



The Economic Contribution of Australia's Copyright Industries – 2002 - 2016

Contents

<i>Overview and key findings</i> 03	<i>Value added by copyright industries</i> 10	
<i>Employment in copyright industries</i> 20	<i>Trade in copyright products</i> 32	<i>Appendices</i> <i>A Data outputs</i> <i>B Sources</i> 40

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Overview and key findings

Considerable focus has been placed on the appropriateness, efficiency and effectiveness of the Australian Copyright Act – a response to reviews of the Act require a data driven understanding of copyright’s economic contribution

In recent years, with reviews by the Australian Law Reform Commission (ALRC) and the Productivity Commission (PC), considerable focus has been placed on the appropriateness, efficiency and effectiveness of the *Copyright Act*. This attention will likely continue as the Australian Government responds to these reviews.

Data is an important element in any consideration of the relevant market dynamics, even before any consideration is made of the costs and benefits of any proposed reforms.

A globally consistent methodology developed by the World Intellectual Property Organization (WIPO) was applied to form an understanding of copyright’s economic contribution

This report has the advantage of applying a globally consistent methodology developed by the World Intellectual Property Organization (WIPO) to define the ‘copyright industries’ – those industries which rely on copyright protection – and assess their economic contribution. This provides a basis for a consistent comparison of how these Australian industries have changed over time and changes in these industries across countries.

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.

This common typology facilitates consistent analysis of the economic contribution of the copyright industries over time and across countries.

Overview and key findings (cont'd)

Based on the WIPO methodology, Australia's copyright industries continue to be a significant contributor to the Australian economy

This 2017 update forms an initial perspective on the scale and importance of copyright industries within the Australian economy and also a point of comparison against other countries over time.

This study shows that Australia's copyright industries, many of which are undergoing significant change to their traditional business models as they continue to embrace digitisation, continue to be a key piece of infrastructure which support the Australian economy. In the most recent year for which data is available (2015-16), Australia's copyright industries:

- generated **economic value of \$122.8 billion**, the equivalent of 7.4 per cent of gross domestic product (GDP), which is greater than the manufacturing, health care and mining sectors. Growth in these industries continues to be impacted by digitisation with both positive and negative growth affects; the software and databases industries have increased at over twice the rate of copyright industries as a whole, while the press and literature industries declined. Metropolitan areas account for almost 90 per cent of value added generated by copyright industries.
- **employed over 1 million people**, which constituted 8.6 per cent of the Australian workforce. On average, copyright industry jobs are relatively well paid, with the real average wage for people employed in copyright industries having increased from \$66,900 in 2011 to \$72,900 per employee in 2016.

- generated significant volumes of trade with over **\$6.5 billion in exports** which is equal to 2.7 per cent of total exports. This has grown at 5.7 per cent per annum over the past five years. Trade activity is increasing and Australia continues to be a net importer of copyright related activities and products (net imports were \$21.7 billion in 2016).

Competition from new businesses and distribution models in a digital environment continues to see change in many of the core copyright industries. Over the past decade this has seen, in a number of cases, a shift to increased digital distribution, and a reduction in total revenue and jobs losses. However, different sectors have adapted to these challenges in different ways and at different rates. Hence, while we have seen some industries restructure and adapt sooner (eg music, where 64 per cent of music revenue is attributable to digital sales), some continue to see contraction (eg press and literature, where 33 per cent of newspaper advertising revenue is digital) (PwC 2017).

Not surprisingly, we have seen significant growth in the software industry (4.2 per cent compound annually) as software becomes an even more integral component of a modern economy.

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 (see ALRC 2013).

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 2015) 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.

This is the fifth copyright industries economic contribution study supported by the Australian Copyright Council (see Allen Consulting Group 2001, PwC 2008, PwC 2011, PwC 2015b).

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, social 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 – such as arts, which are seen as an important part of Australian lives – may generate benefits (eg cultural) that are not necessarily reflected in the market value for the goods or services (Towse 2000, p.115; Australia Council 2014, p.10).

In compiling this report broader trends impacting Australia's copyright industries in recent years were considered:

- Many copyright products (eg music, movies, games, software, books, newspapers, etc) are continuing to move from physical distribution to electronic distribution, enabling the disintermediation of the supply chain (eg lessening the need for physical products and a retail presence) as consumers have shifted their consumption to digital versions and online delivery. This process of shifting from physical to digital sales differs significantly across market segments, with some advanced (eg 64 per cent of music revenue is attributable to digital sales) and others still in the process of shifting (eg 33 per cent of newspaper advertising revenue is digital) (PwC 2017).
- Australia's natural resources boom has slowed in recent years meaning the Australian Dollar has returned to its long-term value after peaking at USD\$1.10 in 2011. At the height of the \$AUD imports of copyright products, namely audio-visual equipment and associated goods, became cheaper resulting in the decline of Australia's already limited copyright industry manufacturing base.
- Australian wages have been growing more slowly since 2014 compared to the previous period (2005 – 2013) which has also impacted the wages in the copyright industries.
- There has been an increased risk of unauthorised distribution of copyrighted materials (eg streaming) because of the low cost of reproduction of perfect digital copies.

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

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 2015).

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.

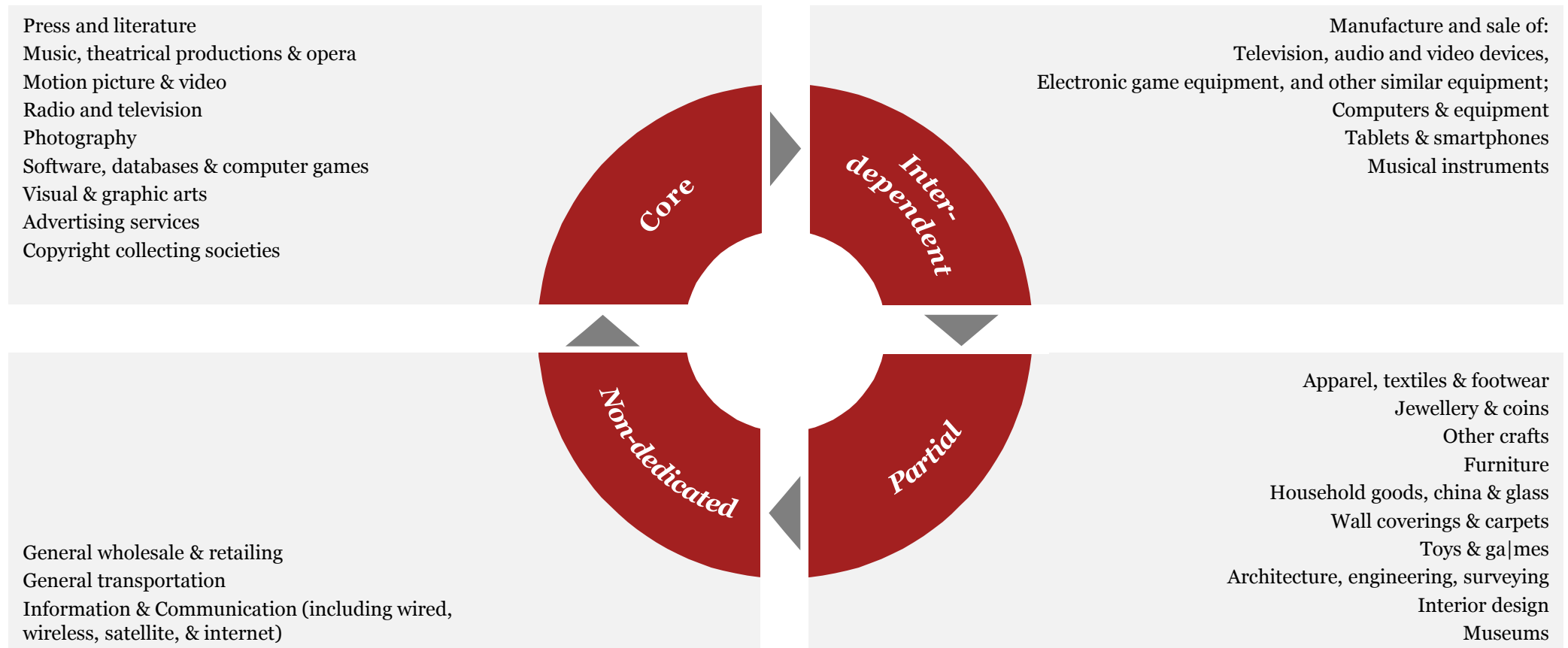
All figures in this report are provided in AUD\$2016 unless otherwise stated.

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 Appendix B.

<i>Copyright industries</i>	<i>Description</i>
<i>Core</i>	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.
<i>Interdependent</i>	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.
<i>Partial</i>	Industries where a portion of activities which are related to copyright through manufacture, performance, exhibition, broadcast, communication or distribution and sales.
<i>Non-dedicated</i>	Industries in which a portion of the activities are related to facilitating broadcast, communication, distribution or sales of works and other protected subject matter, and whose activities have not been included in the core copyright industries

Industry components

The following diagram outlines the industries which are included in WIPO's framework for assessing economic contribution of copyright industries (WIPO 2015).



Comments on the application of the WIPO framework

The definition of copyright industries is adopted to capture the direct and flow-on 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.

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 (eg social media) 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)

The economic contribution studies using this WIPO methodology have now been joined by studies prepared which have sought to value industries reliant on copyright expectations (Akker et al 2010; Lateral Economics 2012; Computer & Communications Industry Association 2017). 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.

Comments on the application of the WIPO framework (cont'd)

While this report uses the same methodology as the previous WIPO studies of Australian copyright industries (PwC 2008, PwC 2011, PwC 2015b), 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, 2011 or 2014 dollars) will be different to the figures in this report (reported in 2016 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 studies) 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 means results across studies are not directly comparable.
- 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 and 2011 studies.
- This study focusses on the period between 2002 and 2016 where data, under the new industry classifications (ANZSIC 2006), is most reliable and complete.

*Value added by
copyright industries*



Value added

Copyright industries contributed \$122.8 billion to the Australian economy in 2016 accounting for 7.4 per cent of total economic output

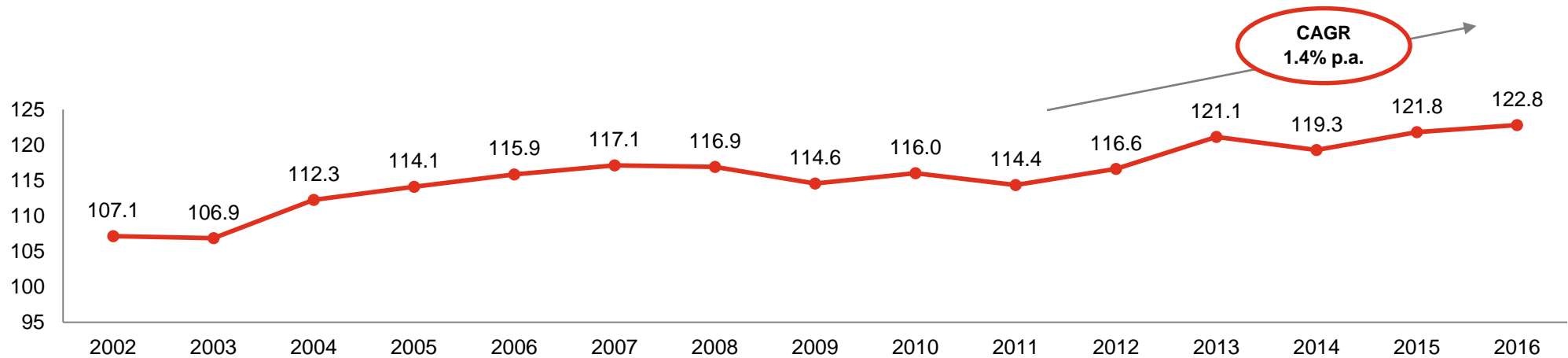
The copyright industries (the industries) contributed approximately \$122.8 billion in value added to the Australian economy in 2016. This represents an increase of \$8.5 billion compared to 2011. Growth in value added has grown at 1.4 per cent per annum since 2011 after slowing substantially during the GFC and in the four years after 2007. Value added declined in 2014 driven by falls in the press and literature and music theatrical productions and operas sub-industries.

Copyright industries accounted for 7.4 per cent of Australia's GDP in 2016. This share has been declining as copyright related industries have been growing at a slower rate in comparison to the economy as a whole which has grown at twice the rate between 2011 and 2016 (2.8 per cent per annum).

Value added

'Value added' is the value of 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.

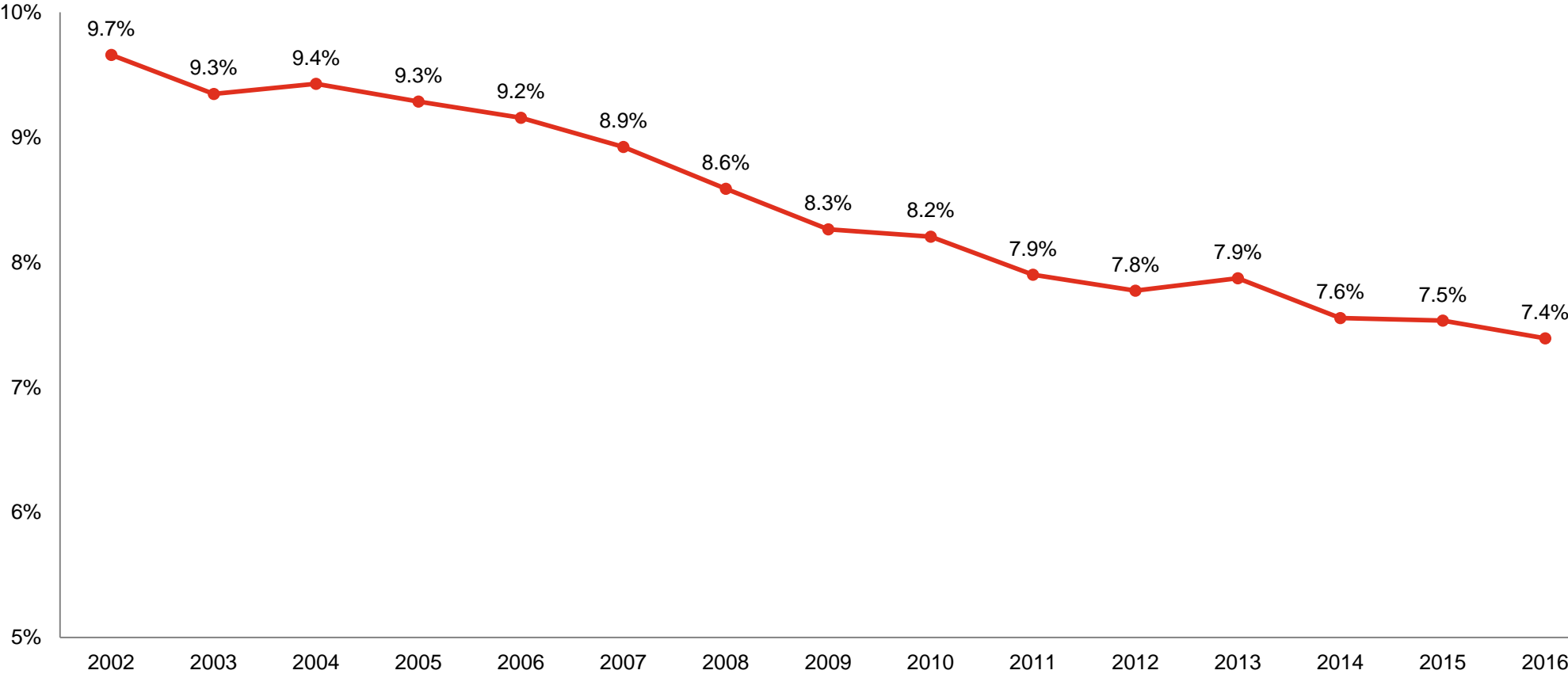
Value added (\$2016, \$billion)



Source: PwC analysis, IBISWorld 2017
See Appendix A for detailed outputs

Value added (cont'd)

Share of GDP (%)



Source: PwC analysis, IBISWorld 2017, ABS 2017
See Appendix A for detailed outputs

Value added (cont'd)

Growth in economic contribution has been driven by the software and databases industries

Within the core copyright industries, the 'software and databases' industries grew the fastest over the past five years. This sub sector grew by an average of 4.2 per cent per annum compound annual growth rate (CAGR) between 2011 and 2016, significantly outpacing the growth of the copyright industries as a whole.

Copyright Industries CAGR (%)	2016 Value added (\$2016 million)	2006-2011	2011-2016
Core	89,207	-0.1%	1.7%
Press and Literature	11,822	-3.2%	-2.1%
Music, Theatrical Productions	10,554	-0.1%	1.8%
Motion Picture and Video	3,162	0.3%	1.4%
Radio and Television	21,215	-1.3%	1.0%
Photography	2,053	1.1%	1.0%
Software and Databases	30,896	2.1%	4.2%
Visual and Graphic Arts	1,743	2.4%	1.4%
Advertising Services	4,760	0.3%	1.4%
Interdependent	18,978	-0.6%	0.7%
Partial Copyright	6,714	1.5%	0.2%
Non-Dedicated Support	7,918	-2.7%	1.2%
All copyright industries	122,816	-0.3%	1.4%

Source: PwC analysis, IBISWorld 2017

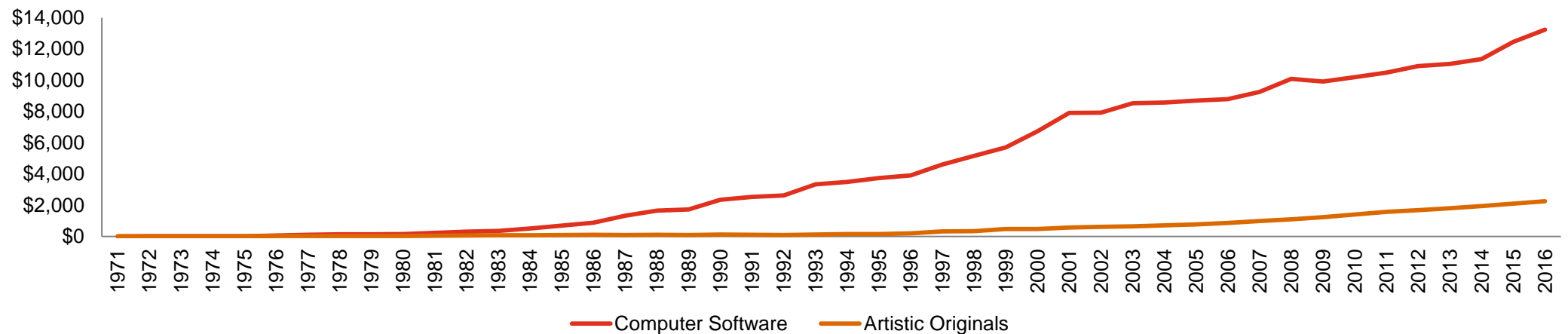
Value added (cont'd)

Another example of the relative growth of software is provided in Australia's National Accounts (ABS 2017, 5206.0). The following figure shows the ABS estimates for Australian expenditure on:

- artistic originals – these are original films, sound recordings, manuscripts, tapes, models etc, on which drama performances, radio and television programming, musical performances, sporting events, literary and artistic output, etc are recorded or embodied. Included are works produced in-house (ie not on sold) by companies.
- computer software – these are computer programs, program descriptions and supporting materials for both systems and applications software. Included are purchased software and, if the expenditure is large, software developed in-house. It also includes the purchase or development of large databases that the enterprise expects to use in production over a period of more than one year.

The disparity in growth between these two categories of expenditure since the early 1970s is stark, with computer software's growth far outstripping that of artistic works such that is almost six times as large even though they were of a comparable size in 1975.

Expenditure on software and artistic works (\$ million)



Source: ABS 2017, 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Mar 2017

Value added (cont'd)

Copyright industries generated more economic output than the manufacturing, health care and mining sectors

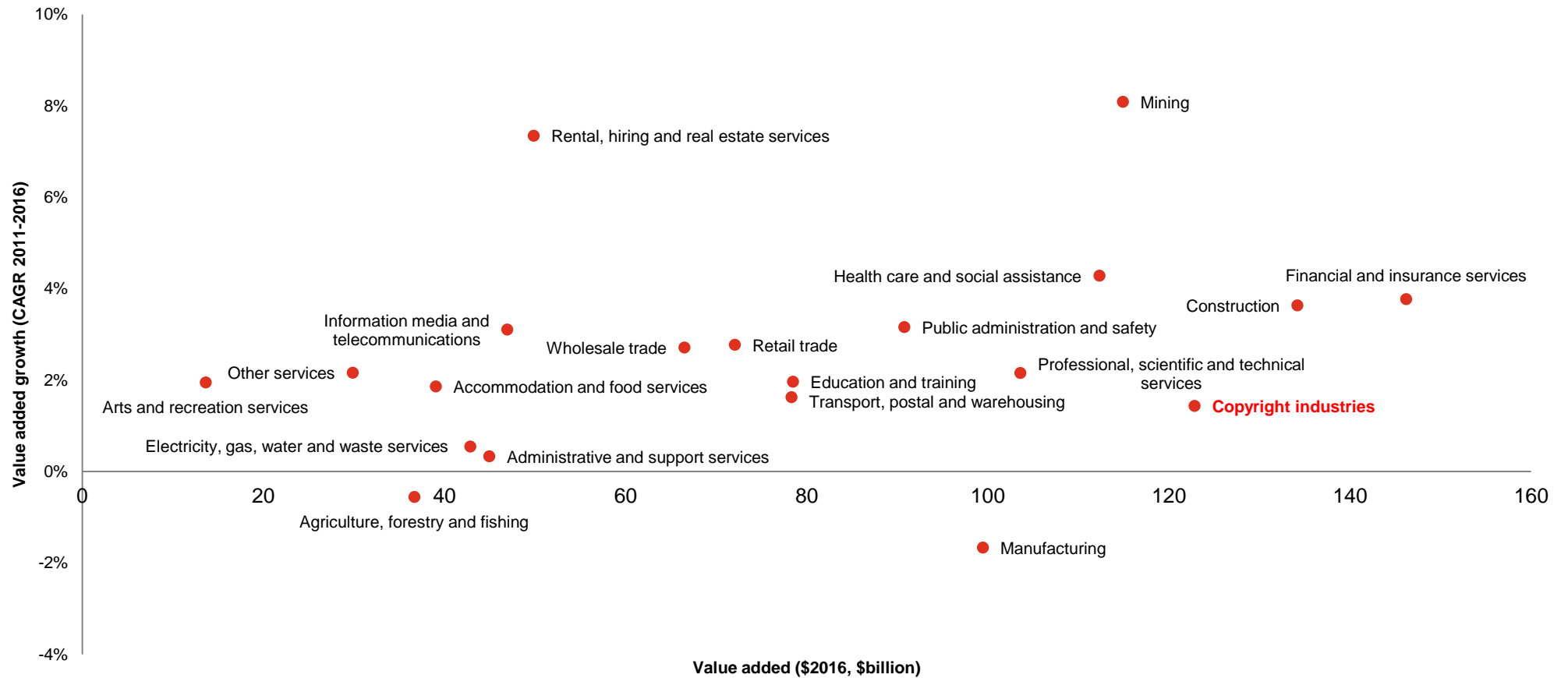
The following figure compares industries in terms of their CAGR growth over the past five years and their current total size (in terms of value added). Ideally, an industry would like to be in the top right of the chart, reflecting both a significant size and continuing growth. The figure reveals that Australia's copyright industries:

- generated more value added than the manufacturing, health care and mining sectors in 2016. This is despite the copyright industries experiencing relatively low total growth over the last five years (2011-2016) compared to other sectors of the economy
- have moved from being the seventh largest industry in the analysis conducted in 2011 to the third largest.

Source: ABS 2017, 5206.0 - Australian National Accounts: National Income, Expenditure and Product, Mar 2017

Value added (cont'd)

GDP contribution vs growth (CAGR 2011-2016)

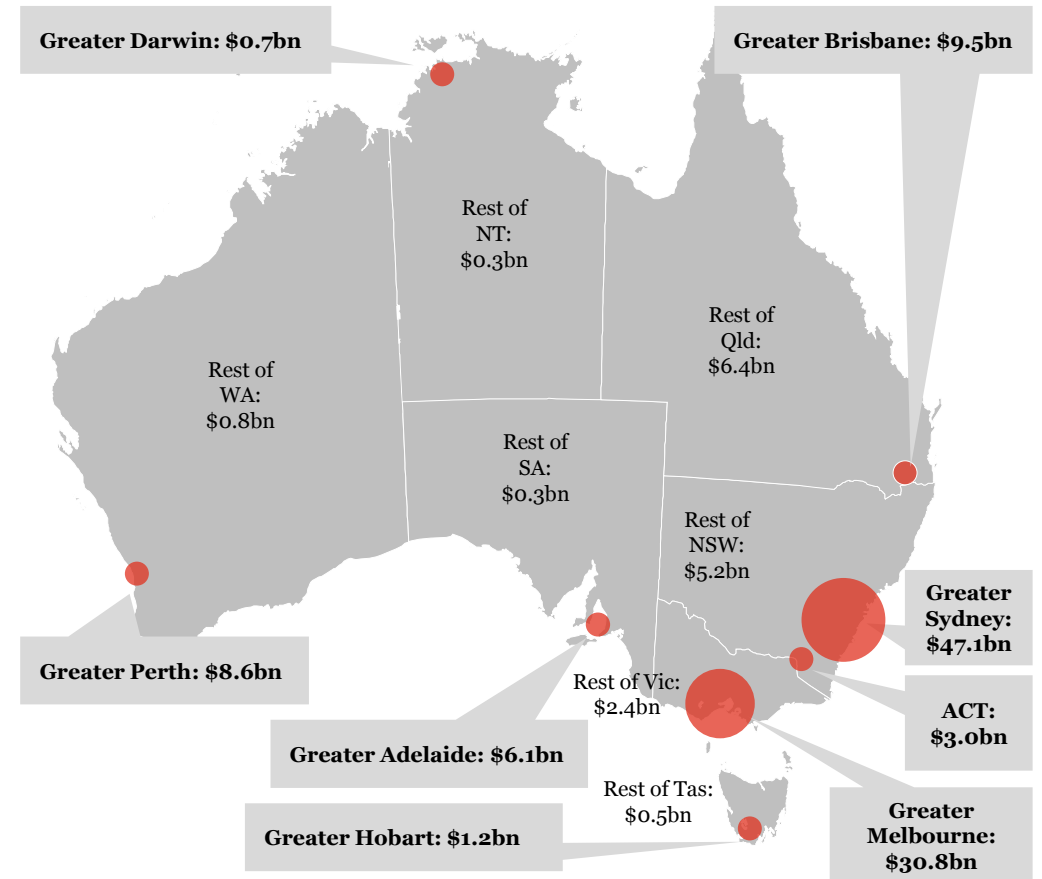


Source: PwC analysis, IBISWorld 2017, ABS 2017

Value added (cont'd)

Metropolitan areas account for almost 90 per cent of value added generated by Australia's copyright industries

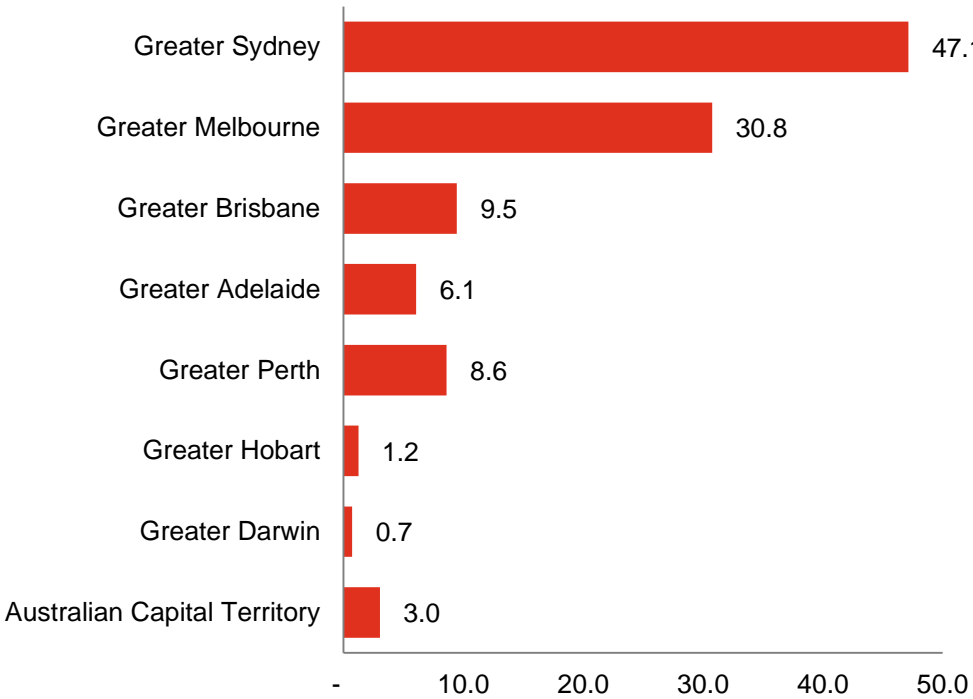
Based on PwC's Geospatial Economic Model (GEM), copyright industries in metropolitan centres generated approximately \$107 billion in value added in 2016 compared to \$16 billion in regional areas. Greater Sydney and Melbourne were estimated to have generated almost \$80 billion in value added accounting for approximately two thirds of output.



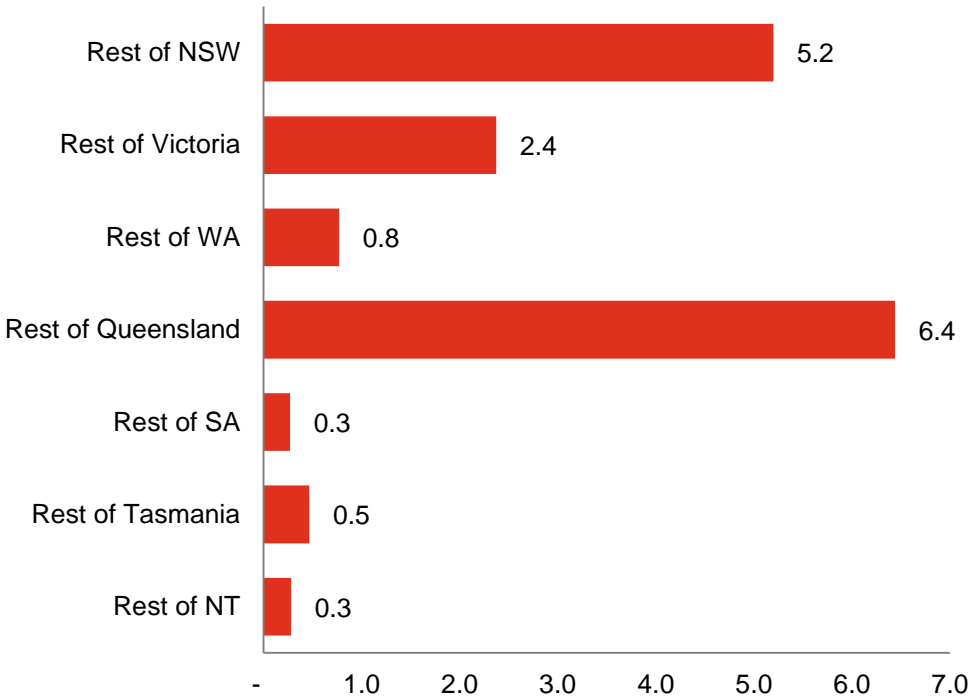
Source: PwC analysis, IBISWorld 2017, ABS 2017

Value added (cont'd)

Economic contribution by capital city metropolitan areas (\$2016, billion)



Economic contribution by non-capital city areas (\$2016, billion)

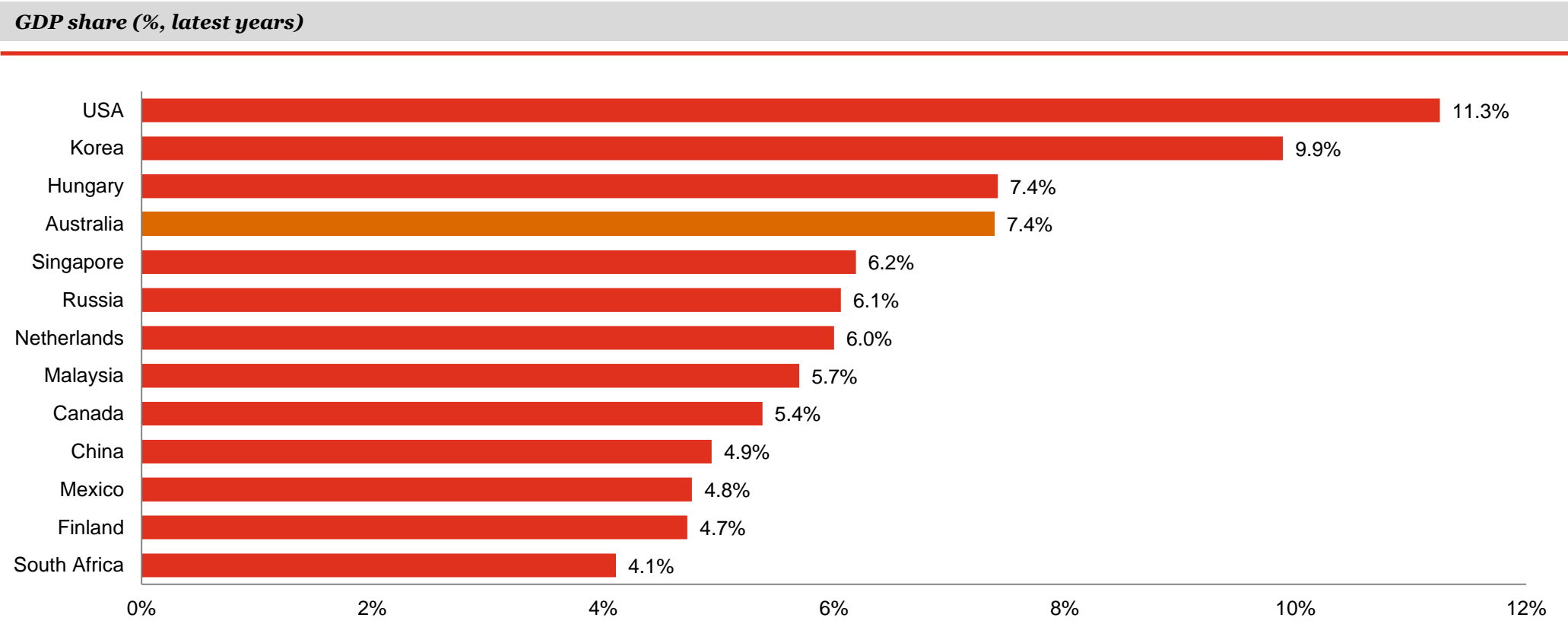


Source: PwC analysis, IBISWorld 2017, ABS 2017

Value added (cont'd)

The Australian economy continues to rely heavily on the copyright industries relative to other economies

Australia's economy is relatively more dependent on the copyright industries as a generator of value added. Australia's copyright industries generate 7.4 per cent of GDP which is higher than Singapore, the Netherlands and Canada.



Source: PwC analysis, IBISWorld, WIPO

Employment in copyright industries



Employment

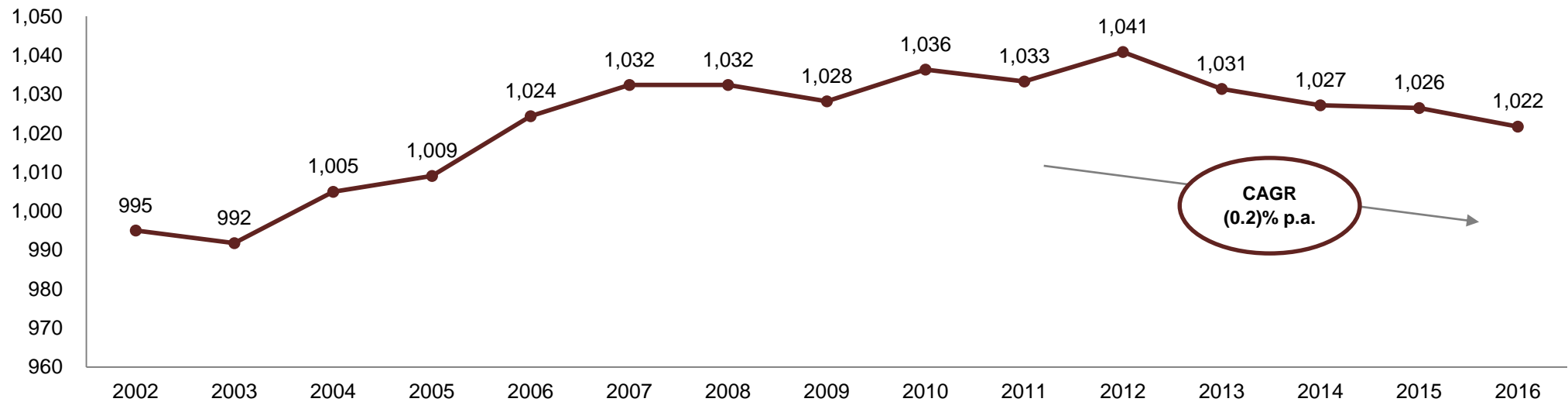
Copyright industries employ over 1 million people

The copyright industries still employ over 1 million Australians despite employment levels declining each year since 2012. Employed persons in the industries has decreased by 0.2 per cent per annum since 2011 notwithstanding the growth in output over the same period (1.4 per cent). This suggests that employment in the industries is shifting towards higher value sectors such as the software and databases industries which has grown at the fastest rate of all industries since 2011.

Copyright industries' share of total employment in Australia in 2016 was 8.6 per cent. This has been steadily declining over the past five years in line with the decline in the industries' GDP share. This continues to reflect a combination of efficiencies in the copyright industries (largely due to digitisation) and stronger employment growth in non-copyright industries.

The estimates of employment represent principal employment. We know from work from Throsby and Hollister (2003) that many people are actively working in the copyright industries as a secondary job. Hence, the estimates presented in this report likely under-represent the true number of people working in Australia's copyright industries.

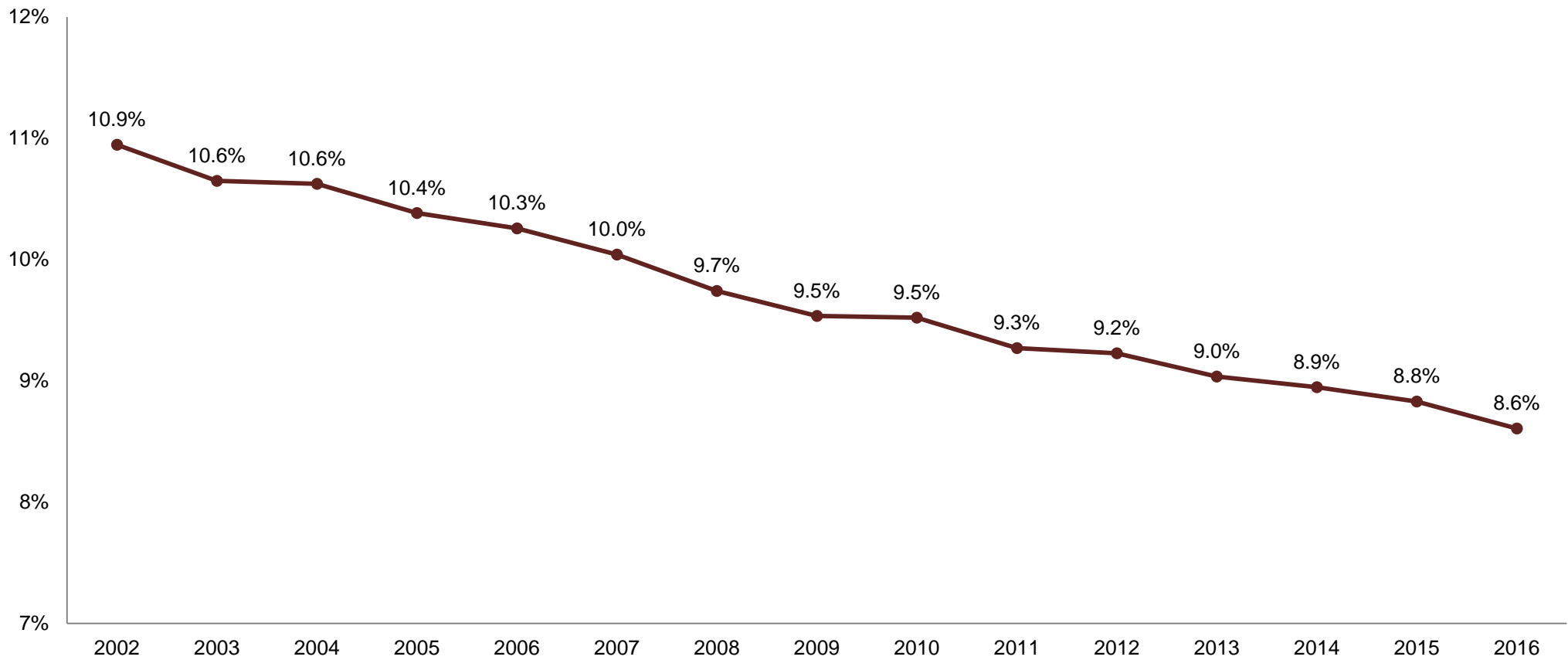
Employed persons ('000)



Source: PwC analysis, IBISWorld 2017
See Appendix A for detailed outputs

Employment (cont'd)

Share of total employment (%)



Source: PwC analysis, IBISWorld 2017, ABS 2017
See Appendix A for detailed outputs

Employment (cont'd)

Digitisation is driving employment patterns in the copyright industries

Employment growth has been strongest in the software and databases sub industry where employment grew by 3.2 per cent between 2011 and 2016. Employment declines were also greatest in the press and literature and radio and television sectors which have been impacted by the shift towards digital media and the emergence of new competitors.

Copyright Industries CAGR (%)	Employed persons (2016)	2006-2011	2011-2016
Core	674,147	0.5%	0.1%
Press and Literature	111,105	-1.8%	-4.2%
Music, Theatrical Productions	92,379	0.3%	0.3%
Motion Picture and Video	40,772	-0.7%	0.2%
Radio and Television	79,336	-1.2%	-2.7%
Photography	21,040	0.5%	0.0%
Software and Databases	228,430	2.8%	3.2%
Visual and Graphic Arts	18,136	1.8%	0.7%
Advertising Services	52,645	0.8%	0.8%
Interdependent	171,096	0.3%	-1.0%
Partial Copyright	76,528	-0.2%	-0.6%
Non-Dedicated Support	99,917	-1.6%	-0.8%
All copyright industries	1,021,688	0.2%	-0.2%

Source: PwC analysis, IBISWorld 2017

Interestingly, while this table demonstrates that employment in a number of the copyright industries has been negatively affected by changing business models and the rise of digital availability, employees in Australia's copyright industries appear to be less exposed to the coming disruption from automation. PwC's list of the top 24 occupations most at risk from computerisation and technology only has one occupation (ie printing trades workers) that features on the 'most exposed' list (PwC 2015a, p.10).

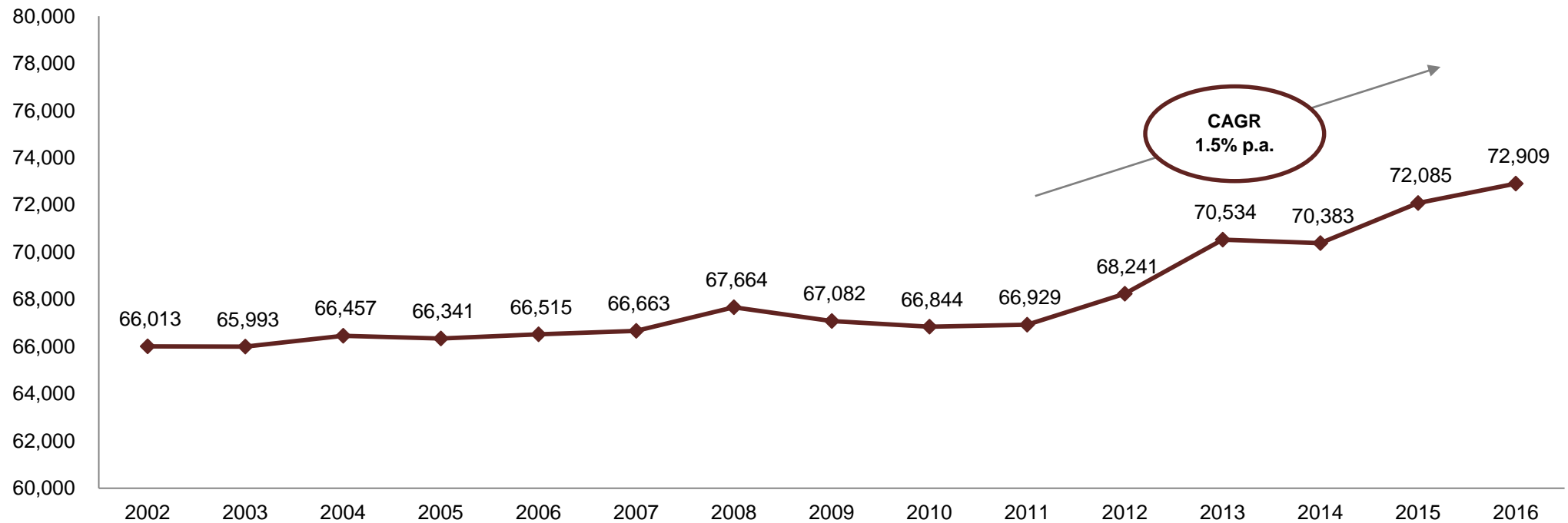
Employment (cont'd)

Average real wages reached \$73,000 in 2016 and have increased slowly since 2011 after a period of stagnation

Average wages per employee in the copyright industries have grown, in real terms, from \$66,900 in 2011 to \$72,900 in 2016 representing an increase of 1.5 per cent per annum. This steady increase follows a period of real wage stagnation following the GFC.

Average wages within the core copyright industries varied considerably depending on the industry. For example, it is estimated that average wages in the software and databases related industry were approximately \$101,000 compared to \$45,000 for motion picture and video employees.

Average copyright industry wages (\$2016)



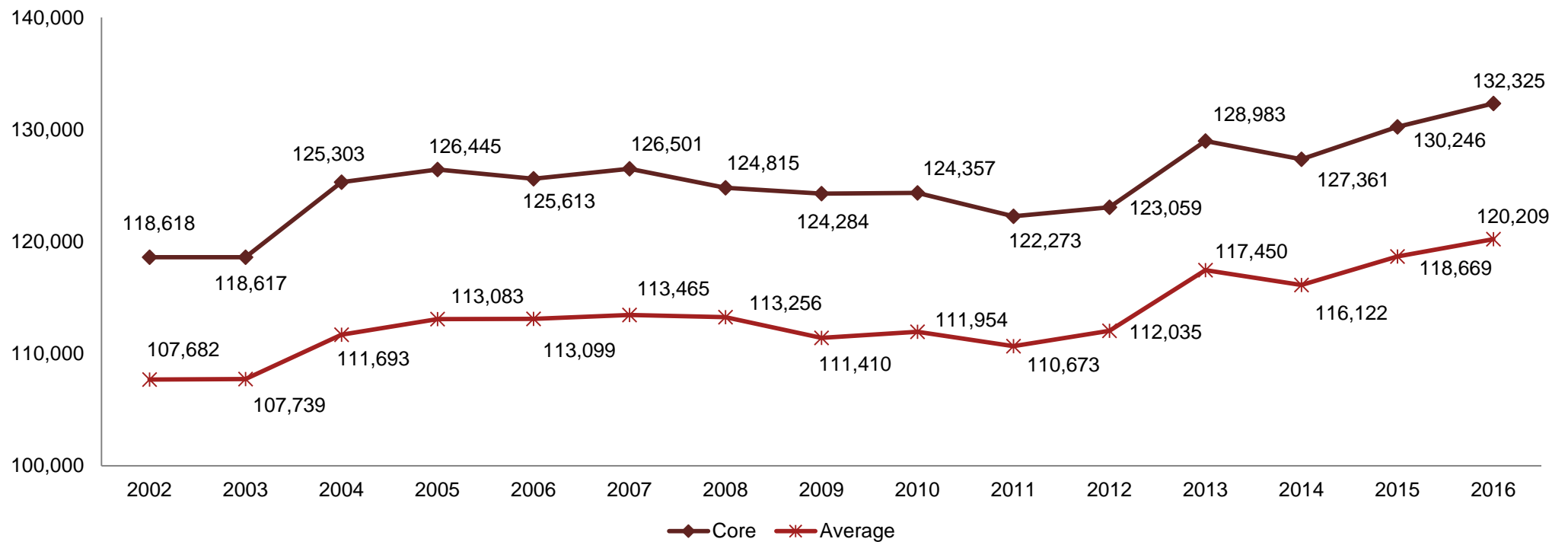
Source: PwC analysis, IBISWorld 2017

Employment (cont'd)

Growth in real wages reflect improvements in labour productivity in the copyright industries

The real increase in copyright wages reflects the labour productivity growth that has been evident in the industries over the period from 2011 to 2016. Productivity growth had been relatively stagnant in the decade leading up to 2011, which corresponded to stagnant growth in wages over the same period. Labour productivity has been consistently higher in the core copyright industries compared non-core industries.

Value added per employee (\$2016)



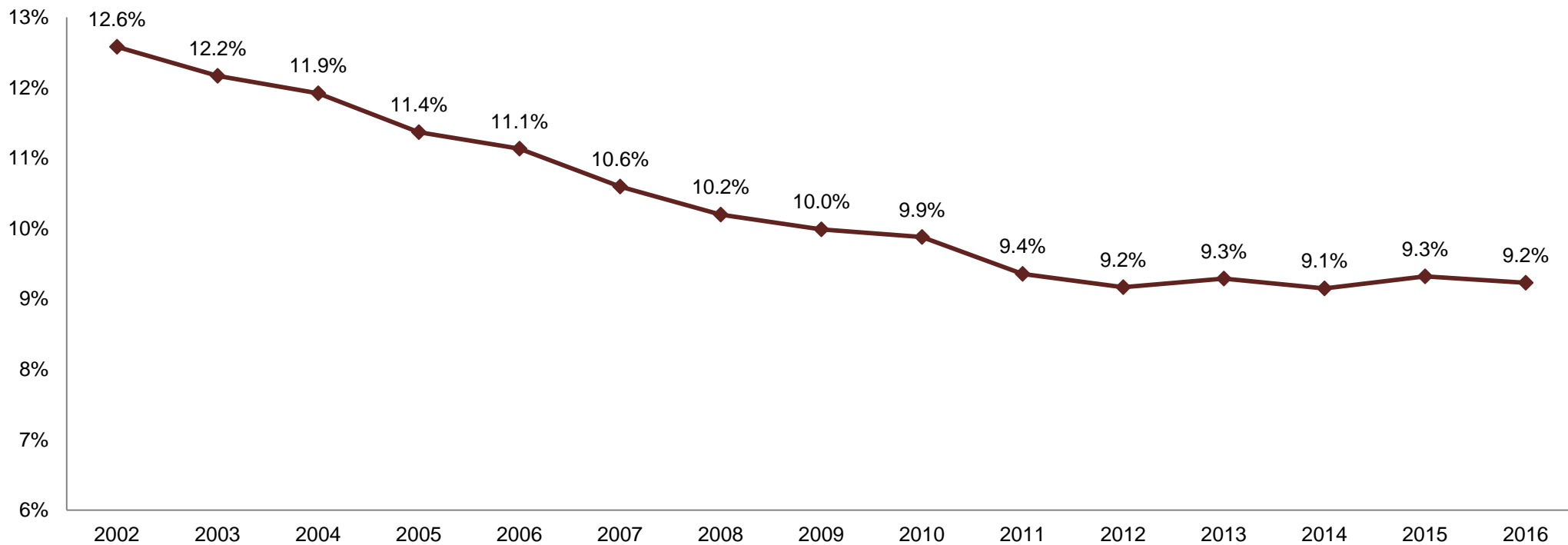
Source: PwC analysis, IBISWorld 2017

Employment (cont'd)

Copyright's share of total wages has stabilised at approximately 9 per cent after a period of decline

The copyright industries' share of total wages was 9.2 per cent in 2016. The industries' share of total wages within the Australia economy had been declining since the early 2000s but appears to have stabilised since 2011. While copyright wages have fallen as a percentage of total wages, copyright jobs remain, on average, better remunerated than the economy as a whole.

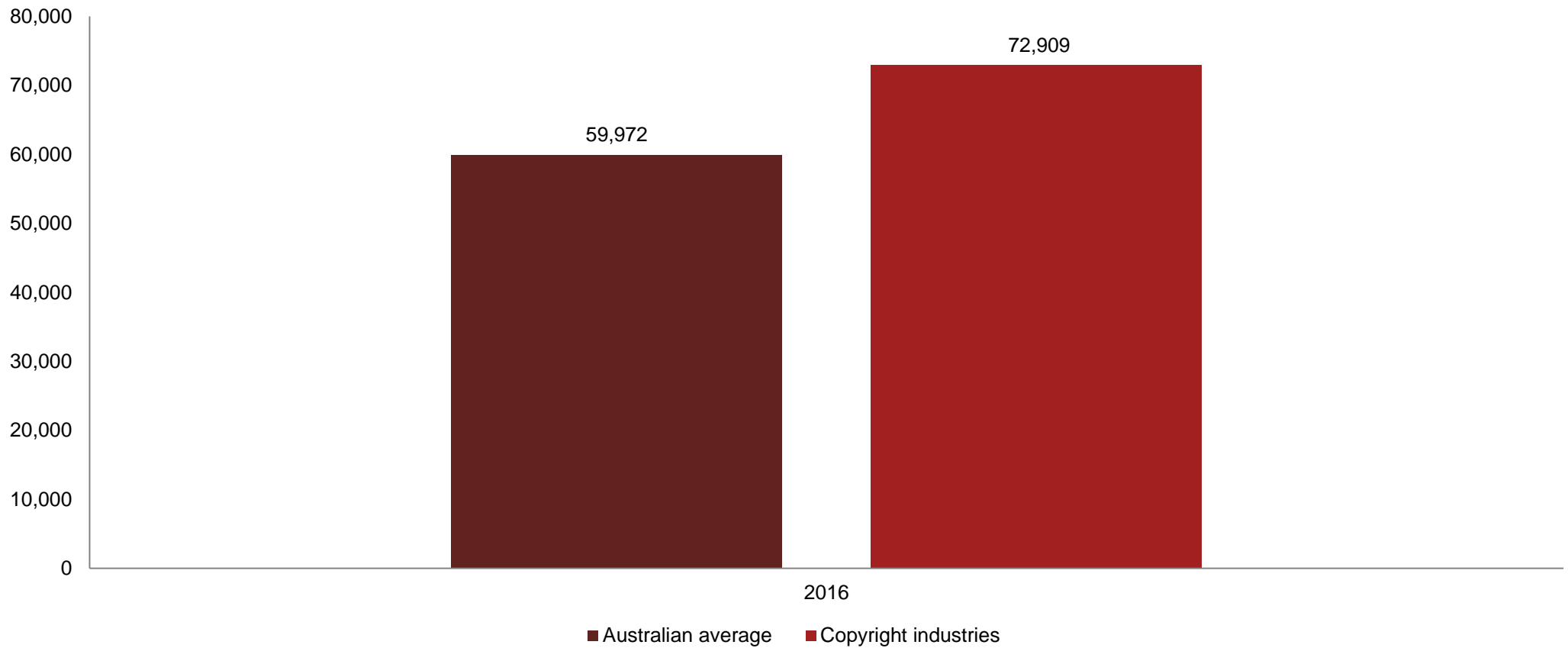
Share of total wages (%)



Source: PwC analysis, IBISWorld 2017, ABS 2017

Employment (cont'd)

Average wage comparison (\$2016)



Source: PwC analysis, IBISWorld 2017, ABS 2017

Employment (cont'd)

Real wages growth in the copyright industries continues to outpace employment growth

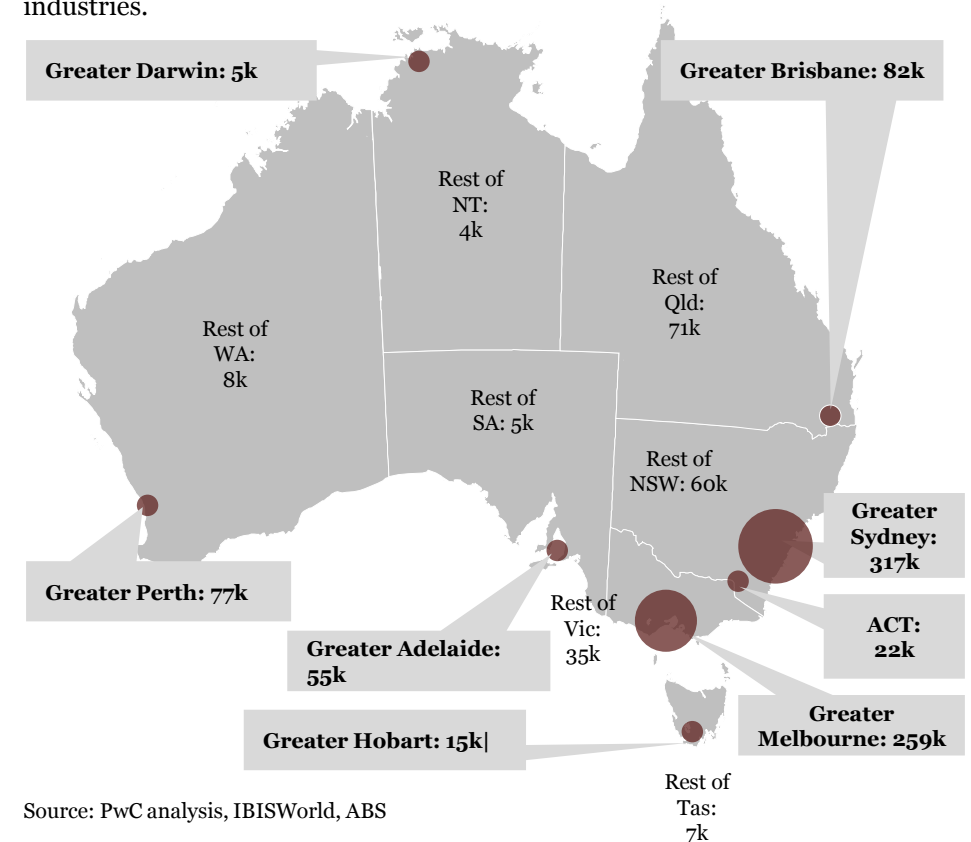
Real wages growth in Australia's copyright industries continues to exceed employment growth which is consistent with the trend in wider Australian economy. Wages growth in the core copyright industries was 1.7 per cent per annum between 2011 and 2016 compared to employment growth of 0.1 per cent.

Copyright Industries	CAGR 2011-2016	
	Employment	Wages
Core	0.1%	1.7%
Interdependent	-1.0%	0.7%
Partial	-0.6%	1.2%
Non-Dedicated Support	-0.8%	1.8%
All copyright industries	-0.2%	1.5%
Australian economy average	1.3%	2.3%*

Source: PwC analysis, IBISWorld
*CAGR 2012-2016

Metropolitan areas account for 80 per cent of employed persons in the copyright industries

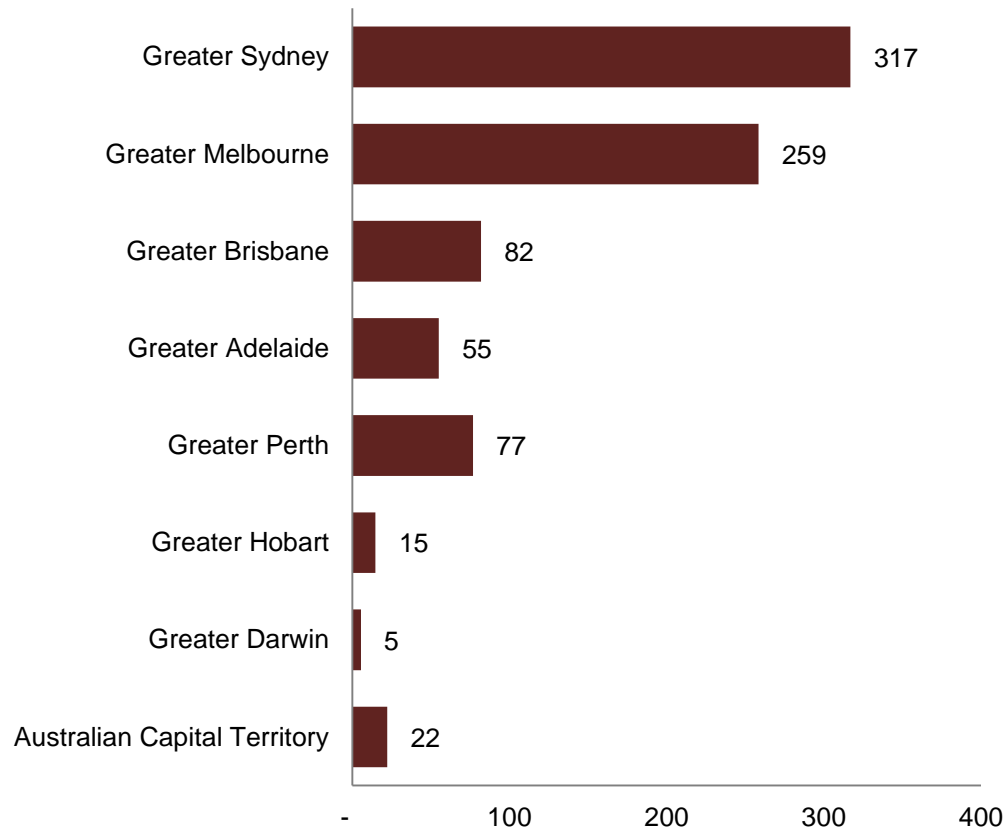
Based on PwC's Geospatial Economic Model (GEM), copyright industries in metropolitan centres accounted for approximately 830,000 employed persons, compared with 190,000 in regional areas. Metropolitan Sydney and Melbourne are estimated to account for almost 600,000 employed persons in the copyright industries.



Source: PwC analysis, IBISWorld, ABS

Employment (cont'd)

Employment contribution by capital city metropolitan areas ('000)



Employment contribution by non-capital city areas ('000)



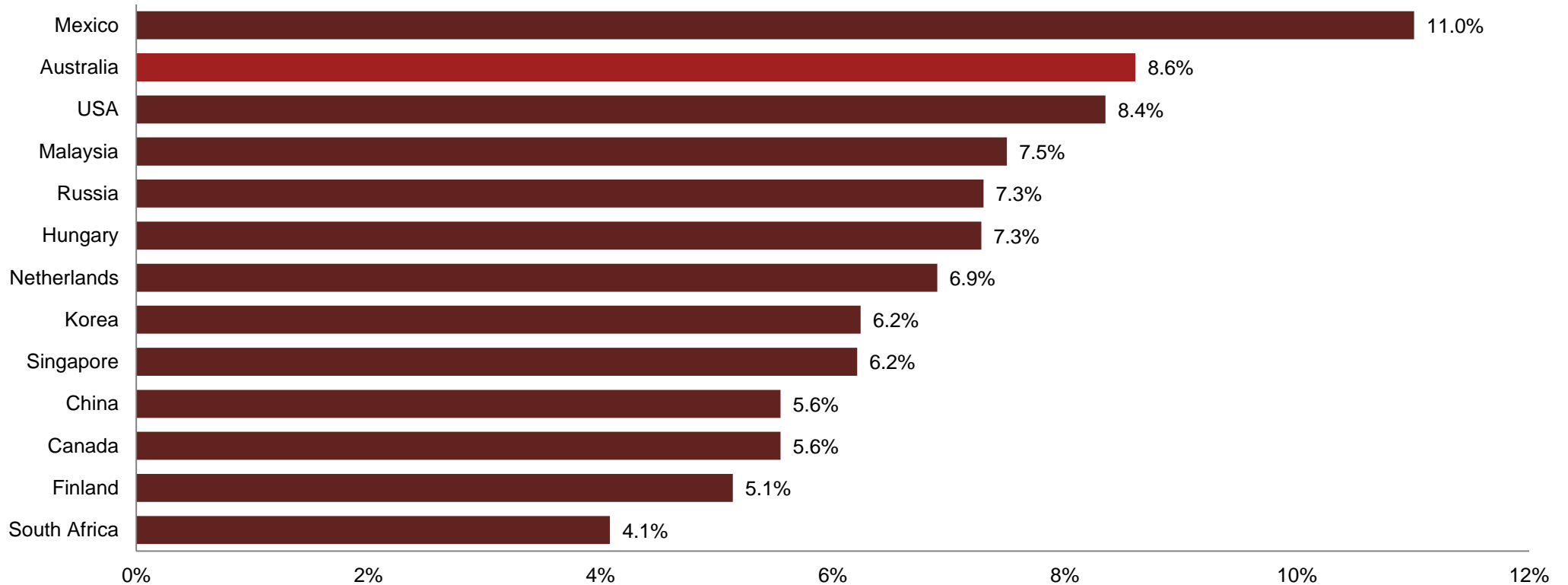
Source: PwC analysis, IBISWorld, ABS

Employment (cont'd)

Australia's copyright industries employment intensity is relatively high

Australia's copyright industries account for 8.6 per cent of Australia's workforce which is higher than the United States, Singapore, the Netherlands and Canada.

Employment share (% , latest years)



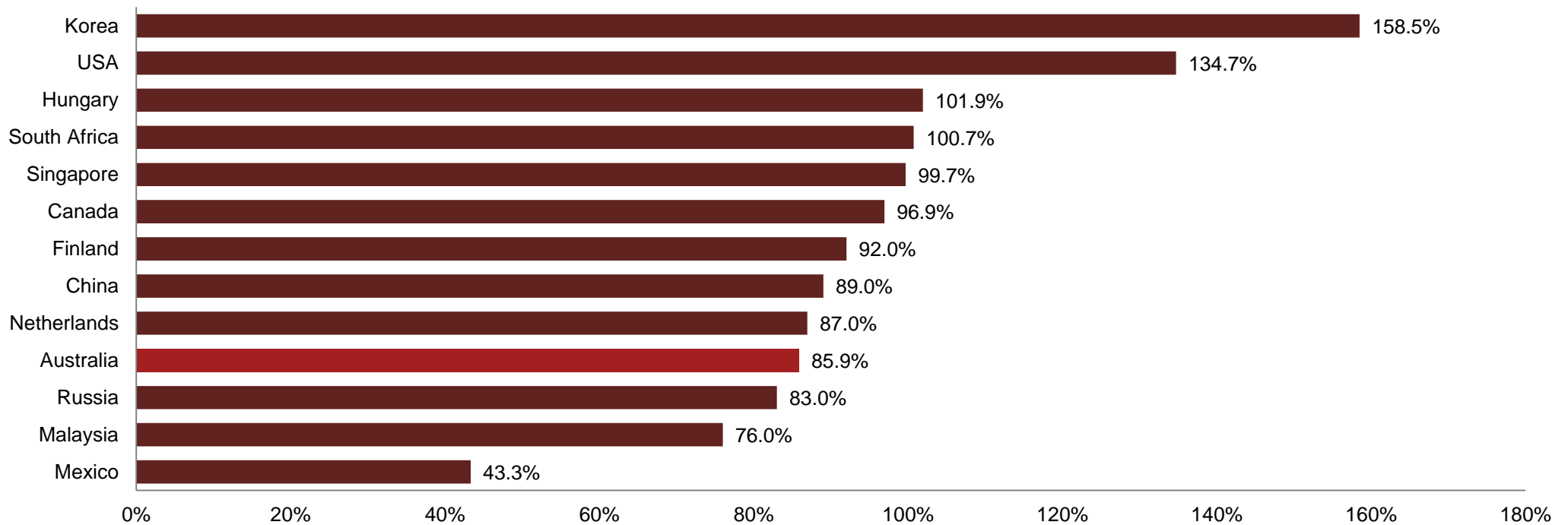
Source: PwC analysis, IBISWorld, WIPO

Employment (cont'd)

Australia's copyright industries have relatively low labour productivity

Australia's copyright industries have lower levels of labour productivity compared to other countries such as Korea and the United States, where equipment production demonstrates significantly higher labour productivity. The level of productivity continues to reflect our modern economy, and a relatively balanced mix of activity across the four copyright industry groups.

GDP share divided by employment share (% , latest years)



Source: PwC analysis, IBISWorld, WIPO

Trade in copyright products



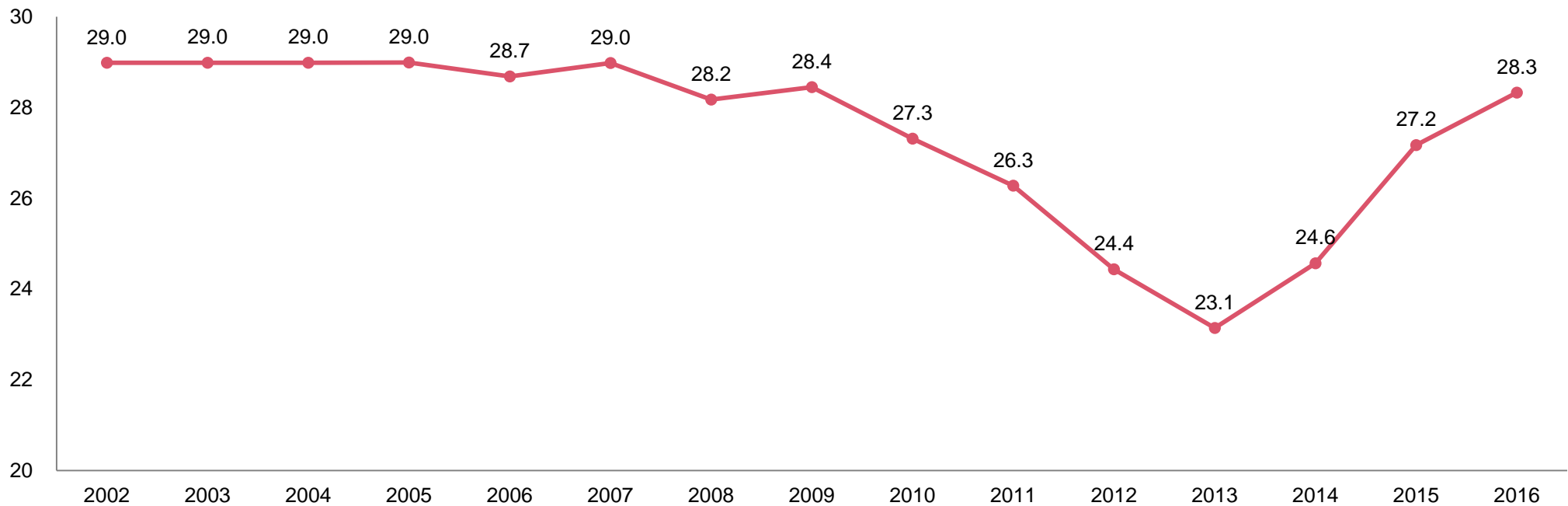
Trade

Copyright imports recovered to \$28.3 billion in 2016

Imports in copyright related industries totalled \$28.3 billion in 2016. Imports of copyright related products declined in real terms between 2008 and 2013 as a result of falling audio visual equipment (and associated goods) imports but has since recovered. The recovery in imports since 2013 was largely driven by growth in the imports of computers, tablets and other IT equipment. The overall recovery in imports was also attributable to a growth in photographic and video recording equipment.

Imports have grown by 1.5 per cent per annum between 2011 and 2016.

Imports (\$2016, \$billion)



Source: PwC analysis, IBISWorld
See Appendix A for detailed outputs

Trade (cont'd)

Imports continue to be comprised largely of imports from interdependent industries which include the production of electronic audio visual equipment and computers

Imports for the interdependent industries account for over 90 per cent of total imports. This sub-industry includes activities related to the production of electronic audio visual equipment and computers.

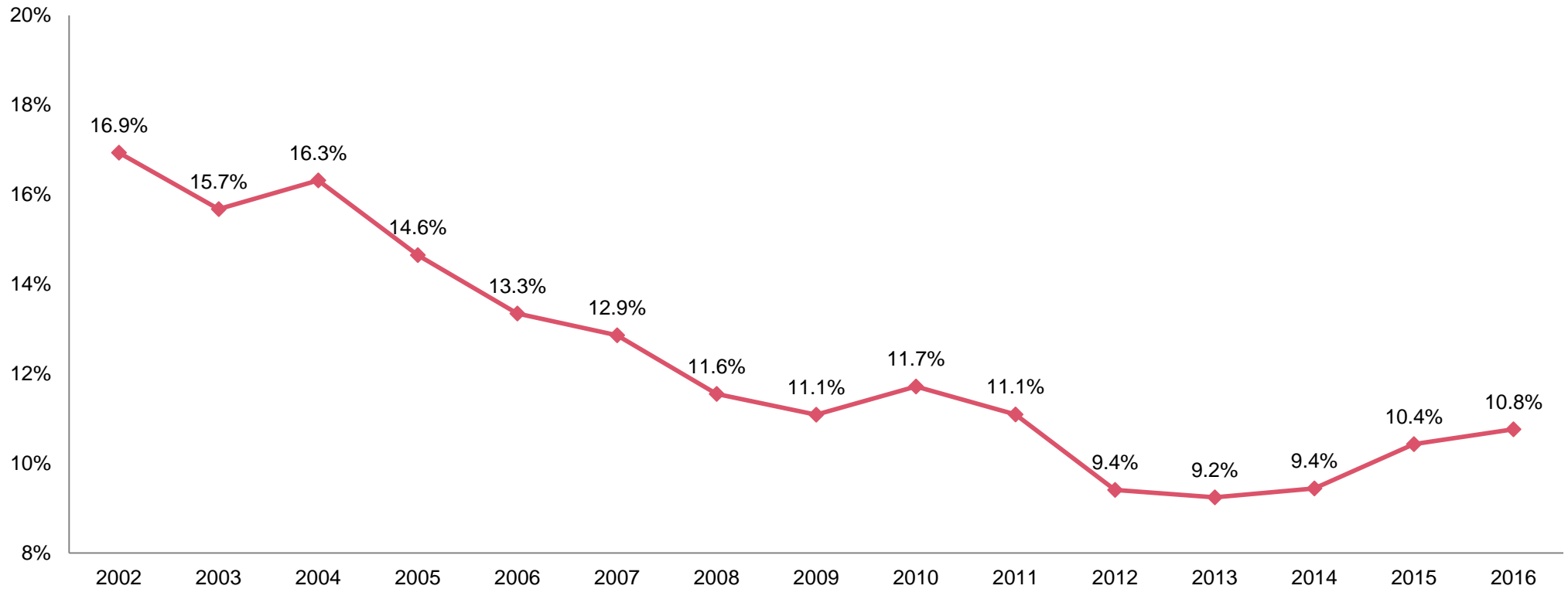
Copyright Industries CAGR* (%)	Imports (\$2016, \$m)	2006-2011	2011-2016
Core	942	3.1%	-6.6%
Interdependent	25,735	-2.0%	1.6%
Partial Copyright	1,649	-1.2%	6.7%
Non-Dedicated Support		(no data)	
Total	28,326	-1.7%	1.5%

Trade (cont'd)

Copyright's share of total imports was 10.8 per cent and is trending upwards after a period of decline

Copyright related imports have increase in each year since 2013 following a period of consistent decline since 2002.

Share of total imports (%)



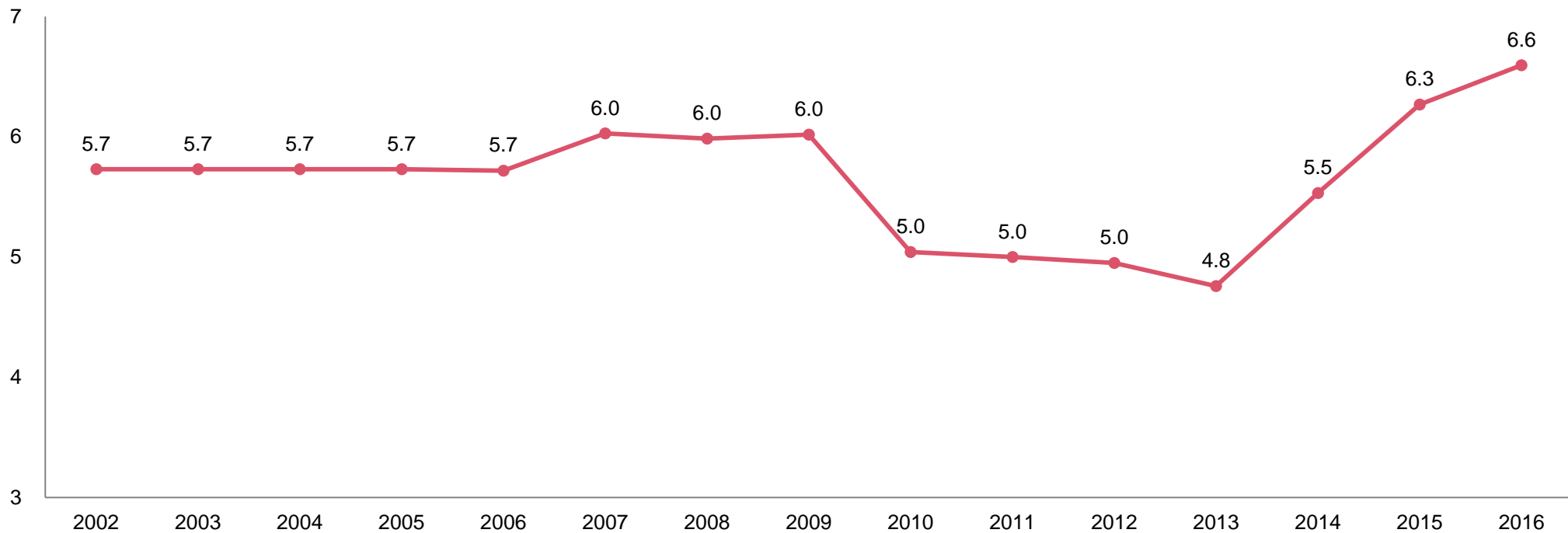
Source: PwC analysis, IBISWorld 2017, ABS 2017

Trade (cont'd)

Copyright exports totaled \$6.6 billion in 2016 and have increased steadily since 2013

Copyright exports have increased steadily since 2013 coinciding with the fall in the Australian Dollar. As was the case with copyright related imports, exports are dominated by the interdependent industries which include the production of electronic audio visual equipment and computers. The growth in exports since 2013 was driven by exports of computers and IT equipment and also photographic and video recording equipment.

Exports (\$2016, \$billion)



Source: PwC analysis, IBISWorld
See Appendix A for detailed outputs

Trade (cont'd)

Exports in the copyright industries have grown at 5.7 per cent per annum since 2011

Exports by Australia's copyright industries have increased by 5.7 per cent per annum since 2011 driven largely by growth in the interdependent industries. Exports in the core industries (which reflect a more significant portion of service sectors) have declined since 2011 and continue to comprise a relatively small proportion of total copyright exports.

Copyright Industries CAGR* (%)	2016 Exports (\$m)	2006-2011	2011-2016
Core	92	-4.9%	-16.7%
Interdependent	6,224	-2.6%	6.3%
Partial Copyright	279	-0.6%	7.8%
Non-Dedicated Support		(no data)	
All copyright industries	6,594	-2.7%	5.7%

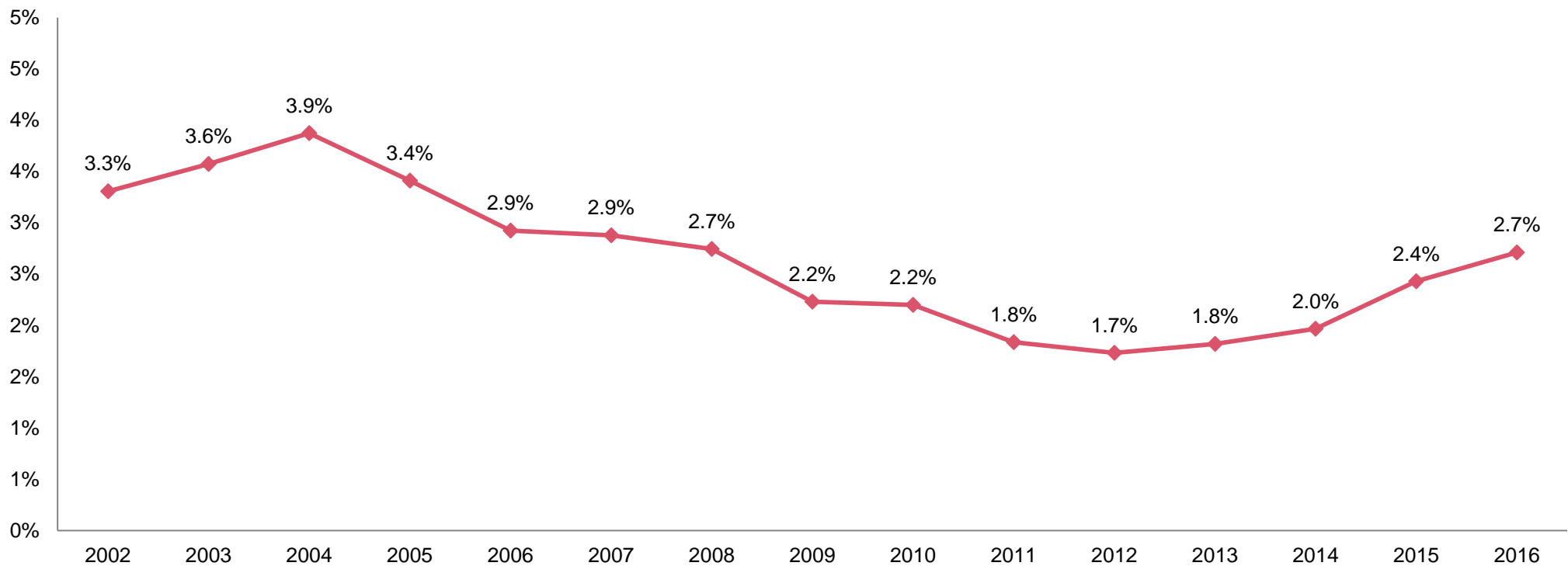
Source: PwC analysis, IBISWorld 2017

Trade (cont'd)

Copyright industries' share of total exports was 2.7 per cent in 2016 and has been increasing since 2012

Copyright exports now account for 2.7 per cent of total exports and appears to be trending upwards to pre-GFC levels.

Share of total exports (%)



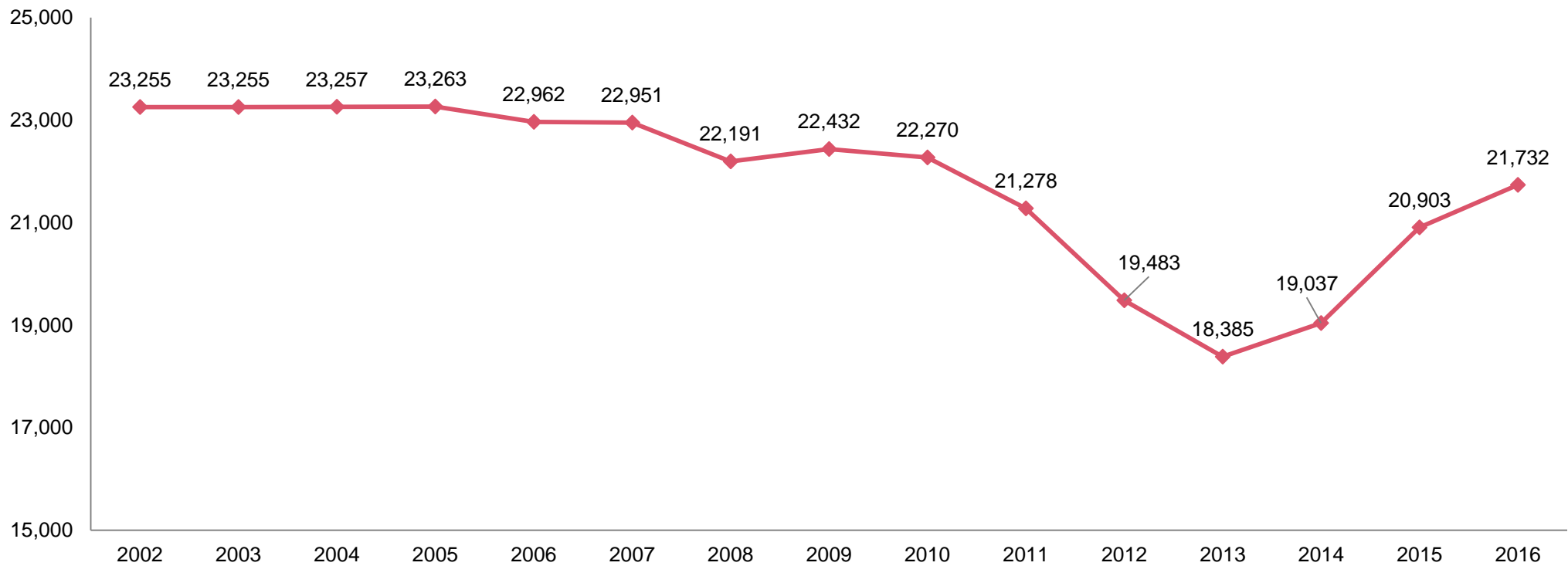
Source: PwC analysis, IBISWorld

Trade (cont'd)

Australia continues to be a net importer of copyright related activities and products

Net imports increased to \$21.7 billion in 2016. This result was largely driven by trade in the interdependent industries which includes activities related to the production of electronic audio visual equipment and computers.

Net imports (\$2016, \$million)



Source: PwC analysis, IBISWorld
See Appendix A for detailed outputs

Appendices



Appendix A – Data outputs

Value added (\$2016, \$millions)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Core	74,539	74,539	80,232	81,505	82,265	83,268	82,162	81,675	83,071	81,922	83,002	86,163	85,288	87,962	89,207
Interdependent	18,103	18,103	17,415	18,094	18,870	19,114	19,943	18,583	18,606	18,337	18,975	20,031	19,478	19,095	18,978
Partial	5,627	5,626	5,874	5,887	6,181	6,368	6,688	6,635	6,608	6,650	6,989	7,026	6,957	6,926	6,714
Non-dedicated	8,876	8,588	8,730	8,620	8,541	8,387	8,132	7,659	7,735	7,451	7,645	7,915	7,555	7,826	7,918
Total	107,146	106,856	112,250	114,106	115,858	117,138	116,925	114,552	116,020	114,359	116,611	121,136	119,278	121,810	122,816

Value added as a share of GDP (%)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Core	6.7%	6.5%	6.7%	6.6%	6.5%	6.3%	6.0%	5.9%	5.9%	5.7%	5.5%	5.6%	5.4%	5.4%	5.4%
Interdependent	1.6%	1.6%	1.5%	1.5%	1.5%	1.5%	1.5%	1.3%	1.3%	1.3%	1.3%	1.3%	1.2%	1.2%	1.1%
Partial	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%
Non-dedicated	0.8%	0.8%	0.7%	0.7%	0.7%	0.6%	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Total	9.7%	9.3%	9.4%	9.3%	9.2%	8.9%	8.6%	8.3%	8.2%	7.9%	7.8%	7.9%	7.6%	7.5%	7.4%

Appendix A – Data outputs (cont'd)

Employed persons

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Core	628,399	628,400	640,301	644,590	654,910	658,242	658,266	657,162	668,001	669,989	674,495	668,022	669,659	675,349	674,147
Interdependent	169,344	169,346	171,136	172,830	177,248	181,860	183,405	182,093	181,069	180,222	183,308	182,697	178,618	173,087	171,096
Partial	78,783	78,782	78,136	77,379	79,644	80,545	80,244	81,235	79,846	79,017	78,935	78,491	77,402	76,839	76,528
Non-dedicated	118,495	115,282	115,412	114,254	112,592	111,724	110,478	107,706	107,402	104,084	104,105	102,170	101,495	101,192	99,917
Total	995,021	991,810	1,004,985	1,009,052	1,024,394	1,032,371	1,032,393	1,028,197	1,036,318	1,033,311	1,040,842	1,031,380	1,027,173	1,026,467	1,021,688

Imports (\$2016, \$millions)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Core	1,193	1,193	1,193	1,193	1,134	1,144	1,224	1,421	1,619	1,324	1,168	929	1,003	943	942
Interdependent	26,380	26,380	26,380	26,381	26,279	26,551	25,678	25,640	24,467	23,758	22,089	20,983	22,204	24,712	25,735
Partial	1,411	1,412	1,412	1,418	1,267	1,283	1,272	1,388	1,225	1,195	1,177	1,231	1,360	1,516	1,649
Non-dedicated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	28,984	28,985	28,986	28,992	28,680	28,977	28,174	28,449	27,311	26,277	24,434	23,142	24,567	27,171	28,326

Appendix A – Data outputs (cont'd)

Exports (\$2016, \$millions)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Core	311	311	311	311	295	287	249	242	240	230	199	122	96	93	92
Interdependent	5,180	5,180	5,180	5,180	5,225	5,538	5,544	5,546	4,601	4,577	4,504	4,422	5,210	5,936	6,224
Partial	237	237	237	237	198	202	190	228	200	192	248	213	224	238	279
Non-dedicated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	5,729	5,729	5,729	5,729	5,717	6,027	5,983	6,016	5,041	4,999	4,951	4,757	5,530	6,268	6,594

Net imports (\$2016, \$millions)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total imports	28,984	28,985	28,986	28,992	28,680	28,977	28,174	28,449	27,311	26,277	24,434	23,142	24,567	27,171	28,326
Total exports	5,729	5,729	5,729	5,729	5,717	6,027	5,983	6,016	5,041	4,999	4,951	4,757	5,530	6,268	6,594
Net total imports	23,255	23,255	23,257	23,263	22,962	22,951	22,191	22,432	22,270	21,278	19,483	18,385	19,037	20,903	21,732

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