



**Economic contribution of the film
and television industry in Australia**

Australian Screen Association | February 2015

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Front Cover: Director Russell Crowe and Cinematographer Andrew Lesnie on the set of THE WATER DIVINER. Image courtesy of Universal Pictures Australia. Photo: Mark Rogers.

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Executive Summary

The film and television sector operates in a highly dynamic environment, particularly in relation to changing technology. To assess the current state of the sector, the Australian Screen Association (ASA) commissioned Deloitte Access Economics to update our previous 2009-10 economic contribution study to the reference year 2012-13.

The analysis presented in this report shows that the film and television sector remains a significant contributor to the Australian economy. In 2012-13, we estimate that the film and television sector directly contributed \$5.8 billion to Australian gross domestic product (GDP) and about 46,600 full time equivalent (FTE) employees (Table i). This compares with Internet service providers that contribute \$1.8 billion and Air (and space) Transport that contribute \$6.5 billion to the economy.

There is a broad range of players in the sector

As defined in this report, the film and television sector comprises eight sub-sectors (as shown in Table i) of the industry ranging from production, distribution, television (free-to-air and pay) to online content.

The free-to-air television sector makes the largest contribution to GDP with approximately \$1.5 billion in value added (consistent finding to our 2009-10 report). In terms of employment, the production sector is the greatest contributor with some 13,000 FTE.

Table i: Total economic contribution of film and television, \$M, 2012-13

Sector	Gross operating surplus	Labour income	Value added*	Employment (FTE)
Direct	2,462	2,517	4,853	39,025
Production	263	859	996	13,098
Distribution	479	180	659	2,145
Free-to-air TV	877	662	1,538	6,608
Pay TV	516	394	910	4,570
Exhibition	178	213	391	6,180
Retail	79	145	224	4,484
Rental	60	62	122	1,905
Online	9	4	13	35
Indirect	636	322	958	7,607
Total	3,098	2,840	5,812	46,632

Source: Deloitte Access Economics estimates * Represents the contribution to GDP

Note: Due to rounding, sums might not add to totals

The report also outlines the contribution to each state and territory in Australia. The sector's contribution is highly concentrated in New South Wales, Victoria and Queensland, the main entertainment centres in Australia. These states share a high majority of the film production activity in Australia. Total value added in New South Wales is \$3.0 billion, followed by Victoria with almost \$1.3 billion.

The report also provides an account of the level of taxes directly paid by the sector, through Income and Company tax and indirectly through Goods and Services tax (GST) payments.

Total tax payments were just under \$2 billion, made up of about \$500 million in corporate tax and \$450 million in income tax, in total GST receipts accounted for just over \$1 billion.

The sector is coming under increased pressure

Since 2009-10, the economic contribution has reduced in real terms by 12.2%, from \$6.6 billion to \$5.8 billion in 2012-13. In addition, employment is also 4.2% lower at about 47,000 FTE employees over the same period, as outlined below in Table ii.

Table ii: Economic contribution in 2009-10 and 2012-13, \$M (2012-13 prices)

Economic contribution	Gross operating surplus	Labour income	Subsidy	Value added	Employment (FTE)
2009-10	3,728	3,014	120	6,622	48,667
2012-13	3,098	2,840	126	5,812	46,632
Change (%)	-16.9%	-5.8%	5.1%	-12.2%	-4.2%

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

The general reduction in activity needs to be considered in relation to the underlying changes taking place at the sub-sectoral level. Value added in the production sector and the pay TV sector are up by 8.3% and 55.0% respectively, as outlined in Table iii.

Table iii: Economic contribution in 2009-10 and 2012-13, \$M (2012-13 prices)

Sector	2009-10	2012-13	Change (%)
Direct	5,538	4,853	-12.4%
Production	920	996	8.3%
Distribution	898	659	-26.7%
Free-to-air TV	2,043	1,538	-24.7%
Pay TV	587	910	55.0%
Exhibition	421	391	-7.1%
Retail	283	224	-20.9%
Rental	381	122	-67.9%
Online	5	13	153.8%
Indirect	1,084	958	-11.5%
Total	6,622	5,812	-12.2%

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

In the case of production, this increase could be explained by a rise in locally produced feature films and TV drama since the previous report. Domestic productions have grown from about \$400 million in 2010-11 to over \$600 million in 2012-13.

Activity in the pay TV sector increased sharply as the sector continues to mature financially and offer new products. Revenue in the sector has increased from about \$3.6 billion since 2009-10 to over \$4.8 billion in 2012-13, with a year-on-year revenue growth of about 8.0%.

Foxtel, the largest industry player, is reporting strong growth, through an increase in the number of subscribers and lower churn rates. In addition, there has been a number of

innovations introduced including Foxtel Go, allowing users to stream content on a number of devices including set top boxes, mobiles and tablets.

These factors have seen a large increase in value added in the sector from about \$600 million in the previous report to over \$900 million in 2012-13 (in real terms).

Online purchase and rental of filmed content is also a growing sub-sector of the industry. As outlined in the report, the actual contribution to the Australian economy is limited as much of the contribution is driven by overseas supply.

Other sub-sectors of the film and television industry have not experienced similar growth stories to those outlined above. This may be driven by a shift in consumer preference to streaming content including purchasing filmed content. The market is diversifying with the recent entry of Fetch TV and the emergence of subscription video on demand services such as Presto, Stan, Dendy Direct and shortly, Netflix.

1 Introduction

This report, commissioned by the Australian Screen Association, is in association with the following: Independent Cinemas Association of Australia, National Association of Cinema Operators, Motion Picture Distributors Association of Australia, Fox Studios Australia, Screen Producers Association, Media Entertainment and Arts Alliance, Australian Directors Guild, Australian Home Entertainment Distributors Association, Australian Independent Distributors Association, Metro Screens and Foxtel.

This work is a continuation of studies Deloitte Access Economics has undertaken for the Australian Screen Association. The Australian film and television industry comprises an array of businesses and services across the country, capturing the whole industry supply chain. The economic analysis apportions the economic contribution by the following industry sectors:

- production
- distribution
- exhibition
- manufacturing
- free-to-air TV
- subscription TV
- retail
- rental
- online sales

The work is being conducted to inform key stakeholders about the size and scope of the sector, including the contribution to the national and state economies through value added and employment. In addition, the report also outlines the contribution the sector makes to tax receipts and expenditure.

A number of these industry sectors are included in the contribution analysis, where value added and employment is specified. The manufacturing sector is included in the discussion as we do assemble physical content in Australia including CDs, DVDs and Blu-ray, but due to limited information is not included in the contribution analysis. Unfortunately from the information available there is no way of separating the manufacturing activity from the music, games and software sectors. As a result we provide an account of the activity associated with the recorded media sector in the report.

The economic contribution study measures the direct contribution to GDP of the Australian film and television industry, as well as employment associated with the industry. Indirect and flow-on contributions to other sectors of the economy will also be quantified using an input-output (IO) framework.

1.1 Economic contribution studies

The direct economic contribution to GDP of the Australian film and television industry is the value added created by labour and capital inputs employed directly by the industry. Direct activities related specifically to the film and television industry include the making of content for film and television, distribution of the content, and consumer use through watching, buying or renting it.

The indirect contribution is a measure of the demand for goods and services produced in other sectors of the economy as a result of the direct economic activity in the film and television sector. The size of this flow-on activity is dictated by the extent of linkages with other supplier sectors of the economy. Estimation of the indirect contribution is undertaken in an IO framework using Australian Bureau of Statistics (ABS) IO tables.

The total economic activity generated by the film and television industry is the sum of the direct and indirect components. All the direct, indirect and total contributions are reported as value added, gross operating surplus (GOS) and employment. Further detail on the approach used to measure the economic contribution of the Australian film and television industry is provided in Appendix A.

1.2 Methodology

The methodology used to measure the economic contribution of the film and television industry to the Australian economy remains the same as the previous studies conducted in 2009 and 2011.

This report updates key data in the industry to estimate the economic contribution of the industry in 2012-13, with particular reference to information on how the contribution has changed since the previous report, completed in 2011. ABS data for the production, television exhibition, distribution and rental sectors was utilised. However, the data is based on old information and as such has been updated using growth rates estimated by Deloitte Access Economics.

These growth rates have been estimated using data from sources such as Screen Australia, Motion Picture Distributors Association of Australia (MDPAA), National Australia Bank (NAB) online activity reporting and ABS.

1.3 The structure of the report

This report is structured as set out below:

- Chapter 2 outlines the findings of the contribution modelling, broken down by sub-sector. The chapter also outlines the contribution to states and territories and the contribution of the digital production sector.
- Chapter 3 provides a description of the industry sectors, and includes sales, direct value added and employment for each of these sectors. In addition, the chapter also outlines the trend changes in activity in each of the subsectors.
- Appendix A provides more detail on the methodology used and the typical limitations of economic contribution studies.

2 Economic Contribution of the Australian film and television industry

The following chapter provides an account of the economic activity within the Australian film and television sector. As with previous reports the contribution is broken up in each of the sub-sectors of the industry.

2.1 Expenditure

Table 2.1 shows the estimated gross output of the Australian film and television industry in 2012-13, arising from the expenditure attributable to the industry. The total gross output of the industry is approximately \$21.5 billion, comprising \$18.1 billion in direct gross output.

The pay TV sector has experienced significant growth in revenue over the period 2009-10 to 2012-13. The sector has grown from about \$3.6 billion in 2009-10 to more than \$4.8 billion in 2012-13 to be the largest sector by revenue.

Table 2.1: Gross output 2009-10 and 2012-13, \$M, (2012-13 prices)

Sector	2009-10	2012-13
Direct gross output	18,693	18,118
Production	2,398	2,676
Distribution	3,512	2,575
Free-to-air TV	4,873	4,730
Pay TV	3,582	4,836
Exhibition	1,840	1,709
Retail	1,648	1,304
Rental	821	264
Online	18	24
Indirect gross output	3,058	3,412
Total gross output	21,750	21,530

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

2.2 Direct Economic Contribution

The direct economic contribution captures the value added created by labour and capital inputs. Value added (output after deducting the value of intermediate inputs) is the most appropriate measure of an industry's economic contribution to GDP. Industry value added can be calculated directly by summing the returns to the primary factors of production; labour and capital; as well as production taxes less subsidies. The value added of each

industry in the supply chain can be added without the risk of double counting across industries.

Gross operating surplus (GOS) is a measure used in the national accounting framework to assess the returns to capital. It essentially represents the operational profits of the industry. Financial aspects are not included in measuring GOS.

The direct economic and employment contribution of the Australian film and television industry in 2012-13 is shown in Table 2.2, disaggregated by sector. The economic contribution totals approximately \$4.8 billion in value added, with almost \$2.5 billion returned as GOS and \$2.5 billion as labour income. Approximately 39,000 FTE workers are directly employed across the industry. The total value added is net of \$126 million in production subsidies paid by all levels of government in Australia.

Table 2.2: Direct economic contribution, \$M, 2012-13

Sector	Gross operating surplus	Labour income	Value added	Employment (FTE)
Production	263	859	996	13,098
Distribution	479	180	659	2,145
Free-to-air TV	877	662	1,538	6,608
Pay TV	516	394	910	4,570
Exhibition	178	213	391	6,180
Retail	79	145	224	4,484
Rental	60	62	122	1,905
Online	9	4	13	35
Direct contribution	2,462	2,517	4,853	39,025

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

The direct contribution of \$4.8 billion compares with Internet service providers that contribute \$1.8 billion and Air (and space) Transport that contribute \$6.5 billion to the economy.

2.3 Indirect Economic Contribution

The direct contribution of the Australian film and television industry captures the value added created by labour and capital inputs. However, intermediate inputs generate flow-on or indirect contribution via the activity created in other sectors. The size of this flow-on activity is dictated by the extent of linkages with other sectors of the economy. To measure the Australian film and television industry's economic contribution, Deloitte Access Economics use analysis of the input-output (IO) structure of the economy.

The IO structure of the economy is estimated by the ABS which publishes tables reporting the inputs and outputs of specific sectors of the economy. By utilising these, Deloitte Access Economics can calculate the relationship between the total and direct economic contribution of the industry. The ratio of the total to direct activity is referred to as a sector multiplier.

The gross output multipliers use direct gross value added to estimate the total value added, labour income and gross output (these concepts are discussed in greater detail in Appendix

A). The indirect contribution is estimated using these multipliers minus the direct contribution.

The indirect contribution is outlined in Table 2.3. As with the previous report, to avoid any double counting, we have provided the indirect contribution of the production sector only.

The production sector is estimated to have generated an indirect value added of \$958 million to the Australian economy, with around 7,600 FTE workers indirectly employed and a wage contribution of \$322 million.

Table 2.3: Indirect economic contribution, \$M, 2012-13

Sector	Gross operating surplus	Labour income	Value added	Employment (FTE)
Production	636	322	958	7,607

Source: Deloitte Access Economics estimates

2.4 Total Economic Contribution

The total economic contribution of the film and television industry to the Australian economy is outlined in Table 2.4, showing the split between the direct and indirect contribution. The total economic contribution to GDP (value added) is estimated to be approximately \$5.8 billion in 2012-13, with \$2.8 billion being paid in wages, \$3.1 billion returned as GOS and nearly 47,000 persons employed on a FTE basis.

Table 2.4: Total economic contribution, \$M, 2012-13

Sector	Gross operating surplus	Labour income	Value added	Employment (FTE)
Direct	2,462	2,517	4,853	39,025
Production	263	859	996	13,098
Distribution	479	180	659	2,145
Free-to-air TV	877	662	1,538	6,608
Pay TV	516	394	910	4,570
Exhibition	178	213	391	6,180
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Rental	60	62	122	1,905
Online	9	4	13	35
Indirect	636	322	958	7,607
Total	3,098	2,840	5,812	46,632

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

2.5 State Contribution

Table 2.5 shows the economic contribution of Australia's film and television industry disaggregated by state. New South Wales is the highest contributor to economic activity in the industry, followed by Victoria and Queensland. This is because these states contain the majority of production and distribution activity in the industry.

Table 2.5: Economic contribution by states, \$M, 2012-13

Sector	Gross operating surplus	Labour income	Value added	Employment (FTE)
New South Wales	1,618	1,478	3,030	22,686
Victoria	682	616	1,271	10,886
Queensland	440	411	833	6,655
South Australia	125	115	235	2,173
Western Australia	149	138	281	2,870
Tasmania	30	29	57	508
Northern Territory	18	17	34	274
Australian Capital Territory	36	35	70	579
Australia	3,098	2,840	5,812	46,632

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

2.6 Taxes

Approximately \$2 billion in taxes paid to government is included in the value added outlined above. Corporate tax and income tax from the industry contribute \$498 million and \$454 million respectively. The GST paid by consumers was just over \$1 billion Australia-wide, with \$434 million in GST paid in New South Wales and \$228 million paid in Victoria. In keeping with the overall reduction of industry activity tax receipts are 6% lower than those estimated in 2009-10.

Table 2.6: Tax payments by the film and television industry 2009-10 and 2012-13, \$M (2012-13 prices)

Tax category	2009-10	2012-13	Change
Corporate tax	569	498	-13%
Income tax	504	454	-10%
GST	1,029	1,023	-1%
New South Wales	437	434	-1%
Victoria	229	228	-1%
Queensland	188	187	-1%
South Australia	56	56	-1%
Western Australia	75	74	-1%
Tasmania	15	15	-1%
Northern Territory	7	7	-1%
Australian Capital Territory	21	21	-1%
Total	2,103	1,976	-6%

Source: Deloitte Access Economics estimates

Note: Due to rounding, sums might not add to totals

2.7 Previous contribution and trends

Since 2009-10 the economic contribution has reduced in real terms by 12.2%, from \$6.6 billion to \$5.8 billion in 2012-13. In addition Table 2.7 shows that employment is also 4.2% lower over the same period.

Table 2.7: Economic contribution in 2009-10 and 2012-13, \$M (2012-13 prices)

Economic contribution	Gross operating surplus	Labour income	Subsidy	Value added	Employment (FTE)
2009-10	3,728	3,014	120	6,622	48,667
2012-13	3,098	2,840	126	5,812	46,632
Change (%)	-16.9%	-5.8%	5.1%	-12.2%	-4.2%

Source: Deloitte Access Economics estimates

The economic contribution of the Australian film and television industry in 2009-10 is updated to 2012-13 prices for comparison to the current economic contribution. This is shown in Table 2.8.

Table 2.8: Total economic contribution, \$M, 2009-10 to 2012-13 (2012-13 prices)

Sector	2009-10	2012-13	Change (%)
Direct	5,538	4,853	-12.4%
Production	920	996	8.3%
Distribution	898	659	-26.7%
Free-to-air TV	2,043	1,538	-24.7%
Pay TV	587	910	55.0%
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Note: Due to rounding, sums might not add to totals

The general reduction in activity needs to be considered in relation to the underlying changes taking place at the sub-sectoral level. Value added in the production sector and the pay TV sector is up by 8.3% and 55.0% respectively.

In the case of production, this increase could be explained by a greater share of locally produced feature films and TV drama since the previous report. Domestic productions have grown from about \$400 million in 2010-11 to over \$600 million in 2012-13.

Activity in the pay TV sector increased sharply as the sector continues to both mature financially and offer new products. Revenue in the sector has increased from \$3.5 billion since 2009-10 to over \$4.8 billion in 2012-13, year-on-year revenue growth of 8.0%.

The fall in the distribution sector is driven by the decline in activity for the sector's main income sources, i.e. the rental and retail sectors. These sectors combined (in 2009-10) made up a large proportion of the distribution sub-sector's turnover. In addition the reduction in the exhibition sub-sector has further reduced income. These falls outweigh the rise in distributor turnover from the growing pay TV sector. The free-to-air sector remains the leading contributor however the activity in the sector is down from 2009-10.

A 2014 IBISWorld report on advertising agencies estimates that broadcast advertising campaigns accounted for 36.0% of industry revenue in 2014-15, but that is will shrink to 35.0% in 2019-20 due to higher online advertising. These shares are down from 41.0% in 2009-10, when online advertising levels were lower. With the emergence of digital and new web-based media, market fragmentation has prompted advertisers to diversify their spending.

Foxtel is reporting strong growth, through an increased number of subscribers and lower churn rates. In addition, there has been a number of innovations introduced including Foxtel Go, allowing users to stream content on a number of devices including set top boxes, mobiles and tablets.

The market is diversifying with the recent entry of Fetch TV and the emergence of subscription video on demand services such as Presto, Stan, Dendy Direct and shortly, Netflix.

These factors have seen a large increase in value added in the sector from about \$600 million in the previous report to over \$900 million in 2012-13 (in real terms).

Online purchase and rental of filmed content is also a growing sub-sector of the industry. As outlined in the report, the actual contribution to the Australian economy is limited as much of the contribution is driven by overseas supply.

Other sub-sectors of the film and television industry have not experienced similar growth stories to those outlined above. This may be driven by a shift in consumer preference to streaming content including purchasing filmed content.

3 Overview of the Australian film and television industry

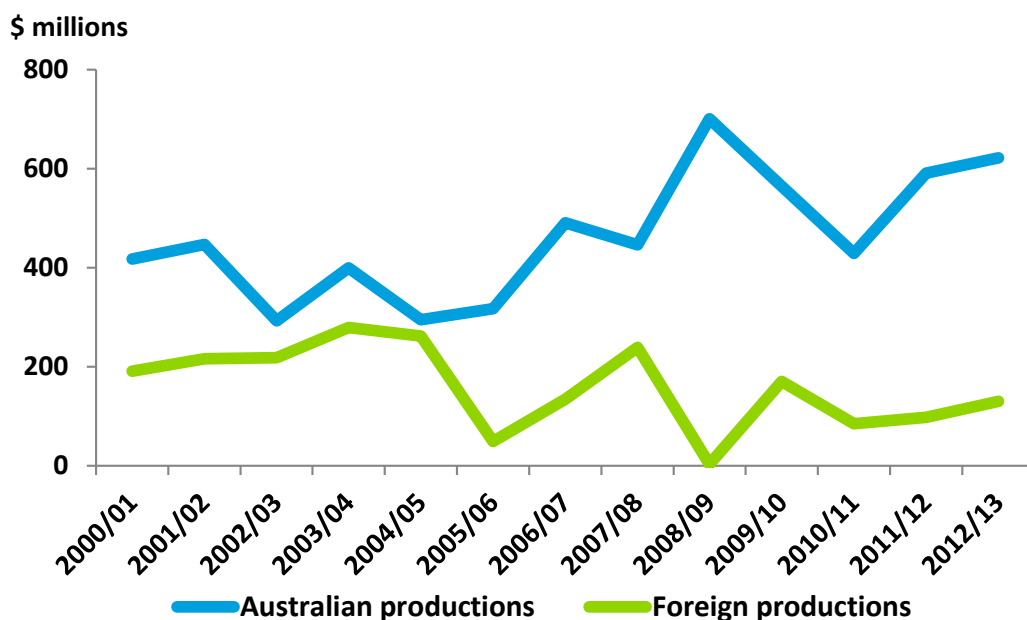
This chapter provides an overview of the activities undertaken in the various sub-sectors of the Australian film and television industry. It looks at key industry trends over time, and highlights the economic data relevant to the calculation of value added.

3.1 Production

Production activity in Australia has grown in the last four years. Part of this growth has come from the large increase in Australian based and financed feature films and TV drama.

The production step is the first link on the valued added chain which makes up the film and television industry. Chart 3.1 shows the change in Australian and foreign production spending on features and TV dramas. Foreign spending is defined as production under foreign creative control with a substantial amount shot in Australia.

Chart 3.1: Australian and Foreign owned production spending in Australia, \$M.



Source: Screen Australia, Deloitte Access Economics estimates

On average, spend on Australian production of features and TV dramas has risen from \$418 million in 2000-01 to \$622 million in 2012-13, while peaking in 2008-09 with \$701 million. Over this time, spend through foreign owned productions in Australia has been quite volatile, for example there was over \$200 million of foreign production spend in 2007-08 and only \$3 million the following year.

Through these spend figures, and income streams of television programs, feature films and other services, Table 3.1 shows the Australian film and video production and post-production businesses generated \$2.7 billion worth of gross output, creating over 13,000 FTEs and a contribution of about \$1 billion worth of direct value added.

Table 3.1: Film and television Production - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	2,676
Value Added (\$m)	996
FTE	13,098

Source: Deloitte Access Economics estimates

These figures were calculated using the ABS Film, Television and Digital Games, Australia catalogue for 2011-12.

3.2 Manufacturing

The manufacturing of film and television content includes the process of storing the content on the physical product and packaging. Given the industry's niche size, there is little official information specific to the manufacture of film and television content, although IBIS World reports on the reproduction of recorded media industry in Australia which includes the physical re-production of pre-recorded video, audio, gaming and software. The physical products manufactured in the record media industry are vinyl records, CDs, DVDs and Blu-ray products.

Table 3.2 shows the direct contribution of the manufacturing of recorded media industry in 2012-13. In the 2012-13 financial year, the industry had over \$500 million in gross output, resulting in \$155 million of value added and employing just over 1,800 people.

Table 3.2: Manufacturing of Recorded Media - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	512
Value Added (\$m)	155
Employment*	1,807

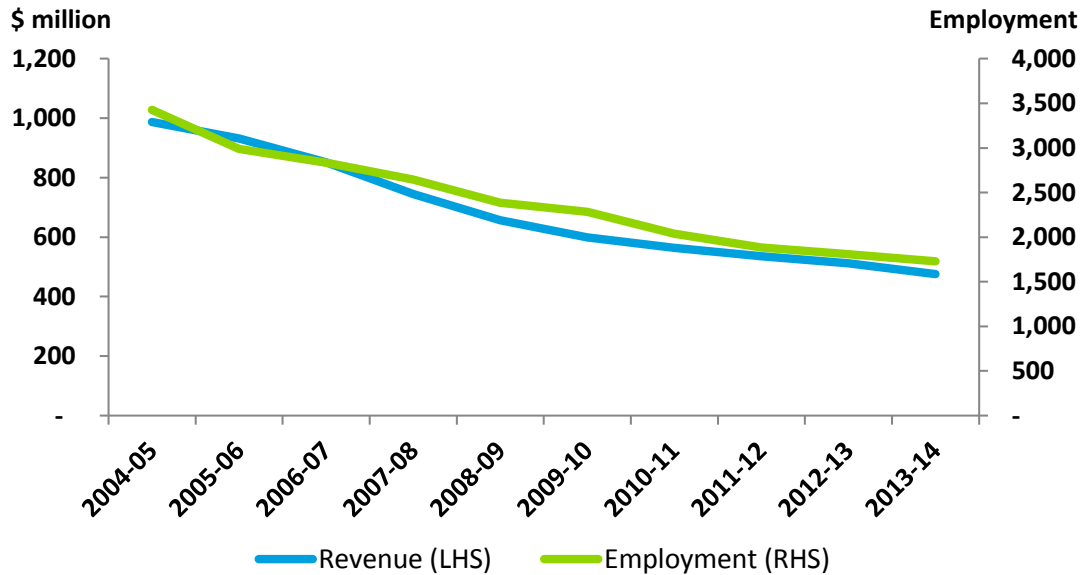
Source: IBIS World

* employment is the number of permanent, part-time, temporary and casual employees within the industry

Given the information available the share of film and television manufacturing is not clearly defined. As a result the manufacturing contribution has been excluded from the contribution analysis.

Chart 3.2 below highlights the trending decline in the industry, as digital downloads allow artists and producers to distribute their products without the need for manufacturing.

Chart 3.2: Reproduction of recorded media in Australia, revenue and employment



Source: IBIS World

3.3 Distribution

The distribution sector is the intermediary which provides an avenue between the producers of the viewing material and the television, retail, rental and film outlets. The Motion Picture Distributors Association of Australia (MPDAA) is the peak body representing theatrical distributors. The MPDAA collects film exhibition information from its members, and provides meaningful statistics on the film industry in Australia. The six members of the MPDAA are:

- Warner Bros. Pictures International;
- Sony Pictures Releasing;
- Twentieth Century Fox Film Distributors;
- The Walt Disney Company (Australia);
- Paramount Pictures Australia; and
- Universal Pictures International Australasia.

Although not a member of the MPDAA, Australia’s largest distributor, Village Roadshow Limited performs on a comparable scale to the other members. These are the major distributors, but the industry also consists of independent film distributors, including:

- Becker Film Group;
- Curious Film;
- Entertainment One Films;
- Icon Film Distribution;
- Madman Entertainment;
- Palace Films;
- Pinnacle Films;
- Potential Films;
- Transmission Films;
- Rialto Distribution;
- Sharmill Films;
- Studiocanal; and
- Umbrella Films.

Table 3.3 shows the Australian distributors of film and television generated gross output of \$2.6 billion in 2012-13, contributing 2,200 FTEs and \$660 million of value added to the Australian economy.

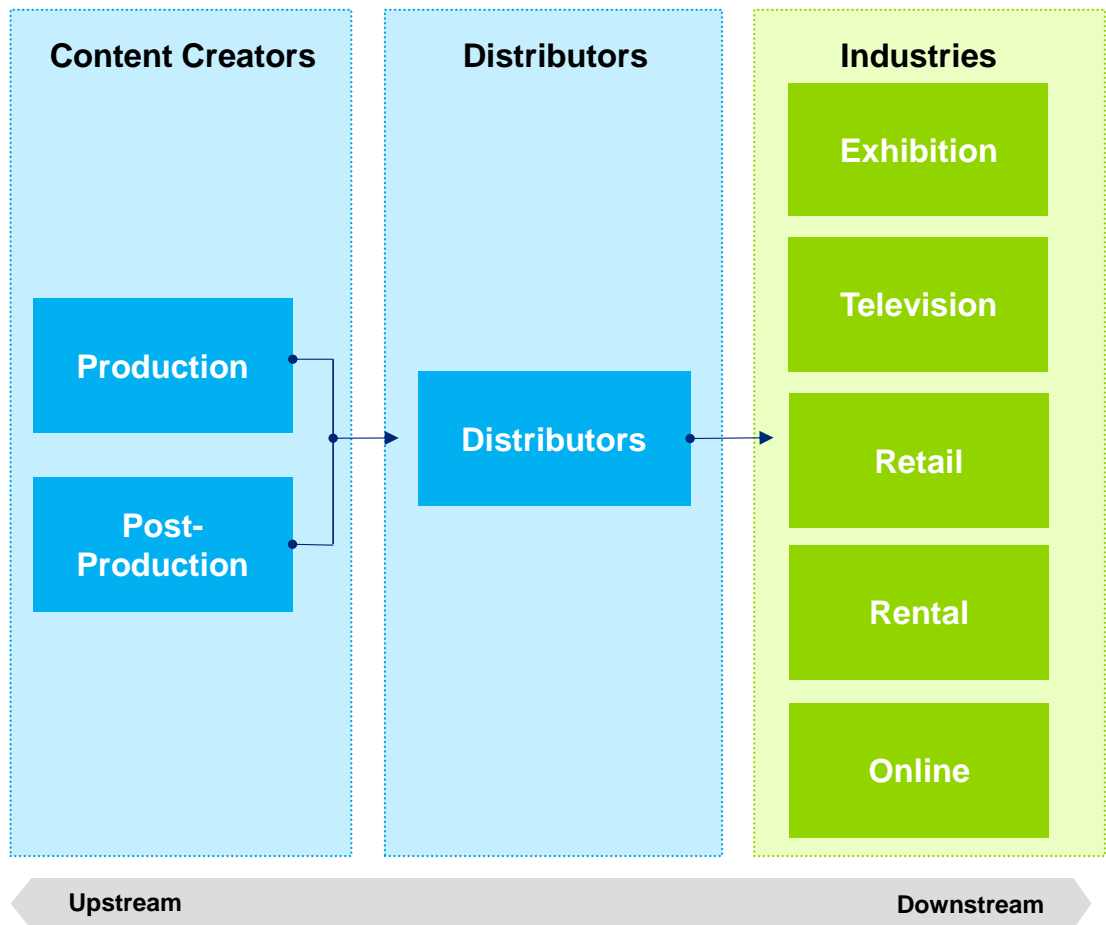
Table 3.3: Film and television Distribution - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	2,575
Value Added (\$m)	659
FTE	2,198

Source: Deloitte Access Economics estimates

Figure 3.1 highlights the relationship between the sectors in the film and television industry. The output of the distribution sector is dependent on the turnover of its flow on sectors, largely exhibition, television (free-to-air and pay TV), retail and rental.

Figure 3.1: Relationships in the film and television industry



Source: Deloitte Access Economics

The fall in the distribution sector since 2009-10 is driven by the decline in activity for the sector’s main income sources, i.e. the rental and retail sectors. These sectors combined (in 2009-10) made up a large proportion of the distribution sector’s turnover. In addition the reduction in the exhibition sector has further reduced income.

These falls outweigh the rise in distributor income from the growing pay TV sector. The free-to-air sector remains the leading contributor however the activity in the sector is down from 2009-10.

These figures were calculated using recent statistics provided by the Australian Home Entertainment Distributors Association (AHEDA), Screen Australia and the ABS catalogue 8679.0 on commercial and free-to-air television (to update the ABS Film and Video Production and Distribution, Australia, 1999-2000 catalogue).

3.4 Exhibition

The exhibition sector captures the businesses that screen films in cinemas. The majority of cinemas in Australia are operated by four major exhibitors: Amalgamated Holdings Ltd

(Event / Greater Union / Birch, Carroll and Coyle); Hoyts Cinemas; Village Cinemas and Reading Cinemas.

Table 3.4 shows the gross output from the exhibition sector in 2012-13 was just over \$1.7 billion, resulting in over \$390 million in direct value added and over 6,100 direct FTEs.

Table 3.4: Film and television exhibition - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	1,709
Value Added (\$m)	391
FTE	6,180

Source: Deloitte Access Economics estimates

These figures were calculated using the latest Australian Box Office statistics provided by Screen Australia.

Table 3.5 compares Australian cinema, with five key countries/regions around the world. Compared to those in the table, Australia has relatively high admissions, with an average of 3.5 admissions per person in 2013 - North America has 4 per person.

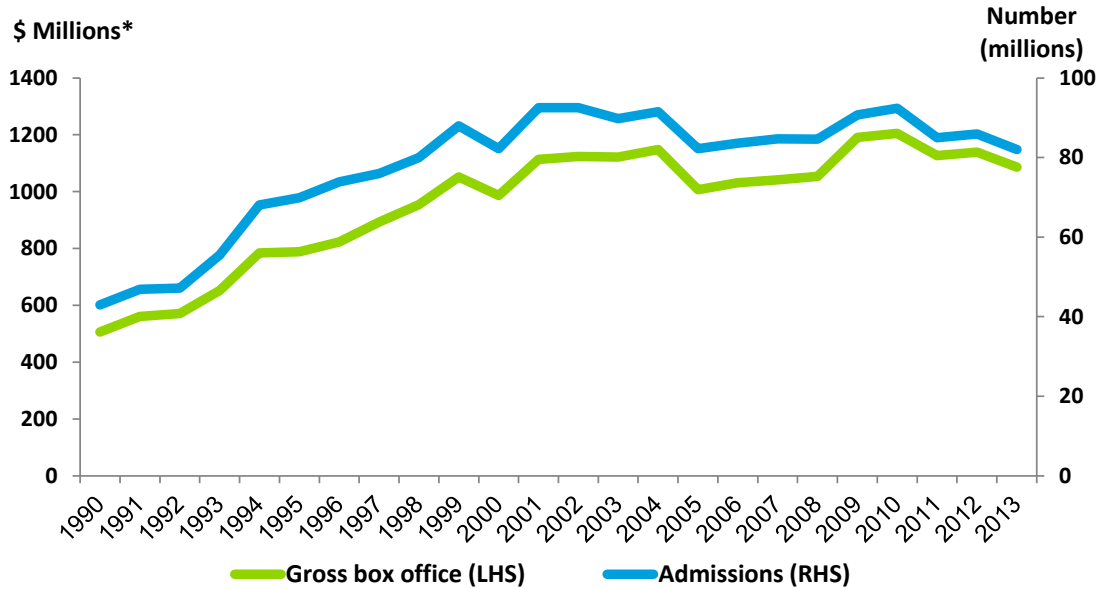
Table 3.5: Feature films produced and key cinema data, 2013

Country	Number produced	Box office (USD millions)	Average ticket price (USD)	Admissions (millions)	Average admissions per capita	No. screens
North America	n.a.	10,900	8.1	1,340	4	42,814
China	638	3,540	5.8	612	0.4	18,195
Japan	591	2,000	12.8	156	1.2	3,318
UK	239	1,690	10.2	166	2.6	3,867
India	n.a.	1,600	0.6	2,697	2.2	11,265
Australia	27	1,060	12.9	82	3.5	2,057

Source: Screen Australia

Chart 3.3 shows the trend in both annual gross box office revenue and admissions, for Australian exhibitors since 1990. The 1990s was a decade of strong growth for the sector, almost doubling admissions over the period. Since then though the sector has experienced lower levels of growth, with average admissions of about 80 – 90 million ticket sales. Between 2005 and 2010 there was some trend up in sales, corresponding to a period where exhibitors introduced a number of innovations including improved sound, digital screens and 3D technology. However since then, ticket sales and revenues have trended lower.

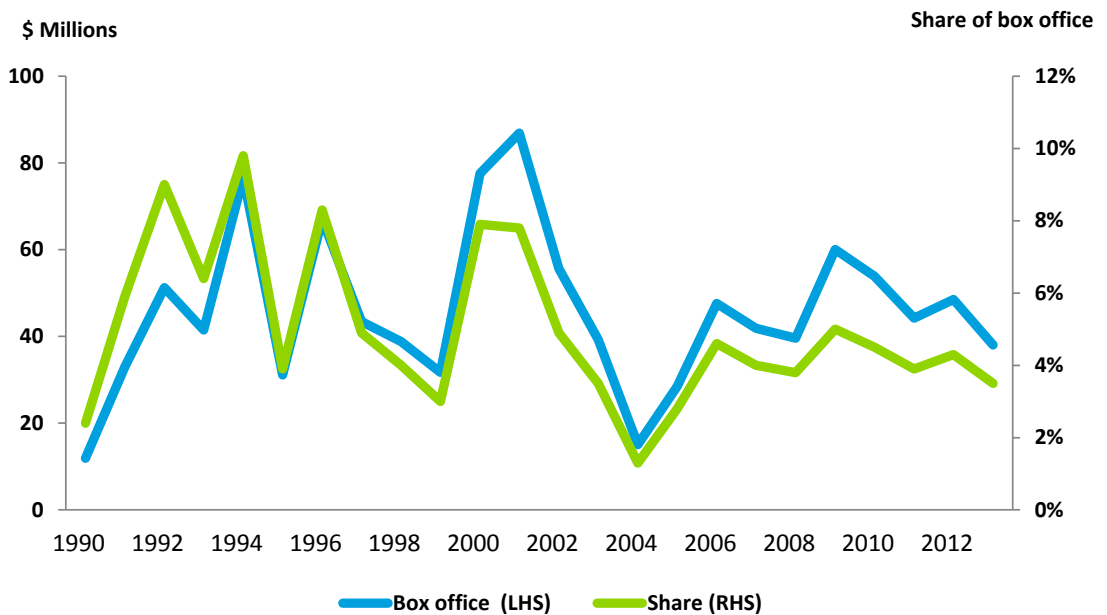
Chart 3.3: Cinema admissions and Australian gross box office, 1990 – 2013, (2012-13 prices)



Source: Screen Australia, Deloitte Access Economics estimates

Chart 3.4 shows the trend in annual Box Office sales for feature films under Australian or share creative control. These figures are for the years while earning box office sales, irrespective of its year of release. In 2013, feature films under Australian or shared creative control earned over \$38 million, which represented 3.5% of total box office sales. This share is down on the previous year of 4.3%, and less than the 10-year average of 3.8%.

Chart 3.4: Box office Sales and Share for Feature films under Australian or shared creative control, 1990-2013 (2012-13 prices)



Source: Screen Australia, Deloitte Access Economics estimates

3.5 Television

The television sector is made up of free-to-air and subscription television, or pay TV, which raises revenue primarily through subscription fees while free-to-air predominantly receives income through advertising. Both free-to-air and subscription television are regulated by the Australian Communications and Media Authority (ACMA). One standard ACMA has in place outlines the required share of Australian content in advertising, to ensure the majority of advertisements on television are Australian made.

3.5.1 Free-to-air television

Australia's free-to-air television sector comprises two government-funded national networks (SBS and ABC), three commercial networks (Seven, Nine and Ten, with regional affiliates) and a number of small community groups which operate independently in discrete markets (for example, QCTV in Queensland and TVS in Sydney).

Free-to-air television generates the greatest share of direct value added, as its \$4.7 billion of output accounts for over \$1.5 billion in direct value added. This also creates over 6,600 FTE jobs in Australia.

Table 3.6: Free-to-air Television - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	4,730
Value Added (\$m)	1,538
FTE	6,608

Source: Deloitte Access Economics estimates

The free-to-air sector remains the leading contributor, however activity is down from 2009-10. With the emergence of digital and new web-based media, market fragmentation has prompted advertising agencies to diversify their spending.

These figures were calculated by applying suitable growth rates to the ABS Film, Television and Digital Games, Australia, 2011-12 catalogue.

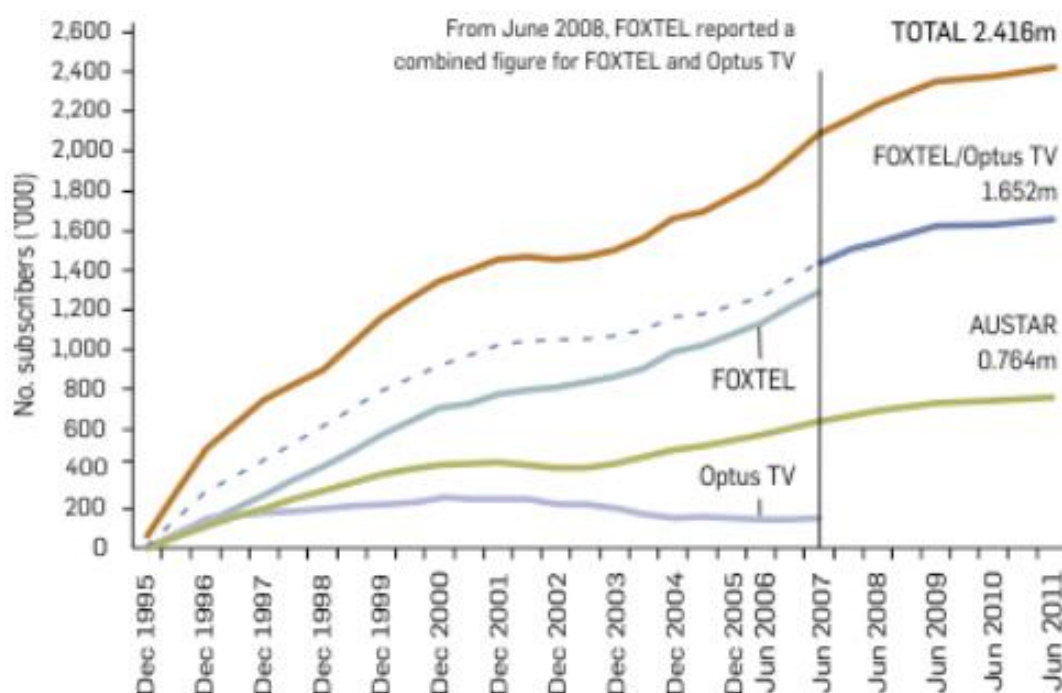
3.5.2 Subscription television

Chart 3.5 shows the significant growth in subscription television in Australia over the last 15 years. As at June 2011 AUSTAR, FOXTEL and Optus TV operators had 2.4 million subscribers, and based on ABS demographic statistics, Screen Australia estimated these three operators had a penetration of about 29% of all Australian households.¹ Screen Australia also published approximately 7 million Australians (34%) had access to a subscription TV, as at March 2011.²

¹ Screen Australia ceased to update these figures as of June 2011.

² Screen Australia acknowledges this as OzTam data in their article *Subscriber numbers, total and by operator, 1995-2011*, <http://www.screenaustralia.gov.au/research/statistics/archwptvsubsxops.aspx>

Chart 3.5: Subscription television customers



Source: Screen Australia

As presented on page 3 in Table 2.1, gross output in subscription television has grown over 50% since 2009-10. Table 3.7 shows in 2012-13, Australian subscription television produced over \$4.8 billion in gross output, resulting in just under \$1 billion in value added and over 4,500 FTEs.

Table 3.7: Subscription television - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	4,836
Value Added (\$m)	910
FTE	4,570

Source: Deloitte Access Economics estimates

These figures were calculated by applying suitable growth rates to the ABS Film, Television and Digital Games, Australia, 2011-12 catalogue.

3.6 Retail

The Australian retail sector includes the sales of DVD, Blu-Ray, and HD, and previously included UMD and VHS. In 2012-13, the sector produced over \$1.3 billion in gross output, resulting in over \$200 million in value added and nearly 4,500 FTE.

Table 3.8: Film and television retail - direct contribution, 2012-13

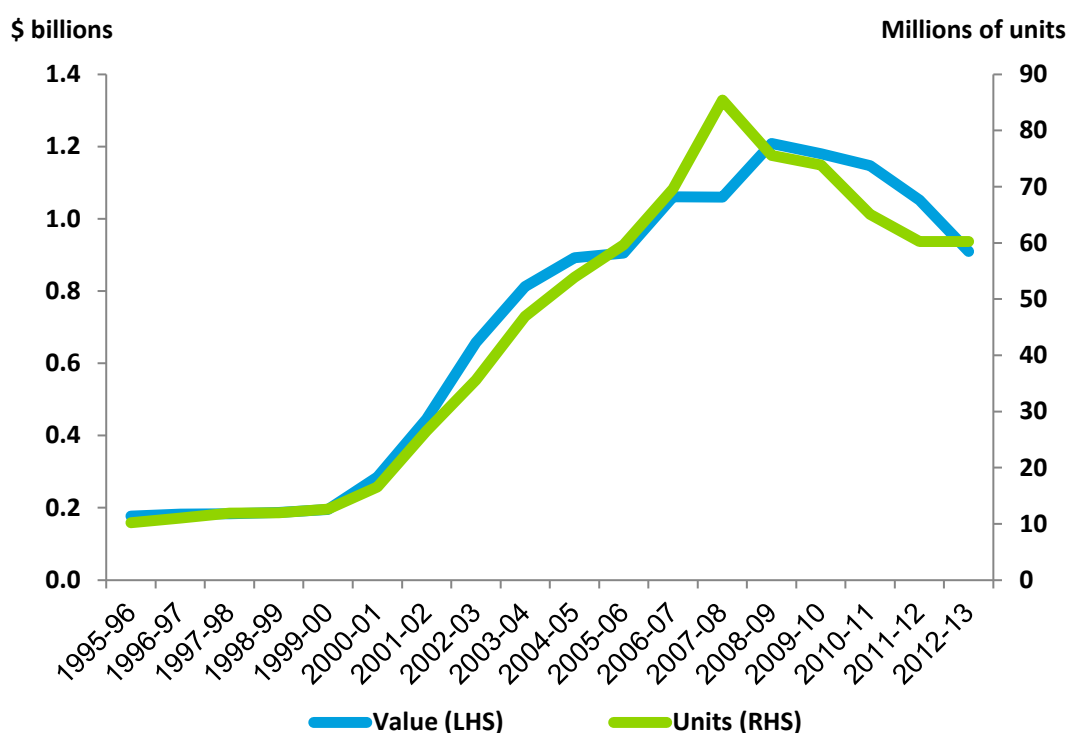
Sector	2012-13
Gross Output (\$m)	1,304
Value Added (\$m)	224
FTE	4,484

Source: Deloitte Access Economics estimates

These figures were calculated using recent statistics provided by the Australian Home Entertainment Distributors Association (AHEDA).

As seen in Chart 3.6, the quantity of retail sales reached its highest point in the 2007-08 financial year with over 85 million units sold, and in 2008-09 had wholesale value of over \$1.3 billion (2012-13 prices). However in the last five years, the retail market has begun to shrink, and 2012-13 saw a little over 60 million units sold at a value of \$910 million.

Chart 3.6: Retail channel (wholesale), turnover and units (2012-13 prices)



Source: AHEDA, Deloitte Access Economics estimates

Note: DVD, Blu-Ray, HD, UMD and VHS (all formats) combined

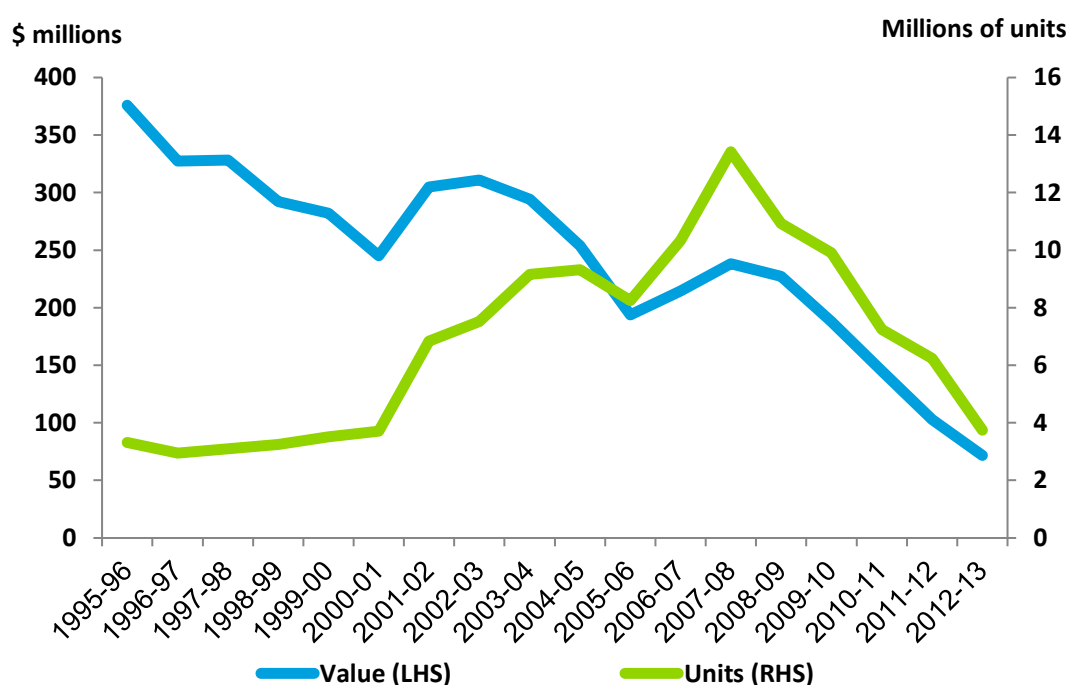
3.7 Rental

The Australian rental market is made up of franchises and independent operators and a growing online subscription market. Franchise Entertainment Group (FEG), owns and operates Video Ezy and Blockbuster, Australia’s leading rental outlets with over 835 individual sites around the country. These include traditional bricks and mortar video stores which offer movies, TV series and games to rent or buy, and since 2012, Blu-ray and

DVD rental vending kiosks in supermarkets, shopping centres and in other high-foot traffic locations.

The film and television industry is adapting to the social shifts in the digital world, and as a result content is being offered and consumed in different ways. As film and television content becomes available online, and with internet speeds and accessibility continuing to improve, consumer preferences have shifted from physical content towards online renting and purchasing. Chart 3.7 shows the change over time of the Australian rental market. After peaking in 2007-08 with 13.4 million units rented, the market has continually declined, as demonstrated in 2012-13 with a little over 3.7 million units rented.

Chart 3.7: Rental channel (wholesale) turnover and units, (2012-13 prices)



Source: AHEDA

Note: DVD, Blu- Ray, HD, UMD and VHS (all formats) combined

Table 3.9 shows the rental market, although on the decline, directly provides a significant number of FTEs through its \$264 million of gross output.

Table 3.9: Film and television Rental - direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	264
Value Added (\$m)	122
FTE	1,905

Source: Access Economics estimates

These figures were calculated using recent statistics provided by the Australian Home Entertainment Distributors Association (AHEDA).

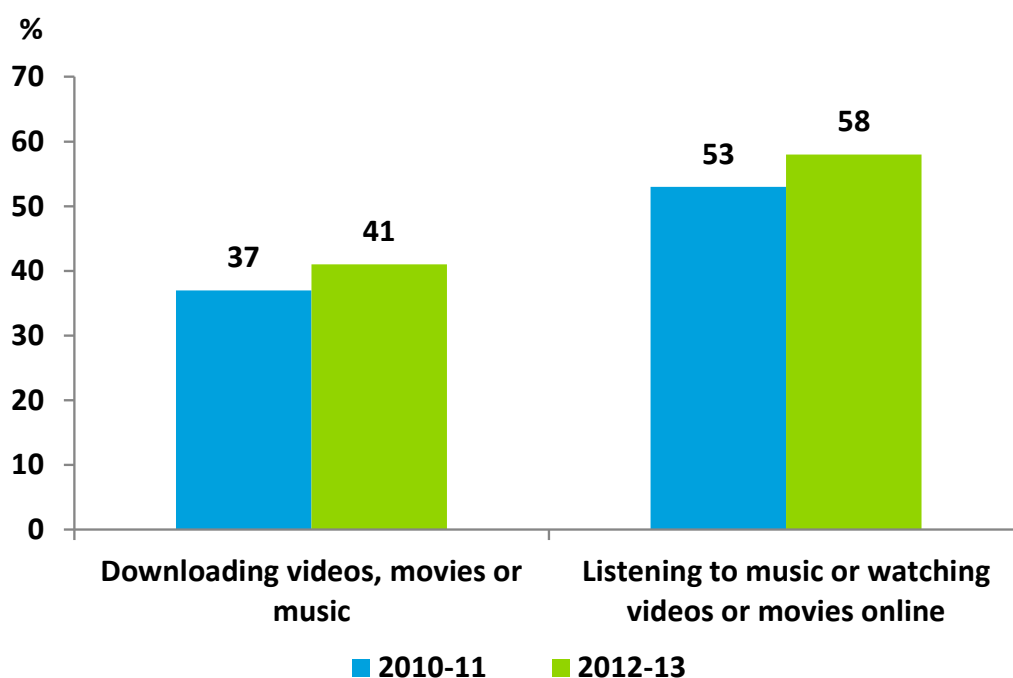
3.8 Online Activity

Growth in Australian online sales has continued to outpace regular retail sales as the internet is growing as a popular way to access film and television. This report outlines the economic contribution of legal online usage to the Australian economy. Australia’s five free-to-air networks and public broadcasters each offer free online catch up services (ABCview, SBS On Demand, PLUS7, 9Jumpin and TENplay) in addition to Foxtel’s Foxtel Go. Australia also supplies domestic content through Telstra and Quickflix, where foreign suppliers include Apple and Google Play Store.

A 2014 Nielsen report *Connected Consumers* outlined trends in online usage amongst Australians. The report highlights the change in Australians’ internet usage between 2003 and 2013. A complementary report by Nielsen said 73% of Australians aged 16+ were connected to the internet in 2003, spending an average 6.7 hours online per week. Compared to 2013, where the percentage of the population connected increased by nine percentage points (to 82%), the amount of time people spent online had dramatically increased – users, on average, engaged with digital media 23.3 hours per week.

In addition the ABS Household Use of Information Technology survey, (see Chart 3.8 below), shows an increase between 2010-11 to 2012-13 in both the proportion of persons aged 15 and older in Australia who have used the internet for downloading videos, movies or music and an increase in those listening to music or watching videos or movies online.

Chart 3.8: Proportion of persons aged 15+ who accessed the internet downloading or viewing videos movies or music, December 2010-11 vs 2012-13



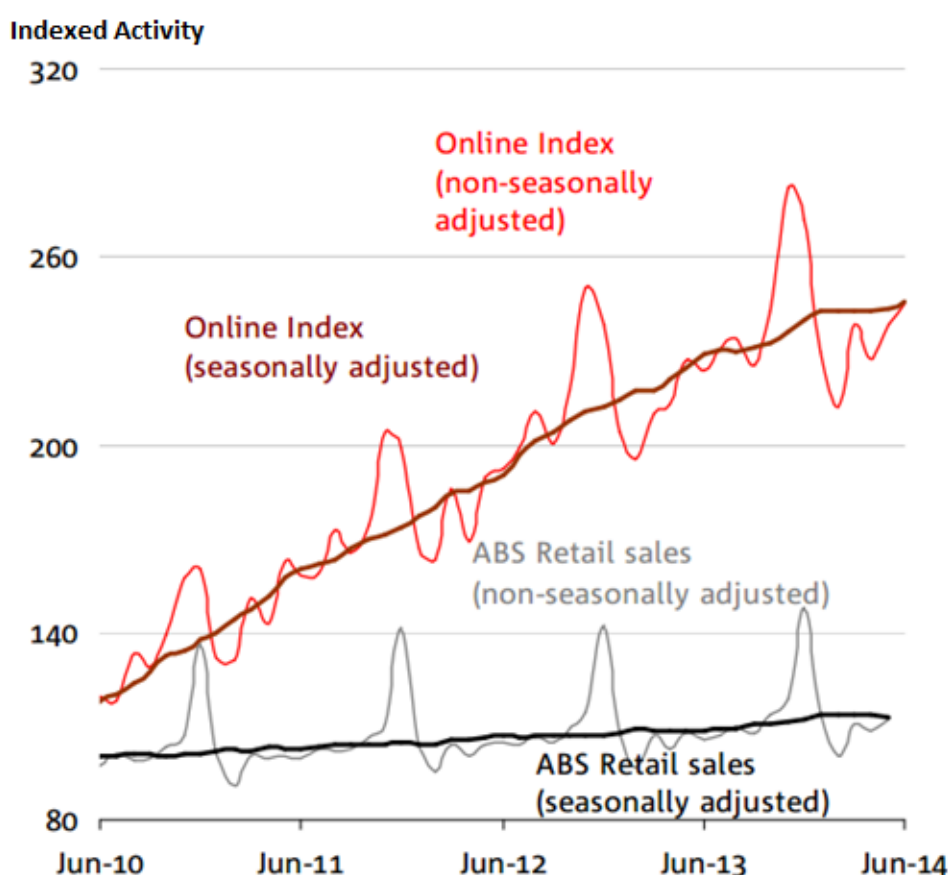
Source: ABS Household Use of Information Technology, Australia, 2012-13

A recent Screen Australia publication on Australia’s video on demand usage says 50% of Australian internet users watch movies and television content online – where Australian

internet users consist of just over 80% of Australians over 16 who use the internet at least once a month. The report says that 20% of video on demand (VOD) viewers watch Australian movies and 40% watch Australian TV Series. VOD includes free TV catch up services and ad-supported VOD services. These findings helped support our estimates for the total online film and television spending staying in Australia.

Chart 3.9 contrasts the change in online retail and ABS retail sales — which includes food retailing, household goods, department stores, food services, and other retailing in Australia from June 2010 to June 2013.

Chart 3.9: Online Retail vs. ABS Retail Sales (Jan 2010 = 100)



Source: NAB Online Retail Sales Index monthly update – June 2014

In the 2012-13 financial year, 11% or \$1.6 billion of online retail spend was in the media sector, which consists of movies - including television - books and music. Through the latest ABS (2011) household expenditure survey we compared the relative household spend on movies, books and music, and calculated the average share of online media spend on movies. Difficulties arise when determining the share of online movie spend that stays in Australia, as revenue from film and television purchases in, for example the iTunes store goes overseas. From a breakdown provided by ACMA we estimated the level of movie and television spend through Australian-owned companies, like ABC iView, NineMSN Video and BigPond Movies. Note these estimates are for legitimate downloading and watching of movies and TV only.

Table 3.10 shows that in 2012-13 we estimated gross output through online movies to Australian-owned companies to be \$24.5 million, resulting in a value added of \$13.1 million. The online sector is relatively capital intensive, so fewer workers are required per unit of output. Given this we have estimated the output from online film and television content generated 35 FTEs in 2012-13.

Table 3.10: Online film and television direct contribution, 2012-13

Sector	2012-13
Gross Output (\$m)	24.5
Value Added (\$m)	13.1
FTE	35

Source: Deloitte Access Economics estimates

Appendix A Methodology

Economic contribution studies are intended to quantify measures such as value added, exports, imports and employment associated with a given industry or firm, in a historical reference year. The economic contribution is a measure of the value of production by a firm or industry.

Value added

The measures of economic activity provided by this contribution study are consistent with those provided by the Australian Bureau of Statistics. For example, *value added* is the contribution the sector makes to *total factor income* and gross domestic product (GDP) and gross territory product.

There are a number of ways to measure GDP:

- **Expenditure approach** – measures expenditure: of households, on investment, government and net exports
- **Income approach** – measures the income in an economy by measuring the payments of wages and profits to workers and owners

Below is a discussion measuring the value added by an industry using the income approach.

Measuring the economic contribution – income approach

There are several commonly used measures of economic activity, each of which describes a different aspect of an industry's economic contribution:

- **Value added** measures the value of output (i.e. goods and services) generated by the entity's factors of production (i.e. labour and capital) as measured in the income to those factors of production. The sum of value added across all entities in the economy equals gross domestic product. Given the relationship to GDP, the value added measure can be thought of as the increased contribution to welfare.

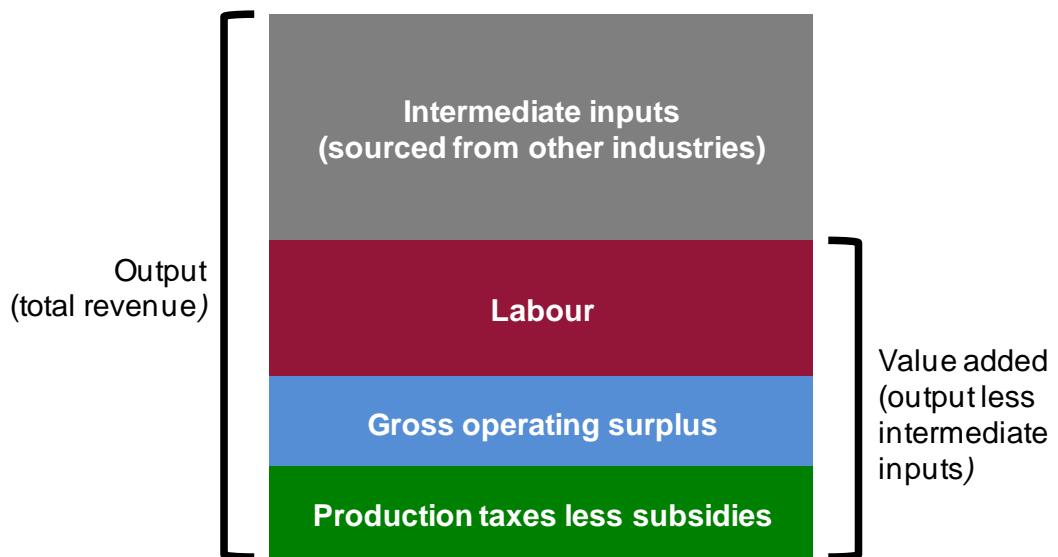
Value added is the sum of:

- Gross operating surplus (GOS). GOS represents the value of income generated by the entity's capital inputs, generally measured as the earnings before interest, tax, depreciation and amortisation (EBITDA).
- Tax on production less subsidy provided for production. Note: given the manner in which returns to capital before tax are calculated, company tax is not included or this would double-count that tax. In addition it excludes goods and services tax, which is a tax on consumption (i.e. levied on households).
- Labour income is a subcomponent of value added. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour.

Figure A.1 shows the accounting framework used to evaluate economic activity, along with the components that make up *output*. Output is the sum of value added and the value of intermediate inputs used by the firm.

The value of intermediate inputs can also be calculated directly by summing up expenses related to non-primary factor inputs.

Figure A.1: Economic activity accounting framework



Source: Deloitte Access Economics.

Contribution studies generally outline employment generated by a sector. Employment is a fundamentally different measure of activity to those above. It measures the number of workers that are employed by the entity, rather than the value of the workers' output.

Direct and indirect contributions

The **direct** economic contribution is a representation of the flow from labour and capital in the company.

The **indirect** contribution is a measure of the demand for goods and services produced in other sectors as a result of demand generated by the film and television industry. Estimation of the indirect economic contribution is undertaken in an IO framework using Australian Bureau of Statistics IO tables which report the inputs and outputs of specific sectors of the economy (ABS 2013).

The total economic contribution to the economy is the sum of the direct and indirect economic contributions.

Other measures, such as total revenue or total exports are useful measures of economic activity but these measures alone cannot account for the contribution made to GDP. Such measures overstate the contribution to value added because they include activity by external firms supplying inputs, in addition they do not discount the inputs supplied from outside Australia.

Limitations of economic contribution studies

While describing the geographic origin of production inputs may be a guide to a firm's linkages with the local economy, it should be recognised that these are the type of normal industry linkages that characterise all economic activities.

Unless there is significant unused capacity in the economy (such as unemployed labour) there is only a weak relationship between a firm's economic contribution as measured by value added (or other static aggregates) and the welfare or living standard of the community. Indeed, the use of labour and capital by demand created from the industry comes at an opportunity cost as it may reduce the amount of resources available to spend on other economic activities.

This is not to say that the economic contribution, including employment, is not important. As stated by the Productivity Commission in the context of Australia's gambling industries:³

Value added trade and job creation arguments need to be considered in the context of the economy as a whole ... income from trade uses real resources, which could have been employed to generate benefits elsewhere. These arguments do not mean that jobs, trade and activity are unimportant in an economy. To the contrary they are critical to people's well-being. However, any particular industry's contribution to these benefits is much smaller than might at first be thought, because substitute industries could produce similar, though not equal gains.

In a fundamental sense, economic contribution studies are simply historical accounting exercises. No 'what-if', or counterfactual inferences – such as 'what would happen to living standards if the firm disappeared?' – should be drawn from them.

The analysis – as discussed in the report – relies on a national input-output (IO) table modelling framework and there are some limitations to this modelling framework. The analysis assumes that goods and services provided to the sector are produced by factors of production that are located completely within the state or region defined and that income flows do not leak to other states.

The IO framework and the derivation of the multipliers also assume that the relevant economic activity takes place within an unconstrained environment. That is, an increase in economic activity in one area of the economy does not increase prices and subsequently crowd out economic activity in another area of the economy. As a result, the modelled total and indirect contribution can be regarded as an upper-bound estimate of the contribution made by the supply of intermediate inputs.

Similarly the IO framework does not account for further flow-on benefits as captured in a more dynamic modelling environment like a Computerised General Equilibrium model.

³ Productivity Commission (1999), *Australia's Gambling Industries*, Report No. 10, AusInfo, Canberra, (page 4.19).

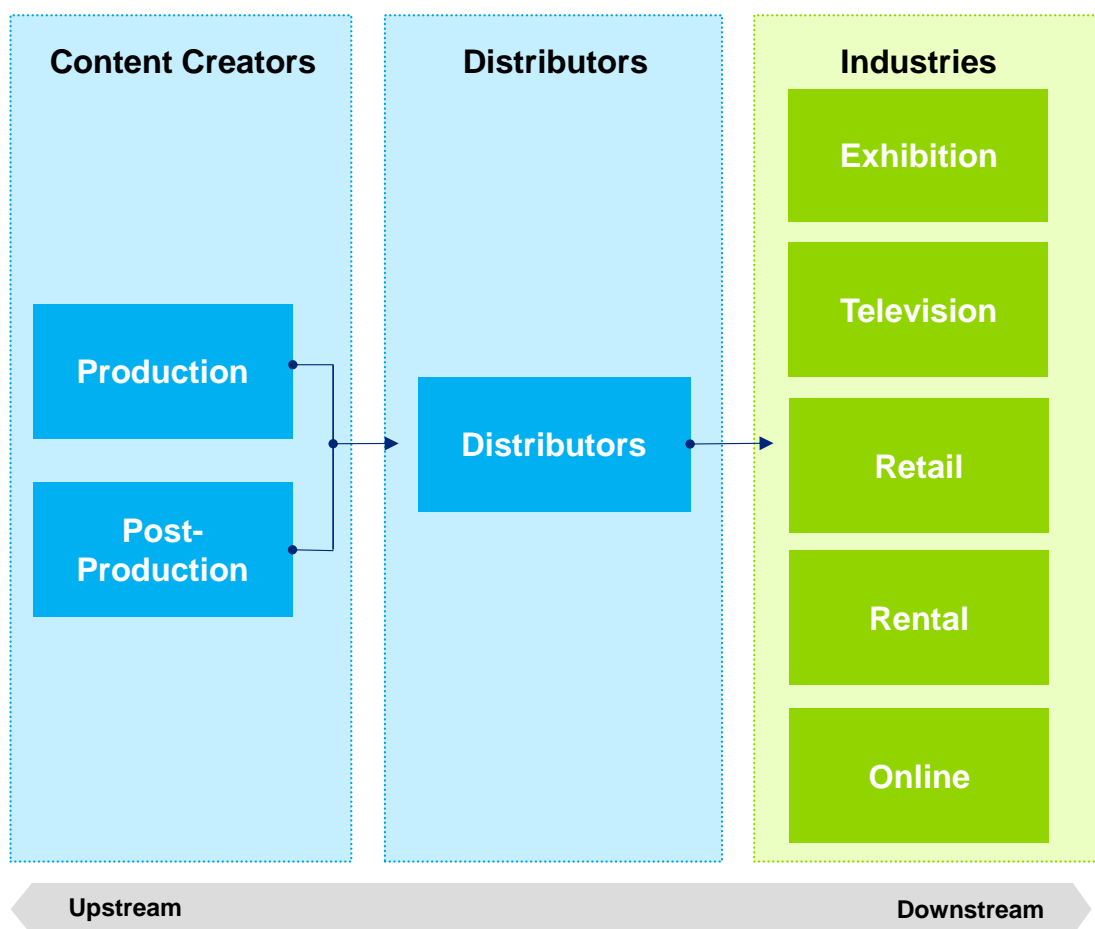
Input-output analysis

Input-output tables are required to account for the intermediate flows between sectors. These tables measure the direct economic activity of every sector in the economy at the national level. Importantly, these tables allow intermediate inputs to be further broken down by source. These detailed intermediate flows can be used to derive the total change in economic activity associated with a given direct change in activity for a given sector.

A widely used measure of the spill-over of activity from one sector to another is captured by the ratio of the total to direct change in economic activity. The resulting estimate is typically referred to as ‘the multiplier’. A multiplier greater than one implies some indirect activity, with higher multipliers indicating relatively larger indirect and total activity flowing from a given level of direct activity.

As shown in Figure A.2 below, the Australian film and television sector is highly integrated, with many of its inputs being provided by other film and television sectors.

Figure A.2: Relationships in the film and television industry



Source: Deloitte Access Economics

We report conservative indirect impacts as these industries generate additional flow on activity through other input costs such as utilities and rent - however these effects are comparatively small and out of the scope of this work.

The IO matrix used for Australia is derived from the ABS 2009-10 IO tables (2013). The industry classification used for IO tables is based on the Australian and New Zealand Standard Industrial Classification (ANZSIC), with 114 sectors in the modelling framework.

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