The Economic Contribution of Australia's Copyright Industries

1996-97 to 2010-11

Prepared for the Australian Copyright Council (2012)





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Overview and key findings

The World Intellectual Property Organization identifies four classes of copyright industries ... 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.

Even where companies or individuals are somewhat reliant on copyright exceptions (eg the education sector, musicians, television producers, software companies, etc.) they are still likely to be generators of copyright-protected material.

... which comprise a substantial proportion of the Australian economy ... Copyright is key piece of infrastructure that supports the industries which comprise a modern economy. In the most recent year for which data is available (2010-11), Australia's copyright industries:

- Employed 906,591 people, which constituted 8.0 per cent of the Australian workforce. The real average wage for people employed in the copyright industries increased from \$48,499 in 1996-97 to \$56,031 in 2010-11 per employee.
- Generated economic value of \$93.2 billion, the equivalent of 6.6 per cent of gross domestic product (GDP). Over the period 1996-97 to 2006-07 the real (ie inflation adjusted) compound annual growth rate (CAGR) for value add generated by copyright industries was 3.8 per cent, with the core copyright industries growing 4.6 per cent per year. Over the subsequent period 2007-08 to 2010-11 the real value add CAGR for all copyright industries was -1.8 per cent, and -1.7 per cent for the core copyright industries.
- Generated just over \$7 billion in exports, equal to 2.9 per cent of total exports. The relative value of copyright exports
 has declined as prices for natural resources and some agricultural commodities have been at record highs in recent
 years.

... but a number of Australia's copyright industries face challenges. Many of Australia's traditional copyright industries (eg music, movies, games, software, books, newspapers, television, etc) have been challenged by the 'perfect storm' generated by the simultaneous move to digitisation, the enhanced ability for consumers to use the Internet to compare prices, the increase in unauthorised copying and the increased competitiveness of overseas products because of the high Australian Dollar. The combined impact of these three forces has been lower or negative growth in a number of copyright industries, and the apparent demise of some distribution models (most visible in the closure of high profile book and music retailers). In this environment there is a need for an appropriate regulatory model to support copyright businesses' innovation and sustainable growth.

Introduction





Study context

In Australia, the *Copyright Act 1968* gives exclusive (but limited) rights to copyright owners as to how their material may be used. These rights include the right to copy, adapt, publish, communicate to the public and publicly perform the copyright material.

To balance the rights of copyright owners with the needs of the general public, the *Copyright Act* provides a number of exceptions to the general rules regarding infringement of copyright. The appropriate role and scope of these exceptions has been an ongoing matter for debate, particularly with the advent of digital copying. In this context we note that the Australian Law Reform Commission (ALRC) is undertaking a review of copyright law and the role of exceptions.

Consistent with an emerging interest in better understanding the size and economic contribution of those industries which rely, to varying degrees, on copyright law, this study uses the global framework (WIPO 2003) to document the economic contribution of Australia's copyright industries over time. Due to data classification variations, the results presented in this report differ somewhat from previous estimates.

It is important to appreciate that while the focus of this report is on the economic activity reliant to some degree on the institutional support provided by copyright law, there are a range of cultural and other benefits associated with the creation of copyright protected material that are not necessarily captured in the reported figures. That is, elements of copyright material may generate benefits (eg cultural) that are not necessarily reflected in the market value for the goods or services (Towse 2000, p 115).

In compiling this report it is difficult to not consider the forces that have emerged to shape Australia's copyright industries in recent years:

- The emergence of the digital economy has meant that:
 - o many copyright products (eg music, movies, games, software, books, newspapers, etc) are moving from physical distribution to electronic distribution, enabling the disintermediation of the supply chain (eg lessening the need for a physical retail presence) as consumers have shifted their consumption to digital versions and online delivery
 - o copyright products, even if in physical form, can now more easily be accessed, because of the ability to purchase online, and at lower prices, because of the ability to use the Internet to price compare (see PC 2011; PwC 2011)
 - o there has been an increased risk of unauthorised copying because of the low cost of reproduction of perfect digital copies.
- The demand for Australia's natural resources, principally to support the rapid growth of China, has meant that the Australian Dollar has been above its historic average value. As a consequence, imports have become cheaper, to the point that we have seen deflation across a range of imported products, and a continued decline in Australia's copyright industry manufacturing base.

In this changing and challenging environment there is a need for copyright industries to develop, supported by copyright law which provides certainty and the incentive to innovate and grow.

It is hoped that this report will assist the community, governments and policy makers better understand the significance and evolving structure of Australia's copyright industries.

Study methodology

This study employs the standardised global framework for assessing the economic contribution of copyright industries developed by the World Intellectual Property Organization (WIPO) (WIPO 2003).

This framework was designed so that the myriad of country-specific studies that had been independently prepared could be made more consistent and transparent, to ensure the results would be (to the extent possible) comparable across jurisdictions.

The framework:

- classifies particular industries as being within the 'copyright industries'
- groups 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)
- provides a generic set of performance indicators, with a focus on 'value add', trade in copyright products and employment.

The following table provides a brief description of the four copyright industry groups; A greater level of detail of the specific sectors and products that comprise the copyright industries is provided in the subsequent two pages.

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.

Study methodology

Industry components

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

Study methodology

Main sectors	Products
Interdependent	
TV sets, Radios, VCRs, CD Players, DVD Players, Cassette Players, Electronic Game Equipment, and other similar equipment	ManufactureWholesale 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	ManufactureWholesale and retail (sales and rental)
Blank Recording Material	Manufacture Wholesale and retail
Paper	ManufactureWholesale and retail
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	

Main sectors	Products
Non-dedicated Support	
General wholesale and retailing	
General transportation	
Telephony and Internet	

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.

Data collection	Match with ISIC Codes	Initial calculations	Adjust for double counting	Weight partials and adjustment for inflation	Graph and analyse
 Collect data for value add, employment, wages, exports and imports from IBISWorld for all Australian & New Zealand Standard Industrial Classification (ANZSIC) codes. Collect gross domestic product (GDP) data from the Australian Bureau of Statistics (ABS). Collect consumer price index (CPI) data from ABS. Collect total export, import, employment and wages data from ABS. 	Consistent with the WIPO methodology, list all International Standard Industrial Classification (ISIC) codes corresponding to copyright-based industries. Use ABS concordance to map all copyright-based industry ANZSIC codes to the ISIC code equivalents.	 Calculate percentage change for each code from year to year. Calculate weighted change for each of core, interdependent, partial and non-dedicated support copyright industries. Use weighted change in related copyright industries to complete any gaps in data for years 1996-97 to 2010-11, where data for later years is available. 	Adjust estimates for double counting across ANZSIC codes. This may be the case where (according to the ABS concordance) ANZSIC codes were used as equivalents for more than one ISIC code. For example, ANZSIC code 9241 may be used 8 times for different ISIC codes, and therefore only 1/8th of the estimate was used in each case to equally weight this value across all relevant codes.	 Weight partial industries in line with the WIPO endorsed approach consistent with previous WIPO studies. Adjust value add, wages, export and import data for inflation (to 2011 dollars). 	Graph results for value add, employment, wages, exports and imports. Analyse data.

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

Note: All years refer to financial years (eg 1997 refers to the 1996-97 financial year).

Comments on the application of the WIPO framework

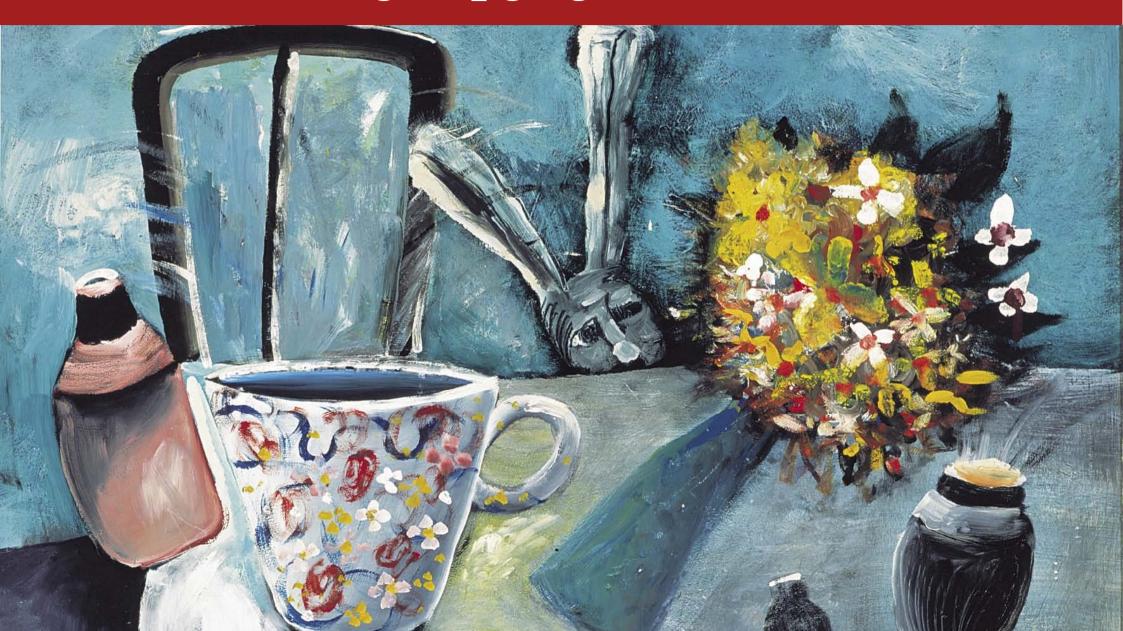
- 1. The definition of copyright industries is adopted to capture the direct and flowon impacts commonly identified using input-output (ie multiplier) analysis or 'general equilibrium' macro-economic models of the economy. WIPO considers this approach worthwhile as it allows more consistent cross-country comparisons, and so may be more useful for policy-makers in the longer term.
- 2. While 'economic contribution studies are generous in their ascribing economic contribution solely to copyright' (Thorpe 2004, p 45), it is noteworthy that the WIPO methodology does not capture all the value generated by copyright:
 - 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 unauthorised copyright products is not included even though they should be considered part of the copyright industries.
 - 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.

Furthermore, 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)

- 3. The economic contribution studies using this WIPO methodology have now been joined by a couple of studies prepared for the Computer & Communication Industry Association (Akker *et al* 2010; Rogers *et al* 2010) which have sought to value industries reliant on copyright expectations. The system of industry classification employed by the WIPO methodology means that, in practice, it is likely that, with the exception of the education sector, the 'exceptions industries' are already captured in the WIPO estimates because organisations that rely on copyright exceptions are also likely to themselves be creating or distributing copyright protected material.
- 4. While this report uses the same methodology as the previous WIPO study of Australian copyright industries (PwC 2008), there are a number of reasons why the results differ between reports:
 - Use of real values rather than nominal values Throughout the report, all figures are represented in real terms (rather than in nominal dollars), which means that values for previous years have been inflated into 2011-12 dollars and hence removed the effects of inflation from the reported results. This means that values in the previous study (reported in 2008 dollars) will be different to the figures in this report (reported in 2012 dollars) over similar years. Therefore figures are comparable over years within this report, but are not directly comparable between this and earlier reports.
 - Changes to the source data The majority of the change in value add as a
 percentage of GDP (compared to the previous 2008 study) is due to updates
 and some reclassification of the source data used. While ideally the figures
 would be directly comparable studies, the WIPO methodology relies on the
 availability and classification of data available in the country at the time of
 publication, and variation in the way this source data is collected and
 collated will impact on the comparability of results over time.
 - Variation in the ABS data used to ensure better methodological consistency
 with IBISWorld data To ensure that the 'percentage of total' estimates (eg
 value add percentage of GDP), which makes use of ABS estimates, are
 directly comparable with the IBISWorld data used to estimate the value add
 figures, different ABS figures have been used in this study compared to the
 2008 study.

Value added by copyright industries



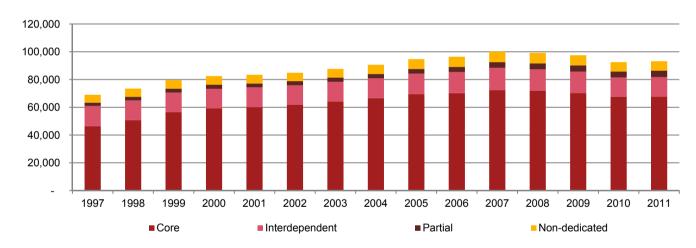


Value added

Copyright contributes \$93.2 billion to the Australian economy 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, the considerable growth in the value added by the copyright industries that was achieved between 1997 and 2007 has receded following the Global Financial Crisis (GFC). Between 1997 and 2007, value add in real terms (ie inflation adjusted) increased from \$69.0 billion in 1996-97 to \$100.2 billion before decreasing to \$93.2 billion in 2010-11.

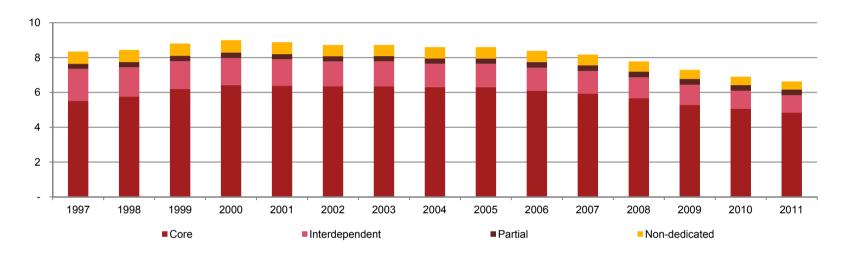
Value add of copyright industries (\$2011, \$million)



Industry gross product (real)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Core	46,398	50,722	56,627	59,272	60,122	61,998	63,991	66,602	69,590	70,239	72,486	72,093	70,371	67,740	67,575
Interdependent	14,482	14,156	13,926	14,093	14,280	13,891	14,409	14,231	14,636	15,118	15,928	15,223	15,302	13,704	14,162
Partial	2,462	2,644	2,873	2,901	2,778	2,935	3,053	3,206	3,424	3,743	4,054	4,319	4,534	4,391	4,610
Non-dedicated	5,700	5,947	6,193	6,234	6,242	6,051	6,219	6,600	7,047	7,330	7,688	7,605	7,288	6,715	6,846
Total	69,042	73,469	79,618	82,500	83,421	84,874	87,672	90,640	94,697	96,431	100,156	99,239	97,496	92,550	93,193

While the dollar value of copyright industries' value add increased by about 35.0 per cent over 15 years (see previous figure), the copyright industries' contribution to gross domestic product actually decreased by 20.6 per cent (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 (eg mining and resources).

Value add of copyright industries as a percentage of gross domestic product (%)



% of GDP	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Core	5.5	5.8	6.2	6.4	6.4	6.4	6.4	6.3	6.3	6.1	5.9	5.7	5.3	5.1	4.8
Interdependent	1.8	1.7	1.6	1.6	1.5	1.4	1.4	1.3	1.3	1.3	1.3	1.2	1.1	1.0	1.0
Partial	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Non-dedicated	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.7	0.6	0.6	0.6	0.5	0.5	0.5
Total	8.3	8.4	8.8	9.0	8.9	8.7	8.7	8.6	8.6	8.4	8.2	7.8	7.3	6.9	6.6

Over the period 1997 to 2011 the compound annual growth across the copyright industries has averaged 2.2 per cent, with the core copyright industries growing 2.7 per cent. This compares to a CAGR for GDP of 3.3 per cent over the same period.

Within the core copyright industries, the greatest growth in value added has been in 'Software and databases', which does not come as a surprise. The industry's impressive growth was particularly pronounced in the years prior to the GFC.

Interestingly, the relative composition of the copyright industries has not changed significantly between the four major industry groups over the 15-year period with which this study is concerned.

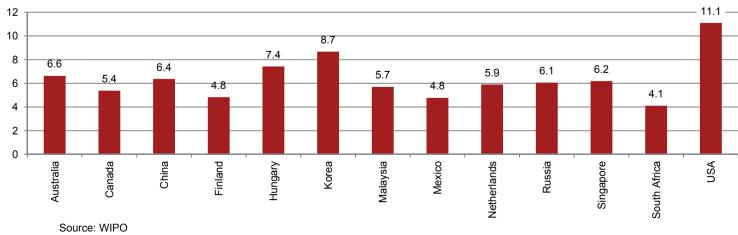
In comparison with a number of other country studies that have employed the WIPO framework, Australia's economy appears to be relatively more dependent upon copyright industries as a generator of value add and gross domestic product.

The nature of the value add generated can vary significantly across countries. For example, while Australia has a comparable value add to China, we have a much stronger emphasis on distribution and consumption, while China has a greater emphasis on manufacturing of copyright related products.

Copyright Industries CAGR*	1997-2011	1997-2007	2007-2011
Core	2.7%	4.6%	-1.7%
Press and Literature	1.8%	4.0%	-3.3%
Music, Theatrical Productions, Operas	2.7%	4.0%	-0.4%
Motion Picture and Video	2.0%	3.3%	-1.1%
Radio and Television	1.3%	2.7%	-2.1%
Photography	2.4%	3.4%	-0.1%
Software and Databases	6.0%	9.2%	-1.6%
Visual and Graphic Arts	2.0%	2.7%	0.3%
Advertising Services	3.2%	4.1%	1.1%
Interdependent	-0.2%	1.0%	-2.9%
Partial Copyright	4.6%	5.1%	3.3%
Non-Dedicated Support	1.3%	3.0%	-2.9%
Total	2.2%	3.8%	-1.8%

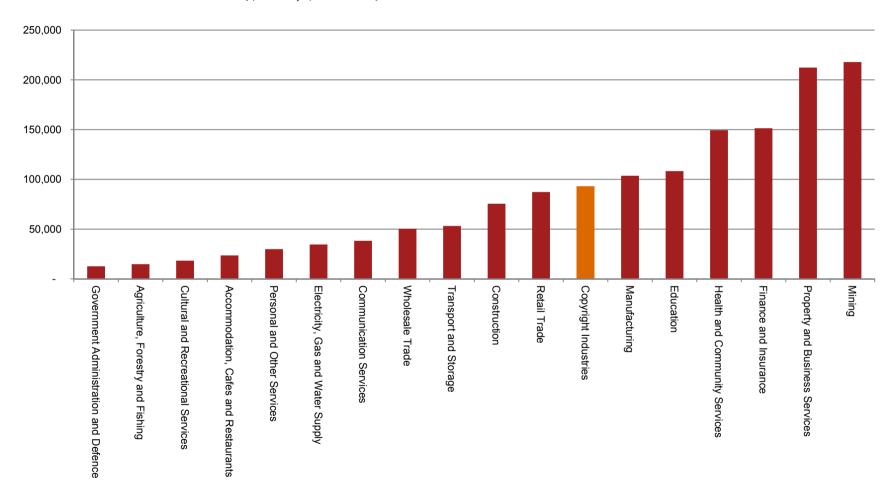
*CAGR – Compounding annual growth rate (real)

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



Within the Australian economy, copyright industries as a whole generate more value add than the retail trade but slightly less than manufacturing.

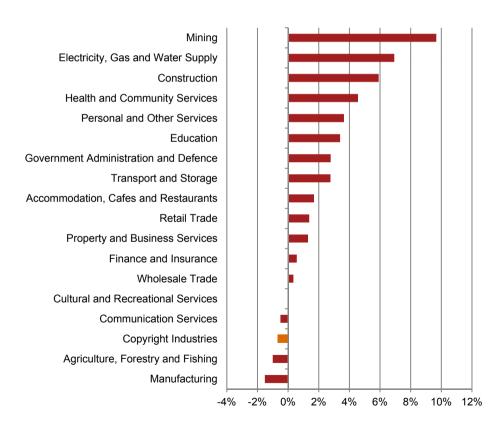
Value add of all industries (\$2011, \$million)



Source: IBISWorld 2012 custom data

The Australian copyright industries have experienced decline over the last 5 years compared to other primary Australian industries. The copyright industries contracted by 1 per cent per annum over the period 2006-11, in comparison to the compounded annual growth rate of 3.4 per cent over the period of 2002-07. This is a reflection of the industry's relatively weak recovery from the GFC.

Real compounding annual growth rate (CAGR) of value add (2006-11)

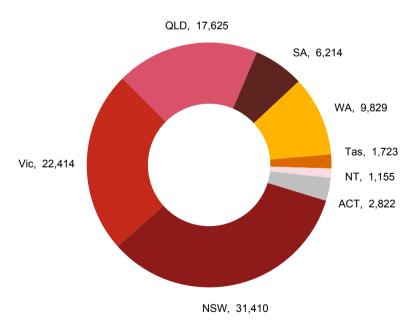


Source: IBISWorld 2012 custom data

State by state comparisons of copyright industries are difficult to derive due to data constraints. State and Territory breakdowns of value added, employment and trade in copyright industries in this report represent indicative estimates.

Not surprisingly, the majority of value add from copyright industries (based on indicative estimates) is attributed to New South Wales, Victoria and Queensland.

Value add of copyright industries by State and Territory in 2011 (\$2011, \$million)



Source: PwC Analysis, IBISWorld 2012 custom data



Employment in copyright industries



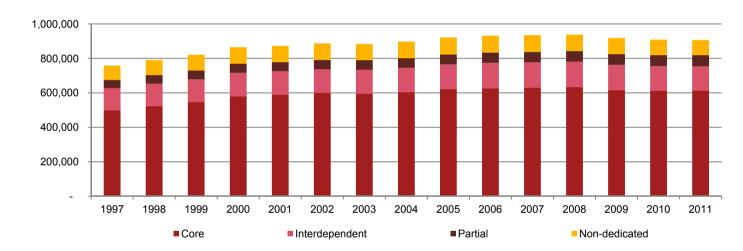


Employment

Over 900,000 people are employed in copyright related 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 15 years, with an average of 882,524 people employed in the copyright industries during that period.

Employment in copyright industries (employed persons)



Employed persons	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Core	498,744	522,720	547,988	580,101	589,155	599,863	595,582	605,195	622,599	626,533	629,593	632,831	616,919	612,995	612,664
Interdependent	128,640	130,705	129,912	135,461	136,814	137,495	138,735	140,036	142,454	147,668	147,844	148,255	145,897	142,323	141,697
Partial	47,687	50,226	52,434	53,456	52,880	54,064	55,158	55,750	57,819	59,840	60,411	61,722	62,272	63,505	64,222
Non-dedicated	83,509	86,762	91,013	96,185	93,755	95,861	94,424	96,517	98,669	97,657	97,360	95,527	93,444	90,306	88,008
Total	758,581	790,413	821,346	865,203	872,603	887,283	883,900	897,498	921,541	931,698	935,208	938,335	918,532	909,129	906,591

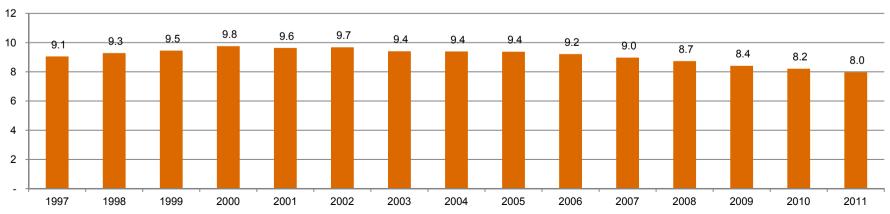
Compound annual growth in employment

Copyright Industries CAGR	1997-2011	1997-2007	2007-2011
Core	1.5%	2.4%	-0.7%
Press and Literature	0.4%	1.7%	-2.7%
Music, Theatrical Productions, Operas	0.3%	0.7%	-0.9%
Motion Picture and Video	1.2%	2.3%	-1.6%
Radio and Television	0.0%	1.0%	-2.5%
Photography	1.3%	2.1%	-0.6%
Software and Databases	4.8%	5.9%	2.1%
Visual and Graphic Arts	0.8%	1.5%	-0.8%
Advertising Services	2.4%	2.4%	2.4%
Interdependent	0.7%	1.4%	-1.1%
Partial Copyright	2.1%	2.4%	1.5%
Non-Dedicated Support	0.4%	1.5%	-2.5%
Total	1.3%	2.1%	-0.8%

The relative distribution across the four copyright sectors has remained relatively constant over the 15 years analysed.

While employment in the copyright industries has increased over time, peaking in 2008 before declining following the GFC, the copyright industries now employ a slightly lower percentage of the entire workforce (8.0 per cent versus 9.1 per cent in 1997). 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 (%)

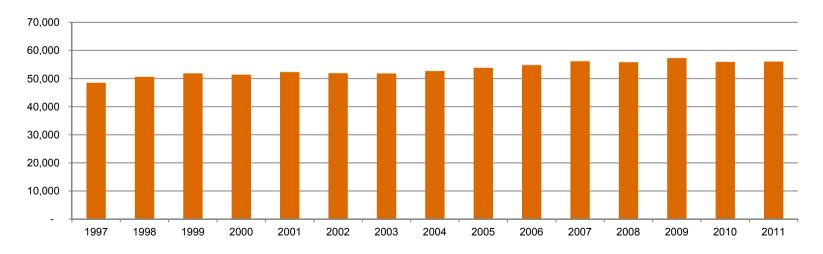


As the following table shows, real wages growth in Australia's copyright industries continues to exceeded employment growth.

Copyright Industries	CAGR 19	97-2011
	Employment	Wages
Core	1.5%	2.9%
Interdependent	0.7%	0.4%
Partial	2.1%	4.9%
Non-Dedicated Support	0.4%	0.6%
Total	1.3%	2.3%

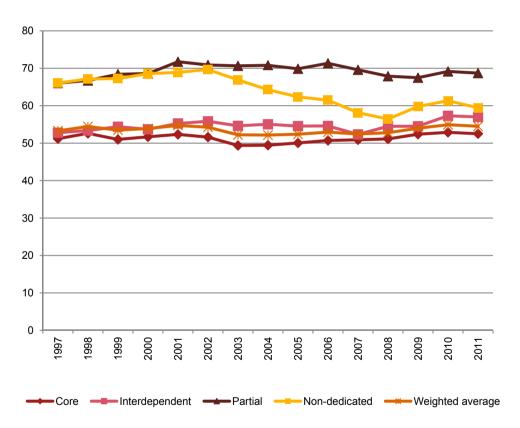
Indeed, the last 15 years have seen average wages in the copyright industries grow in real terms, from \$48,499 in 1996-97 to \$56,031 in 2010-11 per employee.

Average real wage per copyright employee (\$2011)



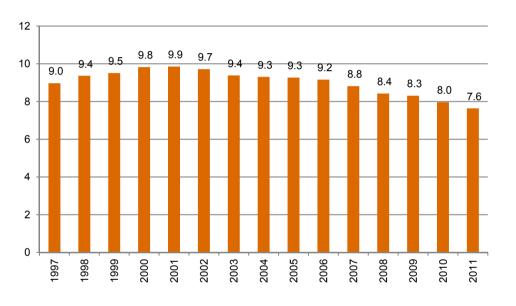
This wage growth has not resulted in a major shift to labour (ie employees) from other factors of production. Employees in copyright industries are achieving higher real wages, but owners of capital and land in the copyright industries are also receiving higher real returns. As the following diagram shows, real copyright industry wages as a percentage of value add generated in the copyright industries has increased by only 2.3 per cent over the past 15 years.

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



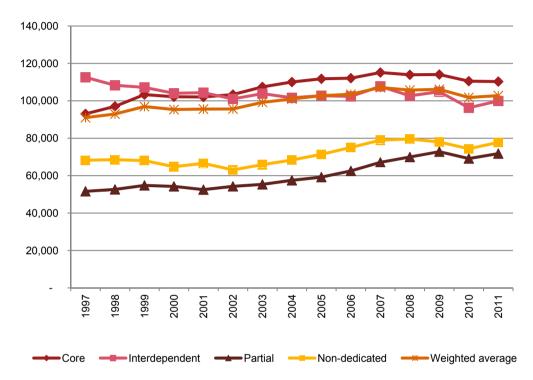
Furthermore, although copyright wages have fallen as a percentage of total wages (see figure below), copyright jobs remain, on average, better remunerated than the economy as a whole.

Copyright wages as a percentage of total wages (%)



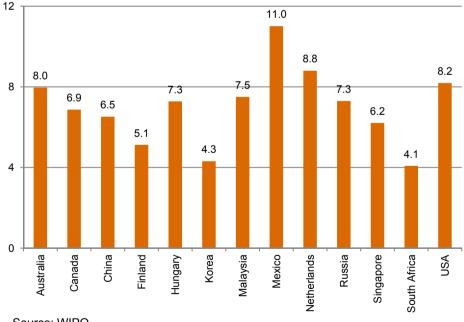
The real increase in copyright wages reflects the labour productivity growth that has been evident in the copyright industries over the period 1996-97 to 2010-11. It should be noted that following the GFC, productivity declined but is beginning to rebound towards pre GFC levels.

Real value add per employee (\$2011)



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

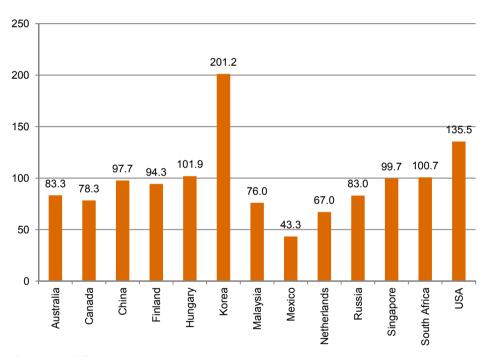
Copyright employment as a percentage of total employment (latest available years)



Source: WIPO

With the relatively higher employment intensity, Australia's copyright industries show moderate labour productivity in comparison to other nations. That is, value add divided by employment (both in percentage terms) is just below 100 per cent. Our level of productivity continues to reflect 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).

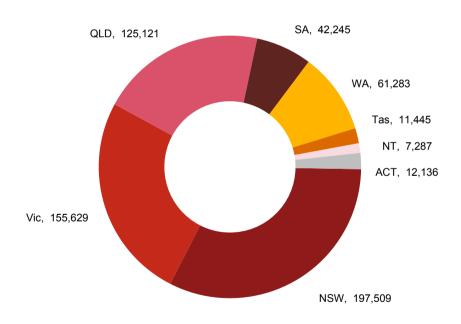
Value added as a percentage of GDP divided by employment as a percentage of total employment (latest available years)



Source: WIPO

Based on indicative estimates of employed persons in copyright industries by jurisdiction, New South Wales was the largest employer followed by Victoria and Queensland.

Employment in copyright industries by State and Territories 2011 (Employed persons)



Source: PwC Analysis, IBISWorld 2012 custom data

Trade in copyright products





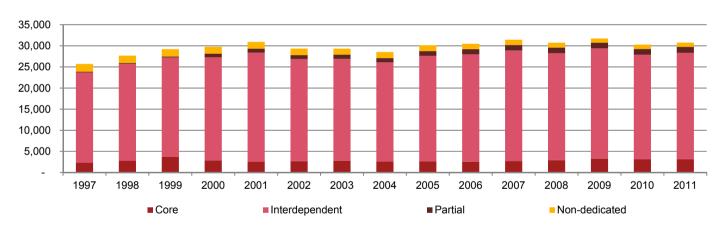
Trade

Australia continues to be a net importer of copyright products

Imports

As highlighted by the following figure, imports of copyright related products in real terms has increased since 1997 but growth has not followed an even pattern. Growth of imports increased steadily until 2001, declined for three years before the resumption of growth in the period between 2004 and 2007. Since the onset of the GFC in 2007-08, imports of copyright products have fluctuated from year to year.

Copyright related imports (\$2011, \$million)



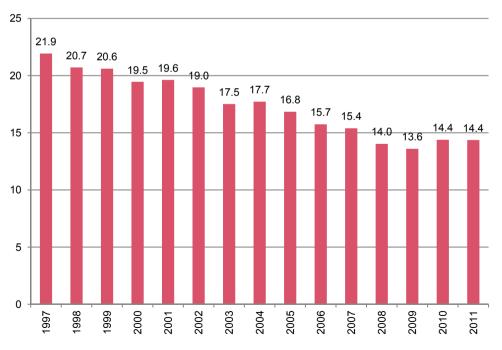
Imports (\$2011, \$m)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Core	2,298	2,770	3,761	2,861	2,535	2,680	2,817	2,626	2,634	2,577	2,743	2,936	3,312	3,193	3,187
Interdependent	21,381	22,943	23,467	24,437	25,841	24,174	24,078	23,449	25,005	25,392	26,142	25,317	26,070	24,702	25,161
Partial	186	227	249	836	941	967	1,032	1,036	1,121	1,238	1,311	1,343	1,368	1,362	1,403
Non-dedicated	1,840	1,738	1,729	1,633	1,598	1,524	1,399	1,422	1,370	1,273	1,250	1,140	980	1,027	1,008
Total	25,705	27,679	29,205	29,766	30,915	29,345	29,327	28,532	30,129	30,481	31,446	30,736	31,730	30,283	30,758

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

Copyright Industries CAGR	1997-2011	1997-2007	2007-2011
All Core	2.4%	1.8%	3.8%
Press and Literature	1.4%	1.7%	0.8%
Music, Theatrical Productions, Operas	2.0%	0.5%	5.6%
Motion Picture and Video	2.8%	1.8%	5.3%
Photography	-0.1%	2.3%	-5.9%
Software and Databases	8.2%	8.3%	7.7%
Visual and Graphic Arts	3.0%	0.8%	8.6%
Interdependent	1.2%	2.0%	-1.0%
Partial Copyright	15.5%	21.6%	1.7%
Non-Dedicated Support	-4.2%	-3.8%	-5.2%
Total	1.3%	2.0%	-0.6%

Copyright related imports, as a percentage of total imports, have fallen relatively consistently over the last 15 years.

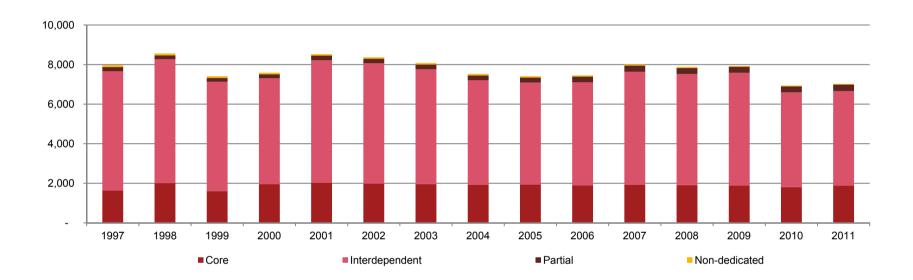
Copyright related imports as a percentage of total imports (%)



Exports

Copyright exports ebbed and flowed in real terms over the past 15 years, with a peaks in 2000-01 and 1997-98.

Copyright related exports (\$2011, \$million)



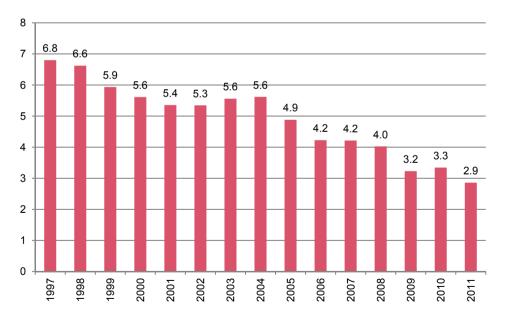
Exports (\$2011, \$m)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Core	1,641	2,008	1,609	1,951	2,041	1,978	1,962	1,936	1,928	1,896	1,933	1,909	1,876	1,810	1,893
Interdependent	6,025	6,261	5,523	5,359	6,178	6,089	5,804	5,275	5,162	5,213	5,708	5,612	5,706	4,781	4,766
Partial	201	199	195	199	229	228	235	241	255	287	307	307	308	309	331
Non-dedicated	96	93	83	79	75	73	76	76	65	56	55	53	38	39	34
Total	7,963	8,561	7,410	7,588	8,524	8,368	8,077	7,529	7,410	7,452	8,003	7,881	7,927	6,939	7,025

Exports have increased in the core and partial copyright industries, but declined in the interdependent and non-dedicated support industries.

Copyright Industries CAGR	1997-2011	1997-2007	2007-2011
All Core	1.0%	1.6%	-0.5%
Press and Literature	-0.7%	0.3%	-3.1%
Music, Theatrical Productions, Operas	0.6%	1.0%	-0.3%
Motion Picture and Video	4.0%	5.9%	-0.6%
Photography	3.7%	2.8%	5.8%
Software and Databases	3.6%	4.7%	0.9%
Visual and Graphic Arts	3.6%	3.7%	3.6%
Interdependent	-1.7%	-0.5%	-4.4%
Partial Copyright	3.6%	4.3%	1.9%
Non-Dedicated Support	-7.2%	-5.3%	-11.7%
Total	-0.9%	0.1%	-3.2%

Like the recent drop in real exports in the last couple of years, copyright exports also declined as a percentage of total exports. This relative performance is primarily a reflection of the boom in the Australian resources sector.

Copyright related exports as a percentage of total exports (%)

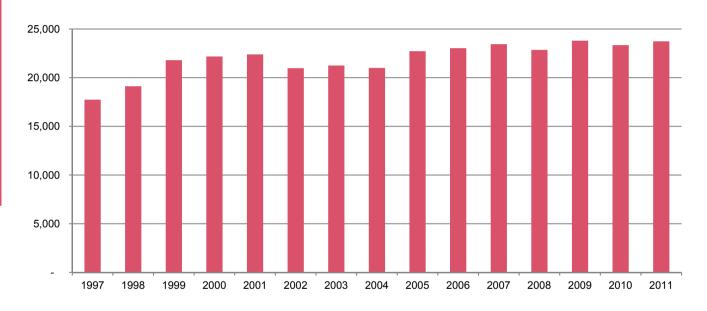


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The net position

Taking both exports and imports into account,
Australia's net trade in copyright products has been increasing over time, although relatively consistent since the GFC

Copyright related net imports (\$2011, \$million)



Net Imports (\$m, real)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Net Total imports	17,741	19,118	21,795	22,178	22,392	20,977	21,250	21,004	22,719	23,029	23,442	22,855	23,803	23,344	23,734



Appendix A - Sources

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