is a feature of insurance markets that most of the general insurance coverage sold in Australia is to cover Australian residents. This home market bias reflects, in large part, the way insurance markets are regulated around the world. In most countries insurance coverage has to be underwritten by an insurer that has been specifically licensed to operate in the market in question. Moreover, much of the insurance that is sold to non-residents is transacted while they are visiting the country where the insurer is based. Travel insurance and motor vehicle insurance that is part of a car hire contract are two common examples.

Cross border services exports

ITS global has estimated that, on average, only around 2.6 per cent of the value of the insurance services produced in Australia is delivered to non-residents.[93] Given the gross written premium earned by IAG's Australian businesses in the first half of 2010, this suggests that the Group is generating cross-border exports of insurance services that are worth about $178 million a year.

IAG operates under a devolved business model. This involves the use of dedicated units — such as the Corporate Office — to provide certain internal services to the businesses in the Group, as well as some of the businesses providing other such services throughout the Group.

The costs incurred directly by the various business units and entities are allocated to the various operating functions, together with internal charges raised for their use of such services. For example, the Group meets the cost of the superannuation contribution obligations for its Australian employees in a wide range of functions including sales and marketing, underwriting, and claims management. Hence the superannuation expense is allocated across the Australian businesses based on the areas for which these employees provide services.

Of the internal services that are provided by to IAG affiliates abroad, the most significant are in:

- Funds management;
- Reinsurance; and

[93] This estimate is based on the Input-Output Table for 2005-06 (ABS 2009).

- Technical capability (eg. actuarial staff transfers from Australia to other foreign affiliates).

The extent of each of the internal exports of services by the Australian based units of IAG to its foreign affiliates cannot be readily determined with any precision from the information in the public domain, such as the Group's annual and half-yearly reports, and its continuous disclosure announcements to the Australian Securities Exchange, but it is estimated the figure is less than $50 million a year.

Embodied services exports

ITS global has also estimated that, on average, about 2.7 per cent of the financial services produced in Australia are embodied in cross-border exports of goods and other services from Australia by their policy-holders. Applying this result to the gross written premium received by IAG's Australian businesses in the first half of 2010 indicates that IAG is generating cross-border exports of embodied insurance services that are valued at around $184 million a year.

Foreign affiliate sales

Based on the Group's full year results to 30 June 2010, the value of the financial services produced by IAG foreign affiliates is about $1,858 million a year.[94] Of this total, about $961 million a year is generated from NZ (52 per cent of the overseas total), $712 million from the UK (38 per cent), and the balance from Asia (10 per cent). In absolute terms, then, the sales of financial services by its foreign affiliates heavily dominate the overall services export picture, as far as IAG is concerned.

The medium term outlook for the export of services by IAG will be determined by its success in implementing its business strategy. In the short to medium term this will depend upon how well it is able to continue the turnaround in its NZ and UK affiliates, to consolidate its newly established Indian affiliate on a sound business footing, and to ensure the organic growth of its Thai and Malaysian businesses contributes positively to their profitability.

The economic backdrop to these challenges varies considerably. In Asia the IMF is forecasting that GDP in the region will grow strongly in 2010 and beyond. As a consequence, demand for financial services in the region is increasing rapidly. On the other hand, the outlooks in NZ and the UK are far less encouraging, with significant risks to economic recovery on the horizon for both countries.

5.4.4 Implications for services linkages and outward direct investment

IAG has undertaken significant outward investment in South, Southeast, and East Asia. This will remain the dominant mechanism by which the Group delivers insurance services.

As part of the overseas acquisition process, IAG in Australia draws on a number of linkages it has with domestic services firms on an *ad hoc* basis. These include investment banks (who may bring potential acquisition candidates to IAG's attention), law firms to assist in due diligence, and actuarial firms.

[94] This is based on the revenue earned by the New Zealand, UK and Asia divisions.

IAG's businesses in Australia will continue to generate a relatively small volume of cross-border exports of insurance services both directly and indirectly — embodied in the exports of goods and other services by their policy holders. Both will continue to be relatively small in terms of the value of the services in question.

The more strategically important of these investments are the insurance affiliates that IAG owns wholly in NZ, the UK and Thailand and its strategic interests in joint ventures in India and Malaysia. These Asian economies are among the fastest growing economies in the world with a rapidly emerging middle class.

To the extent that IAG's foreign affiliates are successful, they will generate sales of insurance services in their host markets. They will also, however, become a growing destination for the importation of internal services from IAG's Corporate Office in Australia.

These services exports will complement the cross-border exports of financial services by the Australian-based units in the Group, both directly and indirectly, as embodied services exports. These complementary transactions will, nevertheless, remain a very small part of the overall picture in terms of services exports, broadly defined.

The nature of insurance services markets and the way those markets are regulated by governments in the region therefore mean that a commercial presence is essential for achieving any significant insurance market in Asia. Such considerations underlie the decisions by IAG to have wholly-owned subsidiaries and interests in joint ventures in the Asian region.

The Group is interested in pursuing acquisition opportunities elsewhere in the region, particularly in China, but many of the countries maintain substantial barriers to inwards investment in the general insurance sector.

For example, an Australian insurer is limited to owning less than 25 per cent of any existing Chinese insurer. If the interest exceeds 25 per cent then that insurer is classified as a 'foreign insurance institution'. The implications of this are significant. Such an institution is prevented from participating in any statutory insurance business in China, effectively barring it from insuring against all third party liability associated with motor vehicles.

There are similar limits applied in other Asian countries of interest to IAG. India limits foreign investment in an Indian insurance company to no more than 26 per cent, although the Government is proposing to raise this to 49 per cent. Malaysia has increased the limit from 49 per cent to 70 per cent. By contrast, the current government in Thailand passed legislation to limit to up to 49 per cent foreign investment in insurance, from the previous 100 per cent level, which would require IAG to divest itself some of its Thai interests by 2013. The Thai government proposes to repeal this legislation and reintroduce the 100 per cent ownership level, but the draft legislation has yet to be tabled.

IAG is working with the Australian government to seek further liberalisation of investment rules relating to insurance markets in these Asian markets. The case of IAG underscores the importance of Australian Government efforts to pursue deeper trade and investment liberalisation across the Asia Pacific region. Such reforms would encourage the expansion of services trade and investment to the mutual benefit of Australia and its regional partners.

6. Conclusions & policy implications

The economic importance of services is understated

The extreme heterogeneity of services means there is neither any widely accepted definition as to what services are nor any widely accepted way of classifying them. Traditionally services have been described as the 'residual sector' of the economy. This simply means that they are not part of the agriculture, mining and manufacturing sectors.

In Australia, services account for more than three-quarters of the country's GDP and four out of five jobs. If the US is any guide, the economic importance of services can be expected to continue to increase as the Australian economy grows.

Services make an important contribution to Australia's export performance but the extent of their contribution is hard to establish with precision. In comparison with merchandise, which can only be traded internationally by physically crossing an international border, the non-material nature of services means that they can be traded internationally in a wide variety of ways.

As they are based on the foreign exchange transactions that make up the Balance of Payments, the statistics on services exports that are published by the ABS only capture the cross-border services transactions on a consistent basis. They do a poor job in identifying the indirect cross-border trade in services, such as those that are embodied as intermediate inputs in merchandise exports or sales of services by the foreign affiliates of businesses based in Australia (see recommendation, below).

The nearly complete omission of foreign affiliate sales from official statistics is particularly important. Foreign establishment is a leading mode for delivery of services in foreign markets and the full potential value of services exports is often only indicated if flows of Foreign Direct Investment are considered as well.

Australia's embodied services exports are significant

ITS Global has estimated that exports of embodied services and cross-border exports of services from Australia amount to around $89 billion a year — in 2008-09 prices.[95] It has also estimated that sales of services by foreign affiliates of businesses based in Australia at about $106 billion a year.[96] Each of these is significantly greater than the official measure of services exports — those that are traded across international borders — $53.3 billion a year.

[95] All the monetary values in this Chapter are expressed in 2008-09 prices unless otherwise indicated. To convert the values that have been quoted elsewhere in this report to their 2008-09 equivalents, ITS Global has used the implicit GDP deflator for Australia published by the International Monetary Fund (IMF, 2010, *World Economic Outlook: Rebalancing Growth*, IMF, Washington, DC, April, [accessed on 12 May 2010 at http://www.imf.org/external/pubs/ft/weo/2010/01/])

[96] These numbers cannot meaningfully be added together as an unknown but significant share of affiliate sales accrues to non-Australian residents. Those who have provided capital, labour and intermediate inputs to the affiliates from which they have produced the relevant services.

As there are no official statistics on exports of embodied services, ITS Global has estimated them from ABS Input-Output Tables. Its estimates indicate that the services embodied in cross-border exports of merchandise and services are valued at about $88.9 billion a year.

Of all embodied services exports, around $35.6 billion a year are 'carried' by Australia's merchandise exports. The Mining division of ANZSIC produces around about half of the 'carrier merchandise exports', with most of the rest coming from the Manufacturing division (42 per cent).[97] As the Mining division is a much smaller part of the economy in terms of its contribution to GDP, the division is therefore by far and away the dominant sectoral 'carrier' in terms of the export of embodied services.

The services that are embodied in exports of goods and services originate from the vast bulk of the ANZSIC services divisions. The dominant services divisions are Property and business services (26 per cent of all embodied services exports), Transport and storage (16 per cent), Wholesale trade (12 per cent), and Services to mining (12 per cent).

These divisions are also responsible for the bulk of the services that are produced by the private sector, as measured by their contributions to GDP. Moreover, most of them contribute to both exports of embodied services as well as cross-border services exports.

Outlook for services exports depends on developments in key markets

The critical markets for both direct and embodied services exports from Australia are China, the European Union, India, Japan, South Korea, and the United States. The key variables in those markets are their GDP growth, prospective liberalisation of regulation, and any shifts in user preferences. Such shifts can occur at either the level of the final consumer or anywhere along the global supply chains that Australia supplies with large volumes of raw and semi-processed commodities.

According to the IMF, growth has returned to the global economy, driven by the strong performance of Asian economies and stabilization or modest growth in the rest of the world. However, it is still unclear how durable the nascent recovery will prove to be. The outlook for Australian exports over the period to 2014, particularly for its raw and processed agricultural and mineral commodities, is likely to remain relatively buoyant and, other things being equal, this should carry over into the outlook for exports of embodied services. On the other hand, the outlook for direct services exports is also expected to continue to grow relatively strongly. This reflects relatively strong income growth in Australia's key markets in Asia together with the empirical fact that the demand for services is relatively more sensitive to changes in income than the demand for goods.

On the supply-side, the key developments will be those that affect the domestic competition for primary resources — Australia's land, labour and capital — and for intermediate inputs produced locally. These reflect the influence of both autonomous changes as well as the changes that are induced by changes in public policy. In the case of intermediate services, the intensity of the use of such inputs will depend heavily on the results of the myriad 'make- or-buy' decisions that relevant Australian businesses will continuously confront.

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[97] This sectoral breakdown is not directly comparable to that used for the Balance of Payments. For example, the definition of 'Travel' in the Balance of Payments can include the output of up to four of the 14 services Divisions in the Australian and New Zealand Standard Industrial Classification (ANZSIC).

On the basis of no significant structural changes, including changes in public policy, ITS Global projects the total value of Australia's cross-border and embodied services exports would approach $120 billion a year by 2014-15. Of this, around $47 billion would be embodied in goods exports leaving just over 60 per cent of this as comprising cross-border services exports. Sales of services by foreign affiliates are projected to be about $135 billion a year by 2014-15.

The outlook for exports of embodied services will be very sensitive to any structural shifts in the intensity with which intermediate services are used to produce goods and services in Australia. Moreover, the nature and extent of such shifts in services intensity will have a substantial impact on the composition of the services that end-up being embodied in merchandise exports.

ITS Global has estimated that every percentage point increase in the intensity of intermediate services use in production adds a little over $1 billion a year to embodied services exports, other things being equal, based on 2008-09 trade volumes.[98] Should the increase in the intensity of services use which occurred between 1998-99 and 2005-06 be repeated over the period to 2014-15, embodied services exports would therefore be around $53 billion a year, in real terms, by the end of the period on the basis of the IMF forecast of growth in the volume of world trade.

When assessing the likelihood of such a shift, one should recall that the intensity of intermediate services in Australian production increased by more four percentage points over an equivalent period but the share of intermediate services in Australian exports of goods and services did not increase materially. The effect of the increase in intensity was more or less offset by a shift in the composition of exports towards the less intensive products, such as the relatively lightly transformed agricultural and mineral commodities.

Structural drivers of services exports not well understood

A review of the economic literature has revealed there is considerable uncertainty about many of the fundamentals of international trade in services. Relatively little is known about the drivers of international trade in services, the extent of barriers to services trade, and consequently the extent of the prospective gains from services liberalisation. In the absence of any policy changes, the more important changes will reflect the influence of trends in productivity growth, population demographics, corporate and household savings rates, the rates of participation in education, occupational training, and the labour force, etc.

The national statistical collections of most advanced countries, including Australia, pay relatively little attention to services. Most of these collections provide a finely grained picture of merchandise trade by product and by country of origin or destination but the corresponding picture of services trade is considerably coarser. Given what we do know about the importance of services to the Australian economy and to its external performance, this looks like a misallocation of statistical resources.

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[98] As noted in Chapter 4, this is after netting out the services that are embodied in cross-border exports of other services. The services embodied in cross-border exports of other services do not change the total of embodied and cross-border services exports, only their composition.

Services are critical to the competitiveness of all Australian businesses that are exposed to international trade, regardless of what those businesses produce. As indicated, ITS Global has estimated that the intensity with which services were used as an intermediate input by Australian businesses has increased significantly and consistently since 1998-99. Indications are that this trend will continue, with continued economic growth and services accounting for an expanding share of that growth. The services inputs that are used in agriculture, mining and manufacturing in Australia will continue to rise, albeit at different rates. The change will reflect the extent of competition and innovation in each and every aspect of business — research and development, product design, production, marketing, distribution, and finance — all on the back of technological change.

All Australian businesses that are exposed to international competition need to be able to draw upon a comprehensive suite of efficiently delivered services in the domestic market, as well as to have access to the full range of services 'know how' available from abroad. This is true even for those local businesses that have traditionally enjoyed a strong comparative advantage, such as those in the agricultural and mining sectors.

That said, the relevant literature to date provides a very limited insight into the contribution that intermediate services inputs can make to productivity at the firm level. The same is true for the economic 'spillovers' that can be generated by inwards foreign direct investment and trade in services. Relatively little is known about either the nature of such spillovers or their extent. Similarly, little is known about the role that services can play in broadening the variety of goods that are produced in Australia or in diversifying its export portfolio. Each of these relationships is crucially important, as the published research indicates that they are strongly linked to productivity and economic growth.

In recent years, one of the important developments in the delivery and use of services has been the increasing use of intermediate services in all aspects of business. This reflects a greater tendency for businesses to outsource activities that were previously carried out internally, such as R&D, product design, product manufacturing, distribution, and marketing. As a consequence of this trend, there is evidence that a convergence in production systems in manufacturing and services is well underway. Services are increasingly being embodied in the manufacture of goods and the delivery of services has always involved the use of capital goods to a greater or lesser degree. For example, telecommunications and transport are capital intensive whilst the delivery of professional services is less capital intensive relying more on commercial office space and information technology systems.

The trend in the outsourcing of services reflects the trend in relative transaction costs that confront businesses when making the 'make or buy' decision.[99] In recent years, developments in the redesign of business processes and advances in information technologies have tended to favour outsourcing over internal provision for an increasing number of businesses. With continuing economic growth, ITS Global expects these trends to be sustained.

[99] Transaction costs are the resource costs incurred by the business in managing the uncertainty associated with each option. In outsourcing, they involve finding potential providers of the service, assessing their cost-effectiveness, selecting the best option, negotiating a contract for delivery, monitoring the delivery of the services under the contract, and enforcing its terms. All these activities consume time and effort of executives and staff, which could have been devoted to other profit-generating activities.

The extreme heterogeneity of services means that different services play quite different economic roles and the markets in which services are structurally quite different. Accordingly, the modes for exporting services differ from each other in fundamental ways, as the WTO GATS itself makes plain. While many services are able to take advantage of more than one mode of export, there is relatively little in the literature on the interaction between the different export modes for particular services. This is unfortunate as the knowledge gap affects the identification of the binding constraint on the liberalisation of international trade in each case as well as the optimal sequencing of the various policy reforms.

Measurement & analysis of services trade & investment needed for policy reform

Given the gaps in what is known about services identified through this report, ITS Global recommends that further research be undertaken on Australia's services trade to better understand the drivers of the trade and the barriers to that trade both domestically and internationally. Any future research could focus on identifying barriers, measuring their impact, and analysing how policy reform could foster increased services activity.

One area that would benefit from further study is the interaction between the different export modes for particular services and the selection of the modes of delivery for given situations.

An important input to future research is the regular collection of more detailed services data. Shortcomings of existing collections have been identified in chapters 2 and 3. Though understandable on account of the finite resources available for official data collecting and the numerous priorities of the ABS, this report identifies a strong case for further collection of services data. The case for Australia having world's best practice data on services hinges on the size and importance of currently unmeasured services revealed in this report.

Further ABS data on embodied services and sales by foreign affiliates is warranted. The latter is possibly of greater priority than the former. Measuring the effect of foreign affiliates' services trade is still in its infancy in Australia. Further surveying of Australian foreign affiliates by the ABS would be a welcome development, and consideration might be given in future surveys to adopting the standard survey method of publishing data on majority-owned foreign affiliates.

Liberalisation of regulation will facilitate services exports

Both theoretical and empirical research emphasises that the regulatory barriers to the domestic delivery of services tend to be more important than the regulatory barriers against foreign entry. Policy reform should therefore not be confined to the liberalisation of the external barriers but embrace both external and internal barriers. As far as possible it should liberalise all regimes in parallel, including those that regulate the labour and capital markets.

Market access from a trade perspective and regulation are interrelated. So much so, that the key to sound policy reform is to decrease the barriers to entry, for both domestic and foreign entrants, so as to increase the contestability of each services market. In doing so, policy makers need to bear in mind that many of services that influence the international competitiveness of Australian business are associated with significant network externalities. The more significant of these network services are: Transport services; Electricity, gas and water supply; and Postal services and telecommunications.

The contestability of the services delivered over such networks is highly sensitive to the nature of the third party access regime and the 'constitutional rules' that govern the development of such regimes. For most network services the rules in question are laid down in Part IIIA of the *Trade Practices Act*. The major exception is the access regime for telecommunications in Part XIC of the *Act.* Ensuring the dynamic efficiency of these access regimes is as important, if not more so, as the liberalisation of the trade and investment barriers to such services.

Given the diverse nature of the services produced in Australia, the regulatory and trade reforms outlined above are unlikely to be sufficient to ensure that local services providers are able to fulfil their potential as far as export facilitation and performance are concerned. The more important of the complementary policy reforms, which are required, are in the following areas:

- business innovation and productivity growth — to promote domestic investment in research and development by Australian business, and facilitate the commercialisation of business innovation in ways that maximise the economic 'spillovers', which are generated by such activities;
- access to foreign 'know how'— to facilitate more liberal access by to foreign intellectual property and the temporary entry by foreign workers with skills and qualifications that are critical to domestic business innovation;
- human capital formation and application — to improve access to and the operation of the systems of tertiary education and occupational training, as well as measures to promote greater labour market flexibility in the key services sectors; and
- substantial fiscal consolidation by the Federal Government over the medium terms — to reduce the risk of 'crowding out' of private sector investment and to reduce upwards pressure on exchange rate.

The nature and size of Australia's services sector and the breadth of its various contributions to services exports, both direct and indirect, mean that the policy reforms to address the impediments to improved export performance have to be broadly based. There is little point in addressing the impediments in one service industry on their own, or one at a time.

The lesson from the analysis of Australia's embodied services exports is that its merchandise exporters do not rely on just one service but on many of them. Unless they are all as efficient as they can be, Australia's export performance overall must suffer. Only a broadly-based set of microeconomic reforms, as outlined above, can facilitate the improvements in productivity and competitiveness across the entire services sector that are necessary for the sector to realize its export potential for the benefit of all Australians.

Potential for greater services trade activity in mining services

Embodied services are by their nature spread thinly across the ANZSIC divisions that 'carry' them to their final users. Of the merchandise exporters, the Mining division is the dominant 'carrier' of embodied services, accounting for over half of the total.

Moreover, the largest part — approaching 20 per cent — of the services that are embodied in metal and mineral commodity exports are specialist services provided to the mining sector. They include mineral exploration and contract mining services, geological and geophysical surveys, and the other specialist professional services provided to the sector. ANZSIC service industry classes in both the Mining and the Property and business services divisions account for the bulk of these services. They include:

- Services to mining (ANZSIC 1501) — such as Exploration for petroleum, gas or minerals, Carrying out part of a mining operation, and Specialist oilfield services;
- Surveying services (ANZSIC 7822) — such as Geodetic, Mining and Seismic survey and Map preparation services;
- Consultant mining engineering services (ANZSIC 7823), and
- Other technical services (ANZSIC 7829) — such as Geological and geophysical consultancy services and Seismic survey data analysis service.

A number of Australian-based firms that supply such services to the domestic mining sector are now established and successful exporters of services in their own right. Other firms, no doubt, could make the transition to services exporters, were they to have access to the necessary information and market intelligence.

The Secretary of the Australian Treasury recently noted that as global mineral production moves to more marginal deposits that are more costly to access '…Australia's comparative advantage in mining services will become even more valuable'.[100]

The importance of embodied services to the mining sector, the complexity of the interactions between services inputs and merchandise exports here, and the potential for clustering in a number of Australian regions suggests more detailed study of the role of embodied and embedded services in this sector is warranted.

Overseas FDI barriers critical to services exports

The case studies and the analysis of the economy-wide data reinforce the notion that overseas sales of services by foreign affiliates of Australian-based businesses play a more significant role for Australia than is generally recognised.

ITS Global has estimated that services sold by the overseas affiliates of Australian firms could be worth over $100 billion each year. Three of the case study firms — ANZ, IAG and Elders — are significant contributors to this total. For example, ANZ sells services through its overseas subsidiaries that are worth over $4 billion a year.

All the case study firms sell services to non-residents, either directly or indirectly. They do so predominantly through commercial presence abroad, although the form, extent, and geographical location of these points of presence abroad for each firm vary substantially. For example, Cox Architects has two representative offices in the Middle East, while ANZ has retail and wholesale banking branches located in all the major economic regions of the world. Mostly however the foreign affiliates of the case study firms are focussed on selected Asian markets, particularly in China and South-East Asia.

[100] K. Henry, 2010, *Fiscal policy and the current environment*, Post-budget address to the Australian Business Economists, 18 May.

All the case study firms have plans to expand their commercial presence in the Asian region, as circumstances and opportunities permit. Both ANZ and IAG have recently made acquisitions in Asia or have established joint ventures there with local firms as partners.

All the case study firms have representative offices overseas — to promote but not deliver services — but most rely, almost completely, on wholly owned subsidiaries or joint ventures with local business partners for service delivery abroad. This reflects the nature of both the service in question as well as the regulatory restrictions on their cross-border delivery — or, in the case of Elders, the import barriers to the commodities in which they trade.

Since all the case study firms plan to expand their commercial presence abroad as opportunities and circumstances permit, outwards FDI is a critical component of their international business strategy. Many Asian countries impose severe restrictions on foreign ownership — for example, in banking and insurance — or are proposing to tighten existing restrictions.

All the case study firms indicated that restrictions on foreign ownership or foreign operations in overseas markets were problematic and placed limitations on the scope for their expansion. For Cox, it was more an irritant which they were accustomed to working around, for example, through joint venture partnerships. On the other hand, IAG is actively endeavouring to overcome or ameliorate market access issues.

Australian firms would benefit from greater accessibility of reliable information relating to foreign investment restrictions. It is open to further examination whether Austrade should extend its role further with Australian firms planning to expand through foreign commercial presence. A role as an information conduit between regulatory bodies and investment promotion agencies in overseas host markets might round out the domestic and international policy liberalisation that DFAT pursues with foreign governments in bilateral, regional and multilateral fora.

Further ABS resources are commended to regularly survey Australian-related data on foreign affiliates trade statistics (see below). At the same time, a coordinated policy response could link the collection of more comprehensive data on the significance of services delivery through commercial presence with ongoing efforts to advance international liberalisation. The latter should comprehend efforts towards bilateral liberalisation through the negotiation of trade agreements, regional and multilateral liberalisation in international fora, such as APEC, ASEAN, and the WTO, as well as providing economic cooperation to assist developing countries seeking unilateral liberalisation.

Opportunities to expand professional services exports within Australian businesses

The headquarters of three of the case study firms — ANZ, Elders and IAG — arrange for Australian-based firms to deliver specialist services to their foreign affiliates. These are generally in the area of professional services — such as property, legal, accounting, marketing, or management consultancy services — and are usually provided on an *ad hoc* basis, though panels of service providers are typically established. In the case of ANZ and IAG, they are typically required where a prospective foreign acquisition is identified.

Australian firms, or global firms with an Australian base, are therefore positioned to win business from large corporate customers and multinational corporations operating in the Asia Pacific region. The quality and reputation of Australian professional services firms is significant in the decision by the firms to engage service providers in the home country.

In addition to professional services, ANZ uses this approach for sourcing security, telecommunications, travel, and so on. ANZ drives for consistency in the provision of these services across the business and across the region. A wide presence across the region, to rival ANZ's market coverage, is therefore an advantage for service providers.

Closer examination of these linkages would help to clarify the extent to which medium-sized professional and business services firms in Australia with an international presence are competing to provide large firms embodied services across the business.

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Appendix 1: Methodology & approach

Approach to the assignment

The approach taken in this assignment to assessing the importance of embodied services involves a number of analytical steps. They are:

1. Research & analysis of trade in embodied services

ITS Global has first analysed the export of embodied services through available data and a literature review of existing studies and reports. As the ABS does not publish data on the level or growth of embodied services output or exports, ITS Global has made an assessment of the level of embodied exports using the Input-Output (I-O) tables of the Australian economy that are complied by the ABS for national accounting purposes from time to time (see further, below).

ITS Global has estimated the value of embodied services exports for each financial year from 1998-99 to 2008-09. More detail on the methodology used for this is set out in Appendix 2 (to be included in the final report).

A review was also undertaken of the existing literature on the determinants of the international trade in services, including exports of embodied and embedded services, and exports by firms in industry clusters.

From the estimates, together with relevant information from the literature review, the significant services inputs activity by service type and across industry were identified for over the ten-year historical period.

2. Analysis of published data on cross-border services exports

Published data on Australia's cross-border exports of services in the balance of payments statistics for the period from 1998-99 to 2008-09 have been analysed to identify the value of the services exports for each financial year from 1998-99 to 2008-09, highlighting major services categories. Notable growth rates of services categories, major markets for cross-border consumption of services and trends in the growth and decline of categories and markets were identified.

Data on services sold by Australian foreign affiliates, and not covered in the international trade in services statistics discussed above, are also examined to identify key markets and services categories. Trends in outward direct investment offer an additional dimension to the analysis of services sold through commercial presence.

3. Identification of trends in embodied services activity

The evolution of the value of exports of embodied services over the decade is compared with the data on cross-border exports of services over the same period. Historical trends in the structural composition of embodied services exports have been used as the basis for preparing projections of embodied services exports from Australia over a six-year time horizon.

These projections of embodied services exports provide the basis for the assessment of the growth potential for such exports from Australia over the projection period.

4. Preparation of business case studies

ITS Global is in the process of conducting five case studies to analyse the modes of service delivery that are associated with exports of (non-embodied) services and foreign direct investment. This work is ongoing and will form part of the final report. ITS Global will assess the current situation and the outlook for the market for each category of services exports and its associated investment.

5. Assessment of paths to increased trade & investment

This step, to be conducted in coming weeks as business case studies progress, will include identifying potential areas for growth of services exports and for partnerships and linkages between product and service companies and clustering of services firms. This will include an assessment of potential for partnerships and clustering.

6. Preparation & review of report

The draft report was revised to take account of comments received and to include analysis still underway, as indicated above.

Data & information sources

ITS Global has estimated the value of the services that are embodied in merchandise exports as intermediate inputs into the production process for the products in question. The ITS Global estimates are based on the latest set of Input-Output Tables published by the ABS namely that for 2005-06.[101]

Among other things, Input-Output Tables detail the various flows of goods and services between each of the industry groupings that make up the ANZSIC. This feature allows the Tables to be used to estimate the level and type of services that are used as intermediate inputs by each industry grouping that is specified in the Table. This allows the estimation of the intermediate services that are embodied in the goods and services that are produced in and exported from Australia. The methodology used has been used previously and is described in more detail in Appendix 2.[102]

With the release of its 2005-06 tables, the ABS has completed 21 sets of Input-Output tables for Australia. The previous ones were for 1958–59, 1962–63, 1968–69, 1974–75, each year from 1977–78 to 1983–84, 1986–87, 1989–90, each year from 1992–93 to 1994–95, 1996–97, 1998–99, 2001-02, and 2004-05.

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[101] ABS [Australian Bureau of Statistics], 2009, *Australian National Accounts: Input-Output Tables - Electronic Publication, 2005-06 Final*, Cat 5209.0.55.001, ABS, Canberra, 18 November [accessed on March 2010 at http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5209.0.55.0012005-06%20Final?OpenDocument]

[102] Takatoshi Ito and Anne O Krueger, 2003, *Trade in Services in the Asia-Pacific Region*, National Bureau of Economic Research East Asia Seminar on Economics, Vol 11, University of Chicago Press, Chicago and London

Sales by Australian residents of services to non-residents in Australia and abroad are recorded in the Australian national accounts under the heading international trade in services (ABS Cat. 5368.0.). Data for services credits is presented here from 1998-99 (and from 2000-01 for exports by country) for ease of comparison with Input-Output data. Services statistics are divided into 12 categories: Manufacturing services; Maintenance services; Transport; Travel services; Construction; Pension and insurance services; Financial services; Charges for use of IP; Telecoms computer and information services; Other business services; Personal cultural and recreation services (includes education); and Government goods and services.

Statistics on the activities of foreign affiliate of Australian firms presented in this report are drawn from an ABS survey in 2002-03 (Cat. 5495.0). Data on Australia's outward foreign direct investment are analysed and presented based on the ABS balance of payments series, International Investment Position (Cat. 5352.0).

Appendix 2: Cross-border trade in services

The dominant categories of Australia's cross-border exports of services in 2008-09 were Travel services ($31 billion), Transport (around $8 billion), and Other business services — particularly professional and technical business services (around $8 billion).

Education services (a sub-category of Personal, cultural and recreational services) were worth $500 million. Education-related travel, accommodation and other expenses were a significant component of travel services (around $17 billion).

Accounting, audit and tax consulting services are the fastest services having almost doubled in value (a 94 per cent average increase) each year since 1998-99. Architectural services (60 per cent) and Manufacturing services (55 per cent) have also expanded rapidly. On the other hand, Insurance and pension services have shown sustained decline.

The major markets for Australian cross-border services exports in 2008-09 were: the United States (11 per cent), China (10 per cent), the United Kingdom (8 per cent), New Zealand and India (around 6 per cent each).

Australian services export credits in the balance of payments totalled $53.29 billion in 2008-09, having increased from $28.04 billion in 1998-99. Services exports grew at an average 9 per cent per annum; an increase of 90 per cent over the 11 years.

Major services exports and trends

Services exports recorded in 2008-09 are greatest in five categories:

- travel ($31 billion in 2008-09);
- transport (around $8 billion);
- other business services (particularly professional services and technical business services) ($7.7 billion);
- telecommunications, computer and information services ($2.1 billion); and
- financial services ($1.2 billion).

Exports of the other eight services categories were each valued at less than $1 billion in 2008-09 and together accounted for exports worth $3.3 billion.

Travel services comprise almost 60 per cent of all Australia's services exports and account for four times the second-ranked category, transport services. The IMF defines travel services as covering 'goods and services for own use or to give away acquired from an economy by non residents during visits to that economy'.[103] Travel includes all personal travel by non-residents to and within Australia. Significantly, a large portion of this is by foreign nationals for education purposes. This expenditure includes education-related expenditure on a range of services including tuition, food, accommodation, local transport and health services.[104]

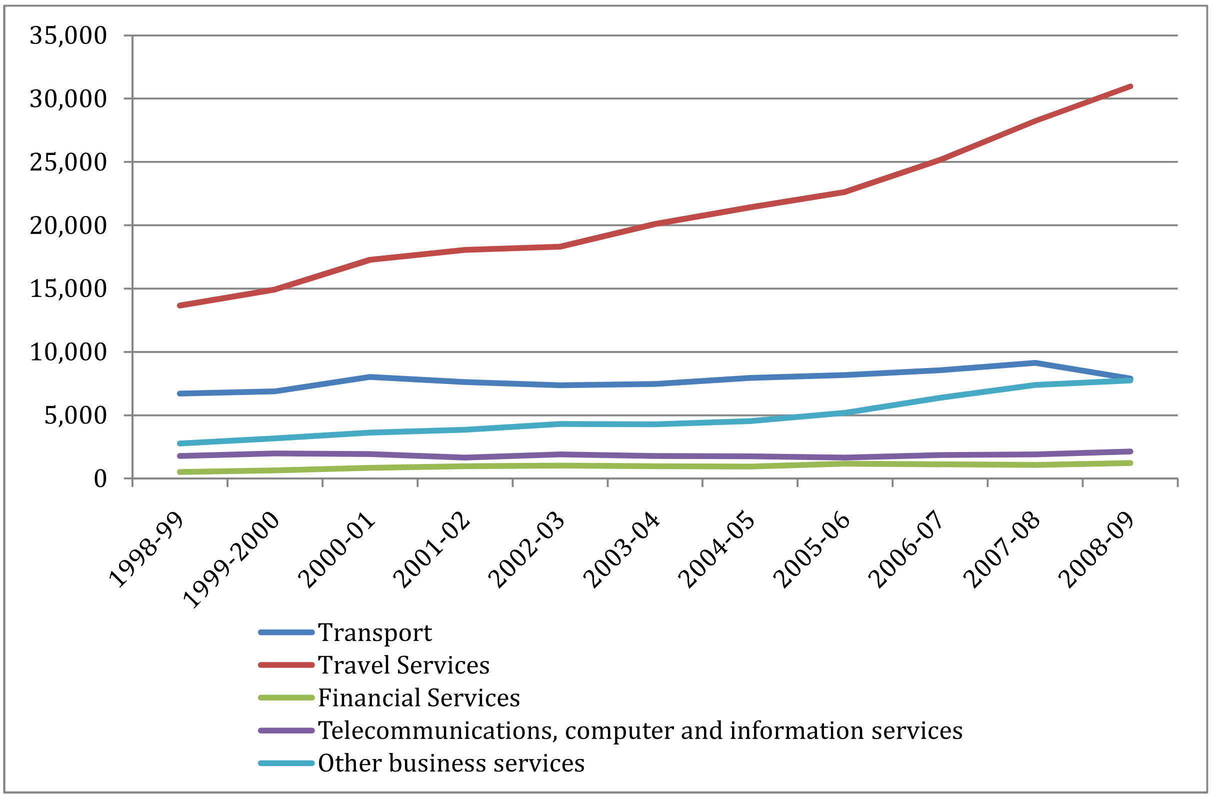
Education fees and other services, however, are recorded in a different category (personal, cultural and recreational services) and were worth $550 million in 2008-09.

Other business services comprises mainly:

- professional services such as legal and accounting services and management consulting services (worth $3.7 billion in 2008-09); and
- technical, trade-related and other business services (including engineering, architectural and scientific services) ($3.4 billion).

Trends in the types of services being exported from Australia over the past decade (see Figure A.1) suggest rapid growth in a number of services sectors. Of the top five services categories, Other business services has increased by an average of almost 18 per cent each year and Travel services has increased at an average of around 13 per cent each year.

Figure A.1 Cross-border services exports in key categories, 1998-99 to 2008-09, $ million



Source: ABS Cat. 5368.0.55.003

[103] IMF (2009), *Balance of Payments and International Investment Position Manual,* Sixth edition, Washington, D.C., p. 166 [accessed at http://www.imf.org/external/pubs/ft/bop/2007/pdf/BPM6.pdf]
[104] IMF, 2009, p. 167.

The category, Other business services, includes the fastest growing sub-category of services: accounting, audit and tax consulting services. This sub-category has on average almost doubled in value (a 94 per cent average increase) every year since 1998-99 and was worth $570 million in 2008-09. It also includes architectural services ($118 million) that have grown on average at 60 per cent per year.

By contrast, transport services have grown more slowly, averaging less than 2 per cent growth per year over the period. This includes a period of more rapid growth, particularly in the three years to 2007-08, followed by a decline in 2008-09, led by a drop in freight services, attributable to the global downturn in 2008-09.

Beyond the top five services categories, manufacturing services[105] accounted for only $258 million in 2008-09, but has more than trebled from $77 million in 2007-08. This is a significant contributor to the 55 per cent average growth per year this category has had since 1998-99. Behind this strong average growth rate is a varied trend in manufacturing services exports. Exports decreased from $40 million in 1998-99 to $20 million the following year and to $9 million in 2001-02 before rising quickly from 2003-04.

Construction services are another low-value category of exports ($103 million in 2008-09) that has grown strongly at around 24 per cent on average each year since 1998-99.

Education services — a sub-category of Personal, cultural and recreational services — accounted for over $500 million of exports in 2008-09. Education exports increased through the late 1990s, peaked in 2001-02 at $436 million, fell away from 2002-03 until 2005-06, and then increased in each of the last four years to a high of $553 million in 2008-09. From a policy standpoint it is important to note the susceptibility of services exports in this sector to other areas of government policy unrelated to trade, namely immigration policy.

One of the few types of services exports to exhibit sustained decline is insurance and pension services, and in particular reinsurance services. Insurance and pension services have fallen from around $950 million in 1998-99 to roughly $350 million in 2008-09. This represents a decline of 62 per cent since 1998-99 (or around 6 per cent per year). Other services sub-categories to have shown little growth and considerable variability over the period include: telecommunications services; services incidental to agriculture, forestry and fishing; and film royalties.

Around 60 per cent of Australia's services exports were sent to its ten largest export markets in 2008-09. These markets lie primarily in Asia, the Pacific and North America.

Table A.1 and Figure A.2 show that the US accounted for around $5.8 billion or 11 per cent of total services exports in that year. China consumed $5.1 billion (10 per cent), the UK $4.4 billion (8 per cent), and New Zealand and India around $3.4 billion (6 per cent) each.

Less than $9 billion (16 per cent) of services exports in 2008-09 were consumed in the European Union (EU). Half of these exports to the EU are consumed by UK nationals, with Germany the only other country accounting for more than $1 billion of exports. The EU share of services exports has remained reasonably steady since data has been recorded; in 2000-01 18.5 per cent of exports were consumed by the EU, and in 2004-05 it was 20 per cent.

[105] Full title of this category is manufacturing services on physical inputs owned by others.

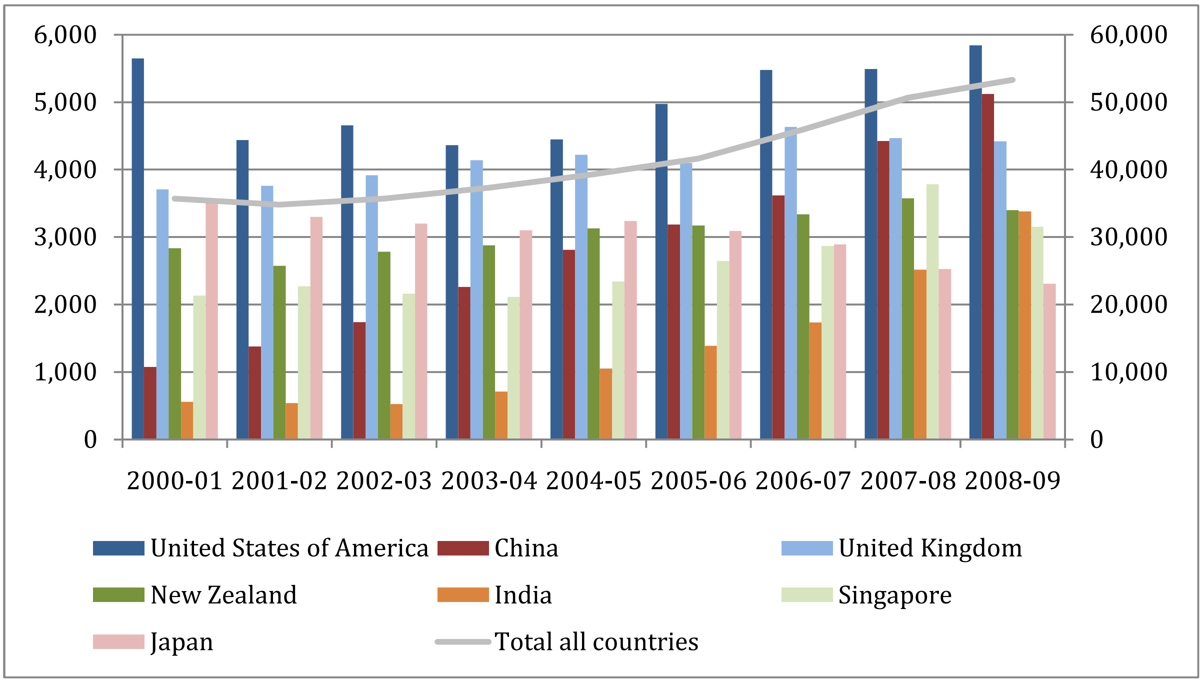
The share of services exports consumed by nationals of ASEAN countries has also remained reasonably consistent: exports have increased from $5.2 billion (14.6 per cent of total services exports) in 2000-01 to around $8.2 billion (15.3 per cent) in 2008-09.

Table A.1 Services exports to top 10 export markets in 2008-09, by export market, 2000-01 to 2008-09, $ million

Countries	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
China	1,075	1,380	1,741	2,261	2,812	3,186	3,616	4,426	5,120
Hong Kong	1,352	1,667	1,621	1,589	1,569	1,568	1,581	1,626	1,689
India	556	538	523	708	1,051	1,388	1,734	2,517	3,378
Indonesia	1,132	1,151	1,058	1,012	922	865	893	983	1,115
Japan	3,531	3,302	3,202	3,099	3,236	3,090	2,891	2,526	2,308
Korea	950	1,043	1,024	1,137	1,247	1,432	1,830	1,873	1,833
New Zealand	2,836	2,576	2,785	2,878	3,131	3,174	3,336	3,575	3,401
Singapore	2,133	2,269	2,161	2,113	2,342	2,646	2,868	3,784	3,154
UK	3,706	3,759	3,916	4,140	4,221	4,097	4,634	4,467	4,418
US	5,648	4,440	4,657	4,364	4,448	4,974	5,475	5,489	5,841
Total top 10	**22,919**	**22,125**	**22,688**	**23,301**	**24,979**	**26,420**	**28,858**	**31,266**	**32,257**
All others	12,789	12,663	13,033	14,011	14,310	15,221	17,098	19,379	21,030
Total	**35,708**	**34,788**	**35,721**	**37,312**	**39,289**	**41,641**	**45,956**	**50,645**	**53,287**

Source: ABS Cat. 5368.055.003

Figure A.2 Australia's major services export markets, 2000-01 to 2008-09, $A million



Source: ABS Cat. 5368.055.003

The story of the rise of China and India since 2000-01 to become major services markets for Australia is mirrored by the parallel decline in importance of Japan (see Figure A.2).

In 2000-01, China was ranked as Australia's sixth largest services export. Its value to Australia overtook Singapore in 2002-03, Japan and New Zealand in 2005-06, and the United Kingdom in 2008-09. China has increased its consumption of Australian services exports from 3 per cent of all services exports in 2000-01 to 9.6 per cent in 2008-09. For its part, India is now Australia's fifth-ranked destination for services exports.

Other fast growing, though less significant markets include services exports to certain Latin American markets (Chile grew at an average 151 per cent per annum and Peru at 84 per cent per year) and to India (63 per cent).

Hong Kong, the Republic of Korea and Taiwan have historically been similar-sized markets for Australian goods, however for services, whilst Korea and Hong Kong consume a similar value of Australian services, Taiwan ($562 million) is notably smaller.

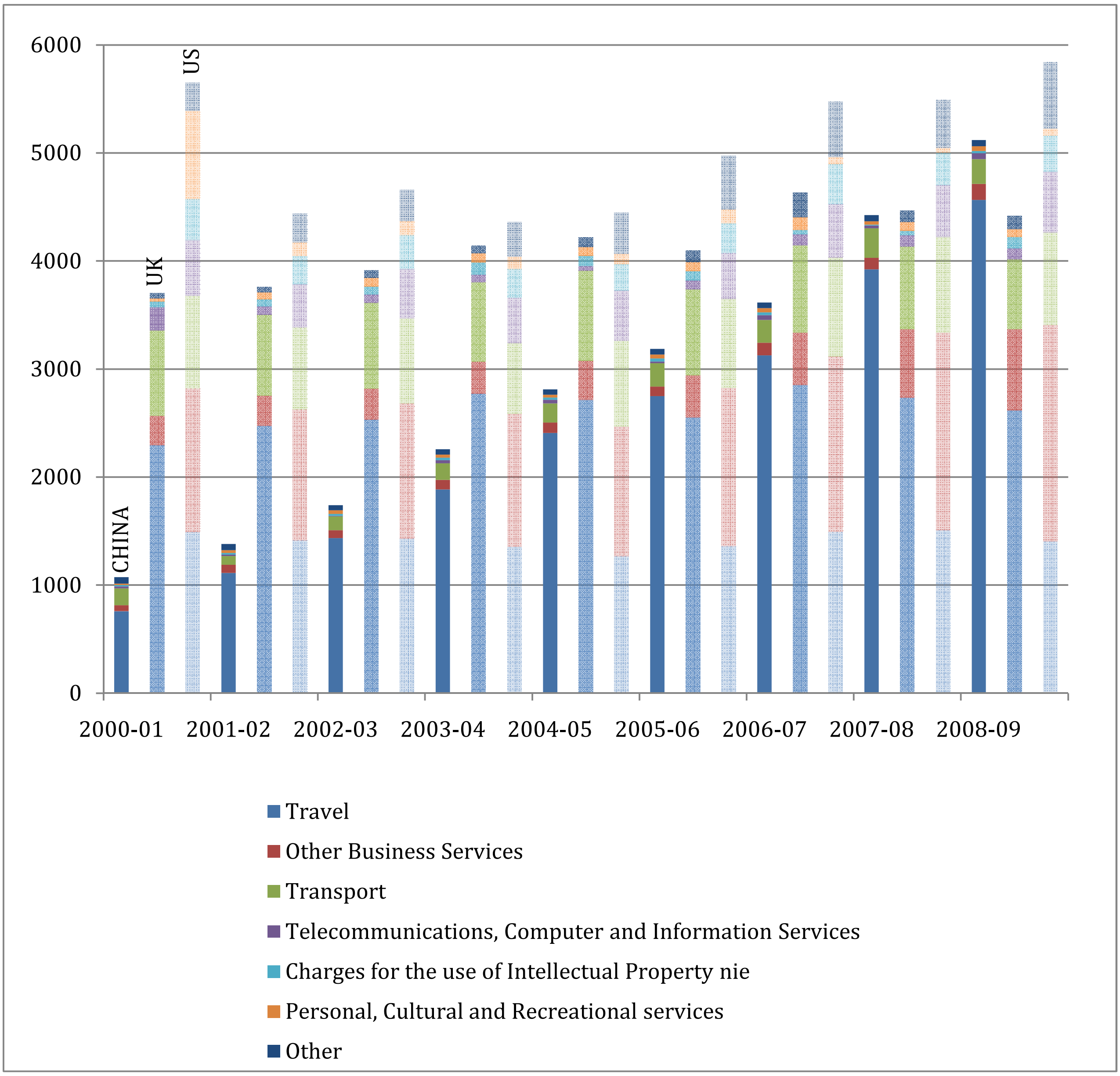
Australian exports to major foreign services markets are consistently greatest in travel, transport, other business services, telecommunications computer and information services, and financial services.

Figure A.3 illustrates the relative importance of the six largest services categories in our three largest services export markets in 2008-09. For example, Australian exports to the United States are divided between other business services (34 per cent), travel services (24 per cent), transport services (15 per cent), and telecommunications computer and information services (10 per cent). This distribution has remained fairly consistent over the past decade.[106]

Other business services are a large and growing portion of our services exports to the United States. By comparison, this category represents a smaller share of services exports to the United Kingdom. Finally, Travel services make up a larger portion of exports to China and the UK than to the United States.

[106] Personal, cultural and recreational services (and in particular certain royalties) exports to the US accounted for a notable portion of exports in 2000-01, though this was a one-off.

Figure A.3 Composition of Australian services exports to key markets (top 6 services categories)



Source: ABS Cat. 5368.055.003

Appendix 3: Services exports through a foreign commercial presence

Services sales by foreign affiliates of Australian firms operating overseas through commercial presence are another major source of services sales.

Official statistics on sales of services by this mode, however, are extremely limited. In 2002-03 around 4,000 foreign affiliates were identified with estimated services sales of $65 billion. In 2008-09 prices this is around $84 billion.

Sales of services by the foreign affiliates of businesses based in Australia are most important in the United States, the United Kingdom and New Zealand. On the other hand, key services export markets including Japan, China and India do not feature amongst major markets for services sales by foreign affiliates. One in four affiliates of Australian firms is located in the US.

Firms may deliver services through a commercial presence in overseas markets as part of an internationalisation strategy that typically evolves from fly-in fly-out service delivery, to establishing a representative or sales office, to a local office or joint venture employing Australian nationals.[107]

Balance of payments data identifies outward direct investment (yearly flows and stock positions), but does not distinguish between various forms of direct investment. Majority-owned foreign affiliates - where a single owner holds more than 50 per cent of ordinary shares or voting power - are not separated from minority-interest direct investments. Nor do official statistics annually record the services these foreign affiliates of Australian firms sell.

Statistics on the sales of services by the foreign affiliates of businesses based in Australia were last collected by the ABS in a one-off survey, which was conducted in 2002-03.[108] The key findings from this survey are detailed below.

One should note that the survey methodology identified foreign affiliates, regardless of their ownership. Defined in this way foreign affiliates were therefore did not necessarily constitute a 'commercial presence' as conventionally understood. Commercial presence typically requires that the foreign affiliate is sufficiently associated with the Australian firm to deliver income — through dividends, claims on profits, or wages and salaries — to Australian residents. As was noted in chapter 3 (section 3.2), an international framework for the measurement of Foreign Affiliate Trade in Services (FATS) has been developed internationally that meets this requirement by focusing on majority-owned affiliates.

[107] Dunning, J.H., 1993, *Multinational Enterprises and the Global Economy*, Wokingham, UK, Addison-Wesley.
[108] ABS 2004

In the absence of further economy-wide ABS surveys and statistics for foreign affiliates, outward direct investment data may be used as a proxy to illustrate likely trends in activity by the commercial presence in key overseas markets on behalf of services firms, which are based in Australia. Outward direct investment statistics are therefore also presented.

Sales by foreign affiliates of Australian firms

In its 2002-03 survey of foreign affiliates of businesses based in Australia, the ABS identified some 4,000 foreign affiliates with estimated sales of services of around $65 billion.[109] Sales of services by foreign affiliates in 2002-03 were therefore almost twice the level of services exports recorded in the balance of payments for that year ($36 billion). ITS Global has estimated that allowing for inflation since 2002-03, sales of services by foreign affiliates of Australian based businesses in that year would be of the order of $84 billion. In 2008-09 prices

The results of the 2002-03 survey are summarised in Tables A.2 and A.3.

Table A.2 Services sales by foreign affiliates of businesses based in Australia, by type of service, 2002-03, $ million

Service type	Total sales of services
Transportation services	760
Travel services	np
Communication services	np
Financial and insurance services	25,398
Computer and information services	796
Royalties and license fees	105
Merchanting and other trade-related services	92
Operational leasing services	151
Legal, accounting, management consulting and public relations services	1,877
Advertising, market research, and public opinion polling services	282
Architectural, engineering and other technical services	1,119
Agriculture, mining and onsite processing services	664
Services between affiliated enterprises	np
Other business services	1,641
Other	32,398
Total	**65,282**

np = not available for publication but included in totals
Source: ABS Cat. 5495.0, Table 12.

[109] Sales of goods by foreign affiliates worth $77 billion were recorded. ABS (2002-03), Table 1, p. 12.

The types of services most commonly delivered through foreign affiliates are summarised in Table A.2. For business confidentiality reasons the ABS survey does not offer a clear picture of the sales of services in different sectors. However, it does reveal that Financial and insurance services make up more than one third of services sales by foreign affiliates. Around $32 billion are also divided between those sectors for which data is not revealed, namely, travel services, communication services and 'services between affiliated enterprises'.

Table A.3 shows Australia's key markets for services delivery through commercial presence are the United States, the United Kingdom and New Zealand. In 2002-03, Singapore was a distant fourth. Other key markets for cross-border exports of services – China and Japan – accounted for only 138 Australian-owned foreign affiliates in that year. India was an even smaller market for Australian investors (the number of affiliates is included in an 'other' category). These findings are consistent with the latest findings in the World Bank's *Doing Business* report.[110]

Table A.3 Foreign affiliates of Australian-based businesses, activity measures, selected countries, 2002-03

Country	Affiliates	Employees	Sales of services by foreign affiliates	Sales of goods by foreign affiliates
	No.	No.	$m	$m
Canada	80	6,948	1,288	3,762
China	97	8,866	1,456	2,539
Germany	67	3,472	492	1,434
Hong Kong, China	111	5,900	1.797	919
Indonesia	83	24,330	1,440	2,962
Japan	31	821	451	1,358
Malaysia	134	10,016	206	1,215
New Zealand	718	86,763	10,784	19,228
Singapore	149	5,459	2,451	2,164
United Kingdom	473	38,621	11,426	7,092
United States	1,006	48,894	26,117	16,161
Total for all countries	**4,012**	**321,924**	**65,282**	**77,039**

Source: ABS Cat. 5495.0, Table 1.

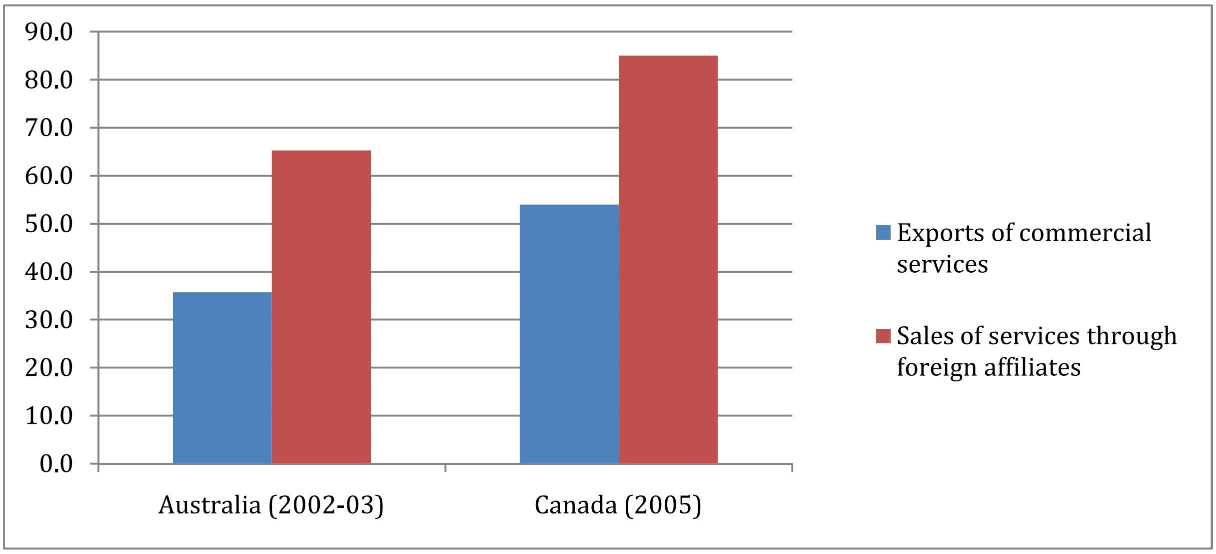
No recent comprehensive survey of foreign affiliate sales has been conducted for Australia, however economy-wide studies in other developed economies (such as Canada and the United States) support general findings regarding foreign affiliate sales in comparison to cross border services sales. In 2005, cross-border sales of services by the United States were valued at $362 billion and through foreign affiliates, $653 billion. In Canada, cross-border services sales

[110] China is ranked 89th and India is ranked 133rd in the *Doing Business Index* for 2010, see http://www.doingbusiness.org/economyrankings/

were worth $54 billion and sales through foreign affiliates were $85 billion.[111] In these three countries, in the years for which this data was collected, sales of services through foreign affiliates accounted for between 60 and 80 per cent more in value than services exported by other means (as illustrated for Australia and Canada in Figure A.4).

In 2006-07, a survey of the Australian legal services industry estimated sales by foreign affiliates of around $149 million.[112] Recorded exports of legal services (ie consumption of legal services by non-residents) were estimated as $279 million. A forthcoming report by ACIL Tasman estimates that for services businesses, the value of international sales via foreign affiliates is around three times that of services delivered to foreign nationals by other means.[113]

Figure A.4 Cross-border exports of services & sales of services through foreign affiliates, Australia & Canada, 2002-03 & 2005, $ million



Source: ABS, WTO.

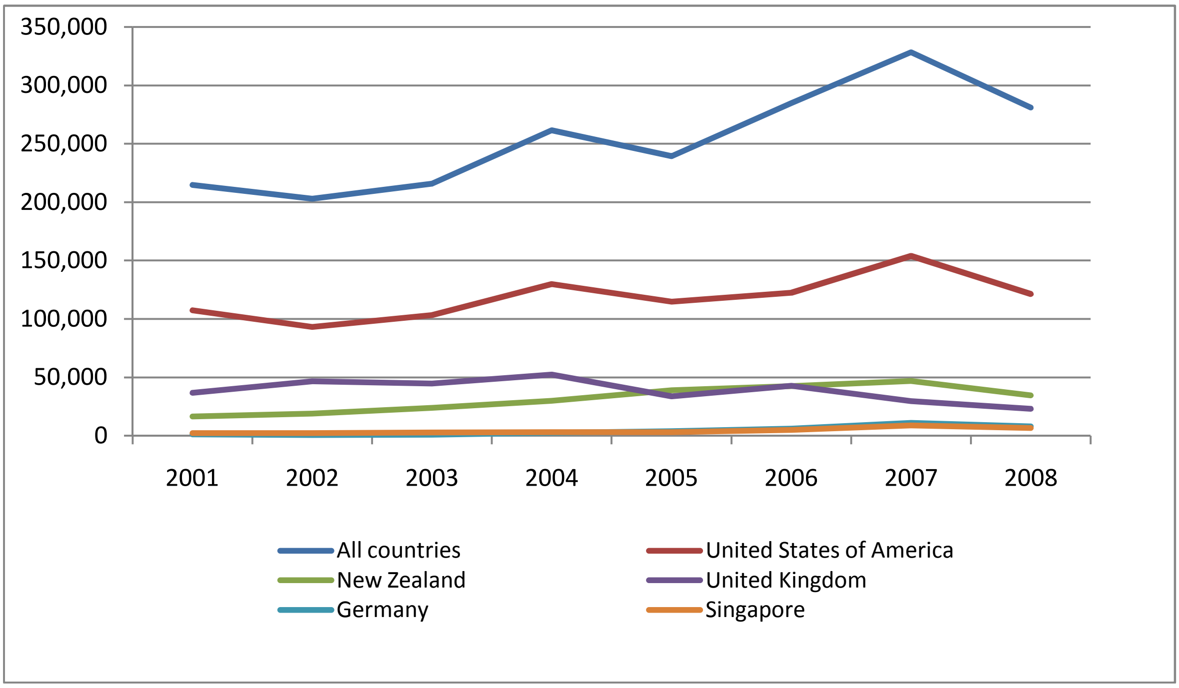
Host countries for Australian outward direct investment

The ABS collects statistics on outward direct foreign investment (FDI) in services industries abroad (on the basis of the ANZIC). The Australian Department of Innovation, Industry Science and Research extensively analysed this data in a report that it published in 2009.[114]

Figure A.5 charts the *total stock* of outward investment to Australia's top five recipient countries from 2001 to 2008 (2009 data is not yet available), namely, the United States of America, New Zealand, the United Kingdom, Germany, and Singapore. Other major recipient countries include Hong Kong, the Netherlands, Switzerland, China, and the Cayman Islands.

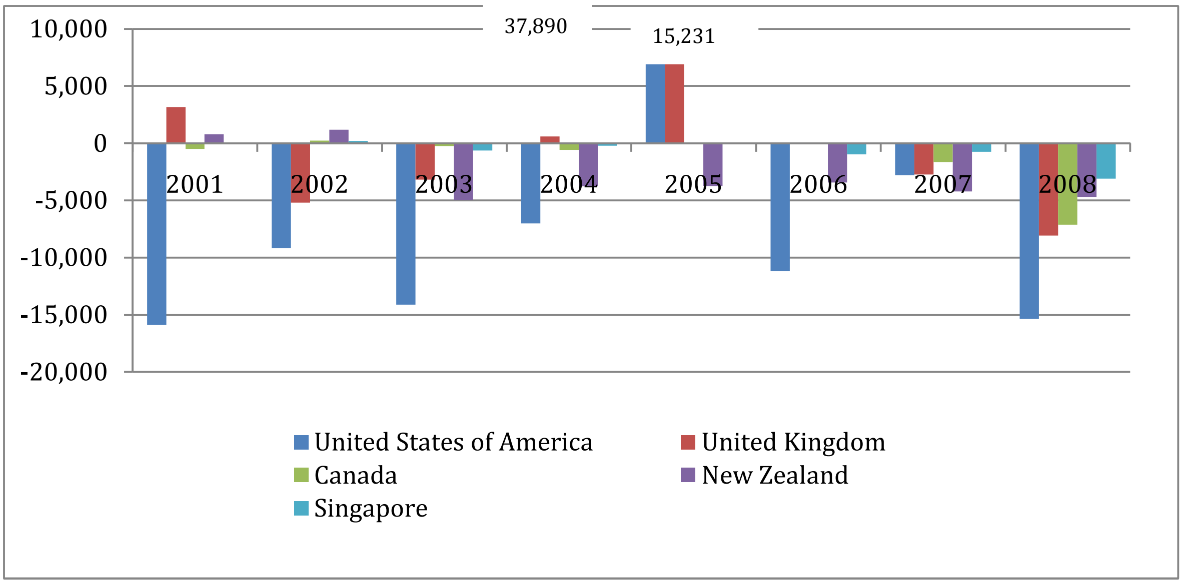
[111] WTO , 2008, *World Trade Developments*, p. 6 [accessed at http://www.wto.org/english/res_e/statis_e/its2008_e/its08_world_trade_dev_e.pdf]
[112] International Legal Services Advisory Council (ILSAC) (2009), *Survey of the Australian Export Market for Legal Services for financial year ended June 2007*.
[113] ACIL Tasman (forthcoming), *Services Roadmap – Scoping and Feasibility Study – Headline Results*, ACIL Tasman Pty Ltd, Melbourne
[114] DIISR, 2009, chapter 8

Figure A.5 Stock of Australian outward FDI, by major country, 2001 to 2008, $ million[115]



Source: ABS Cat. 5352.0, Table 5

Figure A.6 Flow of Australian outward FDI, by major country, 2001 to 2008, $ million



Source: ABS Cat. 5352.0, Table 4

115 Note that the negative sign recorded in the national accounts for investment outflows is not adopted here since no comparison with investment inflows is made.

Outward FDI *flows* to major recipient markets in 2008 are summarised in Figure 4.6. North America is the major destination for Australian flows of outward direct investment; the United States and Canada are the two largest recipient countries. Flows to Canada in particular have increased sharply over the last several years. Direct investment flows must be treated with caution and are variable according to the number and size of merger and acquisitions in any given year.

Direct investment flows to New Zealand have consistently ranged between $3.5 and $4.7 billion a year since 2003. This has New Zealand as fourth largest home to Australian direct investment in 2008, and the largest recipient in 2007 and in 2005. In 2005, returns from existing direct investments in the United States and United Kingdom significantly outweighed outflows to those countries (resulting in flows attributed with a positive sign in the balance of payments).

Appendix 4: ANZ Banking Group Ltd

This Appendix includes details of the ANZ' Group's banking operations in countries through the Asian region.

Cambodia

ANZ Royal Bank is a joint venture bank established by ANZ (55 per cent stake) and the Royal Group (45 per cent stake). The Royal Group is one of Cambodia's largest corporations.

ANZ Royal Bank commenced operations in September 2005. It offers various banking products and services for both personal and business customers. They include the ANZ Access transaction account, Savings Account, Business Account, Term Deposits, Cash Management Account, Telegraphic Transfer, Home Loans, Business Loans, Trade and Payment, and Markets products. ANZ Royal Bank is the only bank that provides internet banking services in Cambodia.

As at August 2008 ANZ Royal Bank had around 80,000 customer accounts and employed over 550 staff, making it the largest retail bank network of any ANZ subsidiary outside Australasia.

ANZ Royal Bank operates a network of 20 branches— covering the major population centres of Phnom Penh, Siem Reap, Sihanoukville, Battambang, Poipet, Kampong Cham and Takhmao — as well as national ATM and Credit Card networks. For this purpose, ANZ Royal Bank operates 39 ATMs in its branches and 87 ATMs off-site.

China

ANZ has branches in Beijing, Shanghai, and Guangzhou, and a sub-branch in Shanghai. It will open a sub-branch in Beijing later in 2010, and has been given approval to open a branch in the Chongqing municipality in southwest China, on the banks of the Yangtze River.

In 2009 ANZ opened the Chongqing Liangping ANZ Rural Bank Co Ltd, which is a wholly- owned banking subsidiary in Liangping county — a rural sub-division of the Chongqing municipality.

ANZ China provides a full range of local currency (Shanghai & Beijing) and foreign currency services (Shanghai, Beijing & Guangzhou) to corporate customers. It also provides local residents and foreigners with personal banking services in foreign currency. ANZ is the only Australasian bank offering commercial banking services in local and foreign currency in Mainland China.

ANZ China offers deposit accounts, term working capital and syndicated loans, inward and outward money transfers and remittances, travellers' cheque issuance and cashing facilities, foreign exchange services, capital certification accounts and a full range of trade-related services including Letters of Credit, pre- and post-shipment financing, bonding and guarantees.

On 7 April 2010 ANZ announced that the China Banking Regulatory Commission had given it preparatory approval to locally incorporate in China. It is the first Australasian bank to be allowed to establish a wholly foreign-owned bank in China. ANZ expects the incorporation process to be completed by the end of 2010.

ANZ has long-term strategic partnerships with the Tianjin City Commercial Bank (a 20 per cent stake, which was acquired in June 2006) and the Shanghai Rural Commercial Bank (a 19.9 per cent stake, which was acquired in September 2007).

Hong Kong

ANZ's Hong Kong office is its strategic hub for North East Asia as well as a full branch. It offers corporate and personal banking services, including domestic and foreign currency lending, private banking, commodity and trade finance, foreign exchange, commodity and interest rate hedging as well as project and structured finance.

In March 2010 ANZ announced that it had completed the acquisition of the RBS retail and commercial businesses in Hong Kong. The acquisition has involved the migration of more than US$1.6 billion in deposits, 40,000 customers, 350 staff and six branches to ANZ Hong Kong. This included the rebranding of the former RBS branches under the ANZ logo.

India

ANZ's operations in India involve ANZ Bangalore and ANZ Capital India Pvt. Ltd. **ANZ Bangalore** is responsible for all the technology, operations and shared service functions of ANZ in India and any work 'off-shored' to it. In recent years, it has also developed a capability to support ANZ's operations and shared services functions. It employs over 4,500 people.

The selection of Bangalore to host these activities reflects its development as a global technology centre. Many of the world's largest companies, including IBM and Microsoft, have based key elements of their technology and operations support functions here.

ANZ Capital India is a wholly-owned subsidiary of ANZ and represents ANZ's banking interests in India. It is incorporated as a Non-Banking Financial Advisory Company and operates from its base in Mumbai, India's leading commercial and financial centre.

ANZ Capital India provides advice on trade finance, project finance, corporate and structured finance and markets. It also provides advisory and counselling services for students and migrants relocating from India to Australia. Although ANZ Capital India cannot provide banking services within India, it can facilitate access to banking services from the ANZ global network.

On 4 March 2010 ANZ announced that the Reserve Bank of India had given approval in principle for ANZ to establish a foreign bank branch in India. ANZ has indicated that it intends to establish the branch in Mumbai within 12 months.

Indonesia

ANZ has a representative office in Jakarta. It also owns 85 per cent of PT ANZ Panin Bank, its joint venture with PT Panin Bank Tbk. ANZ is in the process of acquiring all but one per cent of the minority interest, which would raise its stake in the joint venture to 99 per cent. PT ANZ Panin Bank has about 480 staff, and branches in Jakarta, Surabaya, Medan and Semarang.

On 25 March 2010, ANZ announced it would invest US$100 million to complete the acquisition of the RBS retail and commercial businesses in Indonesia and to accelerate growth in its

Indonesian business. The RBS businesses involve US$0.8 billion in deposits, 450,000 customers and 20 branches. They are being merged with PT ANZ Panin Bank; the process to be completed in June 2010, subject to the approval of the Indonesian authorities. Once completed, PT ANZ Panin Bank will have 28 branches in 11 cities, and 1,000 full-time employees.

ANZ also owns a 39 per cent interest in PT Panin Bank Tbk, which is Indonesia's seventh-largest bank. PT Panin Bank Tbk has more than $8 billion in assets, 400,000 customers, and 364 branches.

Japan

ANZ has branches in Tokyo and Osaka, and opened a sub-branch in Nagoya on 24 May 2010. Between them they employ around 80 staff. The Japanese branches provide retail, corporate and institutional banking services, including project and structured finance, corporate finance, commodity and trade finance, investor services, markets and foreign exchange. They offer deposits, fixed and at call, in the major currencies, residential property loans in Australasia, Australasian remittances or money transfers in any currency, and a comprehensive treasury service that includes foreign exchange dealing in the spot, forward, swap and inter-bank markets, as well as money market activities in the major currencies.

Laos

ANZ Vientiane Commercial Bank Limited (ANZV) is a joint venture bank, which was established in 2007 by the ANZ, the original shareholders of Vientiane Commercial Bank Ltd (VCB), and the International Finance Corporation (IFC).[116] The ANZ now owns 90 per cent of the joint venture and is in the process of acquiring the remaining interest in ANZ Vientiane Commercial Bank held by the IFC. ANZ Vientiane Commercial Bank operates three branches — two in Vientiane and one in the Pakse District of Champasack Province of Laos.

Malaysia

ANZ has a representative office in Kuala Lumpur. In 2007 ANZ purchased a 19.1 per cent interest in the AmBank Group, Malaysia's fifth largest financial institution with total assets of US$21 billion and more than four million customers. It has since increased its interest to 24 per cent, as at 30 June 2009.[117] The ANZ-AmBank partnership in Malaysia provides a full range of banking products and services to ANZ clients to meet working capital, trade, debt and equity capital markets requirements in Malaysia.

The Philippines

ANZ is licensed to provide commercial banking and derivatives services in the Philippines. As a consequence, ANZ Manilla offers a full range of Institutional and Personal banking services.

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[116] The International Finance Corporation is the private sector investment arm of the World Bank. The IFC has investments in 25 financial institutions in 10 countries.
[117] ANZ [Australia and New Zealand Banking Group Ltd], 2009, 2009 Annual Report, Australia and New Zealand Banking Group Ltd, Melbourne

On 23 November 2009 ANZ announced that it had completed the acquisition of the RBS institutional banking business in the Philippines, involving more than 100 customers and deposits of more than US$40 million. ANZ has rebranded the RBS branch and merged it with its Manilla Branch.

ANZ also owns a 40 per cent stake in Metrobank Card Corporation, which is one of the leading credit card issuers in the Philippines.

Singapore

ANZ Singapore is one of the Group's designated regional hubs in Asia. It has more than 2,000 staff providing services in institutional and corporate banking, financial markets, trade finance, corporate finance, retail banking, private banking and investment banking.

On 17 May 2010 ANZ announced that it had completed the acquisition of the RBS retail and commercial businesses in Singapore. They involve deposits of around US$1 billion, 350,000 customers, one branch, and 19 ATMs.

South Korea

ANZ has a branch in Seoul. It offers a broad range of commercial banking products and services to support the ANZ's international and local customers in their business activities in South Korea.

The product range includes both trade finance services and corporate finance consisting of working capital loans, short term funding in Won and foreign currency, medium term loans and foreign currency term and revolving facilities. Treasury services are provided covering both money market activities and foreign exchange transactions. Interest rate swap services are also available. Other services include travellers' cheques and travel services, money transfers and remittances via drafts and/or telegraphic transfers.

Taiwan

The ANZ branch in Taipei provides individuals, companies and financial institutions with investment, financing, risk management and transaction services. They include:

- Retail banking: transaction and savings accounts, loans, mortgages, and credit cards;
- Wealth management and investments;
- Private Banking: tailored wealth and investment services;
- Commercial Banking: lending, transaction services, trade finance and foreign exchange services for businesses;
- Institutional Banking: cash and transaction management; currency, commodities and interest rate risk management; lending; and trade finance.

On 19 April 2010 ANZ announced that it had completed the acquisition of the RBS retail and commercial businesses in Taiwan. This included the additional acquisition of the ABM AMRO

Private Banking Business in Taiwan, which had previously been closely associated with the RBS retail and commercial businesses in that country. The RBS businesses have deposits of US$2.7 billion, 1.3 million customers, and 21 branches.

As a consequence, the ANZ now has 22 branches covering all the major cities of Taiwan. It has rebranded its Taiwanese business with the Chinese business name — Au Sheng Yin Hang — and is progressively extending the new branding to its businesses in China and Hong Kong.

Thailand

ANZ has a representative office in Bangkok. It cannot provide banking services within Thailand but arranges offshore banking facilities for companies doing business in Thailand. It also advises customers on opportunities for investment and potential joint venture partners in Thailand, and organises introductions to Thai corporations and government officials.

Vietnam

ANZ Bank (Vietnam) Ltd (ANZV) is the Group's wholly-owned bank subsidiary in Vietnam. ANZV has ten branches and transaction offices in Hanoi and Ho Chi Minh City, as well as a representative office in Can Tho. It employs more than 580 staff.

ANZV provides a full range of banking services — institutional and corporate banking, financial markets, trade finance, SME banking, and retail banking. The retail services are delivered through a local banking web site, a 24/7 customer telephone service, a national ATM network, an extensive EFTPOS network, and a mobile banking channel.

On 7 December 2009 ANZ announced that it had completed the acquisition of the RBS retail and commercial businesses in Vietnam, which were merged with ANZV. At the same time, ANZV opened what would become its 10th branch, in Ho Chi Minh City, and is now the leading foreign bank in Vietnam.