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Executive summary

This report presents an analysis of the investment in the Australian tourism industry, focusing on the level and pattern of investment, return to assets and the rate of profit. These measures are also compared with *All industries* to gauge the Australian tourism industry's attractiveness for investment. The analysis was carried out for the period 1997–98 to 2009–10. In addition to this, the analysis was undertaken for two sub periods, 1997–98 to 2003–04 and 2003–04 to 2009–10, to identify periodical changes in investment.

Key findings of the report are as follows:

- Tourism's total investment in real terms increased while the share of tourism industry in total investment declined.
- The gap in investment growth between tourism and the average of *All industries* widened notably in the second period (2003–04 to 2009–10). During this period, the investment in the tourism industry grew by around half the rate (1.9% per year) of *All industries* (3.9% a year).
- Most of the investment in the tourism industry occurred during the period 1997–98 to 2003–04. The investment growth in the Australian tourism industry in the post 2003–04 period was sourced mainly from the use of existing assets, rather than buying new capital assets.
- Public investment plays a key role in the tourism industry. Public investment in tourism accounted for about 40% on average between 1997–98 and 2009–10, whereas this share was around 20% for *All industries*.
- *Transport services, Education and training, and Arts and recreation services* were the main tourism industries reliant on public investment. *Retail trade* and *Accommodation and food services* were totally privately invested.
- Tourism industry investment in knowledge (namely, expenditure on research and development and on computer software), business use of the Internet, and improvements in the quality of labour – the key drivers of productivity, remained low (7.0% per year) when compared with industries such as *Mining*, where investment in research and development grew at a rate of 15% per year between 2003–04 and 2009–10.
- The rate of investment in tourism was slightly higher than *All industries*. On average, about 29% of total gross value added (GVA) in the tourism industry was invested in acquiring fixed assets, whereas this rate was about 26% for *All industries*. A higher value for the rate of investment was caused by higher volatility and slower growth of GVA in the tourism industry.
- The *Retail trade* (excluding *fuel retailing*) and *Accommodation services* had a lesser proportion of their GVA going into investment, because of their ability to achieve efficiencies due to their relatively larger sizes. In June 2007, about 29% of total medium to large businesses were each in *Retail trade* and *Accommodation and food services* industries.

- Efficient use of resources and improvements in productivity resulted in relatively higher return to assets in the *Retail trade* and *Accommodation services* industries.
- The profitability of the tourism industry was lower than that for *All industries*.

1. Introduction

The tourism industry has an important place in the Australian economy. In 2009–10, the industry contributed \$34 billion to Australian gross domestic product (GDP) and employed half a million people (ABS, 2010). During the past decade, the tourism industry has experienced diminished share in Australian GDP and in the global tourism market. The industry has been affected by the high Australian dollar – this has increased the propensity of Australians to travel overseas, while at the same time reducing Australia’s international competitiveness in the mixed global economic growth environment. The tourism industry faces increased competition from its neighbouring developing economies with low labour costs, especially in Asia and the Pacific. The IMF’s World Economic Outlook (IMF, 2011) forecast developing Asia to grow at 8.4% in 2011 and 2012 in terms of real GDP, as opposed to the Australian economy growing by 3.5% during the same period. The Australian tourism industry is expected to face challenges in attracting investment capital and labour, resulting from the impact of the minerals boom on the Australian economy through rising demand for investment capital and labour, and the exchange rate.

However, it is not all bad news for the Australian tourism industry. In its latest report, The Tourism Forecasting Committee¹ (TFC) 2011 forecasts that to 2020: domestic visitor nights to grow by 0.3% a year; international visitor arrivals to grow by 3.6% a year; and tourism consumption to grow by 1.2% a year to reach \$107 billion by 2020. Apart from this, the industry is best placed to capture emerging opportunities from Australia’s favourable geographical location to Asia, in particular China and India; two rising economies in the world. Asia (excluding the Middle East) is expected to contribute the majority of the growth in inbound arrivals and visitor arrivals, and are forecast to account for nearly half (49%) of total growth in visitor numbers and 62% in terms of expenditure (TFC, 2011). The increasing number of people in the middle classes with rising disposable income in these economies will increase demand for Australian goods and services – whether they be foodstuffs, Australian tourism destinations, or other educational and professional services in which Australia has a proven track record (Gruen, 2011).

In light of all these challenges and opportunities, the National Long-Term Tourism Strategy (Strategy) emphasises the need for developing quality tourism business products and services from tourism operators committed to innovation, continuous improvement and renewal. This will ensure that Australia moves up in the international tourism value chain and remains competitive. To drive long-term profitability, innovation and growth in the tourism sector, greater investment in the tourism industry will be essential.

¹ The Tourism Forecasting Committee (TFC) is an independent body responsible for providing consensus forecasts to present and future investors, industry and the government. Resources for the TFC are provided by Tourism Research Australia.

Given all this, research on investment in the Australian tourism industry has been limited. Part of the problem has been due to the non-availability of supply-side investment data in the Tourism Satellite Accounts (TSA), making it difficult to clearly distinguish investment in the tourism industry from other industries.

This report is a benchmark report, which highlights the state of tourism industry investment and compares it with *All industries* to gauge the Australian tourism industry's appeal for capital investment.

The analysis was carried out for the period 1997–98 to 2009–10. In addition to this, the whole time-series was divided into two periods, 1997–98 to 2003–04, and 2003–04 to 2009–10 for measuring periodic changes in investment. The report has the following specific objectives:

- investigate the pattern of tourism industry investment;
- investigate tourism industry performance in terms of the investment rate, rate of return to assets, and rate of profit; and
- compare tourism industry performance with other conventional industries.

The second chapter of this report deals with data and methodology, chapter three discusses the main results, and chapter four presents the conclusion.

2. Data issues and sources

2.1 Data

Unlike other conventional industries, the tourism industry is not defined from the supply-side in the international standards of the Australia and New Zealand Standard Industrial Classification (ANZSIC). As a result, direct data on investment in this industry is not yet available.

The Australian Bureau of Statistics (ABS) National Accounts publish annual gross fixed capital formation (GFCF) by asset estimates for all industry divisions. Investment estimates for the tourism industry were generated by applying industry value added ratios² to the national accounts data of GFCF and the capital stocks. These estimates were derived for individual tourism industries and are presented in the conventional ANZSIC 2006 industry format.

Where direct data for tourism industries was not available, analysis was carried out for whole industries with a tourism ratio³ of at least 4% or more.

Time-series estimates on industry gross value added (GVA) in current prices were obtained from ABS Cat. No. 5249.0 and unpublished current price data on gross operating surplus (GOS) were obtained from the ABS. Chain volume measures⁴ of GVA and GOS were derived using output deflators obtained from the ABS. The GFCF and capital stocks estimates for tourism industries were first derived in current prices using tourism industry GVA ratios from the TSA. The constant price value of these estimates was derived using the respective deflators at the aggregate industry levels. The results presented in this report are based on volume estimates, except stated otherwise.

2.2 Data limitations

The first and major data limitation relates to the unavailability of tourism industry specific data on investment. This limitation can be a major hindrance in providing a clear-cut picture of investment in the tourism industry.

Similar to the previous study by Salma (2003), the main challenge in deriving tourism investment and tourism capital estimates are to find a viable time-series⁵ of tourism industry ratios, which provide the basis of appropriating

² Tourism industry GVA ratios used for deriving tourism industry investment is presented in Appendix A.

³ Tourism ratios here refer to the ratio of tourism industry GVA to total GVA of the related ANZSIC industry. Tourism industries are defined in the TSA depending upon the output of that industry consumed by visitors. The output consumed by visitors may constitute a part of the ANZSIC industry (class, group, and sub-division) or a whole industry division. Detailed tourism industry classifications and their concordance to parent ANZSIC industry divisions are provided in ABS 2010.

⁴ Chain volume measures or constant price estimates refer to presenting the time-series of expenditure and production aggregates, which are free of the direct effect of price change.

⁵ The tourism industry—being a demand driven industry—is not explicitly classified in the international statistical classification, but comprised of tourism-related output consumed by visitors from a number of

aggregate capital formation data from the national accounts. The TSA has estimated tourism industry ratios for 2003–04 and 2006–07 (on the new classification basis) and these ratios are assumed to hold constant for a period of three years. For this study it was assumed that 2003–04 ratios will hold for time series 1997–98 to 2003–04, and 2006–07 ratios will hold for the rest of the time series. This means any price or volume changes in economic variables for years other than 2003–04 and 2006–07 are not captured in the analysis.

Other limitations relating to the GFCF data arise from the non-inclusion of leased capital (notably the cost of operating lease arrangements) of a business, as the System of National Accounts (SNA) treat leased capital as a part of the variable cost on intermediate inputs. Capital in the tourism industry should ideally include all capital used in producing tourism goods and services and the exclusion of operating leases does not allow a comprehensive estimate of tourism capital formation (Salma, 2003). This omission may understate investment estimates if small businesses, particularly in the tourism industry (with a large proportion of small businesses), opt for leasing assets (operating lease) rather than buying them.

2.3 Tourism industry performance indicators

Tourism industry performance is analysed and compared with *All industries*⁶ using the following three parameters:

- 1) **Investment rate:** defined as the proportion of the industry GVA used in buying capital assets, i.e.

$$\text{Investment rate} = (\text{Capital Expenditure}/\text{Gross Value Added}) * 100$$

- 2) **Rate of return on assets:** defined as the Gross Operating Surplus earned in a year as a proportion of the capital stock in that year, i.e.

$$\text{Rate of return on assets} = (\text{Gross Operating Surplus}/\text{Value of Capital Stock}) * 100$$

- 3) **Rate of profit:** defined as the Gross Operating Surplus as a proportion of the Value of Production (gross output at basic prices), i.e.

$$\text{Rate of profit} = (\text{Gross Operating Surplus}/\text{Value of Production}) * 100$$

industries. Supply and use in a tourism industry is based on the fully balanced supply-use table for the whole economy. A fully balanced S-U table is available every third year; the compilation of TSA estimates are thus done (or benchmarked) when the S-U tables (from National Accounts) become available.

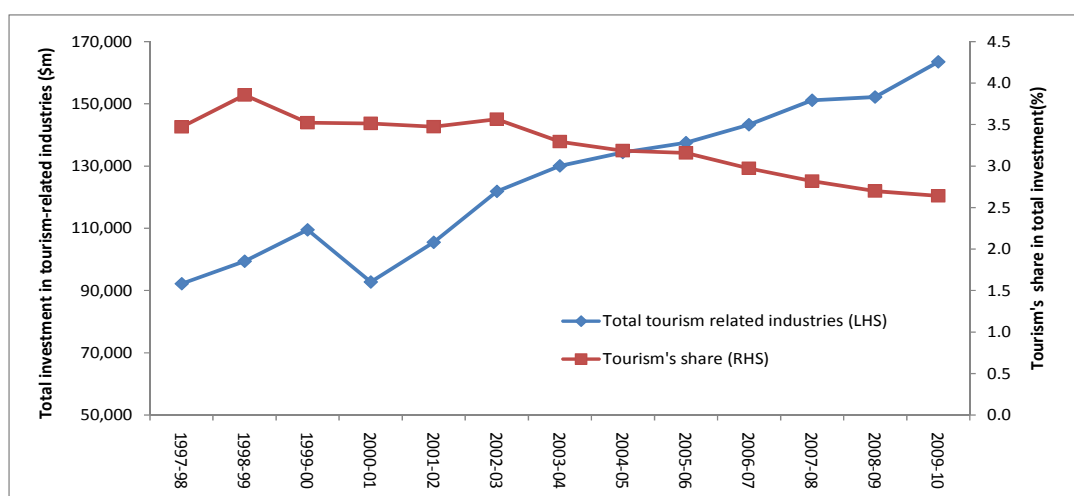
⁶ Sum of all industry divisions in ANZSIC 2006.

3. Analysis and discussion

3.1 Tourism industry investment growth

National Accounts data on industry-wide GFCF suggests that tourism-related industry investment share ranged between 3% and 4% of total investment in Australia between 1997–98 and 2009–10 (**Figure 1**). Total real⁷ investment in tourism-related industries increased, while the share of tourism industry investment to total investment declined. This indicates that tourism investment grew at a slower rate than that of investment in the total economy.

Figure 1 Investment in the tourism industry



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

In the post 2003-04 period, investment in the Australian economy was mainly led by increased investment in *Mining, Utilities*⁸ and *Construction* industries (**Figure 2**). Investment in these three industries together grew at an annual rate of about 16%.

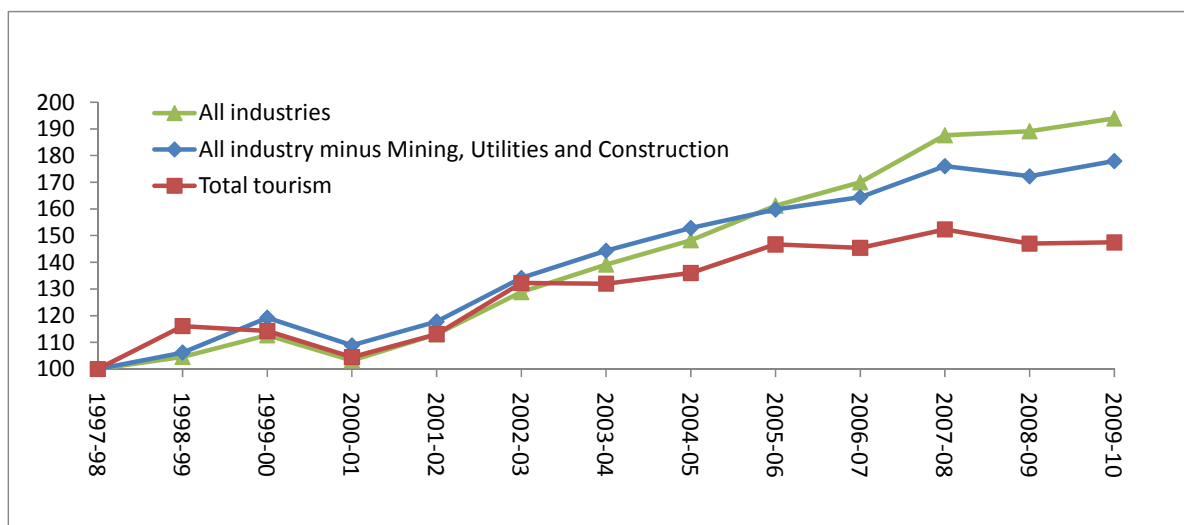
Strong investment growth in the *Mining* industry is in response to the sharp increase in global demand and prices of mineral resources, leading to rising profitability. On the other hand, the tourism industry was affected by both reduced demand and low profitability, driving lower productivity and investment.

During this period, there was a big gap between tourism and *All industries* investment growth. To maintain a sustainable tourism industry in Australia, the investment needs to be increased considerably. The tourism industry has experienced slow investment growth since 2003–04 (1.9% a year), while investment in *All industries* grew at a rate of 5.7% a year.

⁷ Free from the effect of price change.

⁸ Refers to 'Electricity, gas, water and waste services' industry.

Figure 2 Investment trends in Australia (index, 1997–98 = 100)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

It is important to note here that capital formation in the tourism industry since 2003–04 largely involved increased use of existing assets rather than purchase of new capital assets. For example, in the *Accommodation and food services*⁹ industry (**Figure 3**), the average annual growth in the GFCF between 2003–04 and 2007–08 (before onset of the global financial crisis) was 4.0%, whereas in the *Mining* industry, GFCF grew by 17% a year. Consumption of fixed capital (COFC), commonly known as “depreciation”¹⁰ of asset, increased 4.3% in the *Accommodation and food services* industry – a rate higher than the growth in capital investment, indicating increased use of existing capacity. On the other hand, *Mining* industry investment grew at 5.0% a year, triple the rate of depreciation, showing a net increase in new investment.

This phenomenon can also be explained by the differences in the slopes of the net fixed capital formation (NFCF) and GFCF curves in *Mining* and *Accommodation and food services* industries. Basically, the difference between these two curves explains whether an industry is experiencing new capital investment or using the existing assets. The NFCF curve in the *Mining* industry was steeper and remained higher than its GFCF curve, especially between 2004–05 and 2008–09, indicating a net addition of new capital assets. However, in the *Accommodation and food services* industry, the NFCF curve was less steep and remained lower than its GFCF curve, indicating the industry is using the existing assets.

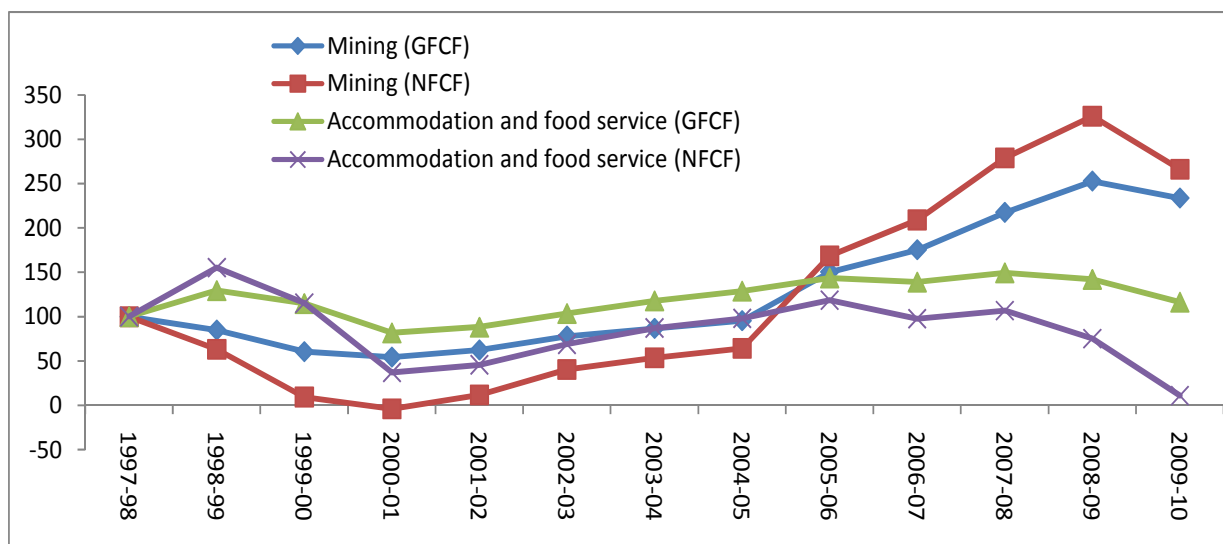
Furthermore, during the same period (2003–04 to 2007–08), the room occupancy rate in the *Accommodation* industry (hotels, motels and serviced apartments with 15 or more rooms) also exhibited an increase in room occupancy rate of 1.5% per year, showing increased use of existing assets. The

⁹ The *Accommodation and food services* industry is the main tourism-related industry, with more than 37% of its GVA in 2006–07 contributed by tourism.

¹⁰ This indicates a decrease in the value of assets due to use or obsolescence of the existing assets.

number of rooms also increased around 1.8% a year (derived from Survey of Tourism Accommodation data, ABS Cat. No. 8635.0, September 2010). The rate of growth in the room occupancy rate declined after 2007–08, due to lower tourism demand driven by factors such as the GFC and strong outbound travel growth.

Figure 3 Real net capital formation in Mining and Accommodation and Food Services industries (index 1997-98=100)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

The mix of industries where investment takes place in tourism has changed over the years (**Table 1**). Tourism-related industries attracting a major part of investment were: *Transport, postal and warehousing*¹¹, *Accommodation and food services*, *Ownership of dwellings*, and *Education and training*; together constituting more than three quarters of total tourism investment in 2009–10.

The share of investment in *Transport, postal and warehousing* increased 6.0% between 1997–98 and 2009–10, while that of *Accommodation and food services* declined about 12%. The majority of decline in the *Accommodation and food services* industry share was compensated by an increase in investment in *Education and training*, where the share in total tourism investment increased from 2.2% in 1997–98 to 13% in 2009–10.

¹¹ Tourism-related component from this division consists of the *Road transport, Rail transport, Air, water and other transport* only.

Table 1 Industry share in total tourism industry investment (%) in volume terms

| Tourism industries | 1997–98 | 2003–04 | 2009–10 |
|--|---------|---------|---------|
| Retail trade | 5.7 | 5.9 | 4.9 |
| Accommodation and food services | 24.5 | 17.1 | 12.4 |
| Transport, postal and warehousing services | 30.8 | 2 | 37.3 |
| Rental, hiring and real estate services | 4.7 | 3.9 | 4.5 |
| Administrative and support services | 4.2 | 1.3 | 1.3 |
| Education and training | 2.2 | 4.3 | 12.9 |
| Arts and recreation services | 7.6 | 4.2 | 4.8 |
| Ownership of dwellings | 14.6 | 21.6 | 19.2 |
| All other industries | 5.7 | 3.5 | 2.7 |
| Total 100 | | 100 | 100 |

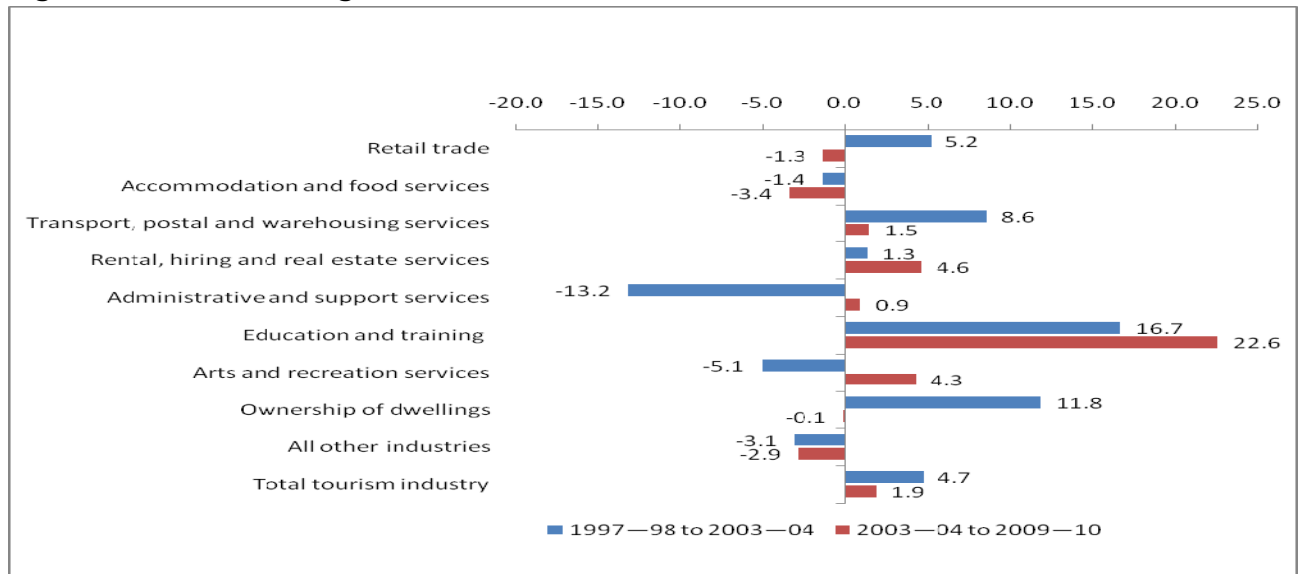
Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

Most of the investment in tourism-related industries occurred prior to 2003–04 (**Figure 4**), with the exception of the *Education and training* industry, where the investment grew at a much higher rate in the second period. The *Retail trade*, *Transport, postal and warehousing*, and *Ownership of dwellings* industries achieved above average investment growth (4.7% for the whole tourism industry) during 1997–98 to 2003–04. Investment growth in these industries either reversed or declined considerably during the following period.

Investment in *Education and training* increased by about 15% per year during the whole period, increasing from about \$150 million in 1997–98 to about \$1.2 billion in 2009–10.

During 2003–04 to 2009–10, *Arts and recreation services* and *Administrative and support services* (mainly the *Travel agency and tour operator services*) achieved an investment growth rate of 4.3% and 0.9% respectively, a growth rate much higher than those achieved during 1997–98 and 2003–04 (-5.1% and -13.2% respectively).

Figure 4 Investment growth in tourism industries (%)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

3.2 Public and private investment

In addition to private investment, the tourism industry also relies heavily on public investment. About 40% of the total investment in tourism industries was sourced from the public sector, while *All industries* averaged less than 20%.

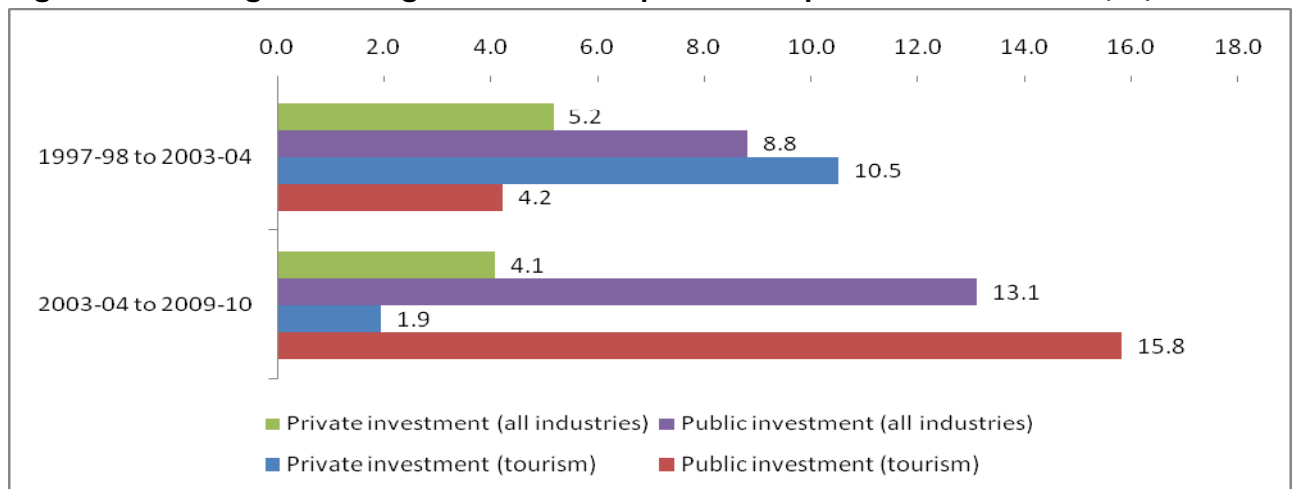
Governments at all levels in Australia have many strategies for influencing supply-side issues in tourism investment. These include: funding transport and tourism infrastructure; public/private partnerships to provide infrastructure; developing and implementing tourism investment promotion policies; funding planning processes such as destination development plans; regulating planning and project assessment processes; supporting a range of soft infrastructure (e.g. digital technology development); and funding and managing natural and cultural resources (Driml, S. *et al.* 2010). Often, a government’s decision to intervene by supporting investment is driven by community welfare, as opposed to private investment, which is driven by pure profit motives.

The government—apart from providing supply-side support to tourism investment—also spend a significant amount in generating demand (e.g. marketing) for Australia as a tourism destination among international and domestic visitors. However, such expenditure is not treated as capital formation in the Australian National Accounts, but instead forms a part of government final consumption expenditure (GFCE) (ABS verbal communication).

The government plays a role in the investment process at every level for generating employment and income of the population —whether it is tourism or non tourism—and this role seems to increase during periods of crises, especially for tourism industries (**Figure 5**). Public investment increased in both tourism and *All industries*, but the growth was stronger in tourism-related industries,

which increased from 4.2% a year between 1997–98 to 2003–04 to 16% a year between 2003–04 and 2009–10.

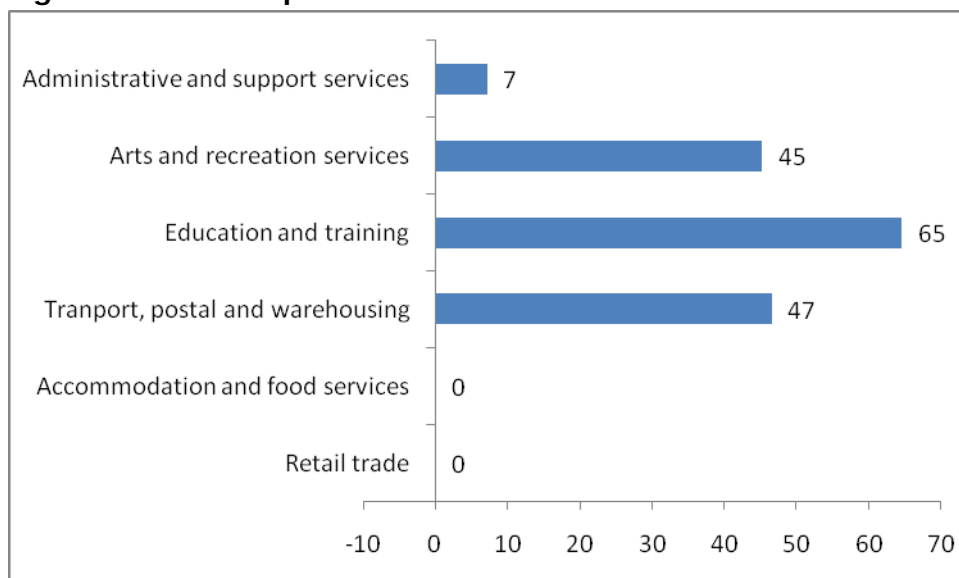
Figure 5 Average annual growth rates in public and private investment (%)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

Some tourism industries relied more on government investment than others (**Figure 6**) in terms of their requirements for fixed assets such as road, rail, wharves, buildings, equipment etc. On average, the public sector component in the total investment ranged from about 7.3% in *Administrative and support services* to about 45% each in *Arts and recreation services* and *Transport, postal and warehousing* and 65% in *Education and training services* industries.

Figure 6 Share of public investment in tourism-related industries^a (%)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

Note: ^a industries with tourism GVA contribution => 4%

3.3 Tourism investment by type of asset

Non-dwelling construction, machinery and equipment, and dwellings were the three main asset types where a large part of total investment occurred (**Figure 7**). Non-dwelling construction was the main cost item in tourism-related industries, due to the *Accommodation, Retail trade, Education and training, and Arts and recreation services* industries requiring a larger investment in non-dwelling buildings. However, in the case of *All industries*, dwellings and non-dwellings assets had equal significance. About one fourth of total investment occurred on machinery and equipment. The share of investment in research and development was much less in tourism-related industries as compared to the average of *All industries*.

Figure 7 Investment share by type of assets in tourism and All industries (%)

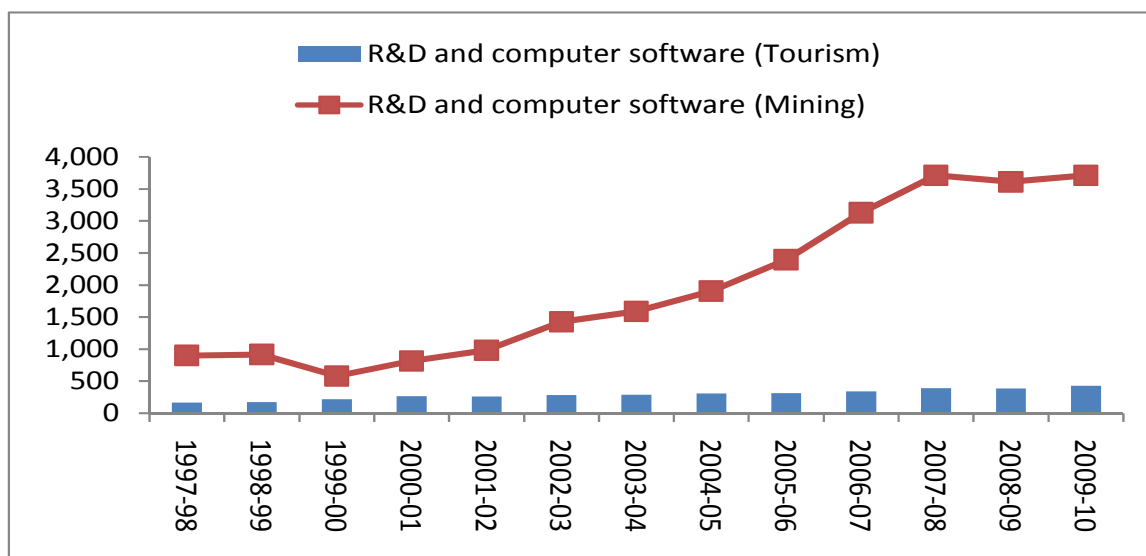


Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

Investment in knowledge (investment in research and development), business use of the Internet, and improvements in the quality of labour are accepted as key drivers of productivity. The share of such investment in the tourism industry remained low (7.0% per year), when compared with industries such as *Mining*. Investment in research and development and computer software¹² grew at a rate of 15% per year in the *Mining* industry between 2003–04 and 2009–10 (**Figure 8**).

¹² Excludes expenditure on mineral and petroleum exploration.

Figure 8 Investment in innovative assets (\$ million)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

3.4 Financial performance of the tourism industry

The tourism industry's financial performance was measured using a number of indicators, namely the investment rate, rate of return on assets, and the profit rate¹³.

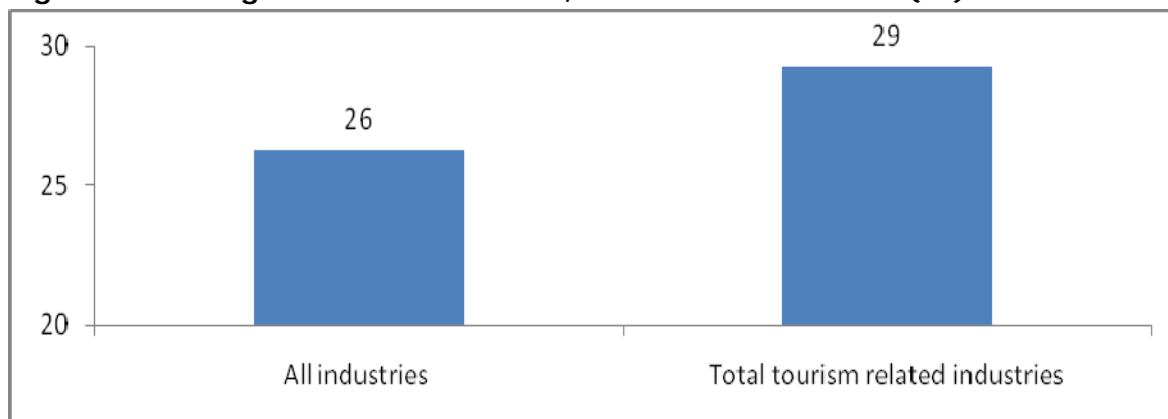
3.4.1 Rate of investment

Rate of investment is the proportion of GVA spent on investment. Small differences existed between tourism-related and *all industries* investment (**Figure 9**). On average, about 29% of total GVA in the tourism industry was invested in acquiring fixed assets, whereas this rate was about 26% on average in *All industries*. A number of factors resulted in a higher value for the rate of investment in the tourism industry:

- The tourism industry is prone to higher volatility of industry GVA and capital expenditure as compared to the whole economy. For example, the tourism industry achieved zero or negative growth in three out of 12 years, whereas *All industry* GVA grew by 2% (or above) annually over all. During these periods, capital expenditure growth in the tourism industry remained higher than GVA growth.
- Tourism industry GVA was also lower and growing more slowly compared to the whole economy. Tourism GVA grew 1.6% per year on average, while this growth was 3.4% per year for *All industries*.

¹³ The profit rate calculated in this paper has a major limitation. Profitability in real sense is derived as after tax profit divided by the value of assets. However, since the after tax data is not available, TRA has used the GOS as a proxy for profit, but GOS is a before-tax concept and does not include capital gains/losses, as is the case in standard accounting practice.

Figure 9 Average rate of investment, 1997–98 to 2009–10 (%)



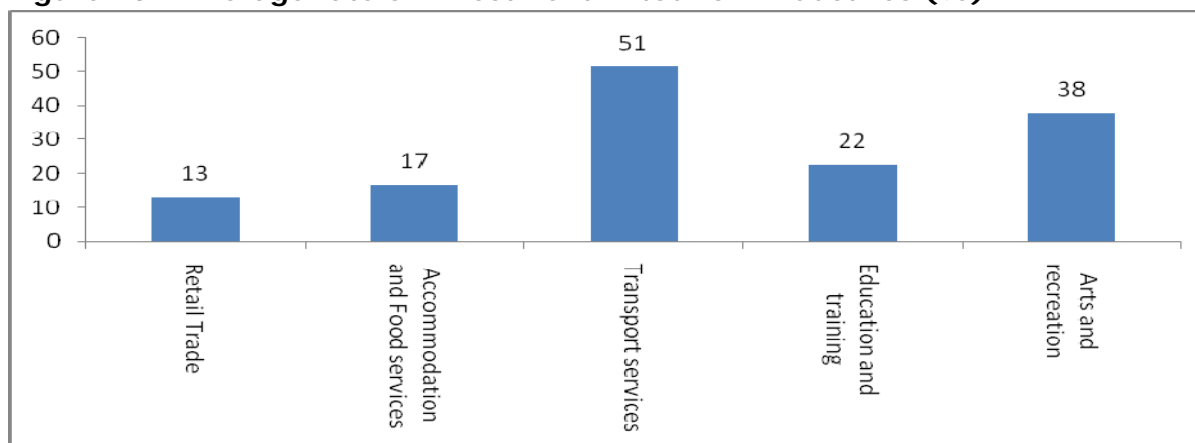
Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

Note: Tourism related industries are industries with tourism GVA share of =>4%

The aggregate picture shown in **Figure 9**, however, does not mean a uniform growth in investment rate in individual tourism industries. The average rate of investment varied between 10% in *Administrative and support services*, and 51% in the *Transport, postal and warehousing services* industry (**Figure 10**). The investment in *Transport services* and *Arts and recreation services* also included the public sector investment in the form of necessary infrastructure required for these industries to operate. The *Retail trade* (excluding *fuel retailing*) and *Accommodation services* have a lesser proportion of their GVA going into investment. These industries generally consist of medium to large¹⁴ businesses, which benefit from the economies of scale and the availability of spare resources to use for sometime before the new investment is warranted. According to TRA (2009), about 29% of total businesses (40,000 businesses) were medium to large sizes in each of the *Accommodation and food services* and *Retail trade* industries alone. TRA (2010) also reported positive multi factor productivity (MFP) growth of 3.1% in *Other retail trade* and 2.8% in *Accommodation services* industries between 1997–98 to 2008–09. However, among transport industries, only the *Air, space and water transport* had a positive MFP growth.

¹⁴ Medium businesses are businesses employing 20 to 199 employees and large businesses are businesses employing 200+ employees

Figure 10 Average rate of investment in tourism industries (%)

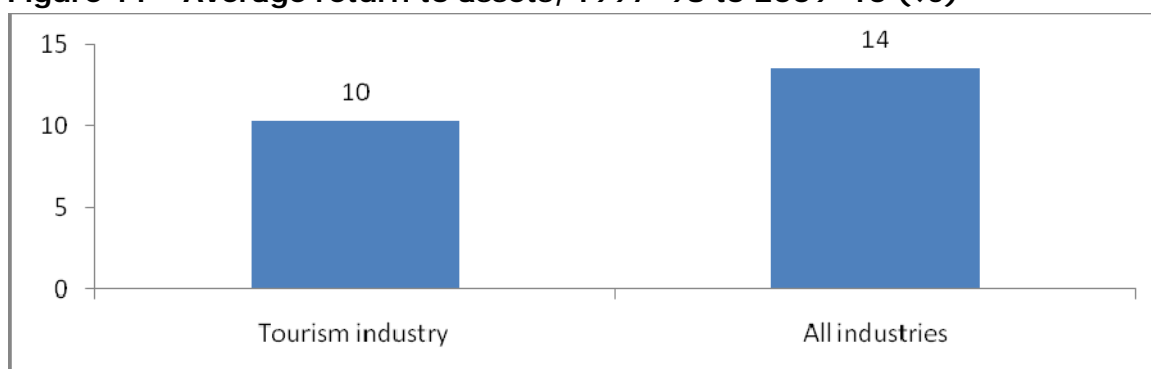


Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

3.4.2 Returns on assets

A return on assets is defined as the GOS earned in a year as a proportion of the capital stock in that year. On average, the tourism industry achieved a rate of return on investment of 10% between 1997–98 and 2009–10 (**Figure 11**). This contrasts with the average return of 14% for *All industries*. A low return on assets in the tourism industry was due to the high cost of wages faced by the tourism businesses (the average¹⁵ share of compensation of employees in the total factor cost¹⁶ ranged between 53% in the *Transport services* industries to around 70% in *Retail trade* and *Accommodation and food services* industries). The tourism industry mainly consists of micro and small businesses¹⁷. The proportion of such businesses in total tourism-related businesses was 93% in 2006–2007. A high proportion of labour costs faced by small and medium businesses in the tourism industry reduced the operating profit, while the stock of fixed capital assets remained the same, or increased.

Figure 11 Average return to assets, 1997–98 to 2009–10 (%)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

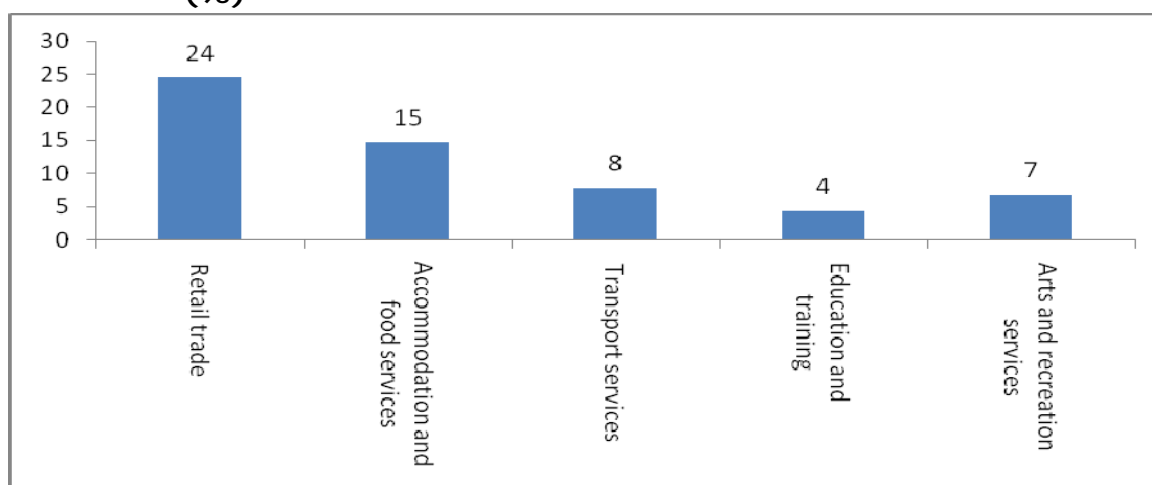
¹⁵ Average of period 1997–98 to 2009–10.

¹⁶ Total factor cost is the sum of compensation of employees and the GOS.

¹⁷ Micro and small businesses are businesses employing 5 to 19 persons. The businesses here also include non-employing businesses.

Efficient use of resources and improvements in productivity resulted in relatively higher return to assets in the *Retail trade* and *Accommodation services* industries (**Figure 12**). Return to assets were lower in other industries, namely *Transport services*, *Education and training* and *Arts and recreation services*, because of a larger share of public capital investment in these industries with major emphasis on community welfare rather than pure profitability. Lack of sector specific investment data makes it difficult to quantify the actual rate of returns in these industries.

Figure 12 Average return to assets in tourism industries, 1997–98 to 2009–10 (%)

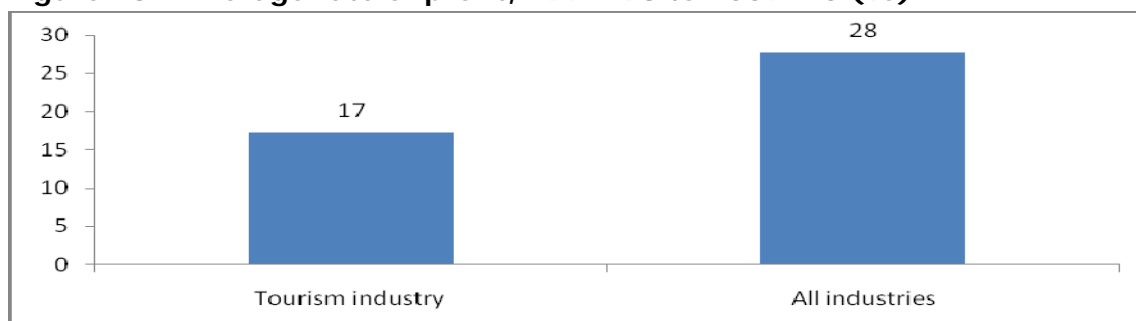


Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

3.4.3 Rate of profit

The rate of profit is calculated by dividing the GOS by the value of production¹⁸. As cited in TRA's *State of the Industry* report, 2010, low returns and the high cost of labour and capital in the tourism industry were key factors behind low investment. As can be seen from **Figure 13**, the average rate of profits in the tourism industry was significantly lower than that for *All industries*.

Figure 13 Average rate of profit, 1997–98 to 2009–10 (%)

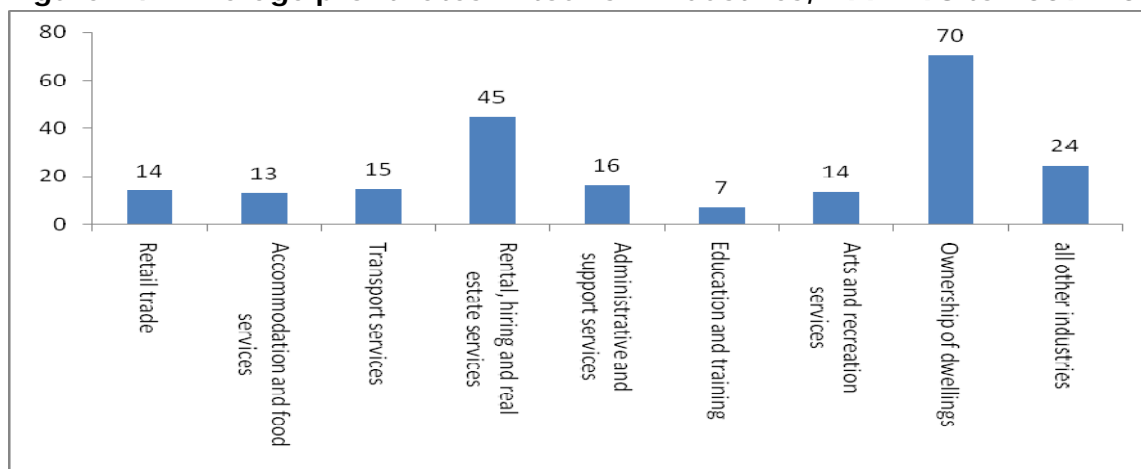


Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

¹⁸ Value of production is equal to the gross value added plus total intermediate use (or sum of total intermediate use and total primary inputs)

The rate of profit among main tourism industries (*Retail trade, Transport services, Accommodation and food services, and Arts and recreation services*) remained below the overall profit rate for the total tourism industry (**Figure 14**). The profit is the residual from the total output value, after paying for labour, capital and other inputs and taxes on production. As previously mentioned, the tourism industry is faced with high labour costs, especially in the *Retail trade, Accommodation and food services* and *Transport services* (mainly *air, space and water transport*) industries, which reduces the profit in these industries. Apart from the larger cost component, the lower price received for the output/services further reduces the profits due to the highly competitive nature of the tourism industry.

Figure 14 Average profit rates in tourism industries, 1997–98 to 2009–10 (%)



Source: TRA derived estimates from ABS data (Cat. No. 5204.0 and 5249.0)

4. Conclusion

This report presents an analysis of the pattern of investment in the tourism industry, returns on investment, return to assets, and profit rate along with a comparison of these parameters with *All industries*. However, the lack of investment information relating to specific tourism industries, allows only a general sense of the state of tourism industry investment. The analysis covers a period of 13 years to 2009–10. The analysis indicated that:

- Total real investment in tourism related industries increased, while the share of tourism industry investment to total investment declined, indicating that tourism investment grew at a slower rate than that in the total economy.
- The gap in investment growth between tourism and the average for *All industries* widened post the 2003–04 period and reached about 30% of *All industries* investment in 2009–10.
- Most of the investment in the tourism industry occurred during the period 1997–98 to 2003–04. The investment growth in the Australian tourism industry in the post 2003–04 periods was sourced mainly from increased use of assets rather than investing in new capital assets.
- Public investment played a key role in the tourism industry, accounting for about 40% on average between 1997–98 and 2009–10, whereas this share was around 20% for *All industries*.
- *Transport services, Education and training, and Arts and recreation services* were the main tourism industries reliant on public investment. *Retail trade* and *Accommodation and food services* were totally privately invested.
- Most of the investment in the tourism industry (95% of total) took place in dwellings and non-dwelling construction and machinery and equipment.
- Tourism industry investment in knowledge (namely expenditure in research and development and computer software), business use of the Internet, and improvements in the quality of labour (the key drivers of productivity), remained low (7.0% per year) when compared with industries such as *Mining*, where investment in research and development grew at a rate of 15% per year between 2003–04 and 2009–10.
- The rate of investment in tourism was slightly higher than that for *All industries*. On average, around 29% of total GVA in the tourism industry was invested in acquiring fixed assets, whereas this rate was about 26% for *All industries*. A slightly higher rate of investment was caused by high volatility and slow growth in tourism GVA.
- The *Retail trade* (excluding *fuel retailing*) and *Accommodation services* industries had a lesser proportion of their GVA going into investment because of their ability to achieve efficiencies due to their larger size.
- The tourism industry achieved an average rate of return on investment of 10% between 1997–98 and 2009–10. This contrasts with the average rate of return of 14% in the whole economy.

- Efficient use of resources and improvements in productivity resulted in relatively higher returns to assets in the *Retail trade* and *Accommodation services* industries.
- The profitability of the tourism industry was lower than that for *All industries*.

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Appendix A: Industry GVA ratios for tourism industries

| Industry | 1997– 98 | 1998– 99 | 1999– 2000 | 2000– 01 | 2001– 02 | 2002– 03 | 2003– 04 | 2004– 05 | 2005– 06 | 2006– 07 | 2007– 08 | 2008– 09 | 2009– 10 |
|--|-------------|-------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Retail trade | 0.087 | 0.085 | 0.087 | 0.096 | 0.093 | 0.094 | 0.086 | 0.084 | 0.082 | 0.080 | 0.077 | 0.074 | 0.076 |
| <i>Automotive fuel retailing</i> | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.004 | 0.003 | 0.003 | 0.003 | 0.003 |
| <i>Other retail trade</i> | 0.083 | 0.082 | 0.083 | 0.092 | 0.089 | 0.090 | 0.083 | 0.081 | 0.078 | 0.077 | 0.074 | 0.071 | 0.073 |
| <i>All other industries</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Accommodation and food services | 0.405 | 0.417 | 0.394 | 0.394 | 0.408 | 0.414 | 0.369 | 0.360 | 0.356 | 0.368 | 0.385 | 0.373 | 0.371 |
| <i>Accommodation</i> | 0.188 | 0.187 | 0.177 | 0.186 | 0.193 | 0.195 | 0.178 | 0.176 | 0.176 | 0.193 | 0.205 | 0.200 | 0.197 |
| <i>Cafes, restaurants and takeaway food services</i> | 0.160 | 0.170 | 0.160 | 0.154 | 0.158 | 0.162 | 0.140 | 0.134 | 0.131 | 0.127 | 0.132 | 0.126 | 0.127 |
| <i>Clubs, pubs, taverns and bars</i> | 0.058 | 0.061 | 0.057 | 0.055 | 0.056 | 0.057 | 0.051 | 0.050 | 0.049 | 0.048 | 0.049 | 0.047 | 0.047 |
| <i>All other industries</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Transport, postal and warehousing | 0.143 | 0.140 | 0.142 | 0.153 | 0.141 | 0.143 | 0.132 | 0.124 | 0.127 | 0.123 | 0.118 | 0.110 | 0.107 |
| <i>Rail transport</i> | 0.011 | 0.010 | 0.011 | 0.011 | 0.010 | 0.009 | 0.009 | 0.008 | 0.008 | 0.008 | 0.008 | 0.008 | 0.007 |
| <i>Taxi transport</i> | 0.007 | 0.007 | 0.007 | 0.007 | 0.006 | 0.006 | 0.006 | 0.005 | 0.006 | 0.007 | 0.007 | 0.006 | 0.006 |
| <i>Other road transport</i> | 0.011 | 0.011 | 0.011 | 0.012 | 0.011 | 0.010 | 0.009 | 0.008 | 0.009 | 0.010 | 0.009 | 0.009 | 0.009 |
| <i>Air, water and other transport</i> | 0.098 | 0.096 | 0.097 | 0.105 | 0.098 | 0.102 | 0.095 | 0.092 | 0.093 | 0.085 | 0.083 | 0.077 | 0.075 |
| <i>All other industries</i> | 0.016 | 0.015 | 0.016 | 0.018 | 0.016 | 0.015 | 0.014 | 0.012 | 0.012 | 0.013 | 0.011 | 0.011 | 0.010 |
| Information media and telecommunications | 0.024 | 0.022 | 0.022 | 0.020 | 0.019 | 0.019 | 0.017 | 0.014 | 0.014 | 0.013 | 0.013 | 0.013 | 0.014 |
| Financial and insurance services | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.001 |
| Rental, hiring and real estate services(b) | 0.024 | 0.028 | 0.027 | 0.025 | 0.025 | 0.022 | 0.022 | 0.021 | 0.022 | 0.022 | 0.020 | 0.020 | 0.023 |
| <i>Passenger car rental and hiring</i> | 0.022 | 0.026 | 0.025 | 0.024 | 0.023 | 0.020 | 0.021 | 0.020 | 0.021 | 0.021 | 0.019 | 0.020 | 0.022 |
| <i>All other industries</i> | 0.002 | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 | 0.001 |
| Professional, scientific and technical services | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| | | | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Administrative and support services | 0.106 | 0.097 | 0.089 | 0.076 | 0.079 | 0.075 | 0.069 | 0.064 | 0.064 | 0.059 | 0.056 | 0.054 |
| <i>Travel agency and tour operator services</i> | 0.091 | 0.083 | 0.077 | 0.066 | 0.070 | 0.065 | 0.061 | 0.057 | 0.058 | 0.053 | 0.051 | 0.048 |
| <i>All other industries</i> | 0.015 | 0.013 | 0.012 | 0.010 | 0.010 | 0.010 | 0.009 | 0.007 | 0.006 | 0.006 | 0.006 | 0.006 |
| Education and training | 0.026 | 0.028 | 0.030 | 0.035 | 0.039 | 0.037 | 0.041 | 0.041 | 0.039 | 0.040 | 0.043 | 0.047 |
| Health care and social assistance | 0.020 | 0.018 | 0.018 | 0.015 | 0.014 | 0.014 | 0.012 | 0.010 | 0.009 | 0.008 | 0.008 | 0.008 |
| Arts and recreation services | 0.164 | 0.167 | 0.143 | 0.155 | 0.142 | 0.139 | 0.138 | 0.134 | 0.123 | 0.124 | 0.120 | 0.130 |
| <i>Cultural services</i> | 0.063 | 0.064 | 0.055 | 0.061 | 0.055 | 0.054 | 0.053 | 0.051 | 0.046 | 0.048 | 0.046 | 0.051 |
| <i>Casinos and other gambling services</i> | 0.026 | 0.028 | 0.024 | 0.023 | 0.022 | 0.022 | 0.023 | 0.023 | 0.024 | 0.023 | 0.022 | 0.021 |
| <i>Other sports and recreation services</i> | 0.075 | 0.076 | 0.064 | 0.072 | 0.065 | 0.064 | 0.062 | 0.060 | 0.054 | 0.054 | 0.052 | 0.058 |
| <i>All other industries</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Other services | 0.022 | 0.018 | 0.019 | 0.017 | 0.015 | 0.014 | 0.013 | 0.011 | 0.011 | 0.011 | 0.011 | 0.011 |
| Ownership of dwellings | 0.024 | 0.024 | 0.025 | 0.025 | 0.026 | 0.026 | 0.025 | 0.027 | 0.027 | 0.027 | 0.027 | 0.026 |
| All other industries total | 0.011 | 0.010 | 0.010 | 0.009 | 0.008 | 0.008 | 0.007 | 0.006 | 0.006 | 0.005 | 0.005 | 0.005 |

Source: ABS Cat. No. 5249.0, Tourism Satellite Account, 2008–09, Table 6.

Note: the TS A contains industry GVA ratios on the new framework (ANZSIC classification, 2006 and TSA RMF 2008) for two benchmark years 2003–04 and 2006–07 only. 2003–04 ratios were applied to tourism industry data from 1997–98 to 2003–04 and 2006–07 ratios to series 2004–05 to 2009–10.

Appendix B – GFCF and related terms

a. **Gross Fixed Capital Formation (GFCF)** ABS Cat. No. 5216.0 (Australian System of National Accounts: Concepts, Sources and Methods, 2000) defines GFCF as the value of acquisitions less disposal of existing or new fixed assets. Assets consist of tangible or intangible assets that have come into existence as outputs from processes of production, and that are themselves used repeatedly or continuously in other processes of production over periods of time longer than one year. The Australian System of National Accounts (ASNA) has adopted conventions where there were boundary problems. For example, work put in place on structures (including dwellings, roads, dams, ports and other forms of construction) is considered to be GFCF of the unit for which the construction is being carried out, at the time the work is put in place. On the other hand, work on uncompleted heavy machinery and equipment (such as shipbuilding) during an accounting period is included as part of inventories of work in progress of the producer of the goods. Expenses associated with the transfer of real estate (real estate agent's commission, lawyer's fee and government taxes and charges) are included in GFCF.

Acquisition, less disposal, of new or existing tangible fixed assets, is subdivided by type of assets:

- *Dwellings* comprises houses and other dwellings (flat, home units, villa units, duplexes, mobile homes, or caravan used as the principal residence of households, etc.)
- *Other building and structures* covers assets such as industrial, commercial, and non-dwelling residential buildings; water and sewerage installations; lifts; heating, ventilating and similar equipment forming an integral part of building and structures; land development; roads; bridges; wharves; harbours; railway lines; pipelines; and power and telephone lines. Expenditure on construction of hostel-type accommodation, prisons and motels is also included in this category. The category also includes expenditure that leads to major improvements in the quantity, quality or productivity of land, or prevents its deterioration.
- *Machinery and equipment* includes vehicles; aircrafts; ships; electrical apparatus; office equipment; furniture, fixtures and fittings not forming an integral part of buildings and structures; durable containers; special tooling, etc.
- *Cultivated assets* cover livestock (cattle and sheep) that are used repeatedly or continuously to produce products such as milk, wool etc., or are used as breeding stock.

- *Ownership transfer costs* comprise the various fees which are incurred by either the buyer or seller of real estate, namely legal fees on transfer, real estate sales commission, stamp duties on transfer and other government charges.
- *Intellectual property products* such as computer software (both purchased and software developed in-house, and purchase or development of large databases); entertainment, literary or artistic originals such as originals of films, sound recordings, manuscripts, tapes, models, etc.; mineral exploration; research and development.

b. Consumption of fixed capital (COFC) is the reduction in the value of fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage. Unforeseen obsolescence, major catastrophes and the depletion of natural resources are not taken into account.

c. Net fixed capital formation is GFCF minus COFC.

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