The Economic Contribution of Copyright-Based Industries in Australia

Prepared for the Australian Copyright Council by Price Waterhouse Coopers

Contents

This Report has been prepared by PricewaterhouseCoopers (PwC) at the request of the Australian Copyright Council (ACC) in our capacity as advisors in accordance with the Terms of Reference and the Terms and Conditions contained in the Consultant Agreement between ACC and PwC.

The information, statements, statistics and commentary (together the "Information") contained in this report have been prepared by PwC from publicly available material. The Consultants may in their absolute discretion, but without being under any obligation to do so, update, amend or supplement this document. PwC has based this report on information received or obtained, on the basis that such information is accurate. The Information contained in this report has not been subject to an Audit.

Comments and queries can be directed to:
Jeremy Thorpe
Partner – Economics and Strategy
PricewaterhouseCoopers
210 Sussex Street
Sydney NSW 2000
Phone: (02) 8266 3730
Email: jeremy.thorpe@au.pwc.com

Key findings

Copyright is a key piece of infrastructure that supports the industries that comprise a modern economy

The World Intellectual Property Organization (WIPO) has identified four classes of copyright industries:

- **Core –** industries that exist only because of copyright and are primarily involved in the creation, manufacture, production, broadcast and distribution of copyrighted works.
- **Partial –** a portion of the industries' activities are related to copyright through manufacture, performance, exhibition, broadcast, communication or distribution and sales.
- **Interdependent –** involved in the manufacture, performance, broadcast and communication in order to support and facilitate the creation of copyrighted works and other protected subject matter.
- **Non-dedicated support –** duties are included in this group where part of the activities are related to broadcast, communication, distribution and sales in protected subject matter and they are not included in the core copyright industries.

Copyright industries comprise a substantial proportion of the Australian economy

In the most recent year for which data is available (2006/07), Australia's copyright industries:

- employed 837,507 people, which constituted 8.0% of the Australian workforce
- generated economic value equal to 10.3% of gross domestic product ($97.7 billion)
- generated $6.873 billion in exports, equal to 4.1% of total exports.

Australia's copyright industries have grown considerably over the past 12 years

Over the period 1995/96 to 2006/07 the real (i.e. inflation adjusted) compound annual growth rate (CAGR) for the copyright industries averaged 4.7%, with the core copyright industries growing 5.1% per year. This compares to a CAGR for gross domestic product (GDP) of 3.6% over the same period.

Productivity growth in Australia's copyright industries has resulted in significant real wages growth

Spurred by digitisation, the value generated in Australia's copyright industries has increased in real terms over the period 1995/96 to 2006/07 from $85,512 to $116,742 per employee. As a result, the real average wage for people employed in the copyright industries increased from $51,572 in 1995/96 to $61,355 in 2006/07.

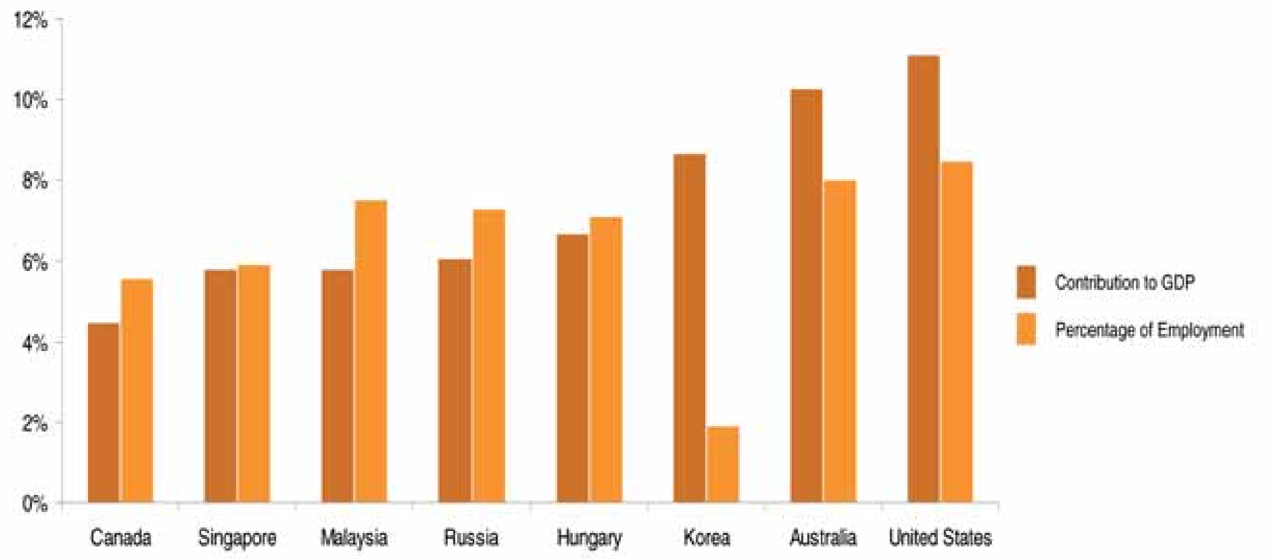
Australia remains a significant net importer of copyright goods and services

While exports of copyright products has grown in real terms by 0.6% per year over the period 1995/96 to 2006/07, imports have grown at 2.1%. In 2006/07 Australia had a trade deficit of just under $20.8 billion in the copyright industries.

Australia's economy has a relatively high dependence on copyright industries

In comparison with other economies that have been analysed using the same WIPO framework as used in this report, the Australian economy appears to have a greater copyright intensity than average in terms of both value added by, and employment in, the copyright industries.

Country comparison (latest available years)



Source: WIPO
Note: Canadian and Singaporean estimates are understated

Introduction

Copyright was once viewed as a specialist branch of law focused primarily on the protection of artistic expression and hence focused on the protection of artistic creations such as music, literature, paintings, and so on.

Such a narrow conception overlooked the fact that copyright was born as a result of the advent of the first technology for the production of copies of works (i.e. printing with movable type). The subsequent development of copyright has been shaped by ongoing technological developments and their associated commercial exploitation.

In the past decade interest in the economic impact of copyright has been driven by a number of inter-related factors:

- The shift to a services economy — while Australia is commonly perceived as being an economy reliant upon agriculture and resources, in fact it has evolved to one reliant on services. For example, the Australian Services Roundtable (2008, p. 8) notes that, "In Australia, services account for 78 percent of GDP and 60 percent of domestic investment. Services employ 8.5 of every 10 Australians, with all net job growth over the past two decades taking place within the services sector." Services industries are disproportionately users and/or producers of copyright material and so the growth in services has occurred in conjunction with the growth of copyright industries.

- The mainstream adoption of the Internet, digital production and distribution — Australians have embraced the use of the Internet, with usage increasing from 33.8% of the population in 2000 to 74.3% in December 2007 (Internet World Stats 2008). This is significant, as use of information and communications technologies has significantly increased the scope of the subject matter for copyright protection, with the ongoing growth of Internet usage and digital delivery of copyright materials drawing copyright into the lives of all members of society.

- There is an increasing understanding of the value attached to intangible assets, including copyright — much of the value of the leading companies in the world today resides in their portfolio of intangible assets. For example, PwC research in the United Kingdom shows that total intangible assets comprise, on average, some 80% of companies' value (Hadjiloucas 2007). This has caused business to focus its attention on copyright and intellectual property more greatly.

- Copyright, and intellectual property protection more generally, has been embedded as a mandatory element in international trade negotiations — this has resulted in both a standardised set of expectations and an acknowledgement of the importance of trade in copyright products.

Consistent with this greater interest in better understanding the size and economic contribution of those industries which rely, to varying degrees, on protections afforded by copyright law, this study uses a recently published global framework (WIPO 2003) to better understand the economic contribution of Australia's copyright industries.

Study methodology

A global framework

An important development since the last study of the economic contribution of Australia's copyright industries (ACG 2001) has been the development of a standardised global framework by the World Intellectual Property Organization (WIPO) (WIPO 2003).

WIPO sought to develop a common framework so that the myriad of country-specific studies that had been independently prepared could be made more transparent methodologically, and the results more directly comparable. As a result, WIPO endorsed:

- a new framework for classifying particular industries as being within the 'copyright industries'. It grouped industries into four groups — core, partial, non-dedicated support, and interdependent — which, combined, form the 'total' copyright industries. The following table provides a summary of the classifications.
- generic set of performance indicators. Consistent with most previous studies, the suggested focus is on 'value add', trade in copyright products and employment.

The following table provides a brief description of the four copyright industry groups. The table on the following page provides a greater level of detail of the specific sectors and products that comprise the copyright industries.

Copyright industries	Description
Core	Primarily involved in the creation, manufacture, production, broadcast and distribution of copyrighted works and have a substantial level of copyright activities. These are industries that would not be in existence if not for the copyright subject or matter
Interdependent	Involved in the manufacture, performance, broadcast and communication of copyright material, in order to support and facilitate the creation of copyrighted works and other protected subject matter
Partial	A portion of activities which are related to copyright through manufacture, performance, exhibition, broadcast, communication or distribution and sales
Non-dedicated	Part of the activities are related to broadcast, communication, distribution and sales in protected subject matter and not included in the core copyright industries.

Industry components

Main sectors	Products
Core	
Press and Literature	• Authors, writers, translators; • Newspapers; • News and feature agencies; • Magazines/periodicals; • Book publishing; • Cards and maps, directories and other published material; • Pre-press, printing, and post-press of books, magazines, newspapers, advertising materials; • Wholesale and retail of press and literature (book stores, newsstands, etc); • Libraries
Music, Theatrical Productions, Operas	• Composers, lyricists, arrangers, choreographers, directors, performers and other personnel; • Printing and publishing of music; • Production/manufacturing of recorded music; • Wholesale and retail of recorded music (sale and rental); • Artistic and literary creation and interpretation; • Performances and allied agencies (bookings, ticket agencies, etc.)
Motion Picture and Video	• Writers, directors, actors etc.; • Motion picture and video production and distribution; • Motion picture exhibition; • Video rentals and sales, video on demand; • Allied services
Radio and Television	• National radio and television broadcasting companies; • Other radio and television broadcasters; • Independent producers; • Cable television (systems and channels); • Satellite television; • Allied services
Photography	• Studios and commercial photography • Photo agencies and libraries
Software and Databases	• Programming, development and design, manufacturing; • Wholesale and retail prepackaged software (business programs, video games, educational program etc.) • Database processing and publishing
Visual and Graphic Arts	• Artists; • Art galleries, other wholesale and retail; • Picture framing and other allied services; • Graphic design
Advertising Services	• Agencies, buying services
Copyright Collecting Societies	
Interdependent	
TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment, and other similar equipment	• Manufacture • Wholesale and retail
Computers and Equipment	• Manufacture • Wholesale and retail (sales and rental)
Musical Instruments	• Manufacture • Wholesale and retail (sales and rental)
Photographic and Cinematographic Instruments	• Manufacture • Wholesale and retail (sales and rental)
Photocopiers	• Manufacture • Wholesale and retail (sales and rental)
Blank Recording Material	• Manufacture • Wholesale and retail
Paper	• Manufacture • Wholesale and retail

Main sectors	Products
Partial	
Apparel, textiles and footwear Jewelry and coins Other crafts Furniture Household goods, china and glass Wall coverings and carpets Toys and games Architecture, engineering, surveying Interior design Museums	
Non-dedicated Support	
General wholesale and retailing General transportation Telephony and Internet	

While the WIPO framework is similar to that previously used in Australia, the key distinction is that it takes a slightly more expansive view of the industries that are classified as being copyright-related. This means that studies that have not used the WIPO framework (e.g. ACG 2001) are not directly comparable with this study.

This slightly expanded view of what constitutes the copyright industries is a challenge as some previous studies of copyright industries criticised definitions that may be said to inflate the perceived value of copyright (Revesz 1999; Ricketson 2000).

However, a more expansive definition of copyright industries more effectively captures the direct and flow-on impacts commonly identified using input-output (i.e., multiplier) analysis or 'general equilibrium' macro-economic models of the economy.

WIPO considers this risk is a worthwhile one as it allows more consistent cross-country comparisons, and so may be more useful for policy-makers in the longer term.

Similarly, while 'economic contribution studies are generous in their ascribing economic contribution solely to copyright' (Thorpe 2004, p 45), there are a number of countervailing assumptions that mean that the methodology does not capture some elements of the economic contribution of copyright industries:

- the value of copyright in intermediate goods and services is not included. Many organisations produce copyright materials as intermediate goods which are not explicitly accounted for in official data. Examples may include internal databases, manuals for equipment and processes, teaching materials, movies, pictures, and so on
- production of pirated copyright products is not included even though they are copyright industries, and
- copyright goods and services produced in non-commercial settings are not included. While there is significant personal activity that is copyright-related and demonstrates value-adding as a consumption good, their production is unpriced and hence unmeasured.

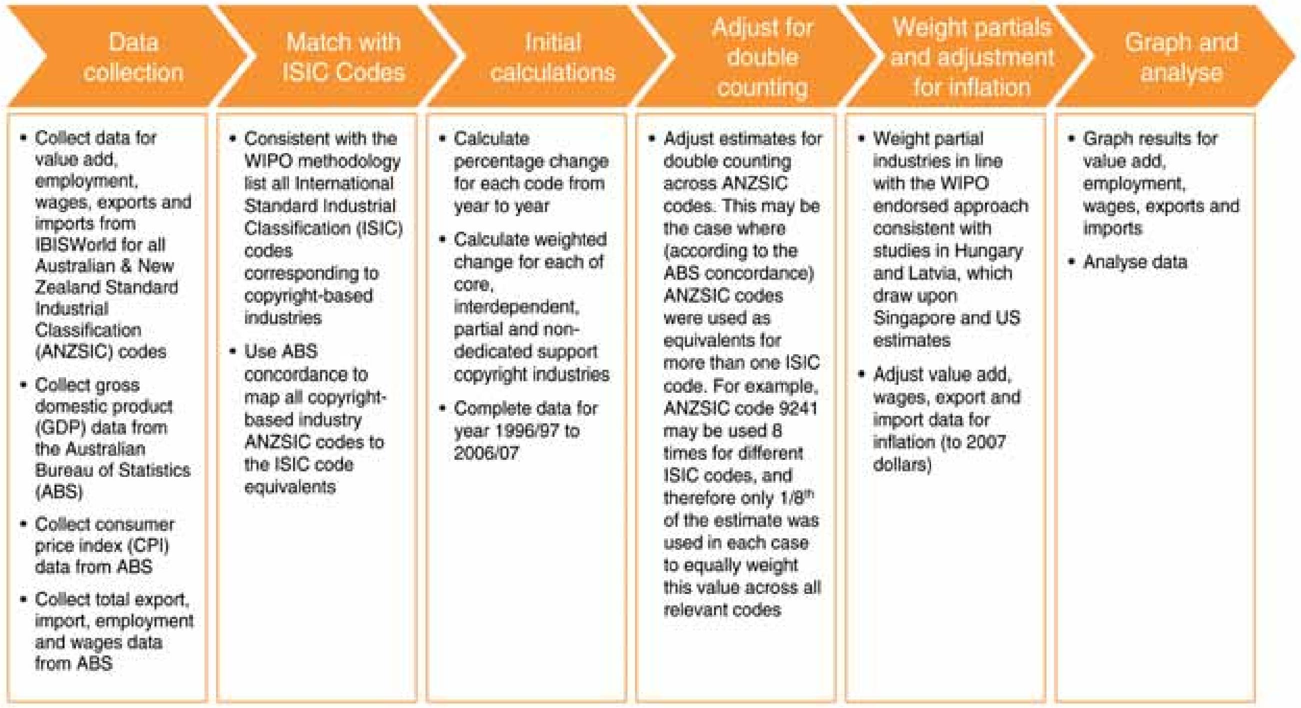
While value judgements are required in coding the data for the copyright industries, this report has focused on trends, as 'Trends will be less influenced by methodological and contextual differences, as long as these differences are stable over time.' (Madden 2004, p 10)

It should also be remembered that, even though the focus of this report is upon quantification of the copyright industries:

> The true cultural value of copyright cannot be fully captured by measuring the value-added in the cultural industries however accurate those measures are because there are external benefits that are not priced through the marketplace; the national culture, a creative environment and freedom of expression are examples of non-appropriable benefits. (Towse 2000, p 115)

Application of the WIPO framework

The process undertaken in this study, consistent with the WIPO (2003) methodology, is shown in the following figure. It reflects the challenges of obtaining relevant data and then matching that data to the WIPO industry classifications and undertaking the subsequent analysis.



Note: Due to the disaggregation requirements for the analysis process, all value add, employment, wages, exports and imports disaggregated data is sourced from Custom IBIS world data. All inflation, GDP and all other aggregate data is source from the ABS.

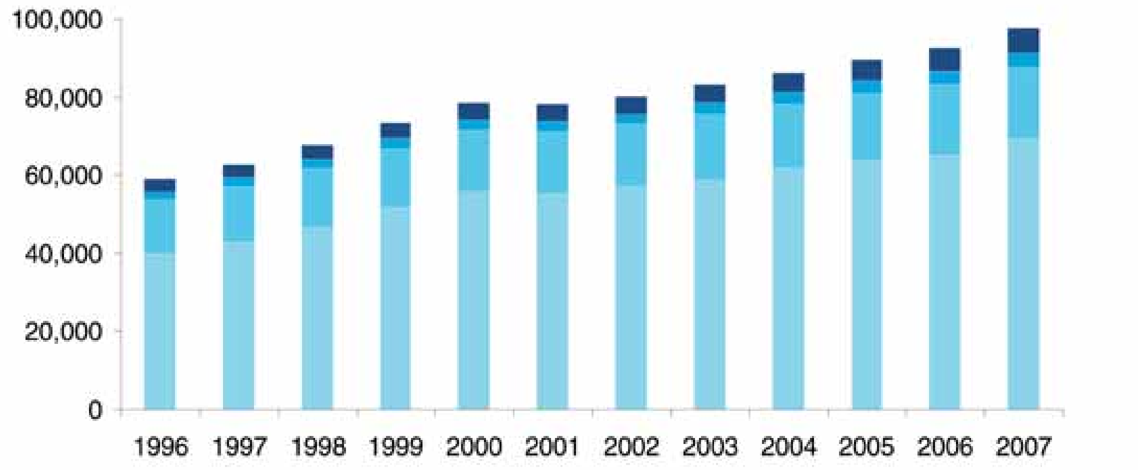
Note: All years refer to financial years (e.g. 1996 refers to the 1995/1996 financial year

1. Value added by copyright industries

The key measure of an industry's economic contribution is its 'value add'. Value added is the value of gross outputs of a particular industry less the value of inputs from other industries. The sum of all industries' value add is the nation's gross domestic product (GDP). Thus, looking at the value add of Australia's copyright industries provides a measure of the relative importance of the copyright industries.

As shown in the figure below, there has been considerable growth in the value added by the copyright industries, increasing in real (i.e. inflation adjusted) terms from $58.9 billion in 1995/96 to $97.8 billion in 2006/07.

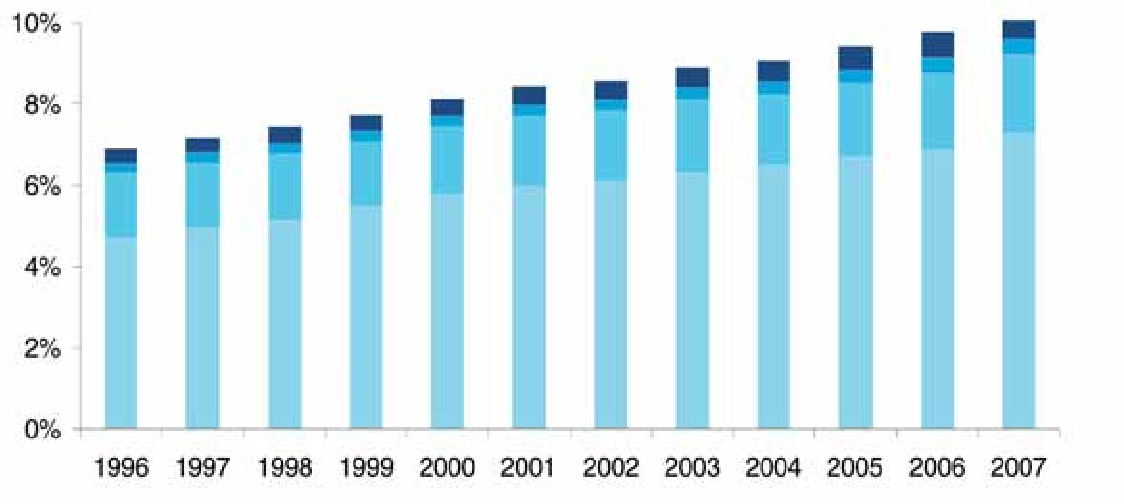
Value add of copyright industries ($2007, $million)



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Core	40,048	43,039	46,699	51,701	55,629	55,239	56,900	58,874	61,836	63,824	65,090	69,077
Interdependent	13,477	13,954	15,030	15,136	15,905	16,003	16,113	16,777	16,353	17,138	18,102	18,596
Partial	2,130	2,291	2,444	2,559	2,616	2,547	2,653	2,772	2,922	3,132	3,417	3,655
Non-Dedicated	3,239	3,427	3,744	3,934	4,235	4,388	4,444	4,655	5,070	5,574	6,037	6,444

While the dollar value of copyright industries' value add increased by about 66.0% over 12 years (see previous figure), the copyright industries' contribution to gross domestic product increased by only 48.4% (see figure below). This relatively lower view of copyright industry growth reflects the real growth over the same period in a number of major non-copyright industries (e.g., mining and resources).

Value add of copyright industries as a percentage of gross domestic product



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Core	4.7%	4.9%	5.1%	5.5%	5.8%	6.0%	6.1%	6.3%	6.5%	6.7%	6.9%	7.3%
Interdependent	1.6%	1.6%	1.6%	1.6%	1.7%	1.7%	1.7%	1.8%	1.7%	1.8%	1.9%	2.0%
Partial	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%
Non-Dedicated	0.4%	0.4%	0.4%	0.4%	0.4%	0.5%	0.5%	0.5%	0.5%	0.6%	0.6%	0.7%

Over the period 1996 to 2007 the compound annual growth across the copyright industries has averaged 4.7%, with the core copyright industries growing 5.1%. This compares to a CAGR for GDP of 3.6% over the same period (i.e., 31% higher growth than GDP over the same period).

Copyright Industries	CAGR
Core	5.1%
Interdependent	3.0%
Partial Copyright	5.0%
Non-Dedicated Support	6.5%
Total	4.7%

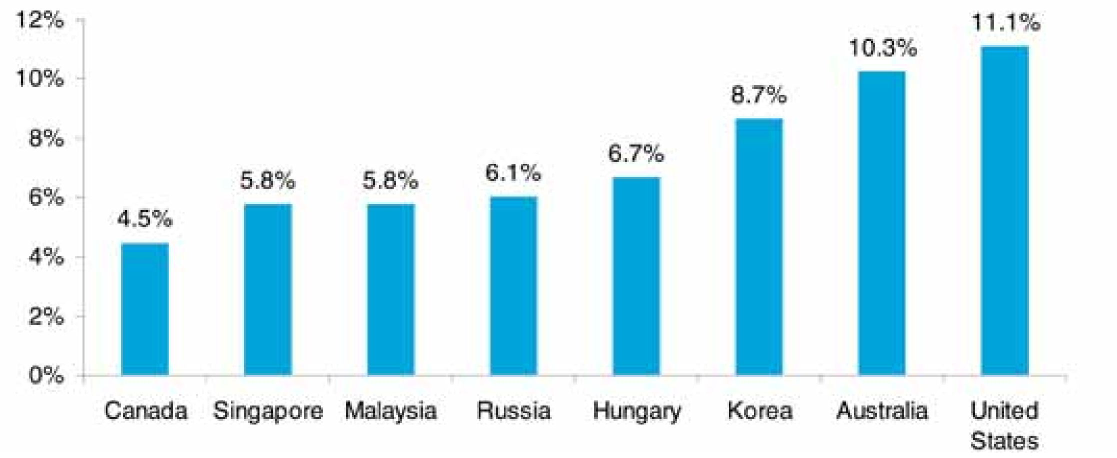
Press and Literature	3.9%
Music, Theatrical Productions, Operas	2.7%
Motion Picture and Video	3.2%
Radio and Television	4.1%
Photography	5.2%
Software and Databases	10.4%
Visual and Graphic Arts	5.0%
Advertising Services	3.2%
Copyright Collecting Societies	2.8%

Within the core copyright industries, not surprisingly, the greatest growth in value added has been in 'Software and database'.

Interestingly, the relative composition of the copyright industries has not changed significantly between the four major industry groups over the 12-year period with which this study is concerned.

In comparison with a number of other countries that have employed the WIPO framework, Australia's economy appears to be relatively more dependent upon copyright industries as a generator of value add and gross domestic product.

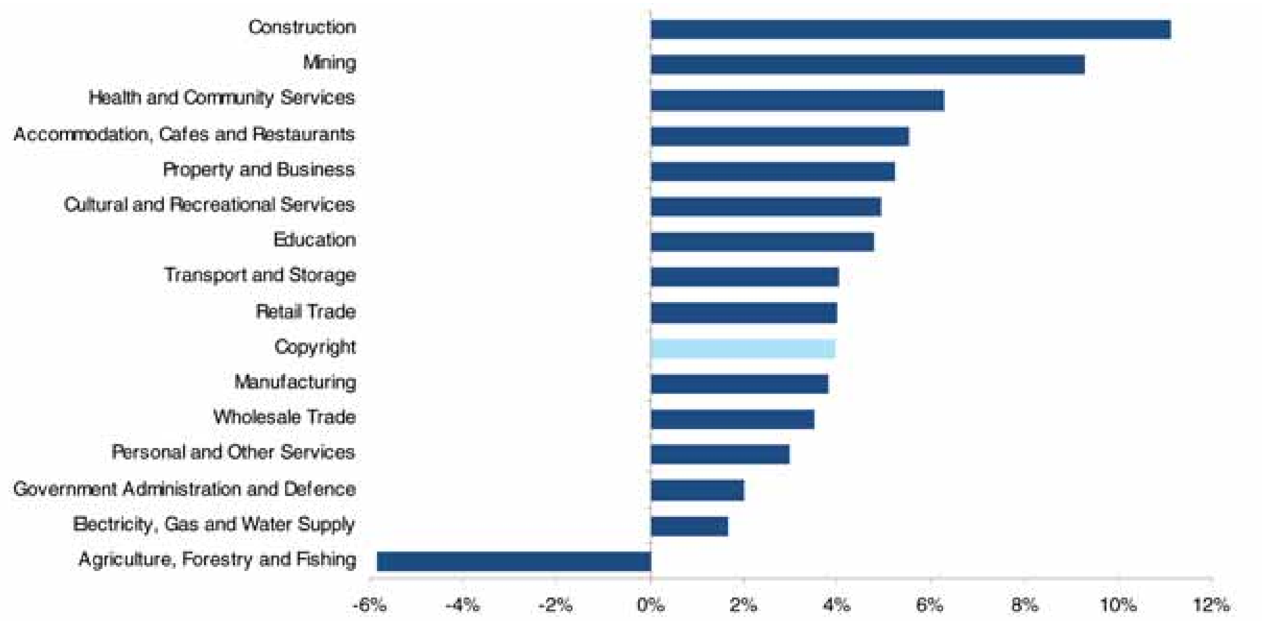
Value add by copyright industries as a percentage of gross domestic product (latest available years)



Source: WIPO
Note: Canadian and Singaporean estimates are understated

Real compounding annual growth rate (CAGR) of value add (2002 – 2007)

The Australian copyright industries have experienced moderate growth over the last 5 years compared to other primary Australian industries. The copyright industries experienced 4.0% real compounding annual growth over the period 2002 – 2007, in comparison to the CAGR of 4.7% over the period of 1996 – 2007.

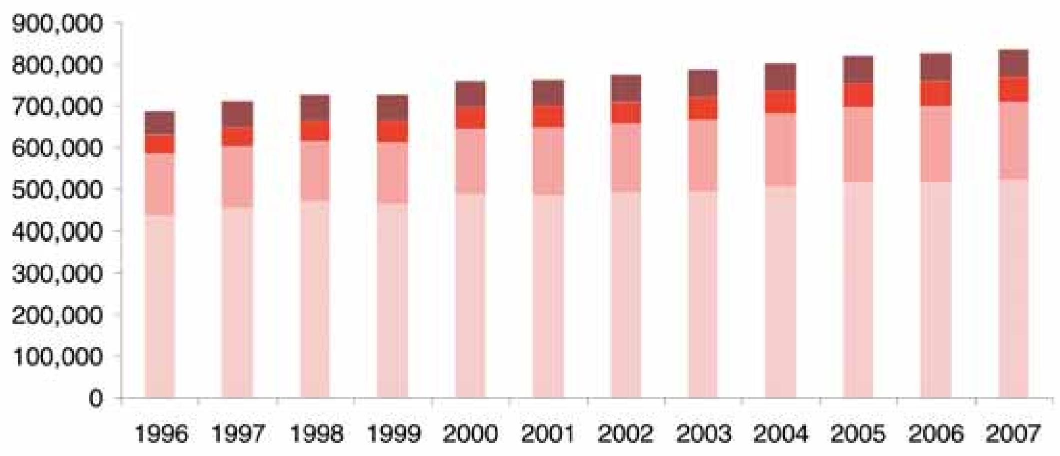


2. Employment in copyright industries

Copyright industries have traditionally been seen as employment intensive, reflecting the personal contribution required to generate the intellectual property. The available data suggests that this historical presumption may be breaking down.

Employment in Australian copyright industries has grown over the past 12 years, with an average of 769,320 people employed in the copyright industries during that period.
Employment in copyright industries

Employment in copyright industries



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Core	437,457	454,838	468,203	464,910	488,010	483,911	490,097	494,377	504,570	514,931	514,469	520,901
Interdependent	148,696	147,984	147,605	148,452	157,280	163,710	167,449	173,111	177,410	182,304	187,038	189,291
Partial	44,340	46,581	48,609	50,654	51,427	51,313	52,829	53,954	55,020	56,617	58,452	59,691
Non-Dedicated	58,242	61,639	63,594	63,412	65,154	63,491	64,766	65,813	66,721	67,130	67,765	67,624

Not surprisingly, in the core copyright industries employment has grown most significantly in the software and database industries.

Compound annual growth in employment

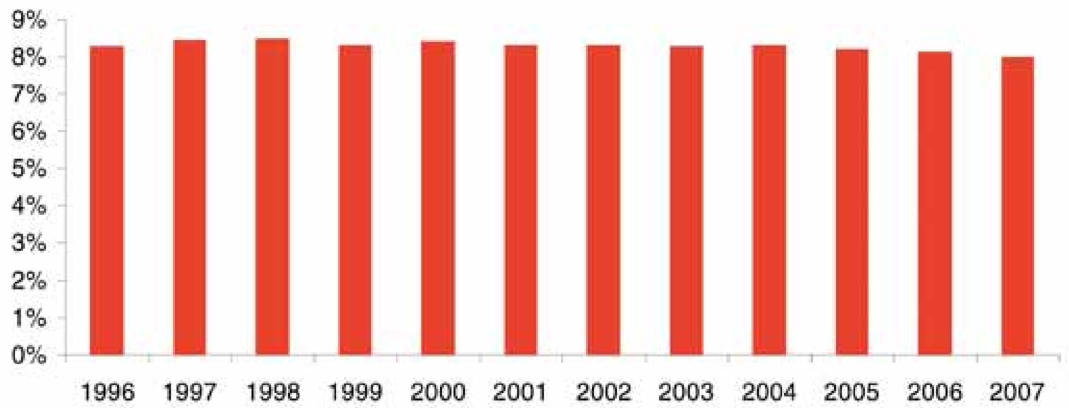
Copyright Industries	CAGR
Core	1.6%
Interdependent	2.2%
Partial	2.7%
Non-Dedicated Support	1.4%
Total	1.8%

Press and Literature	1.6%
Music, Theatrical Productions, Operas	1.4%
Motion Picture and Video	3.8%
Radio and Television	0.5%
Photography	1.9%
Software and Databases	7.3%
Visual and Graphic Arts	1.6%
Advertising Services	1.9%
Copyright Collecting Societies	3.5%

The relative distribution across the four copyright sectors has remained almost constant over the 12 years analysed.

While employment in the copyright industries has increased over time, as a percentage of the workforce the copyright industries now employ a slightly lower percentage of the workforce (8.0% versus 8.3% in 1996). This reflects a combination of efficiencies in the copyright industries (largely due to digitisation) and strong employment growth in non-copyright industries (such as mining and resources).

Employment in copyright industries as a percentage of employed persons



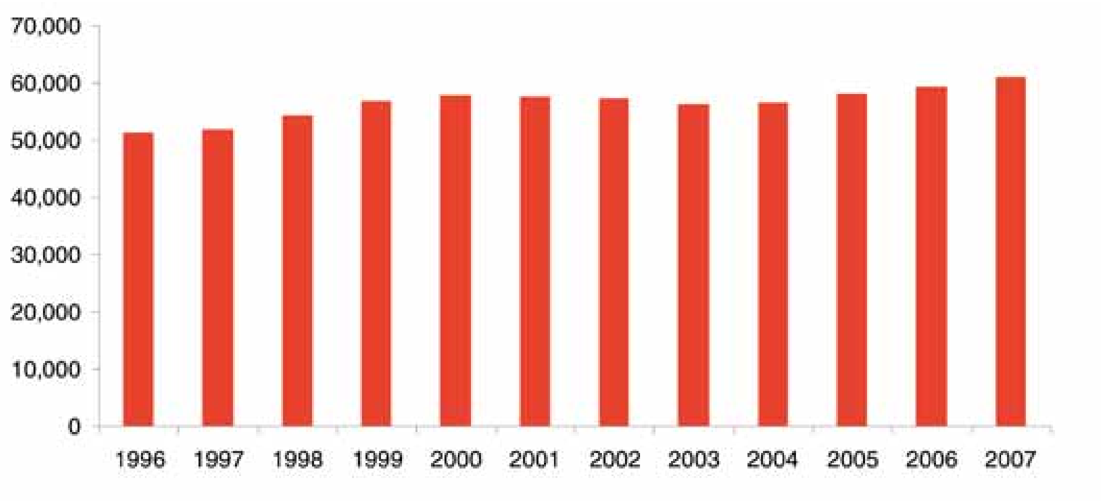
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total percentage of Employed Persons	8.3%	8.5%	8.5%	8.3%	8.4%	8.3%	8.3%	8.3%	8.3%	8.2%	8.1%	8.0%

As the following table shows, real wages growth in Australia's copyright industries has exceeded employment growth.

Copyright Industries	CAGR	
	Employment	Wages
Core	1.6%	4.0%
Interdependent	2.2%	3.2%
Partial	2.7%	5.3%
Non-Dedicated Support	1.4%	2.0%
Total	1.8%	3.4%

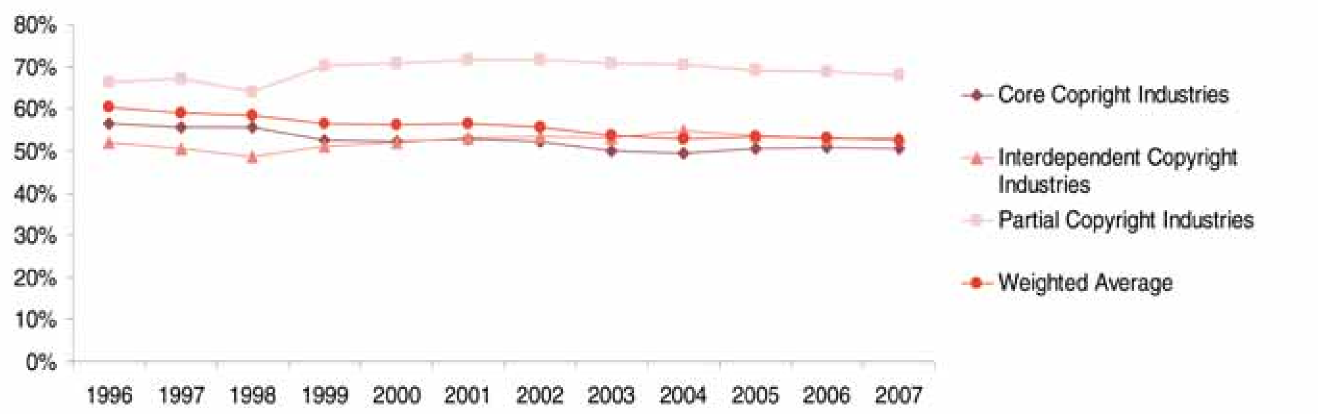
Indeed, the last 12 years have seen average wages in the copyright industries grow in real terms, from $51,572 in 1995/96 to $61,355 in 2006/07 per employee.

Average real wage per copyright employee ($2007)



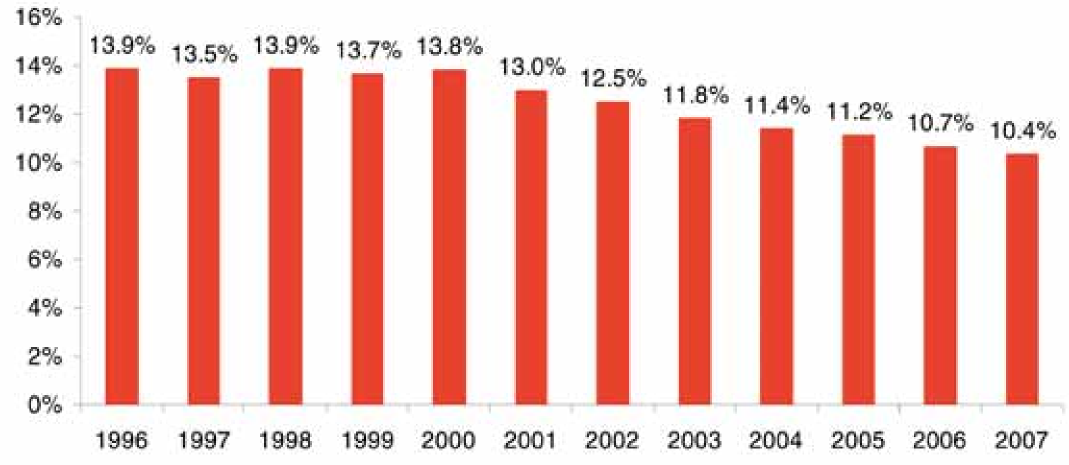
This wage growth has not resulted in a major shift to labour (i.e. employees) from other factors of production. Employees in copyright industries are achieving higher real wages, but owners of capital and land in the copyright industries are also receiving higher real returns. As the following diagram shows, real copyright industry wages as a percentage of value add generated in the copyright industries has decreased by about 13% over the past 12 years.

Real copyright industry wages as a percentage of value added in copyright industries



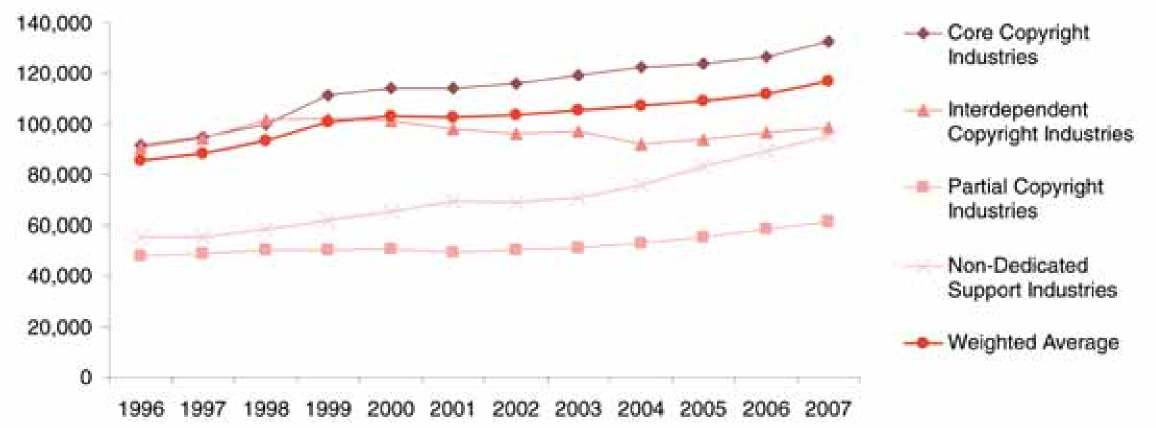
Furthermore, although copyright wages have fallen as a percentage of total wages (see figure below), copyright jobs are, on average, better remunerated than the economy as a whole.

Copyright wages as a percentage of total wages



The real increase in copyright wages reflects the labour productivity growth that has been evident in the copyright industries over the period 1995/96 to 2006/07.

Real value add per employee ($2007)



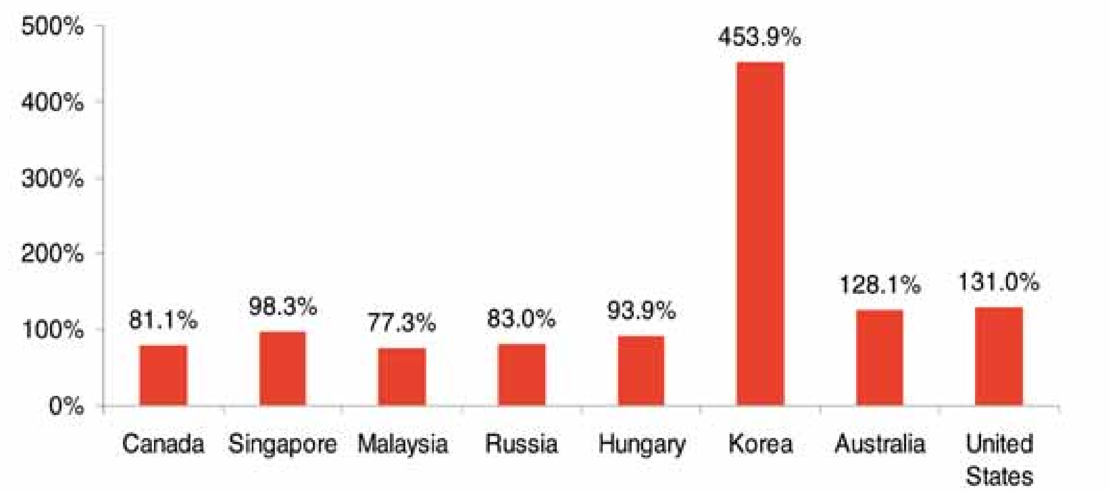
In comparison with a number of other country studies that have employed the WIPO framework (see figure immediately below), Australia's employment intensity appears stronger. That is, we have a higher percentage of the workforce employed in copyright industries.

Copyright employment as a percentage of total employment (latest available years)

Source: WIPO
Note: Canadian and Singaporean estimates are understated

Even with the relatively higher employment intensity, Australia's copyright industries show relatively high labour productivity. That is, value add divided by employment (both in percentage terms) is greater than 100%. Our level of productivity reflects our modern economy, and a relatively balanced mix of activity across the four copyright industry groups (Korea is an example of where its equipment production demonstrates significantly higher labour productivity).

Value added as a percentage of GDP divided by employment as a percentage of total employment (latest available years)



Source: WIPO
Note: Canadian and Singaporean estimates are understated

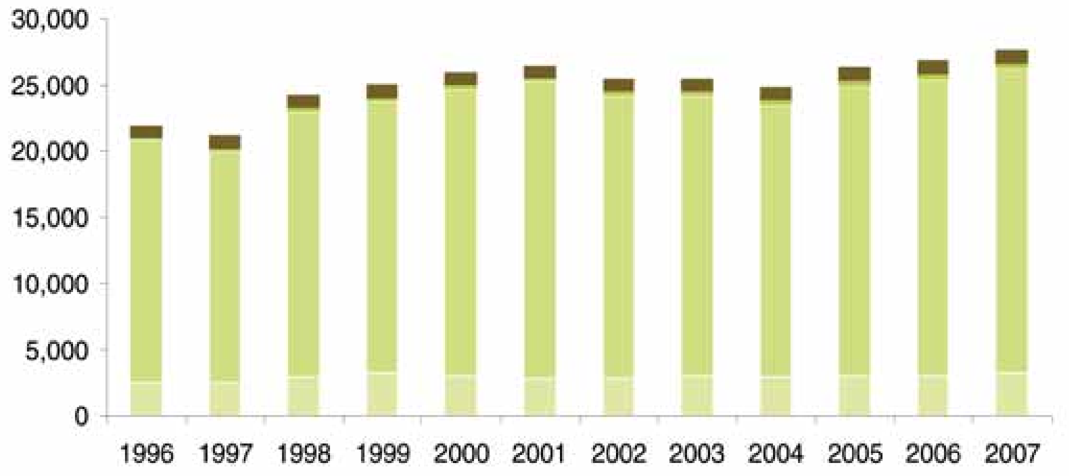
3. Trade in copyright products

It has always been understood that Australia is a net importer of copyright products. This reflects both our small size in the world economy and the fact we are an English speaking country, and hence draw significantly upon the cultural output of the United States and United Kingdom.

Imports

As the following figure shows, Australian consumption of overseas copyright-related products has grown over the past 12 years, but not in an even pattern of growth. Imports grew and peaked in 2000/01, then fell through to 2003/04, at which time import growth rose again.

Copyright related imports ($2007, $million)



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Core	2,560	2,486	2,889	3,209	3,032	2,802	2,864	3,006	2,910	2,985	3,028	3,250
Interdependent	18,210	17,454	20,073	20,542	21,637	22,402	21,268	21,118	20,543	21,912	22,329	22,889
Partial	170	189	232	235	248	255	286	321	357	398	434	476
Non-Dedicated	1,022	1,044	1,091	1,096	1,041	1,054	1,046	986	1,054	1,068	1,060	1,058

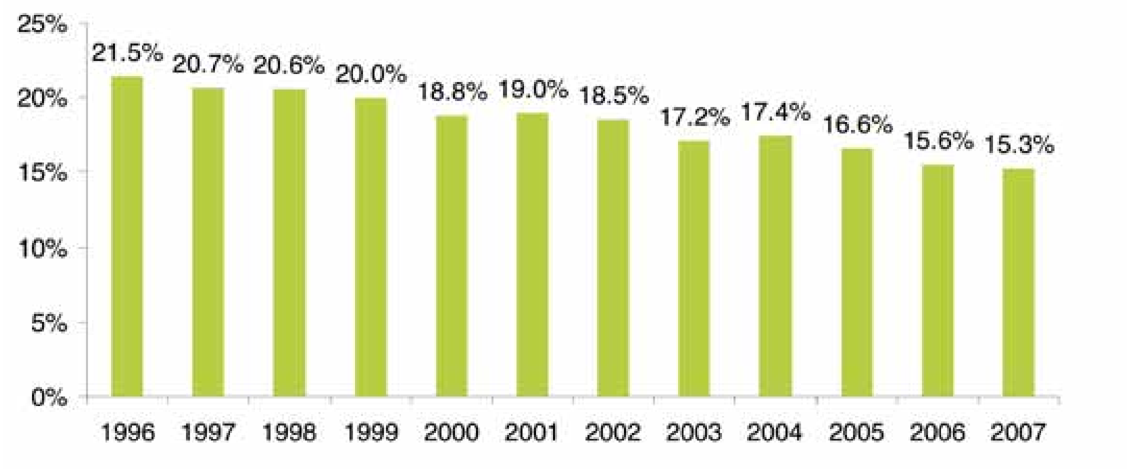
Imports have grown across the three types of copyright industries. Within the core copyright industries most growth has come in the software and database industry.

Copyright Industries	CAGR
Core	2.2%
Interdependent	2.1%
Partial	9.8%
Non-Dedicated	0.3%
Total	2.1%

Press and Literature	-0.7%
Music, Theatrical Productions, Operas	1.7%
Motion Picture and Video	3.1%
Photography	3.0%
Software and Databases	10.4%
Visual and Graphic Arts	2.9%
Advertising Services	0.0%

Copyright related imports, as a percentage of total imports, have fallen relatively consistently over the last 12 years.

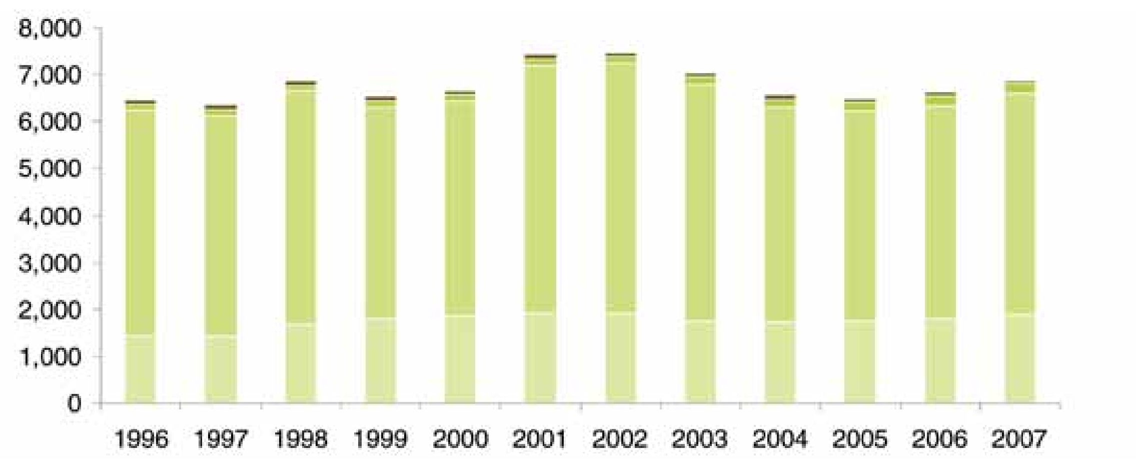
Copyright related imports as a percentage of total imports



Exports

Copyright exports ebbed and flowed in real terms over the past decade, with a peak in 2001/02. Exports have increased in the core and partial copyright industries, but declined in the interdependent and non-dedicated support industries.

Copyright related exports ($2007, $million)



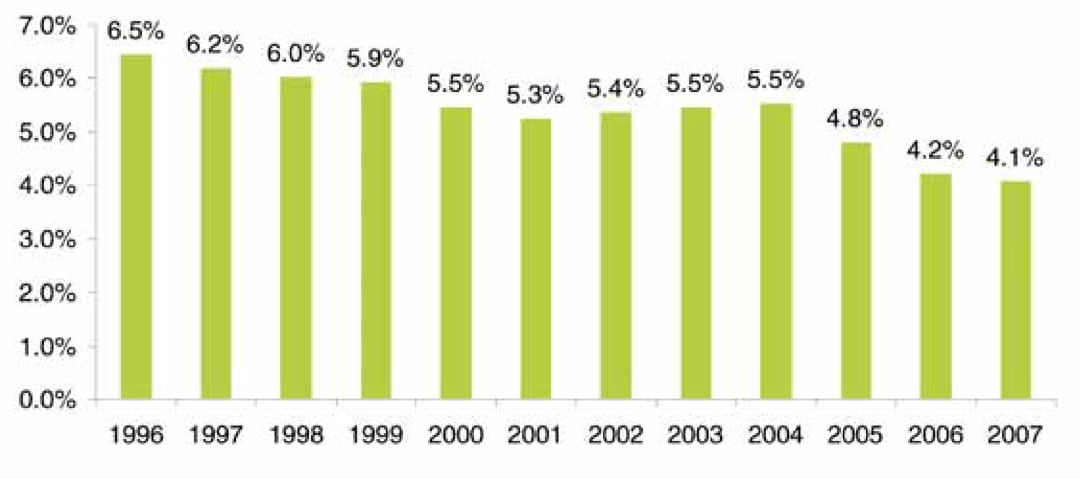
	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Core	1,421	1,421	1,670	1,808	1,872	1,922	1,924	1,741	1,731	1,745	1,808	1,896
Interdependent	4,826	4,704	4,984	4,498	4,561	5,272	5,317	5,059	4,581	4,473	4,530	4,691
Partial	109	113	116	121	132	135	136	144	166	182	204	217
Non-Dedicated	107	107	108	107	99	97	97	97	99	86	74	69

Copyright Industries	CAGR
Core	2.7%
Interdependent	-0.3%
Partial	6.5%
Non-Dedicated	-3.8%
Total	0.6%

Press and Literature	-1.1%
Music, Theatrical Productions, Operas	3.3%
Motion Picture and Video	9.2%
Photography	8.7%
Software and Databases	2.8%
Visual and Graphic Arts	7.7%
Advertising Services	0.2%

Despite this growth in real exports in the last few years, copyright exports declined as a percentage of total exports. This relative performance is a reflection of the boom in the Australian resources sector.

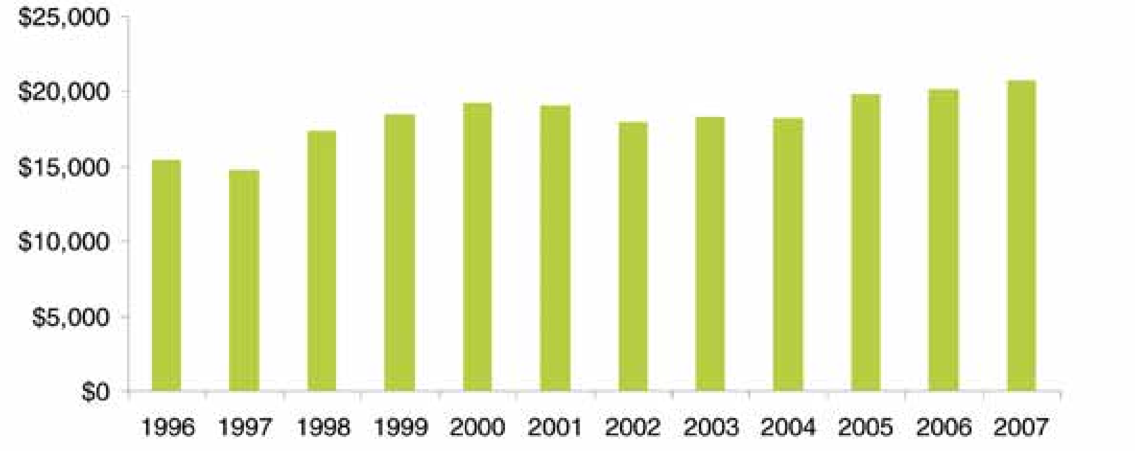
Copyright related exports as a percentage of total exports



The net position

Taking both exports and imports into account, the figure below shows Australia's net trade in copyright products.

Copyright related net imports ($2007, $million)



	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Net Imports	15,500	14,828	17,407	18,548	19,294	19,087	17,990	18,391	18,287	19,877	20,234	20,799

Sources

ABS (Australian Bureau of Statistics) 2008, 13500DO001 200804 - Australian Economic Indicators, Apr 2008

ABS, Labour Force Survey (All applicable years)

ABS 2007, 5439.0 - International Merchandise Imports, Australia, Jun 2007

ABS 2007, 5206.0 - Australian National Accounts: National Income, Expenditure and Product

ABS 1993, 1292.0 - Australian and New Zealand Standard Industrial Classification (ANZSIC)

ACG (Allen Consulting Group) 2001, *The Economic Contribution of Australia's Copyright Industries,* Sydney

Australian Services Roundtable 2008, *Securing Australia's Place in the Global Services Economy: Submission to the Mortimer Review - Export Policies and Programs,* Canberra, July

Tony Hadjiloucas (Director, PwC Valuation & Strategy, London) 2007, 'The increasing importance of intangibles in industry', speech presented in Buenos Aires, October

IBISWorld 2008, Custom Data

Internet World Stats 2008, Australia, available at http://www.internetworldstats.com/sp/au.htm

Christopher Madden 2004, *Making Cross-country Comparisons of Cultural Statistics: Problems and Solutions - International Comparisons of Cultural Sectors: An Exploratory Investigation,* Working Paper 2, Australia Council for the Arts, Sydney, October

PricewaterhouseCoopers 2007, Exploiting Intellectual Property in a Complex World, Technology Executive Connections, Vol. 4., available at http://www.pwc.com/extweb/pwcpublications.nsf/docid/F5DBAFA7B3F4501D852570830007AD84/$File/tecv4ip.pdf

John Revesz, 1999, 'Trade-Related Aspects of Intellectual Property Rights', Staff Research Paper, Productivity Commission, Canberra

Sam Ricketson 2000, Intellectual Property Administration and Policy in Australia: An Examination of the Australian Situation, Past and Present, and Recommendations for Future Change, Monash University, Melbourne

Jeremy Thorpe 2004, 'Some challenges for copyright-related quantification', Review of Economic Research on Copyright Issues, Vol 1, No 1, pp 41-50

Ruth Towse 2000, 'Cultural economics, copyright and the cultural industries' *Society and Economy in Central and Eastern Europe*, Vol 22, No 4, pp 107-126

WIPO (World Intellectual Property Organisation) 2003, *Guide on Surveying the Economic Contribution of the Copyright-Based Industries,* Geneva

WIPO 2006, *National Studies on Assessing the Economic Contribution of the Copyright based Industries,* Creative Industries Series No. 1, Geneva

WIPO 2008, *National Studies on Assessing the Economic Contribution of the Copyright based Industries,* Creative Industries Series No. 2, Geneva