



Legislative Council Select Committee Inquiry

Inquiry into Short Stay Accommodation in Tasmania

Airbnb Submission

Thank you for the opportunity to comment on the Inquiry into Short Stay Accommodation in Tasmania.

In this submission we have sought to provide a short background about Airbnb and our community, and then to specifically address the terms of reference outlined for the Inquiry.

Executive Summary:

- Airbnb's community continues to support the growth of the visitor economy in Tasmania, providing more choice for consumers in more locations across a variety of price points.
- The broader tourism sector continues to prosper and grow as Tasmania leads the country in terms of growth in both overnight trips and spending by domestic visitors, with Tourism Research Australia's latest International Visitor Survey and National Visitor Survey also reinforcing the buoyant state of Tasmanian tourism.
- Airbnb's community is an important contributor to the Tasmanian economy as the latest research shows that Airbnb guests who stayed in Tasmania spent \$86 million, which supported 599 jobs and contributed \$55 million to Gross State Product.
- The Tourism Industry Council Tasmania's 'Autumn 2018 Business Sentiment Survey' also shows how positive and confident the industry is. The Business Confidence Index for April 2018 is 101.5 points - which is higher than any point in 2017, the year when the

Tasmanian Government's new short-term rental accommodation regulations took effect.

- Housing policy is a complex public policy issue and given this complexity, any mature and prudent debate must look at the real drivers of affordability, including market factors and policies across Commonwealth, State and local governments.
- Locally, Airbnb is not a significant factor in the local housing market. In 2017, total booked entire listings represented less than 2% of Tasmania's and less than 1% of Hobart's housing stock.

About Airbnb

Founded in August of 2008 and based in San Francisco, California, Airbnb is a trusted community marketplace for people to list, discover, and book unique accommodation and experiences around the world.

Our company and the Airbnb community are leaders in the new sharing economy, a movement that will represent a significant part of the world's future economic growth. Millions of hospitality micro-entrepreneurs are now empowered to help make ends meet using their underutilised assets or by sharing their passions. This movement is distributing economic opportunities across diverse neighbourhoods and providing millions of people with a trusted platform they can use to benefit their families, earn additional income as hosts, or find unique lodging opportunities and travel experiences as guests.

Since 2008, more than 300 million guests have arrived at more than 5 million Airbnb listings worldwide, enjoying a safe and positive experience on Airbnb. We have worked hard to provide tools and resources that promote transparency and trust, and we are proud to be a global leader in providing education on these issues for our community.

Simply put, Airbnb allows anyone to belong anywhere. Our platform helps strangers experience a city as a local does and lets hosts become

ambassadors for the communities they love, using communication, payment, and trusted tools to empower users around the world.

The Airbnb community in Tasmania

Airbnb has continued to grow into a significant presence in Tasmania, and it plays an increasingly vital role in the visitor economy. The Airbnb Homes platform is used by a broad spectrum of hosts, ranging from people who make extra income from sharing space in their own homes, to the long established holiday letting and shack industry, and even to traditional accommodation providers who increasingly list their businesses on our platform. The Airbnb Experiences platform is used by hosts who are creatives, artisans, and small businesses as an online platform to share their passion with the world and unlock their time and potential to create new economic activity.

We have a large community of people across Tasmania for whom sharing their home is now part of their lifestyle. The sharing economy helps to build resilient communities where locals can create supplemental income, and robust economies that are supported by increased visitation and spending by Airbnb guests - often in areas that do not traditionally benefit from the tourism dollar. This is especially important in regional communities which may not have adequate traditional accommodation infrastructure to support the visitor economy, or may not be able to attract investment to build new accommodation for the growing visitor economy.

In the past twelve months to 1st August 2018, our Homes community welcomed over 366,000 guests across the state - both domestic and international travellers. There are currently 5,000 active Airbnb listings in Tasmania, and over the past twelve months to 1st August 2018 a typical Airbnb host in Tasmania earned \$9,800, supporting hosts with supplemental income from sharing their spare space. 71% of hosts in Tasmania are women and the average host age is 51, with more than 35% hosts aged 60 or older.

The growth of short stay accommodation in Tasmania and the changing character of the market including recent trends in online letting of short stay accommodation

Airbnb's community continues to support the growth of the visitor economy in Tasmania, providing more choice for consumers in more locations across a variety of price points. This includes a 54% increase for year on year growth of inbound guest arrivals and 49% year on year growth of inbound trips to Tasmania.

Airbnb's platform encapsulates a range of hospitality entrepreneurs, from providing ordinary Tasmanians with trusted tools and an online marketplace with a means to share their own home through to the established holiday home or shack industry who list on Airbnb as a way to continue doing what has been the norm for decades. More recently, boutique hotel operators have also turned to Airbnb to list their inventory and gain market exposure to the global community of travellers who use Airbnb following our partnership with Siteminder.¹

The impact of short stay accommodation on the residential housing sector

Housing policy is a complex public policy issue and Airbnb welcomes the opportunity to place short-term rental accommodation into context. Given the complexity of housing markets, any mature and prudent debate must look at the real drivers of affordability, including market factors such as demographic change, economic circumstances of households, and construction costs, as well as holistically consider policies across Commonwealth, State and local governments.

The Tasmanian Department of Treasury and Finance Information Paper 'Housing rental market trends in Tasmania - analysis of recent trends and

¹ <https://www.siteminder.com/channel-manager/airbnb-hotels/>.

assessment of data quality² identified three major factors influencing rental vacancy rates and prices in Hobart including the high rate of employment growth, steady population growth, and increasing house prices. The paper also identified the growth of international students as contributing to the “demand for rental accommodation.” The number of international students at the University of Tasmania has increased from 3,000 students in 2011 to over 4,000 students in 2016.³

The most significant policy levers at the disposal of government, the policies that will make the biggest impact, remain things like negative gearing, directing investment towards affordable housing projects, and ensuring the planning system works to grow supply where it is needed, to accommodate population and demographic changes.

As an online platform that empowers local hosts to turn their biggest and costliest asset - their home - into an asset that can generate an alternate revenue stream to help with the cost of living, Airbnb helps thousands of Tasmanians create supplemental income with the majority of hosts sharing their principal place of residence.

For many hosts, sharing their space and making extra income is an economic lifeline. Whether that goes towards paying off the mortgage, keeping up with the cost of living, or allowing them to more fully participate in their community - hosting is important for building economic resilience for individuals. With wage growth rising at a moderate 2.2% through to March 2018⁴, more Tasmanians are turning to sharing their homes in order to make extra income. In 2017, 50% of Airbnb hosts in Tasmania said that sharing their spare space helped them afford to stay in their homes, 45% of

² p. ii, <http://www.treasury.tas.gov.au/Documents/Housing%20Rental%20Market%20Trends%20-%20Information%20Paper.pdf>.

³ p. 2, <http://www.treasury.tas.gov.au/Documents/Housing%20Rental%20Market%20Trends%20-%20Information%20Paper.pdf>.

⁴ <http://www.treasury.tas.gov.au/Documents/Wage-Price-Index.pdf>.

Airbnb hosts used their Airbnb earnings to make ends meet, and 4% of hosts reported that hosting helped them avoid eviction or foreclosure. Hosts in Tasmania report that 20% of the income they generate through Airbnb is spent directly on housing costs (either rent or mortgage) and a further 24% goes towards other household expenses.

Independent research organisations have examined the relationship between Airbnb and housing affordability in Australia, focussing on the impact short-term rental accommodation has on the long-term rental market. The Grattan Institute has examined the effect of peer-to-peer platforms in the sharing economy and considered appropriate policy responses. They found that:

... any rent increases caused by the rise of short-stay rentals are likely to be localised or small. Short-term use of housing is a small fraction of the city-wide housing stock.⁵

The Tenants' Union of NSW in their expert 2017 report examined both the impact of Airbnb on vacancy rates and increases to rents in Sydney.

Regarding the impact on vacancy rates, their report found:

For all of Sydney there was no discernible effect on the vacancy rate.⁶

And regarding the impact increases to rents, their report found:

... that Airbnb and other short stay accommodation have not had a significant or consistent effect on rents in the area.⁷

⁵ p. 26, The Grattan Institute 2016, 'Peer to Peer Pressure Policy for the Sharing Economy'.

⁶ p. 12, Tenants' Union of NSW 2017, 'Belonging Anywhere: Airbnb and renting in Sydney'.

⁷ p. 14, Tenants' Union of NSW 2017, 'Belonging Anywhere: Airbnb and renting in Sydney'.

Consistent across both pieces of research by the Grattan Institute and the Tenants' Union of NSW is that the number of Airbnb listings as a percentage of housing stock is very small, and whilst the discussion in these reports considered the housing market in Sydney, similar patterns hold true for Hobart.

Locally, Airbnb is simply not a significant factor in the local housing market. In 2017, total active entire home listings represented less than 1.5% of Tasmania's and approximately 1.5% of Hobart's housing stock. In Greater Hobart, the total number of entire home listings booked for more than 180 days was just 0.22% of the housing market. To put that in perspective, the 2016 Census recorded 8,800 unoccupied private dwellings, representing 9.3% of total housing stock in Greater Hobart.⁸ This equates to close to 40 times as many unoccupied private dwellings in Greater Hobart as there are Airbnb entire home listings booked for greater than 180 days.

The debate about the potential impact of short-term rental accommodation on housing affordability has been muddled by misunderstanding and misinformation. A common argument used is that entire home listings means homes are being taken off the long-term rental market. This argument is incorrect and reductionist. Knowing the number of entire home listings alone without having the full context presents only half the story. Most hosts are sharing their own home - their principal place of residence and as such there will be a higher proportion of entire home listings. What's more, a listing - including an entire home listing - is not equal to a dwelling. An entire home listing might in fact be a granny flat or other self-contained space.

Another common argument is that hosts with multiple listings must be sharing multiple homes with distinct addresses. A host may have one or more listings at just one property. For example, a host may choose to list a

⁸ http://quickstats.censusdata.abs.gov.au/census_services/getproduct/census/2016/quickstat/6GHOB?opendocument.

private room/s in their own principal place of residence more frequently, while occasionally listing their entire home whilst they are away on their own holiday. Another example is a host who shares a self-contained space in their own principal place of residence (such as a granny flat or a self-contained studio) and has two listings for the same space which is alternated at different times of the year (e.g., a listing that is advertised specifically for Dark MOFO). Both these situations produce two listings for one address, with the latter showing two entire home listings for a self-contained space in a host's principal place of residence.

Airbnb welcomes opportunities to work with the Tasmanian Government as it evaluates these matters and support sensible policies that protect the right to participate in the home sharing economy and address any issues regarding the availability of long-term rental housing.

The impact of short stay accommodation on the tourism sector

The growth and mainstream adoption of the sharing economy is leading to fundamental changes in how people travel and experience destinations, opening up possibilities to build a robust and resilient visitor economy. These trends are resulting in increased travel, increased spending, and increased engagement with different parts of cities and the regions than visitors have typically visited historically, and in the process supporting cafes, restaurants, hotels, retail and other small businesses.

Airbnb's community is an important contributor to the Tasmanian economy. A recent report by Deloitte Access Economics - 'Economic effects of Airbnb in Australia: Tasmania'⁹ - found that in 2015/2016 Airbnb guests who stayed in Tasmania spent \$86 million, which supported 599 jobs, including more than 182 jobs in areas outside Hobart in brick-and-mortar businesses such as cafes, restaurants, and retailers, and contributed \$55 million to Gross State Product. As listings and visitor numbers have grown since that time,

⁹ <https://www.airbnbcitizen.com/airbnb-triggers-a-jobs-boom-throughout-australia/>.

we expect those economic and jobs figure to have increased since 2015/2016 too.

In addition to visitor spending, the home sharing economy is supporting the growth of ancillary services- such as domestic cleaning and property management - to support hosts who prefer to engage professional services to manage their listings and bookings.

In the context of Airbnb's contribution to the Tasmanian visitor economy, the broader tourism sector continues to prosper and grow. Airbnb is growing alongside - not at the expense of - traditional tourism operators. Tourism Research Australia's (TRA) latest 'State of the Industry 2016-17' report shows that Tasmania leads the country in terms of growth in both overnight trips and spending by domestic visitors. In 2016-17, there was 16% growth in domestic overnight trips and an incredible 30% increase in spending in Tasmania.¹⁰ To place this in perspective, the nearest rival is Victoria, which had a 9% increase in its domestic overnight trips, and the Australian Capital Territory with a 17% growth in spending by holiday visitors.

TRA's latest 'International Visitor Survey'¹¹ and 'National Visitor Survey'¹² also reinforced the buoyant state of Tasmanian tourism. For the year ending March 2018, the number of international visitors grew by 20% to more than 300,400 visitors and international visitor expenditure grew 32% to more than \$559 million. Tasmania led the nation both in terms of the growth of international visitors and expenditure. For the year ending March 2018, the number of domestic visitors grew 10% to more than 2.8 million - the equal

¹⁰ p. 11, https://www.tra.gov.au/tra/soi/2017/TRA_State%20of%20the%20Industry%202017.pdf/.

¹¹ https://www.tra.gov.au/ArticleDocuments/185/IVS_Summary_March_2018.pdf.aspx?Embed=Y.

¹² https://www.tra.gov.au/ArticleDocuments/251/NVS_onepager_March2018.pdf.aspx?Embed=Y.

highest in the country alongside New South Wales, and significantly higher than other jurisdictions like the Northern Territory and Western Australia.

In addition, Tourism Tasmania's latest visitor snapshot for the year ending March 2018, reports an increase in total expenditure of 7% to a total of \$2.37 billion, and an increase of 7% on average spend by night.¹³

Employment related to tourism and the visitor economy in Tasmania maintained its share of national tourism employment at 3%, increasing from 17,000 workers to 19,000 workers in direct tourism employment over the period 2006–07 to 2016–17.¹⁴ Further, from 2015–16 to 2016–17, direct and indirect tourism employment in Tasmania each grew very strongly at 17.6%, with 38,000 people directly or indirectly employed in tourism.¹⁵

Hobart's traditional accommodation continues to perform strongly, with occupancy rates for hotels, motels, and serviced apartments (HMSA) at 83%, which places Hobart above the national average and, from a national perspective, behind only Sydney.¹⁶ Hobart's HMSA accommodation is also performing well in terms of RevPAR, at \$143 compared to the national average of \$140.¹⁷

¹³ p. 5, https://www.tourismtasmania.com.au/_data/assets/pdf_file/0004/63967/2018-Q1-Tasmanian-Tourism-Snapshot-YE-March-2018.pdf.

¹⁴ p. 15, https://www.tra.gov.au/ArticleDocuments/246/STSA_2016-17.pdf.aspx?Embed=Y.

¹⁵ p. 14, https://www.tra.gov.au/ArticleDocuments/246/STSA_2016-17.pdf.aspx?Embed=Y.

¹⁶ p.18, https://www.tra.gov.au/tra/soi/2017/TRA_State%20of%20the%20Industry%202017.pdf.

¹⁷ p. 18, https://www.tra.gov.au/tra/soi/2017/TRA_State%20of%20the%20Industry%202017.pdf.

The Australian Accommodation Monitor reports strong growth in the average daily rate at 3.2% and RevPAR 3.4% in Hobart in 2016-17, with moderate increases to ADR and RevPAR across the entire state.¹⁸

The robust health of the hotel market, particularly in Hobart, is further evidenced by the strong construction pipeline. The Tasmanian Office of the Coordinator General estimates there is \$1.07 billion invested in hotel projects across the state as of April 2018. These projects will contribute an extra 4,182 hotel rooms.¹⁹

Research conducted by the Tourism Industry Council Tasmania (TICT) also reinforces the robust health of Tasmanian tourism operators, including hotels and motels. The TCCI's 'Autumn 2018 Business Sentiment Survey', conducted in 2018, found 78% of operators are either very or somewhat positive about the next 12 months, with only 8% somewhat or very negative. The TCCI's Business Confidence Index also shows how positive and confident the industry is. The Index for April 2018 is 101.5 points which is higher than any point in 2017. In other words, since the Tasmanian Government's short-term rental accommodation reforms were introduced last year, the confidence of participants in the Tasmanian tourism industry has increased.²⁰

As the whole visitor economy continues to see record expenditure and growth in key metrics, the Airbnb community plays a vital role in providing accommodation during major events, providing additional accommodation capacity at peak periods. For example, the busiest periods in terms of guest arrivals on Airbnb in Hobart so far in 2018 were during the Taste of Tasmania

¹⁸ p. 11, https://www.tra.gov.au/ArticleDocuments/208/Tier1_AAM_Summary_V5July.pdf.aspx?Embed=Y.

¹⁹ <http://www.abc.net.au/news/2018-04-27/tasmania-peak-tourism-hotels-development-question-debated/9691926>.

²⁰ TICT 2018, The Tasmanian Tourism Industry Autumn 2018 Business Sentiment Survey.

Festival and Dark Mofo, demonstrating the need for extra accommodation capacity to support the success of major events.

Regulatory issues including customer safety, land use planning, neighbourhood amenity and licencing conditions compared to other jurisdictions in Australia and worldwide

Customer safety and neighbourhood amenity

Airbnb seeks to lead industry on best practice for industry-led oversight and regulation.

We appreciate that Airbnb's guests and hosts will come into contact with neighbours and other local residents, which is why we place great emphasis on the importance of responsible hosting. Information on the standards that we and our community of travellers expect is published on our website.²¹

To give hosts the extra peace of mind that they need to open their homes to visitors, Airbnb has developed a Host Guarantee Program²² and a Host Protection Insurance²³ to help protect Australian hosts. Each trip booked on Airbnb in Australia is covered by these two programs.

Core to the experience of travelling on Airbnb is a system of reviews – where host and guest rate each other after a stay. Both hosts and guests therefore build up their own reputation, which is visible to other users of Airbnb, creating trust for our online community. Potential guests can see reviews of a host's home to identify both positive and negative feedback, and hosts can look at similar assessments of any potential guests.

²¹ <https://www.airbnb.com.au/help/article/1377/responsible-hosting-in-australia>.

²² <https://www.airbnb.com.au/guarantee>.

²³ <https://www.airbnb.com.au/host-protection-insurance>.

Hobart is ranked the most hospitable capital city in Australia by our community, based on the number of 5 star reviews in locations with over 1000 trips taken in the past 12 months to April 2018.²⁴ The average rating by guests to hosts in Tasmania is 4.8 (out of 5), with 80% of hosts receiving a 5 star review, whilst the average rating for guests who stayed in Tasmania was 4.9 (out of 5).

Our hosts are provided with information and guidance on how to welcome guests to their homes in the most hospitable and neighbourly way and we have established a hospitality program based on nine core standards that we encourage all hosts to meet.²⁵ Our hosting standards encourage plenty of communication prior to a booking, so that both host and guest can be comfortable that they are a good match.

Airbnb encourages hosts to take extra steps to ensure that their homes are safe.²⁶ The number of incidents we see is incredibly low, which is a demonstration of the efficacy of Airbnb's Trust and Safety team, tools and programs.

In addition to the trust and safety measures referenced above, hosts are strongly encouraged to help their guests to understand any rules and restrictions which apply to their building, or to their immediate area. We encourage guests to be mindful of neighbours and keep noise and disruption to an absolute minimum.

As an industry leader, Airbnb has launched an online tool - the Neighbour Tool²⁷ - where any resident around the world can file a complaint against

²⁴ <https://press.airbnb.com/gday-and-kia-ora-australia-and-new-zealands-most-hospitable-destinations-revealed/?region=Australia%20and%20New%20Zealand>.

²⁵ <https://www.airbnb.com.au/hospitality>.

²⁶ <https://www.airbnb.com.au/help/article/231/i-m-a-host--what-are-some-safety-tips-i-can-follow>.

²⁷ <https://www.airbnb.com.au/neighbors>.

irresponsible behaviour. We follow up directly, and, where appropriate, punish or remove bad actors. We will take action directly against hosts if they repeatedly violate our standards and expectations, and will not hesitate to remove hosts from our platform where there are repeated breaches of Airbnb's standards.

Airbnb is supportive of an industry-led approach to a complaints management process to target behavioural issues, in addition to continuing our educational initiatives which encourage responsible hosting. There is no room for bad behaviour on our platform, and Airbnb has supported the governments in both Victoria²⁸ and New South Wales²⁹ to establish frameworks to manage complaints and behavioural issues. If there was interest, Airbnb would welcome the opportunity to work with the Tasmanian Government on the development of a code of conduct for the industry that is fair, reasonable, and representative to ensure best practice, promote responsible behaviour by actors in the short-term rental accommodation sector, and protect the quiet enjoyment of life for neighbourhoods and communities.

Land use planning and licensing conditions

Airbnb does not support the requirement for a registration or licensing system for a host to share their own home. Such a move would be an unnecessary and costly bureaucratic process.

Airbnb notes the need for Government authorities to understand the profile of properties where the host is not present, for example a holiday home. We therefore support the Tasmanian Government's current approach which provides for distinction between a principal place of residence (up to four rooms bookable), a principal place place of residence (with more than four

²⁸ <https://www.airnbncitizen.com/airbnb-welcomes-new-rules-in-victoria-to-stamp-out-party-houses/>.

²⁹ <https://www.airnbncitizen.com/home-sharing-gets-the-green-light-in-new-south-wales-airbnbs-most-popular-destination-in-australia/>.

rooms bookable), investment properties (under 200 square metres), and investment properties (over 200 square metres).³⁰ The process to lodge a permitted use form or seek development consent provides Government authorities with a database of these types of short-term rental accommodation property.

The Tasmanian Government's approach is consistent with the findings of the NSW Legislative Assembly Environment and Planning Committee's report into the 'Adequacy of the regulation of short-term holiday letting in New South Wales'. This report, the most comprehensive Government inquiry into short-term rental accommodation in Australia to date, recommended a differentiated approach where the principal place of residence be considered exempt development and the use of empty properties (e.g., holiday homes) be permitted as complying development. Airbnb supports the principles behind this bifurcated approach to regulation of home sharing, based on appropriate thresholds and definitions.

Airbnb also notes that this report recommended a statewide approach to land use planning through the provision of clear, consistent planning definitions. This approach to land use planning has been adopted by the NSW Government with respect to establishing a regulatory framework across the state, with some discretionary power for local government areas to adjust local planning provisions for properties that are not a principal place of residence (i.e., local government areas will have some power to regulate hosting behaviour which may be considered higher impact such as holiday homes).

Airbnb supports the clear, statewide approach that supports our host community sharing their own homes without the need for burdensome red

³⁰ https://planningreform.tas.gov.au/_data/assets/pdf_file/0007/441493/Planning-Directive-No.6-Exemption-and-Standards-for-Visitor-Accommodation-in-Planning-Schemes-as-modified-1-August-2018.pdf.

tape such as approvals, registrations, or caps, and a streamlined approach for non-principal places of residences, such as holiday homes.

We would be pleased to engage further with the Select Committee if that is helpful to the Committee's deliberations in this Inquiry.

Sincerely,



Brent Thomas

**Head of Public Policy, Australia and New Zealand
Airbnb**

Attachments

- Airbnb 2015, 'Community Compact'
- Airbnb 2017, 'Airbnb Policy Tool Chest 2.0'
- Deloitte Access Economics 2017, 'Economic effects of Airbnb in Australia: Tasmania'

The Airbnb Community Compact

Airbnb is a people-to-people platform—of the people, by the people and for the people—that was created during the Great Recession to help people around the world use what is typically their greatest expense, their home, to generate supplemental income.

Airbnb creates economic opportunity. The typical middle-income host in the United States **can earn the equivalent of a 14 percent annual raise** sharing only the home in which they live at a time when economic inequality is a major challenge. Airbnb democratizes travel so anyone can belong anywhere—**35 percent of the people who travel on Airbnb say they would not have traveled or stayed as long but for Airbnb.**

Airbnb is home to good travelers and good neighbours who contribute to their communities. **97 percent of the price of a listing, set by the Airbnb host, stays with the host.** Airbnb hosts and guests have also made clear in conversations, town halls, responses to surveys, and thousands of individual discussions that they want to do right by the cities where they live, work and visit.

Based on our core principles to help make cities stronger, Airbnb is committed to working with cities where our community has a significant presence and where there is support for the right of people to share their homes, both when they are present and when they are out of town. As we work with cities around the world, we will:

Treat Every City Personally and Help Ensure Our Community Pays its Fair Share of Hotel and Tourist Taxes

Cities have unique home sharing policy needs—a dense, urban city may have different concerns than a historic vacation town or a non-traditional travel destination. Airbnb will partner with cities to address their individual policy needs.

In those places that respect the right of people to share their home, we will work to ensure that the Airbnb community pays its fair share of taxes while honoring our commitment to protect our hosts' and guests' privacy. This includes helping to ensure the efficient collection of tourist and/or hotel taxes in cities that have such taxes. We will work to implement this initiative in as many communities as possible.

Build an Open and Transparent Community

Cities can make the best policy decisions about home sharing when important data is available. Airbnb will provide cities with the information they need to make informed decisions about home sharing policies.

While protecting our hosts' and guests' privacy, Airbnb will provide anonymized information regarding hosts and guests in our community to city officials to help inform the development of home sharing policies. We will work with individual cities to identify the specific types of data they need to craft fair, progressive rules.

On an annual basis, Airbnb will also release Home Sharing Activity Reports in cities where our community has a significant presence. These reports will include:

- The total annual economic activity generated by the Airbnb community.
- The amount of income earned by a typical Airbnb host.
- The geographic distribution of Airbnb listings.
- The number of hosts who avoided eviction or foreclosure by sharing their home on Airbnb.
- The percentage of Airbnb hosts who are sharing their permanent home.
- The number of days a typical listing is rented on Airbnb.
- The total number of Airbnb guests who visited a city.
- The average number of guests per listing by city.
- The average number of days the average guest stayed in a city.
- The safety record of Airbnb listings.

Promote Responsible Home Sharing To Make Cities Stronger

Cities succeed when their citizens are actively empowered to help determine their own destiny. Airbnb will work to educate hosts and guests about the home sharing needs and rules in cities so they are empowered to engage in home sharing practices that are in the best interests of the cities they call home.

In particular, there are some cities that have a significant number of Airbnb listings but do not have a comprehensive policy approach to home sharing. In some of these places, community leaders have identified a shortage of long-term rental housing as a critical issue. In these cities, we will work with our community to prevent short-term rentals from impacting the availability of long-term rental housing by ensuring hosts agree to a policy of

listing only permanent homes on a short-term basis. We will also continue to work with cities that have established home sharing policies as they evaluate these matters.

Additionally, we will work with cities to determine whether non-permanent homes that would otherwise not be on the market as long-term rentals (such as a second home that is occasionally used) can be made available for short-term rentals consistent with the policy needs of a particular city. Finally, we will continue to support hosts who provide long-term accommodations like corporate housing, as well as certain standard hospitality venues like traditional bed & breakfasts that use Airbnb and provide unique, local experiences to guests.

Airbnb Policy Tool Chest 2.0



Table of contents

Cover note // 3

Introduction // 6

Smart policy tools // 10

Rapid expansion of tax collection // **10**

21st-century accountability tools // **12**

Promoting more sustainable tourism // **17**

A closing note // 20

APPENDIX. Progress around the world: case studies // 21

COVER NOTE

Hosting itself is centuries old, but hosting through a digital platform at a volume of 1 million guest arrivals per night is new. With travel accounting for 10 percent of global GDP (bigger than the oil industry and growing faster than many other sectors, claiming one in every 10 jobs)¹, hundreds of governments are enacting policies to help their citizens benefit from the economics of tourism in ways that meet their communities' unique needs.

They are acting at a critical time. Around the world, wages are stagnating and other technologies, namely robotics and artificial intelligence, threaten to limit opportunity for millions of people and further pressure local tax bases. In sharp contrast, Airbnb is empowering individuals, neighborhoods and governments by seeking to align their interests in creating economic opportunity.

Over the course of the year, more governments have classified home sharing in one of two ways:

1. **Amateur activity:** everyday people occasionally using the home in which they live to more fully leverage what is typically their greatest expense in order to generate supplemental income.
2. **Vacation rentals activity (VR):** the historic, long-standing use of properties as vacation rental homes.

As epic structural changes reshape our economy and significantly impact the wages and job opportunities of everyday people, governments are generally applying a light regulatory touch to help support those who use home sharing to earn extra income.

In regulating VR activity, some governments seek to optimize for the benefits of travel and tourism as the sector increases its share of the global and local economies. Japan is one example. Other governments look to maintain and modernize their existing regulatory approaches (Chicago, Philadelphia, New Orleans). A few governments aim to modulate the level of tourism in their jurisdictions by applying specific controls for VR (San Francisco, Portland).

¹ [World Travel & Tourism Council, 2017](#)

The Airbnb Policy Tool Chest helps support governments' innovative approach to home sharing rules by providing tools to help achieve the desired outcomes. We believe that because home sharing over a digital platform is new, new rules and tools are needed to help make this work for all stakeholders, and everyone can win.

Airbnb democratizes capitalism. Airbnb helps combat wage stagnation and worsening economic inequality by empowering people to use their homes to earn extra income, fostering entrepreneurship, and supporting increasing numbers of workers. Globally, the typical Airbnb host earns \$3,100 USD sharing their primary home; 49 percent of a typical host's income is used on household expenses like rent and groceries; and 54 percent of hosts say the income has helped them stay in their homes. Women hosts have earned \$10 billion in income through Airbnb, and 50,000 women have used this income to support their own entrepreneurship, as have some of our immigrant hosts. Airbnb also supports a growing number of jobs—an estimated 730,000 in the US alone in 2016, with 1.3 million projected in the US in 2017.

Airbnb democratizes travel. The annual number of global air passengers is approaching 4 billion, increasing by 3 billion in just the past three decades². Airbnb gives more people and more communities the opportunity to benefit from tourism's growth. One-third of Airbnb guests worldwide say they either would not have traveled or would not have stayed as long without Airbnb, and 89 percent say their listing locations were more convenient than hotels. We have partnered with local governments, NGOs and our host community to provide temporary visitor accommodations for major events and innovative tools that promote tourism that benefits entire communities, not just hotel districts and popular sights. Earlier this year, we committed to doubling our host population in majority-minority urban and disadvantaged areas.

Airbnb democratizes revenue. Airbnb generates new tax revenue that governments can dedicate to existing critical services, or governments can work with us to develop funding and tools to support new programs that help their middle-class citizens and address local social challenges. As of May 15, 2017, Airbnb has entered into tax partnerships with more than 275 jurisdictions, and collected and remitted nearly a quarter of a billion dollars in hotel and tourist taxes globally. In the US and some European countries, we have evolved our approaches to collecting and remitting taxes based on existing regulatory structures, to working with governments to identify new pathways to doing so, including in places where no such paths existed.

² World Economic Forum, World Bank, The Moodie Davitt Report

Importantly, it also has become clear that the real opposition to legalized home sharing is coming from a hotel industry concerned about its ability to price-gouge consumers despite continuing to reap record profits.

At Airbnb, we believe in a win-win-win scenario where our hosts are economically empowered to earn extra income, guests can access affordable travel that enriches their lives by helping them belong anywhere, and communities are strengthened by the kind of sustainable, healthy tourism that benefits everyone. While some established corporate interests cling to a status quo that offers them unchecked power to raise prices and consolidates the economic returns of the growing interest in travel among only a few, we believe in a future where traditional hotels and Airbnb's hundreds of thousands of hosts can succeed side by side.

We are excited to continue innovating with governments around the world to optimize the social value proposition of home sharing as an economic solution that empowers people to earn, expands and enriches travel for consumers, and strengthens communities through sustainable tourism that supports jobs, promotes neighborhoods and generates new revenue. We look forward to continuing to work with local policymakers to help them leverage our platform for the opportunities it can provide.

Christopher Lehane
Global Head of Policy & Public Affairs

INTRODUCTION

Since we published the Policy Tool Chest in December 2016, the following jurisdictions have either entered into agreements with Airbnb to collect and remit taxes, or have otherwise established or reaffirmed smart rules for home sharing:

Andhra Pradesh, Indian state
Anguilla
Arkansas State
Arlington County, Virginia
Aruba
Berkeley, California
Bermuda
Broward County, Florida
Campina Grande, Paraíba State, Brazil
Colima, Mexican state
Colorado State
Curaçao
Flanders region, Belgium
France, 31 additional jurisdictions
Hillsborough County, Florida
Hot Springs, Arkansas
Jamaica
Kansas State
Lazio region of Italy
Liguria region of Italy
Lincoln City, Oregon
Madison, Wisconsin
Memphis, Tennessee
Mexico City
Miami-Dade County, Florida

In December 2016, we released our [Airbnb Policy Tool Chest](#), a resource for governments to consider as they draft or amend rules for home sharing. The Policy Tool Chest compiled a year's worth of concrete lessons learned through partnering with governments under the three principles of: making data available; paying our community's fair share of hotel and tourist taxes; and developing public policy solutions to help governments put in place new rules for this new activity.³

Since we published the Policy Tool Chest in December, we have built significant momentum, forging new partnerships and agreements with governments and other communities around the world:

- **Mexico.** Through intensive work with local officials, we identified a regulatory path enabling us to begin collecting and remitting taxes in Mexico City. We believe this approach will represent a model for use across Latin America. To this end, the May 11 announcement that we will begin collecting and remitting taxes was attended by representatives of other Mexican states that are interested in learning more about the approach.
- **China.** Airbnb has signed a Memorandum of Understanding with the city of Chengdu, in addition to our agreements in Shanghai, Chongqing, Guangzhou and Shenzhen. These agreements with some of China's largest cities will include our promoting inbound travel in ways

³ These principles were laid out in the [Airbnb Community Compact](#) of November 2015.

New Orleans
 New York State, 12 counties
 Newport, Oregon
 Oklahoma State
 Portland, Maine
 Portland, Oregon
 Sarasota County, Florida
 Schaumburg, Illinois
 Tasmania, Australia
 Texas State
 Walloon region, Belgium

designed to spread the benefits of travel and tourism.

- **Japan.** The Japanese Diet is working toward the passage of a new bill that supports short-term rentals nationwide. Japan is looking to better leverage its existing housing stock and attract its share of travel and tourism heading into the 2020 Olympics in Tokyo.
- **Korea.** Under a new agreement, Airbnb will provide lodging and promotional support to Gangwon Province, which is hosting the PyeongChang 2018 Winter Games. This partnership follows our work with Rio de Janeiro as the official alternative accommodations provider for the 2016 Summer Games, when our hosts welcomed 80,000 visitors who otherwise may not have been able to attend the Games, and who generated \$100 million in economic activity for the city.
- **Australia.** Tasmania has enacted progressive new rules for home sharing, and the New South Wales government is working toward legislation that supports the short-term rental of private rooms, entire homes and certain secondary properties.
- **Caribbean.** Since we published our Policy Tool Chest, Airbnb has entered into six separate Memoranda of Understanding with Anguilla, Bermuda, Bonaire, Curaçao, Jamaica and the Caribbean Tourism Organization.
- **California and New York.** After extended discussions, we are gratified to have reached agreement with our hometown of **San Francisco** and to see thoughtful statewide legislation now being sponsored in **New York**.
- **Texas.** We recently finalized an agreement to collect and remit hotel taxes across Texas, and the legislature is now considering a proposal that would ensure a place for short-term rentals in every community across the state.
- **Florida.** After enacting new tax agreements, we now collect taxes in 38 of Florida's 63 counties with bed taxes, including counties that are home to Miami, Miami Beach, Fort Lauderdale, Tampa, St. Petersburg and Orlando.

These efforts have yielded insights gained and lessons learned for future use, both by us and by policymakers with whom we have yet to work, that are enclosed in this update.

The Airbnb Policy Tool Chest is not a one-size-fits-all policy prescription or model legislation but an adaptable framework.

As this global policy framework for home sharing comes together, so too is a public-private reimagining of how citizens interface with their local governments. Airbnb hosts typically don't have accountants and lawyers to help them comply with burdensome short-term rental regulations, most of which were developed before the internet. Nor do municipalities typically have the engineering and design resources to modernize their implementation. We want to make short-term rental regulations less onerous for our community to follow and for governments to implement.

With every new jurisdiction, we leverage our growing base of knowledge and our world-class engineering capabilities to help all involved realize the benefits of home sharing faster and more easily. We have developed products and tools that relieve citizens of the burdens of complicated tax filings, allow them to register online with local administrators without having to physically visit agencies, and otherwise help them comply with local laws.

The original Policy Tool Chest focused on four sets of policy options for consideration, including tax collection, being good neighbors, accountability, and transparency and privacy. We are pleased to provide this “2.0” update on progress made in several of these areas and others over the past six months:

RAPID EXPANSION OF TAX COLLECTION. As of May 15, Airbnb has entered into tax partnerships with more than 275 jurisdictions, and collected and remitted nearly a quarter of a billion dollars in hotel and tourist taxes globally, increases from about 200 jurisdictions and \$110 million as of December 2016. Our newest agreements, with **Mexico City** and **Memphis**, were signed on May 11 and 12.

21ST-CENTURY ACCOUNTABILITY TOOLS. Airbnb teams including engineers and designers have developed a series of tools that streamline interactions between our hosts and our government partners, make compliance easier for hosts, and make enforcement easier for local administrators. New registration systems are now online, or coming online in a range of US and European cities, as are new products to help with enforcement. We also have introduced new measures to further protect our community from online scammers.

PROMOTING MORE SUSTAINABLE TOURISM. We have worked with local governments, NGOs and our host community to develop strategies that sensitively promote tourism beyond the most popular sights in cities, as well as in rural areas where less tourism infrastructure exists. Examples include our Maisons de **France** campaign

and our promotion of small towns across **Italy**. We have helped governments take full economic advantage of hosting major events without building expensive new infrastructure, from the 2016 Summer Games in **Rio de Janeiro**, where we accommodated guests who would have required the building of 257 new hotels, to the coming St. John's Festival in Brazil's **Campina Grande**, to professional baseball's spring training in **Florida** and countless other events. We were pleased to see the secretary-general of the UN World Tourism Organisation recognize that home sharing "is bringing in new waves of travellers that have not been seen before."

SMART POLICY TOOLS

Rapid expansion of tax collection.

In January 2016, we stood before the assembled mayors at the US Conference of Mayors and said, read our lips: we want to pay our communities' fair share of taxes. Since that statement, Airbnb has sought to walk the walk.

Home sharing democratizes revenue by providing an increasingly valuable source of new funds for governments. By collecting hotel and similar taxes from our community and remitting on their behalf, Airbnb ensures a streamlined process for our hosts and lightens the administrative burden for state and local governments. In most cases, we accomplish this through our Voluntary Collection Agreement (VCA).

As of May 1, Airbnb had entered into VCAs and other tax partnerships with more than 275 jurisdictions and collected and remitted more than \$240 million in hotel and tourist taxes globally.

More than 250 of these jurisdictions are in the US, where we have developed a system to efficiently execute on a plug-and-play approach in many jurisdictions. As of Q1 2017, more than half of our US listings are in communities where we collect and remit taxes, up from about 30 percent for the year 2016, when we collected and remitted taxes on about 30 percent of our US bookings. The increase can be attributed to a jump in statewide collection starting in 2017: We are now collecting and remitting taxes in 20 US states. As of May 1, for example, we are collecting and remitting tourist taxes in **Pennsylvania** and **Connecticut**; **Arkansas**, **Colorado** and **Kansas** came online earlier this year.

At the US county level, we are now collecting and remitting in 12 counties in **New York**. In early April, we reached three major agreements in the state of **Florida**: Sarasota, Miami-Dade, and Broward counties all approved measures allowing Airbnb to collect and remit tourist taxes, which will bring millions of dollars in new revenue.

On May 12, we announced our latest VCA with a US city, **Memphis**, where Mayor Jim Strickland said, "It's important to our administration that government be able to work seamlessly with businesses and residents, and this agreement is evidence of that... The economic impact of Airbnb speaks for itself."

We are actively working to expand our collection-and-remittance program globally as well as further in the US. Our newest agreements in **Mexico City** and **France** illustrate how we are collaborating with governments in other regions to develop approaches that also can be replicated across those regions. In Mexico City, we announced on May 11 that we will be collecting a 3-percent lodging tax on behalf of our hosts and remitting it to the municipal treasury. "We are regulating something that is already working in the city. And this is the first agreement of this kind in Latin America", said the chief of the Mexico City government, Miguel Angel Mancera. "It's a niche that doesn't compete directly with the hotel industry of Mexico City, it's something different. The platform guests are looking for other kinds of experiences and accommodation."

And in France, we began collecting and remitting tourist taxes on behalf of our hosts in 31 additional communities on May 1, amounting to a total of 50 French cities that include covering popular tourist and recreational destinations.

Ontario's new provincial budget grants all municipalities the authority to levy a tax on home sharing activity, with at least part of the revenue going to local destination-marketing organizations. The Ontario budget also expressed the provincial government's commitment to explore a framework for home sharing. Building on a pilot project with Ontario to send tax notices to hosts, we provided our hosts across **Canada** with summaries of their annual earnings and links to government resources during the recent tax season. In partnership with H&R Block, we provided hosts with discounted tax preparation services.

In **Tuscany**, where the regional government recently enacted streamlined rules that allow Airbnb hosts to share up to two homes, while this remains under scrutiny, we are working with the city of **Florence** to begin collecting and remitting tourist taxes even as the new rules are under court review.

The entire list of jurisdictions where Airbnb is collecting and remitting hotel taxes can be found [here](#).

Targeted funding

These tax agreements are a win-win for Airbnb's host community and for local governments. **Boulder's** City Manager Jane Brautigam described our recent agreement with that city as "...a great example of the public-private sector working together in support of community goals." While Airbnb-remitted tax dollars often go to support existing critical services, we're pleased to partner with cities on directing the revenue toward new initiatives. Among the new tax agreements struck by Airbnb with local governments since the December 2016 release of our Policy Tool Chest:

In **Portland**, where 100 percent of lodging taxes from short-term rentals are deposited into the city's Housing Investment (affordable housing) Fund, the city approved using this revenue to secure bonds to fund land acquisition and long-term financing for affordable housing. In **New Orleans**, \$1 per night, per booking, goes to support the development of affordable housing.

These cities join **Chicago** and **Los Angeles** in directing Airbnb tax revenue toward housing and homelessness programs. In Chicago, a 4-percent tax per stay goes toward aid for the homeless; this summer, the city is using \$1 million in Airbnb tax revenue to house 100 homeless families with school-age children. In Los Angeles, Mayor Eric Garcetti has said the city plans to use some of the revenue to address its serious homelessness problem through affordable and low-income housing initiatives, including for "rapid rehousing" programs for the homeless.

We look forward to working with more city officials to establish programs for collecting and remitting tourist taxes, helping them realize the economic benefits of home sharing and strengthening the cities and communities that Airbnb hosts call home.

21st-century accountability tools.

As the popularity of home sharing grows around the world, we are constantly innovating new policies and tools. Some of these tools are used to keep our hosts and guests safe; others are policies that help local governments make the distinction between Airbnb hosts who occasionally share space, and professional hosts who offer space more frequently. Since December 2016, we have put a range of these sensible policies in place.

"One Host, One Home"

In some cities, housing supply is uniquely constricted due to zoning, land use and other policies curbing development which have been in place for years or even decades. We have worked with these cities to enact a "One Host, One Home" policy limiting hosts from sharing listings at more than one address. (Traditional B&Bs and other traditional hospitality providers are exempted.)

As part of this policy, we have removed more than 1,300 listings in San Francisco and 4,200 listings in New York. In New York, Airbnb recently worked with legislators on both sides of the aisle to introduce comprehensive short-term rental reform in the state legislature that will ensure the rights of homeowners and tenants to share their own homes to make needed extra income while also protecting the permanent housing stock and enabling regulators to target enforcement at truly bad actors.

In **Barcelona** this spring, we introduced automated systems that limit Airbnb hosts in the most congested area of the city, Ciutat Vella, to sharing only one entire-home listing unless they are professional operators and share their business details on their Airbnb profile.

And in **Portland**, we proactively launched One Host, One Home in January 2017 to address unwanted commercial activity on our platform.

Limits on the number of nights

In certain jurisdictions with uniquely constricted housing supply, we have agreed that entire-space listings should only be rented for a certain number of nights per year, or should meet additional requirements when they are shared more frequently.

In late 2016, we announced product changes in **London** and **Amsterdam** that enable us to relieve city officials of having to enforce reasonable limits on entire-home listings. In London, new automated limits now help ensure that entire homes are shared only for the permitted 90 days. In Amsterdam, a new day-counter helps hosts track their activity and adhere to the 60-day cap. These steps will help home sharing grow responsibly and sustainably and strengthen our partnerships with policymakers in these cities.

In **France**, some cities have a limit of 120 days per year, beyond which they require “change of use” permission for hosting in non-primary residences. In **Strasbourg, Lyon, Nice and Marseille**, we are working with city authorities to notify hosts about applicable thresholds, along with information about how to apply for the relevant permissions.

In **Paris**, we have proposed new automated limits to help ensure entire Parisian homes listed on Airbnb are not shared for more than 120 nights a year, unless hosts have the required permission to share their space more often. We have also engaged in conversations on this solution with other major cities in France.

Registration

While we firmly believe that all residents should be able to share their homes without complicated permits or licenses, some thoughtfully targeted and streamlined registration programs have the potential to provide critical information to local governments without creating undue burdens for regular people who share their homes on Airbnb. We have learned that if a jurisdiction decides to enact a registration system, there are ways to ensure it works for both administrators and hosts.

Airbnb’s pass-through registration system, first developed in coordination with the city of **Chicago**, has recently been implemented there as well as in **New Orleans**, and will

soon be put into effect in **San Francisco**. In all three cities, the system enables hosts to register directly through the Airbnb platform, with data remitted directly to local authorities through a secure API. We expect the newly announced San Francisco system to be designed and fully implemented by January 2018.

In **Portland, Oregon**, we have worked with our hosts to help them register, and look forward to working with the city to simplify the currently complex process. **Portland, Maine**'s new home sharing rules include a simple registration process, the fees for which go to support the city's Housing Trust Fund.

In **Belgium**'s Walloon region, hosts now also notify local authorities of their home sharing activity through a simple online process. A simple online notification process is also in place in the Flanders region.

And in **France**, where cities with populations greater than 200,000 now have the option of asking hosts to register, we are monitoring these decisions and working with our host community to keep them updated on whether they are required to do so.

Supporting landlords and property owners

Since December 2016, we have expanded the Airbnb Friendly Buildings Program beyond our pilot markets to cities in the US, **Canada** and **Australia**, and are launching it in **Japan** this month. The Friendly Buildings Program brings building owners and landlords to the table with their tenants, and with us, to enable home sharing on their properties under rules they help create. These rules can address which units in a building can be shared, for how long, and other booking details. In return, owners receive a mutually agreed upon portion of the revenue (typically between 5 percent and 15 percent of their tenant-hosts' earnings through the program). Some buildings choose to use this revenue to lower maintenance or other costs that benefit all tenants.

The program is an option for long-term tenants only and is designed to support only people who share the home in which they live, and within those properties, only for housing units that rent at market rates. About 8,000 eligible units have been enrolled in the program by owners and landlords of buildings of all types and sizes. We will continue our efforts to extend it to more units and more countries.

Fighting discrimination

Discrimination is antithetical to our mission of helping people belong anywhere. Since September 2016, when we introduced a set of new policies to help fight bias on our platform, we have worked quickly to implement a series of initiatives to help prevent discrimination. These efforts include, though are not limited to:

- Everyone who uses Airbnb must agree to the Community Commitment, a pledge to treat everyone in the community with respect and without judgment or bias, regardless of race, religion, national origin, ethnicity, disability, sex, gender identity, sexual orientation or age.
- We have surpassed our goal of making 1 million listings available via Instant Book. Today, we have 1.4 million Instant Book listings available, and 60 percent of all reservations are now booked instantly. Instant Book lets hosts offer their homes for immediate booking without requiring prior approval of a specific guest.
- Under our Open Doors policy announced last fall, if a guest is unable to book a listing and feels that it's due to discrimination, a specially trained team of Airbnb employees, available 24/7, will ensure that the guest finds a place to stay.
- Anyone who violates our policies may be immediately and permanently banned from using Airbnb.
- Last fall, we also engaged a preeminent US expert to help develop trainings for hosts that will help reduce unconscious bias. After launching the training and promoting it to US hosts, we continue to make it available on our website.
- Nearly 100 percent of Airbnb employees have completed anti-bias training, and we have created a permanent team of engineers, data scientists, researchers and designers whose sole purpose is to advance belonging and inclusion, and to root out bias.

Keeping bad actors off the platform

As our global community grows, we remain vigilant about stopping bad actors who are looking to take advantage of the trust our community places in us. Online scammers in particular are constantly adapting and refining their attacks, so we likewise are constantly investing in engineering and other resources to develop new measures to prevent scams from occurring on our platform.

- ***Preventing account takeovers.*** Account takeovers (ATOs) occur when a bad actor gets access to a user's account by stealing their password through various means. Historically, we have defended against ATOs by using machine learning to predict the probability that each login or action on Airbnb is being performed by the true account owner. While this approach is common for online platforms and the model has been effective at stopping most ATOs, we felt that the nature of Airbnb's product and the critical importance of trust within and among our community calls for an even higher bar for security.

In April, Airbnb co-founder and Chief Strategy Officer Nate Blecharczyk announced new steps we're taking to prevent bad actors from taking over an Airbnb account. Using multi-factor authentication, we're requiring additional verification whenever a user logs in from a new device, such as a computer, phone, or tablet—as is often the case for other services such as online banking. We're also improving account alerts, adding SMS in addition to email to the ways in which we alert you, and we have expanded the range of changes about which we'll proactively notify you. We do this in order to let you know these changes have taken place—and so that you can take action to recover your account in the event that you yourself did not make the changes.

- ***Preventing fake listing scams.*** Fake or misrepresented listings have no place in our community, and our Trust and Safety team—comprised of our top product, engineering, data science, design, and fraud and security experts—is constantly innovating ways to prevent fake listings from getting onto the platform in the first place. These approaches have included leveraging machine learning, screening out personal contact information, and safeguarding guest payments.

In April, we added new educational messaging on every listing description page, reminding users to conduct all their transactions and communications with hosts through the Airbnb platform. We also have improved our user flagging capabilities. Users can now flag suspicious listings on their mobile devices. These flags are fed directly into our risk model to reevaluate whether a listing should be automatically removed or manually reviewed.

Fortunately, the vast majority of our hosts and guests never have to deal with fake listings, account takeovers or any other scam. While the recent enhancements add yet another layer of security to our users' accounts, we always want our community to be vigilant and exercise good security practices. We outline some recommended practices around strong passwords, safe payments and other measures on our site [here](#).

Looking beyond online scams, in all of 2016, more than 30 million trips took place at Airbnb listings worldwide. Of those trips, significant property damage claims, meaning claims that were reimbursed under our Host Guarantee program for more than \$1,000, were reported to us only 0.009 percent of the time. At this rate, you could host a new reservation every single day for more than 27 years without expecting to file a significant property damage claim under our Host Guarantee.

Promoting more sustainable tourism.

As we have learned more about how home sharing supports more sustainable travel, we have innovated ways to take this a step further, proactively and sensitively promoting tourism beyond the most popular sights, and creating frameworks that help keep communities strong for travelers and residents alike. By helping local governments scale accommodations when hosting major events, partnering with tourism officials and NGOs, and putting new travel tools in the hands of our community, we're raising guest appreciation for local traditions and observances, treasured cultural institutions, and smaller galleries and businesses. These efforts also provide alternatives to mass-tourism models.

And while Airbnb may be best known for our work with cities, many of these strategies and tools can work even more powerfully in rural areas where little other tourism infrastructure exists. For example, our [agreement](#) with the government of the Indian state of **Andhra Pradesh** includes training hosts, particularly women hosts living in rural areas, on hospitality standards and developing authentic experiences that will be promoted on the platform.

Smart rules for smart travel

Communities around the world are crafting frameworks that promote more sustainable travel and spread the benefits of tourism to more neighborhoods. Cities including **London**, **Philadelphia** and **San Jose** have enacted new rules that allow for occasional home sharing while tying more frequent home sharing and vacation rental operations to pre-existing policy. In **New Orleans**, we worked with policymakers to put rules in place that spread home sharing and the economic benefits of travel beyond traditional tourist districts such as the French Quarter by promoting home sharing in areas not frequently visited by tourists. **Japan** and **Korea** have prepared for major events by embracing home sharing to help manage short-term housing needs.

Guidebooks and travel tools

As part of our ongoing work with the government of **Kamaishi City** in Japan to help the area recover economically from the 2011 earthquake and tsunami, we recently launched an English-language [Guidebook](#) for visiting guests. The Guidebook was developed with the help of local students and the public-private partnership dedicated to the city's reconstruction. Our library of **London Guidebooks**, meant to promote cultural tourism beyond London's well-traveled Zones 1 and 2, are organized by Airbnb hosts with particular expertise and will soon include neighborhood-based guides, as well.

Through our partnership with **Innovate UK**, we are working with one of its grantees, geolocation technology company **Bubbl**, to further develop and provide opportunities for use of their mobile app, **Tourologist**, which better connects users with the local communities they visit. We're excited about the potential Tourologist presents as a solution to help guests explore a city's hidden gems and drive revenue for local businesses.

And in **Barcelona**, our strategic partnership with **Barcelona Tech City** connects us to the vibrant local community of start-ups, entrepreneurs and universities with the shared aim of surfacing new innovations in travel and tourism.

Working with tourism offices and organizations

Since December 2016, Airbnb has partnered with the national tourism bureaus of Ireland and Portugal with the shared goal of promoting authentic experiences and “healthy,” sustainable tourism. We joined forces with the **Caribbean Tourism Organization** to promote the region's history and culture and to diversify the area's tourism industry to spread economic benefits to more of its citizens.

In April, we partnered with Cataratas Group, an organization that operates some of the most relevant and iconic natural sites in **Brazil**, including the Christ Redeemer statue in Rio and Iguazu Falls. A primary goal of the partnership is to promote sustainable tourism to these sights.

Scaling accommodations for major events

Airbnb's unique offer to local authorities, the rapid scaling of accommodations to help them capitalize on tourist influxes for major events, is among the most satisfying work we do. By providing temporary housing for thousands of visitors, governments can take fuller economic advantage of these opportunities, which allows governments to maximize the economic benefits of the public expenditures used to attract and support the events. Importantly, home sharing also helps governments avoid having to build permanent infrastructure that can tax their treasuries and the environment. Net environmental benefits include reducing the amount of materials used in construction, their associated emissions, and the ongoing burdens of permanent structures, which are likely to become underutilized as soon as the event is over.

Since our founding in 2008, Airbnb has worked with local policymakers and event organizers to help cities more sustainably scale up accommodations for US presidential nominating conventions, the FIFA World Cup, Pope Francis' visit to **Philadelphia** in 2015 and the 2016 Summer Games in **Rio de Janeiro**, among countless other events.

While research is only just beginning to uncover the full environmental effects of home sharing as a solution to this particular need, a December 2016 study by the World Economic Forum and the Massachusetts Institute of Technology, using Airbnb data, showed that over the course of the Rio Games, 48,000 Airbnb listings housed 85,000 of the city's estimated 500,000 visitors. Many of these listings were created in the run-up to the Games. The study's authors found that Rio would have needed to build 257 hotels to accommodate that many visitors.

Our new agreement with the city of **Campina Grande**, in the Brazilian state of Paraíba, is designed to help the city maximize the economic impact of their June Festival by enabling guests to stay in the city where the event occurs, rather than outside the city due to its scarce supply of hotel rooms. The Festival usually draws 1 million people during the month of June—Brazil's most popular event after Carnival.

In January, we were pleased to formalize our partnership with Korea's **Gangwon Province** to boost tourism as the state prepares for the upcoming 2018 Winter Olympics in PyeongChang. Through our agreement with the province, Airbnb will expand our listings through our platform over the coming year.

During professional baseball's 2017 Spring Training, Airbnb helped the smaller towns around southwest and central **Florida** benefit from the revenue the pre-season brings, and helped make this annual ritual for so many families more affordable. In 10 of the 12 Florida cities that host spring training games, residents of the home team's state accounted for the majority of Airbnb bookings.

A CLOSING NOTE

At a time when technology is beginning to displace more people and further disrupt the tax bases of already cash-strapped local governments, Airbnb is all about using our platform to create economic opportunity for people, their communities, and their governments through extra income, jobs and new revenue.

For all of us to win, no one has to lose. Hotels will continue to benefit from growing interest in tourism even as Airbnb continues to grow. We look forward to working with more policymakers around the world to help them leverage our platform for the opportunities it can provide.

APPENDIX. Progress in communities around the world: case studies

Hundreds of cities and other jurisdictions around the world have enacted smart, forward-looking rules for home sharing or have updated existing rules. While these policies may not be right for everyone, the following jurisdictions have enacted or updated such rules since December 2016 in ways that can provide guidance for other officials considering how to regulate home sharing today:

Denver, Colorado

London, United Kingdom

New Orleans, Louisiana

Portland, Maine

Tasmania, Australia

Denver, Colorado

In June 2016, Denver adopted reasonable regulations to legalize short-term rentals (STRs). The law went into effect on December 31, 2016. Denver is the first city to have a 100-percent online registration process, and we reached out to hosts to ensure that they followed the city's rules. Our efforts have resulted in a very high compliance rate: the highest in the US within the shortest period of time.

Policy highlights

- No nightly caps on short term rentals, both hosted and unhosted rentals are permitted
- Easy online registration system resulting in high rate of compliance from host community
- Low registration fee of a total of \$75

About Airbnb in Denver

- Active listings: 3,000
- Entire home | Private room: 67% | 30%
- Typical host income (in USD): \$6,500
- Total number of guests since 2008:
- Average length of stay: 3 days

London, United Kingdom

In March 2015, new national legislation was enacted to reform 1970s-era legislation regulating short-term rentals in the capital. Now, Londoners are able to share their homes with guests from all over the world, just as residents in the rest of the United Kingdom are able to do. These reforms help local hosts meet the cost of living in one of the most expensive cities in the world. Airbnb also has announced new automated limits to ensure that entire homes in London are not shared for more than 90 days without permission, to ensure that home sharing grows responsibly and sustainably. The news was widely praised by many organisations, including the Department for Communities and Local Government and the Mayor of London, who has called on other online platforms to follow suit.

Policy highlights

- Hosts in London can share their homes for up to 90 days per year without this being considered a “change of use” requiring planning permission
- Hosts across the UK are able to earn up to £7,500 per year from renting a room in their primary residence without having to pay income taxes on it
- Simple, proportionate fire safety measures apply across the UK

About Airbnb in London

- Active listings: 55,000
- Entire home | Private room: 51% | 47%
- Typical host income (in USD): \$5,200
- Total number of guests since 2008: Over 4,000,000
- Average length of stay: 4.4 nights

New Orleans, Louisiana

In December 2016, the New Orleans City Council voted 5-2 to pass landmark legislation to strengthen home sharing in the city. The ordinance included regulations for short-term rentals in owner-occupied and entire-home listings, a streamlined registration process, tools for enforcement, and funding for affordable housing.

Ordinance highlights

- Legalizes short-term rentals by creating new licenses for hosted rentals, unhosted rentals, and rentals in commercial districts.
- Establishes a streamlined “pass-through” registration system to help hosts comply with city policies and safety regulations.
- Permits platforms like Airbnb to collect and remit taxes on behalf of hosts, simplifying requirements for the host community and ensuring that the city receives the revenue it is owed.
- Establishes no limits on the number of listings per host, nor on the number of nights hosted rentals may be shared. For unhosted rentals (“Type T”), there is a 90-day limit.
- Establishes a \$1 per night fee to support enforcement efforts.

About Airbnb in New Orleans

- Active listings: 5,000
- Entire home | Private room: 75% | 23%
- Typical host income: \$10,200
- Total number of guests in 2016: 342,000
- Average length of stay: 3 nights

Portland, Maine

In September 2016, Airbnb worked with elected officials in Maine's largest city to develop comprehensive regulations to permit short-term rentals, e.g., a unit rented out for less than 30 consecutive days per year. Together with an organized and passionate host community, Airbnb sought a policy that addressed the key issues raised by Portland lawmakers, including affordable housing, public safety, and economic development, while clarifying the legality of short-term rentals under local law. After six months of public hearings and negotiations, the City Council passed comprehensive reform in March 2017, creating a model framework for mid-sized cities that seek to foster responsible home sharing.

Ordinance highlights

- Legalizes home sharing throughout the city, both on the islands and the mainland.
- Creates a simple registration system for owners and/or tenants who wish to engage in short-term rentals (STR).
- Registration fees are on a sliding scale, with owner-occupied STRs costing less than non-owner occupied STRs. Fees are dedicated to support affordable housing via the Portland Housing Trust Fund.
- No nightly cap on STRs. Hosts may register up to five units.
- Allows up to two people per bedroom plus two additional guests, per unit.
- Registration/regulatory requirements for STRs do not apply on Portland's islands. This innovative mechanism acknowledges an area of the community that has traditionally been a vacation-rental market and allows expanded use of STR in those neighborhoods.

About Airbnb in Portland, Maine⁴

- Active listings: 700
- Entire home | Private room: 70% | 30%
- Typical host income: \$9,800
- Total number of guests: 54
- Average length of stay: 2.1 nights

⁴ As of April 1, 2017

Tasmania, Australia

In February 2017, the Tasmanian Premier announced that the Tasmanian Government had decided to deregulate the short-term rental (STR)/home sharing industry across all of Tasmania. As a result, a new statewide planning regime (“Statewide Planning Provisions” or SPP) will come into effect beginning July 1, 2017. The new SPP removes STR policymaking from local councils and makes home sharing entirely legal across the state. The new regime provides either zero process (and fees) or a very streamlined, low cost, self-assessment process for the vast majority of houses, townhouses and apartments throughout Tasmania.

Regulation highlights

- Establishes no caps or other limits on the number of listings per host, nor on the number of nights entire listings may be shared.
- Legalizes short-term rentals for all primary places of residences with four bedrooms or less (no approval processes or fees are required).
- Establishes a streamlined “self-assessment” process for all primary places of residences with five bedrooms or more, and for all non-primary places of residences with four bedrooms or less. A small (\$250 AUD or \$185 USD) once-only fee is likely to apply.
- Requires all non-primary places of residences with five bedrooms or more to seek planning approvals from their local councils.

About Airbnb in Tasmania

- Active listings: 4,000
- Entire home | Private room: 75% | 24%
- Typical host income: \$7,600 AUD (\$5,600 USD)
- Total number of guests in 12 months to May 1, 2017: 218,000
- Average length of stay: 3 nights



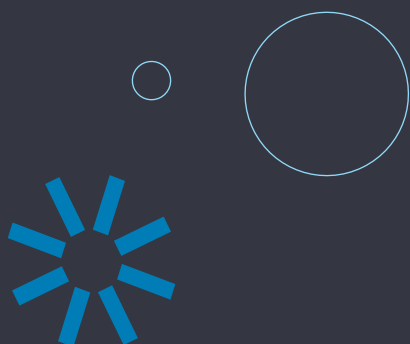
Economic effects of Airbnb in Australia

Tasmania

2017

Glossary

ABS	Australian Bureau of Statistics
DAE-RIO-M	Deloitte Access Economics' Regional Input-Output Model
DAE-TFM	Deloitte Access Economics' Tourism Forecasting Model
EBITDA	Earnings before interest, tax, depreciation and amortisation
FTE	Full time equivalent
GDP	Gross domestic product
GOS	Gross operating surplus
GSP	Gross state product
IO	Input output
IVS	International Visitor Survey
NVS	National Visitor Survey
TARDIS model	Tourism Accommodation Regional Demand, Investment and Supply model
TRA	Tourism Research Australia



Contents

Executive summary	03
1. Introduction	10
1.1 Purpose and scope of report	11
1.2 What is Airbnb?	11
1.3 Other issues not in the scope of this report	12
2. Supporting government tourism objectives	13
2.1 The Australian industry context	14
2.2 Helping the Federal Government deliver tourism objectives	15
2.3 Helping the Tasmanian Government deliver tourism objectives	16
3. The contribution of Airbnb to tourism in Tasmania	17
3.1 Airbnb in Australia	18
3.2 Methodology	20
3.3 Contribution to the Australian economy	20
3.4 Contribution to the Tasmanian economy	23
4. Consumer effects	25
4.1 Benefits of Airbnb's features	26
4.2 Cost savings for consumers	29
4.3 Sydney – a case study	29
4.4 Benefits for business travellers	33
5. Producer effects	35
5.1 Benefits for Airbnb hosts	36
5.2 Driving competition and growing the market	37
5.3 Supporting local economies	38
Appendix A: Economic contribution modelling framework	39
Appendix B: Consumer effects modelling framework	42
Footnotes	51
Authors	54
Limitation of our work	55

Executive summary

Key points

- Airbnb has grown in popularity in recent years as part of a broader trend towards the 'sharing economy', where peer to peer platforms directly connect customers and providers. Tasmanian Airbnb hosts accommodated 124,500 guests for 126,300 nights in Hobart and regional towns across the state.
- Airbnb guests are now a significant driver of the tourism economy, with a total contribution to Tasmania's GSP of \$55 million in 2015-16, supporting almost 600 jobs in addition to the activities of hosts. An analysis of tourism policies across Australian states and territories finds Airbnb can help contribute to a number of their objectives.
- Platforms like Airbnb increase the supply of guest accommodation in volume and variety terms, so they can both drive growth of the tourism industry and increase competition. There may be costs and impacts for existing operators, but consumers stand to gain
- One of the drivers of Airbnb growth has been creating lower cost accommodation options – we estimate a cost saving of around \$26 million in 2015-16 for guests staying in Sydney who might otherwise have stayed in traditional accommodation
- One of the key non-price differences of Airbnb is location – three-quarters of Airbnb properties in major markets around the world are located outside traditional tourist areas. Other features include bringing people together from other states or countries, home-like facilities in accommodation, and the features of the Airbnb app itself such as the rating system. The non-price benefits are estimated to be worth the equivalent of almost \$50 million in 2015-16 for guests staying in Sydney alone
- The average star rating for Airbnb listings across Tasmania is 4.7 out of 5
- Airbnb hosts in Tasmania earned a median income of \$7,120 in 2015-16 – a fairly modest supplement to a household's main sources of income, but which may nevertheless be handy for living expenses, to pay down debt or to increase savings.

In one year in Tasmania, 124,500
Airbnb guests spent **\$86 million**



supporting **599 jobs** and **\$55 million** in GSP



Airbnb hosts earned a median income of **\$7,120**



On average, guests staying across Tasmania
rated their Airbnb listing **4.7** stars out of 5



Airbnb is a peer to peer platform on which people can list and book accommodation around the world – whether that be a spare bed, a private room or a whole house. Short-stay rentals facilitated by platforms like Airbnb are part of a broader trend: the growth of the ‘sharing economy’, through which consumers are choosing to share assets and services via digital platforms. Airbnb is distinct from traditional tourist accommodation, in that Airbnb does not own any of the property listed on its website – it acts as a platform to connect hosts and guests to book accommodation, publish information about host properties, facilitate payments and collect ratings from hosts and guests.

This report examines the economic impacts of Airbnb, estimating the contribution of guest spending to the Australian and Tasmanian economies, the economic benefits enjoyed by guests, and the income earned by hosts. By adding to both the volume and variety of guest accommodation, we find that there are a number of benefits for guests, hosts, and the tourism industry.

The contribution of Airbnb to tourism in Tasmania

Airbnb plays an important role in supporting tourism in Australia, by facilitating accommodation bookings and advertising Australian destinations to consumers around the world. Around 46,800 stays were booked with Airbnb in 2015-16 in Tasmania, with **Airbnb hosts accommodating 124,500 guests for 126,300 nights in Hobart and regional towns across the state.** Airbnb has grown rapidly in Australia since its launch in 2012, with its innovative market offering allowing ordinary people to host tourists from around the world. According to Airbnb, over 80 per cent of Airbnb hosts across Australia share the homes in which they live.

Our analysis is based on the tourism expenditure of Airbnb's guests in Australia. **Airbnb guests spent around \$86 million in Tasmania in 2015-16**, based on Airbnb bookings and survey data from Airbnb and Tourism Research Australia. This includes the amount paid to Airbnb hosts for accommodation, as well as expenditure on items like food, drinks and entertainment, but excluding fees charged by Airbnb. The economic contribution study is based on Input-Output (IO) modelling techniques.

Our analysis found that the **total economic contribution is on average 1.3 times the direct contribution** in Tasmania.

It is estimated that Airbnb guest expenditure is associated **with \$55 million in value add to the Tasmanian economy**, and supports 599 full time equivalent (FTE) jobs across the state. This includes \$38 million in value add and 417 FTE jobs in the regional Hobart economy, and \$17 million in value add and 182 jobs in the rest of the state.

While induced effects were not assessed quantitatively in this report, these effects may be locally significant in some regions – especially where tourism plays a significant role in the economy.

Supporting government tourism objectives

Airbnb is aligned to both federal and state government objectives. The key federal objective – *Tourism 2020* – sets stretch targets for Australia's tourism industry. Short-term private rental services like Airbnb can assist the government in meeting its accommodation supply and tourism expenditure targets.

At the state level, Airbnb generally supports a number of policy goals, including those related to *T21*, Tasmania's state visitor economy strategy. *T21* priorities supported include building capability, capacity and community, and generating more demand for travel to Tasmania.

Consumer effects

Guests who book accommodation through Airbnb benefit from its features and the lower average cost of accommodation on the platform. Airbnb's innovative platform allows guests to find accommodation outside major hotel districts and enjoy a personal connection with their host and the surrounding community. Airbnb's bidirectional ratings system also encourages quality service, with listings across Tasmania rated 4.7 stars on average. The features (other than price) of Airbnb are further described in Figure i.

Traditional accommodation providers have also been part of digital innovation trends in recent years, including greater use of comparison websites that increase competition, increased use of guest ratings and easier ways to find accommodation in certain locations. Nevertheless, the features in Figure i, along with competitive prices, have seen Airbnb have a number of effects in the market.

Western Australia

Total contribution (\$m)

99.7

Total employment (FTE)

780

Northern Territory

Total contribution (\$m)

6.5

Total employment (FTE)

55

Queensland

Total contribution (\$m)

217.4

Total employment (FTE)

2,115

**New South Wales**

Total contribution (\$m)

512.5

Total employment (FTE)

4,452

South Australia

Total contribution (\$m)

38.2

Total employment (FTE)

407

**ACT**

Total contribution (\$m)

12.6

Total employment (FTE)

99

Victoria

Total contribution (\$m)

412.6

Total employment (FTE)

4,084

Tasmania

Total contribution (\$m)

54.5

Total employment (FTE)

599

Total contribution
\$1,606.9mTotal employment
14,409

Figure i : Features of Airbnb

Firstly, Airbnb facilitates people offering their homes for short term accommodation, which can occur at lower prices than traditional tourist accommodation. These cost savings, as well as the features of Airbnb, encourage some consumers to book Airbnb listings. The lower average prices may also induce price-sensitive consumers who could not otherwise have afforded to travel – thus growing the size of the overall short term accommodation market.

Secondly, Airbnb is adding to the overall variety in the market– listings are available in a variety of locations outside major hotel districts, in differing configurations (from apartments to treehouses) and are provided through a peer to peer platform.

These differences may create extra traveller non-price benefits known as ‘consumer surplus’ – the difference between what consumers are willing to pay for Airbnb accommodation, and what they actually paid. Guests may be willing to pay more for Airbnb accommodation due to the features described.

Airbnb also has a platform for business travellers – Airbnb for Business. Over 200,000 clients have registered and used the Airbnb for Business platform worldwide. In addition to the broader consumer benefits and cost savings for employers, the ability to rent an entire space – such as a whole apartment or house – is particularly useful for businesses wishing to facilitate a retreat or offsite team session.

It is also beneficial for business travellers on an extended stay or preparing for relocation, as the property is more similar to a home than a hotel.

Sydney – a case study

To illustrate these two effects, Deloitte Access Economics examined the Sydney accommodation market as a case study. As we have described throughout the report, many of the features of Airbnb listings and traditional hotels are considerably different. Airbnb listings and hotel rooms are not perfectly substitutable, however they compete in the market for accommodation.

Airbnb listings also typically do not have many of the services which are provided by hotels and expected (and valued) by guests, such as a permanent reception desk, baggage storage or daily housekeeping.

Airbnb bookings data and traditional accommodation bookings data from the Australian Bureau of Statistics showed that **rooms in Airbnb listings are, on average, \$88 cheaper per night compared to traditional accommodation in central Sydney, while this difference is \$50 per night outside central Sydney.** This cost differential excludes Airbnb shared rooms and private rooms within dwellings to provide better comparability to hotels. Using this price differential and an analysis of how Airbnb interacts with the traditional accommodation market, we estimate that **Sydney guests saved \$25.8 million in 2015-16.**

Overall, we estimate that **total consumer surplus for Airbnb trips to Sydney was \$48.4 million in 2015-16.** This is based on the difference between aggregate willingness to pay (derived using elasticities) and the total amount spent on Airbnb accommodation in Sydney in 2015-16.¹ This value indicates how much extra consumers are willing to pay for Airbnb accommodation.

Producer effects

Platforms like Airbnb are adding to accommodation supply and in doing so, are generating competition in the market. There may be costs and impacts for existing operators in the accommodation market due to this competition, particularly given Airbnb's rapid growth. However, Airbnb is also growing the overall size of the market – with consumers induced by Airbnb's lower average prices or its innovative features. Despite the potential impacts on existing operators, consumers stand to gain from competition in the long term through improved quality and reduced prices.

Airbnb hosts benefit from additional income. **Airbnb hosts in Tasmania earned a median income of \$ 7,120 in 2015-16** – a fairly modest supplement to a household's main sources of income. However it can be used for living expenses, to pay down debt or increase savings. This extra income can also support hosts to explore new business ventures – in 2013, 27 per cent of Sydney Airbnb hosts surveyed were freelancers, entrepreneurs or self-employed.

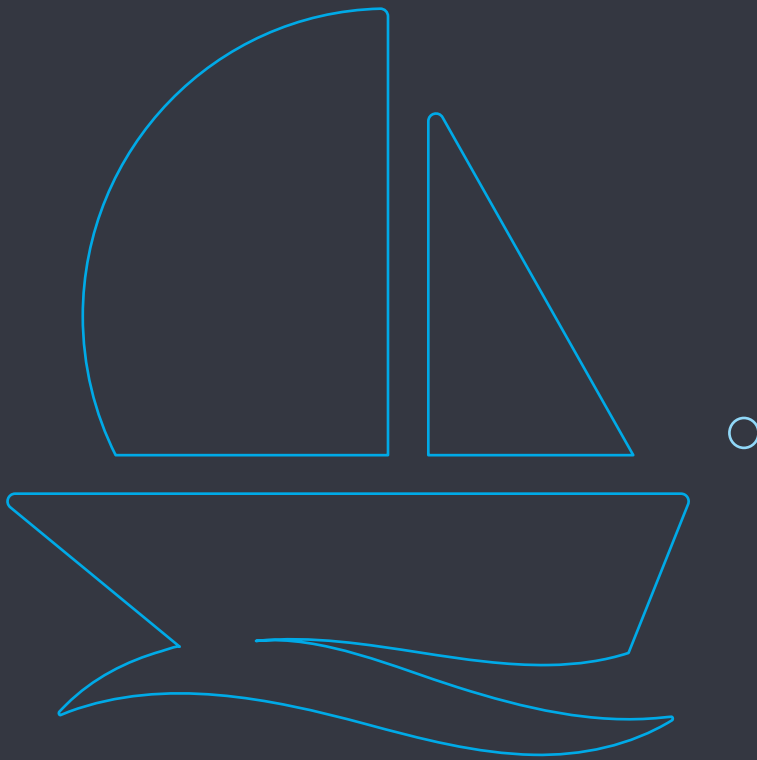
Airbnb hosts can also enjoy the cultural exchange facilitated by Airbnb. Both the host and guest can experience another culture through Airbnb, whether that be through a conversation, a meal or a guided tour. This can be a learning opportunity for hosts, and can help develop a greater understanding of diversity, culture and community.

Airbnb can activate local communities by distributing visitors across cities. **74 per cent of Airbnb properties in major markets across the world are located outside the traditional tourist districts** – meaning that both visitors and their spending is dispersed rather than concentrated, helping local businesses outside areas which traditionally benefit from tourism. Public discussion surrounding the potential neighbourhood and amenity impacts of Airbnb continues, and it is acknowledged appropriate regulation could help address these concerns. Airbnb has previously supported legislation to address potential neighbourhood and amenity impacts, such as the amendments to the Owners Corporations Act 2006 (Vic). However, we did not consider regulation in detail as part of this analysis.

1. Introduction

"I underestimated how many customers would not be local residents, and how many Airbnb properties were located in such close proximity to the store."

Katinka,
Tasmanian small business owner



1.1 Purpose and scope of report

Since its Australian launch in August 2012, Airbnb has facilitated over 1.3 million short stays in Australian cities. In excess of 150 million guests, including over 2.5 million Australian guests, are currently on the platform.

Airbnb engaged Deloitte Access Economics to assess the economic effects of Airbnb in Australia. This report aims to quantify the economic contribution of Airbnb guest spending to the Australian economy, and evaluate the economic benefits enjoyed by guests, hosts and the wider community. These effects are considered in the remaining chapters of this report:

- The tourism industry in Australia and support for government tourism objectives, described in Chapter 2
- The economic contribution of tourism facilitated by Airbnb, described in Chapter 3
- Benefits for guests, including business travellers, described in Chapter 4
- Producer effects, described in Chapter 5.

Each of these chapters will also consider the impacts in a qualitative fashion.

1.2 What is Airbnb?

Airbnb is a peer to peer platform on which people can list and book accommodation around the world. Established in San Francisco in 2008, Airbnb today has properties listed in over 65,000 cities and towns, including around 800 Australian cities, towns and suburbs. Airbnb has grown rapidly following its Australian launch in 2012, with around 800,000 stays booked in 2015-16 – out of 1.3 million stays since 2012.

Unlike most tourist accommodation, properties on Airbnb are listed by the person in possession of the property. This is in comparison to hotels and serviced apartments – many of which are owned and managed by large private companies. Airbnb enables ordinary people to list their spare rooms, homes and holiday houses as available for short term stays. According to Airbnb, over 80 per cent of Airbnb hosts across Australia share the homes in which they live.

Short-stay rentals facilitated by platforms like Airbnb are part of the sharing economy, through which consumers are choosing to share assets and services via digital platforms. While at its core, Airbnb fills the same role as traditional short-stay accommodation – providing a place to sleep at night – the way in which it delivers this service is different to existing operators. This differentiated service leads to a number of benefits for guests and hosts, as well as positive effects for local communities.

Other platforms exist which provide a similar service to Airbnb. For example, Stayz – on which people can list whole homes and apartments for short-term stays – has been in operation since 2001. Some real estate agents can also list and arrange short-term leases of holiday homes and apartments.

1.2.1 Listing a property on Airbnb

A person who has a space that they would like to list on Airbnb is required to register as a host on Airbnb's website to use the platform. The registration process involves signing up to the platform and completing information about their property, including a description of the space available and uploading photos. The host also provides personal details, and can add a government identification to verify their account.

The person who lists the property is able to set the cost of renting the accommodation, with Airbnb receiving a small percentage fee per booking. The host also decides the availability of the property and booking settings. Hosts on Airbnb have a range of options, for example, whether instant bookings are available, or whether stay requests need to be confirmed by the host. Hosts can also set minimum requirements for guests, including verified identification, profile picture or rating.

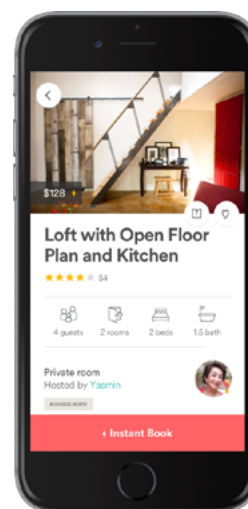
Hosts are protected through Airbnb's host guarantee, which will reimburse eligible hosts for damages up to \$1 million.

1.2.2 Booking a stay on Airbnb

Guests register through the Airbnb platform in a similar manner to hosts. Guests can also verify their account using government identification, and link other online profiles to their Airbnb account.

Guests can book a stay via Airbnb's website or on its mobile application. Guests can search for listings using different criteria, such as by date, city, neighbourhood, price or type of property. A sample listing is shown in Figure 1.1 below.

Figure 1.1: Airbnb listing



Source: Airbnb

Depending on the host's booking settings, a listing may be available for instant booking or the stay may need to be approved by the host. The host will be able to see the guest's profile and any reviews written by other hosts when accepting the reservation request. Similarly, the guest will be able to see other guests' reviews of the listing.

When an instant booking is made or a booking request is accepted, the guest's reservation is automatically confirmed. Hosts and guests agree a check-in time and how the keys to the property will be exchanged. Hosts can also add a security deposit to their listing before the reservation is booked.

Guests are charged for the reservation by Airbnb at the time the booking is confirmed. Airbnb then remits payment to the host 24 hours after check-in. Guests are also charged a guest service fee by Airbnb.

While staying at a property, Airbnb guests are asked to follow house rules set by the host. These may include requests not to smoke, prohibitions against holding parties or dealing with the misuse of common areas. After the stay is completed, both the guest and the host are invited to submit a review on their experience within 14 days of checkout and provide a star rating out of five about their experience.

1.2.3 Other Airbnb services

Airbnb recently expanded its offering to include city tours and activities through Airbnb Experiences. The platform features local experts and guides who have joined Airbnb to share their city and their passion with travellers from around the world. Guests can book these experiences through Airbnb, with the sessions ranging from one-day tours to week-long immersive classes with accommodation included. Experiences are broadly categorised into sports, nature, social impacts, entertainment, food and the arts, with examples including surfing classes in Los Angeles, truffle hunting in Florence and samurai swordplay workshops in Tokyo.

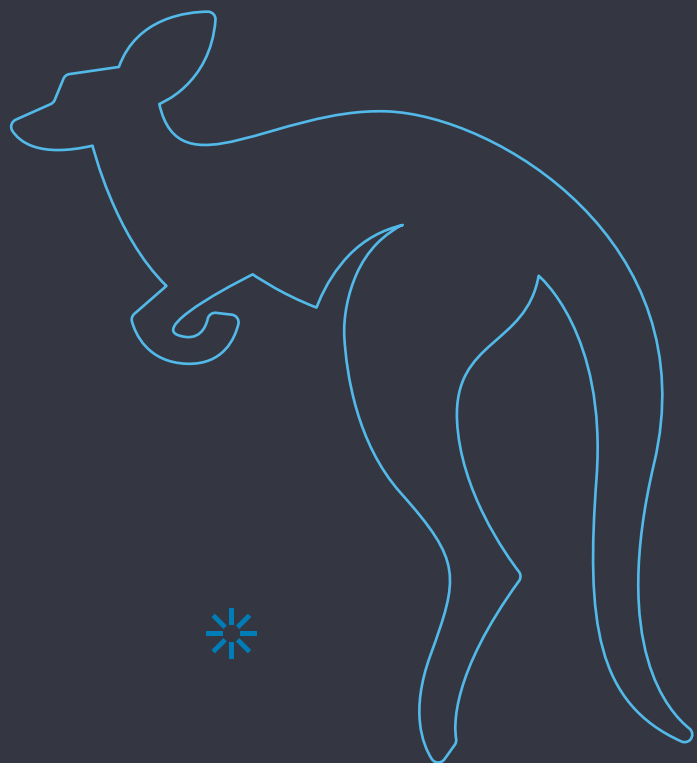
The Airbnb website and mobile application also features a separate section dedicated to places and neighbourhoods. Local hosts share their knowledge to develop guides for travellers exploring different neighbourhoods in each city – such as Fitzroy in Melbourne, or Redfern in Sydney. The guides can not only be used to explore a city, but also to help choose which neighbourhood best suits a guest's needs and interests.

1.3 Other issues not in the scope of this report

It is acknowledged that there are some community issues relating to Airbnb, such as noise levels and strata issues. As this report focuses on the economic benefits of Airbnb, it does not consider these topics in detail. Airbnb listings are, in many cases, located in suburban neighbourhoods – meaning that there is potential for conflicting views. For example, Tourism Accommodation Australia has noted in a submission to the Federal Opposition that there are possible amenity issues associated with short term letting, such as anti-social behaviour, increases in building wear and tear and degrading of amenities and capital values.² Appropriate regulation can help address these concerns to ensure that individual players do not negatively affect neighbours and amenity.

This report does not analyse in detail the drivers of the cost differential between hotel accommodation and Airbnb listings. The regulatory requirements for hotel accommodation and Airbnb listings are different. Airbnb has previously supported legislation to address potential neighbourhood and amenity impacts, such as amendments to the Owners Corporations Act 2006 (Vic). However, this report does not analyse or compare the regulatory arrangements for home sharing or traditional accommodation.

2. Supporting government tourism objectives



Tourism is an important part of the Australian economy, with both levels of government setting objectives to achieve industry potential. Airbnb can help governments achieve these objectives through the expansion of room supply and greater average tourism expenditure.

2.1 The Australian industry context

This section outlines how tourism in Australia is growing, and how the traditional part of the market is also growing in both occupancy and supply terms. Short-term private rentals are growing and represent a modest component of the overall sector.

2.1.1 Tourism in Australia

Tourism was estimated to contribute \$53 billion to Australian Gross Domestic Product (GDP) in 2015-16, representing 3.2 per cent of national income.³ Deloitte Access Economics identified tourism as one of the 'Fantastic Five' sectors driving the next wave of Australian prosperity in its thought leadership report, *Building the Lucky Country – Positioning for Prosperity? Catching the next wave*.

7.4 million international visitors aged 15 years and over visited Australia in the year ending September 2016, increasing by 11 per cent over the period⁴ – the fastest rate of growth since the mid-1990s. At the same time, domestic overnight trips increased by 5 per cent to 89.4 million trips, with overnight spend reaching \$59.8 billion.⁵ Clearly, Australian tourism is bucking domestic and international trends, with total tourism expenditure growing more than three times faster than the overall economy in the past year.

Table 2.1: Tourism in Australia, year ending September 2016

Metric	International		Domestic	
Overnight visitors (international) /trips (domestic)	7.4 million	↑ 11%	89.4 million	↑ 5%
Number of nights	251 million	↑ 4%	330 million	↑ 4%
Overnight visitor expenditure	\$38.8 billion	↑ 11%	\$59.8 billion	↑ 5%

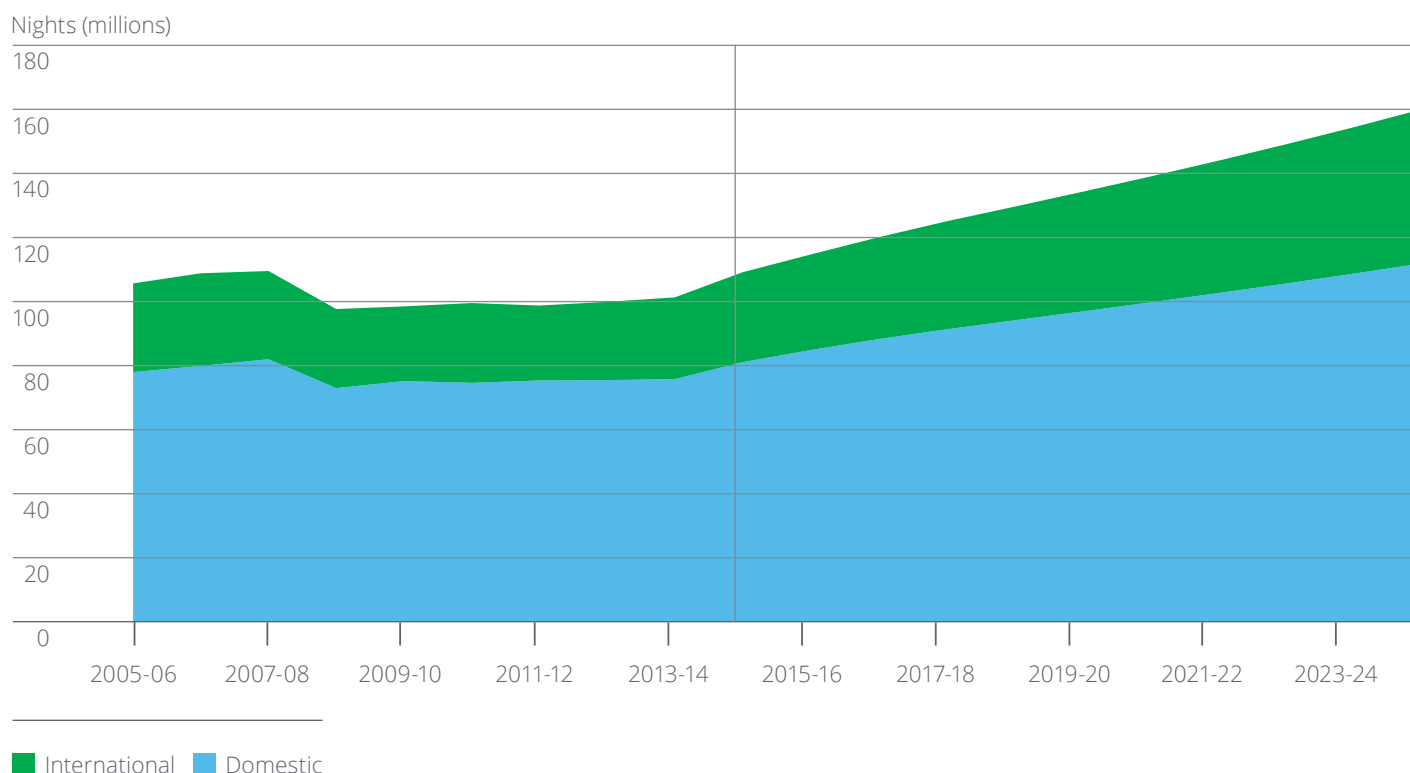
Source: Tourism Research Australia⁶

Deloitte Access Economics forecasts international visitor trips to grow by 6.3 per cent per year and visitor nights by 6.2 per cent per year on average over the next three years. This places the aggregate number of international visitors to Australia in 2019 at 9 million, and the total number of nights at 310 million. In terms of domestic travel, Deloitte Access Economics forecasts trips to grow by 3.3 per cent and visitor nights to grow by 3.2 per cent each year on average over the next three years.⁷

2.1.2 Traditional visitor accommodation: growing strongly

Estimates of visitor nights and hotel supply suggest that the most significant part of the market, the traditional hotel market is growing strongly. Traditional visitor accommodation is defined here to include hotels, motels, guesthouses and serviced apartments, consistent with the Australian Bureau of Statistics (ABS) definition of tourist accommodation.⁸

The latest available data shows that domestic tourists stayed 84.1 million nights in traditional visitor accommodation in 2015-16, with international visitors staying 28.7 million nights.⁹ Domestic visitor nights in traditional accommodation are predicted to reach 112.0 million by 2024-25, with international visitor nights forecast to reach 48.1 million.¹⁰ This represents a 10-year average annual growth rate of 3.3 per cent for domestic visitor nights and 5.5 per cent for international visitor nights.

Chart 2.1: International and domestic visitor nights in traditional visitor accommodation, 2005-06 to 2024-25

Source: Tourism Research Australia¹¹

Room occupancy rates in tourist accommodation establishments with 15 or more rooms rose by 1.3 percentage points to 66.6 per cent in trend terms in June 2016.¹² According to STR Global, room occupancies in Australia were 75.7 per cent in 2016 – a figure which includes all hotels, regardless of establishment size. This compares to 72.8 per cent in 2010.¹³

Deloitte Access Economics expects hotel supply in Australia will increase by 15,800 rooms over the period to December 2019. Room nights sold are forecast to grow at 2.7 per cent per year, and room nights available at 2.1 per cent per annum over the next three years – representing a narrowing gap between supply and demand compared to previous forecasts.¹⁴

2.1.3 Short-term private rentals

Aside from Airbnb, other platforms which facilitate short-term private rentals include Stayz, TripAdvisor, FlipKey and Couch Surfing. Some larger platforms do not operate in Australia, including the Expedia-owned HomeAway. However, Stayz was acquired by HomeAway in 2013. Some real estate companies also manage holiday home rentals.

It is difficult to estimate the size of this market, given many of the companies which facilitate private rentals are privately owned. Airbnb has an estimated market share of less than 2.0 per cent.¹⁵ Airbnb shares some similarities with these online booking sites, but features such as bidirectional ratings, fully integrated payments and the predominance of non-traditional accommodation options combine to create a different experience.

2.2 Helping the Federal Government deliver tourism objectives

Tourism 2020 is the key Federal Government objective relevant to Airbnb. *Tourism 2020*, initially launched in 2010, set stretch targets for Australia's tourism industry. Relevantly, it was identified in 2013 that between 6,000 and 20,000 new capital city rooms (including the Gold Coast and Tropical North Queensland) will be required to meet visitor demand by 2020, assuming occupancy rates of 80 per cent.¹⁶ The most recent data shows that occupancies in commercial accommodation across Australia reached 75.7 per cent in 2016, according to STR Global.¹⁷ As at February 2017, the accommodation sector had progressed 88 per cent towards the upper bound *Tourism 2020* target of 20,000 capital city rooms, with 17,694 rooms added to accommodation supply since the end of 2009.¹⁸ Short-term private rental services like Airbnb can assist the government in meeting these targets.

Importantly, Airbnb properties are distributed across capital cities and regional areas, and between the CBD and metropolitan areas. This may assist in achieving another key area of strategic focus in *Tourism 2020*: improving regional dispersal.¹⁹ Of the 74,400 listings booked in 2015-16 in Australia, 25,900 were outside the greater capital city areas of Australian states. This is particularly important, given regional areas have experienced a decline in accommodation supply in recent years.²⁰

Airbnb can also assist the government in meeting another key objective of *Tourism 2020* – increasing overnight spend to \$140 billion by 2020. As at February 2017, tourism expenditure had tracked 38 per cent towards the upper bound *Tourism 2020* goal.²¹ Airbnb survey data shows that Airbnb guests spend more than the average tourist, with Airbnb guests spending \$237 per night on average, and general overnight visitors spending \$146 per night.²² Higher yielding visitors may assist the government in meeting this upper bound target.

2.3 Helping the Tasmanian Government deliver tourism objectives

Each state government around Australia has tourism-related objectives and strategies, many of which are aligned with the national *Tourism 2020* goal. The service provided by Airbnb supports a number of these strategies, and may assist governments in achieving their objectives.

The Tasmanian Government and the Tourism Industry Council Tasmania jointly agreed in 2015 to implement *T21*, the state's visitor economy strategy. *T21* aims to grow annual visitor numbers to Tasmania to 1.5 million by 2020, and annual visitor expenditure to \$2.47 billion. Other key metrics include tourism employment, regional dispersal and visitor satisfaction. *T21* is underpinned by four strategic priorities.

The fourth priority under *T21* is to build capability, capacity and community. Rather than focusing on increasing accommodation supply, the strategic intent behind the fourth priority is to facilitate high quality tourism experiences. A number of actions were identified to achieve this goal, including workforce development, quality assurance programs and developing approaches to increasing international education in Tasmania and regulating the sharing economy.

Services like Airbnb can assist the government and industry to achieve the broad goal of improving capability, capacity and community. Aside from the increase in visitor accommodation supply facilitated by Airbnb, it also creates a vast network of hosts who are advocates for their local community and more broadly, Tasmania. The hosts consulted with as part of this study each frequently recommended local businesses and tailored experiences to their guests, creating a sense of community and facilitating an enjoyable stay.

Airbnb may also assist in achieving the first priority under *T21*: generating more demand for travel to Tasmania. The actions identified to achieve this priority relate to marketing, word-of-mouth and third party endorsement, and developing a series of strategies to promote Tasmania's offering. However, survey results show in New South Wales that 31 per cent of Airbnb guests said they would not have come or stayed as long in Sydney without Airbnb. Assuming similar results are found in other jurisdictions, including Tasmania, Airbnb may be able to facilitate increased demand for travel to Tasmania.

This is particularly so for regional areas outside Hobart such as the Tasmanian east coast, which is well-served by both private rental accommodation (listed on websites such as Airbnb and Stayz) and traditional accommodation. The Premier, Will Hodgman, stated that “without the sharing economy and companies like Airbnb and Stayz, Tasmania would have a serious accommodation shortage”.

The Tasmanian Government recently announced its sharing economy policy, which includes new provisions and exemptions relating to accommodation sharing. Under the policy, hosts sharing up to four bookable rooms on a platform are not required to obtain a permit, while listings with more than four bookable rooms or properties over a certain size have different requirements. It is noted, however, that Deloitte Access Economics did not consider appropriate regulation in this report.

3. The contribution of Airbnb to tourism in Tasmania



Tourism facilitated by Airbnb contributes \$55 million in value added to the Tasmanian economy and supports 599 full time equivalent (FTE) jobs

Airbnb plays an important role in supporting tourism in Australia, by facilitating accommodation bookings and advertising Australian destinations to consumers. This chapter details the value added to the Tasmanian economy and the employment in Tasmania facilitated by Airbnb through its platform to book accommodation.

3.1 Airbnb in Australia

In 2015-16, over 800,000 stays were booked with Airbnb around Australia. Hosts across the nation accommodated around 2.1 million guests for 3.7 million nights in capital cities and regional towns. On average, each host had 15 bookings over the financial year.

A breakdown of bookings in each jurisdiction is shown in Table 3.1.

Table 3.1: Airbnb bookings, broken down by state or territory, 2015-16

State or Territory	Total bookings	Total guests	Total nights booked
New South Wales	289,600	742,800	1,418,900
Victoria	235,900	651,600	1,134,300
Queensland	133,300	343,800	586,700
Western Australia	62,100	171,500	292,900
Tasmania	46,800	124,500	126,300
South Australia	24,400	64,100	109,000
Australian Capital Territory	9,200	20,000	47,300
Northern Territory	4,200	8,800	18,000
Total	805,500	2,127,100	3,733,300

Source: Airbnb

According to 2015 survey data collected by Airbnb, around 71 per cent of Sydney trips, 66 per cent of Melbourne trips and 63 per cent of Perth trips were for the primary purpose of vacation or leisure. A high proportion of trips were also booked to visit friends or relatives, with 15 per cent of Sydney trips and 22 per cent of Melbourne and Perth trips primarily booked for this purpose. The survey data is detailed in Table 3.2.

Table 3.2: Primary purpose of visit survey results, 2015

Purpose of visit	Sydney	Melbourne	Perth	Rest of Australia
Vacation/leisure	71%	66%	63%	77%
Visiting friends or relatives	15%	22%	22%	12%
Business	11%	6%	8%	7%
Conference/convention	0%	4%	2%	2%
Job search/interview	1%	0%	1%	0%
Study	1%	1%	1%	1%
Short-term housing while relocating	1%	1%	3%	1%

Source: Airbnb

Around 51 per cent of Airbnb bookings in Australia between July 2015 and June 2016 were made by Australian guests. The remaining listings were booked by international guests, with 4 per cent of guests each from the United States and United Kingdom, 3 per cent from Singapore and 2 per cent from China and Germany. In Hobart, a greater proportion of guests were from Australia and Hong Kong, while relatively fewer were from the United States and United Kingdom.

Table 3.3: Guest origin for Airbnb trips in Australia, 2015-16

Guest origin	Hobart guest arrivals	Australian guest arrivals
Australia	42,103 (61%)	1,077,910 (51%)
United States	2,047 (3%)	71,305 (3%)
United Kingdom	1,903 (3%)	76,020 (4%)
Singapore	1,557 (2%)	77,673 (4%)
China	1,545 (2%)	46,952 (2%)
Germany	1,143 (2%)	14,231 (1%)
France	526 (1%)	35,355 (2%)
New Zealand	519 (1%)	27,582 (1%)
Canada	493 (1%)	26,949 (1%)
Malaysia	489 (1%)	18,891 (1%)
Other countries	17,175 (25%)	654,232 (31%)
Total	69,500	2,127,100

Source: Airbnb

3.2 Methodology

The economic contribution of trips facilitated by Airbnb is a measure of the direct activities of Airbnb guests, as well as their indirect contributions through the supply chain. Airbnb stays are a key part of the tourism sector, with local, interstate and international guests hosted around Australia.

This analysis is based on stays facilitated by Airbnb in Australia. The analysis does not take into account the fact that, in the absence of Airbnb, guests may have still travelled and stayed in alternative accommodation. In addition, this analysis does not consider the economic contribution associated with the Airbnb platform itself. Airbnb profits, revenue and expenditure activities are specifically excluded from the analysis.

The economic contribution analysis is based on data provided by Airbnb on the number of guests and their expenditure in 2015-16. The analysis also draws on publicly available expenditure data from Tourism Research Australia (TRA) and the tourism satellite accounts from the Australian Bureau of Statistics (ABS).

The estimate of economic contribution is driven by the expenditure of Airbnb's guests. In 2015-16, the average Airbnb guest spent 1.6 times more per day than the average tourist in Australia. Expenditure data was provided by Airbnb for guests staying in Sydney, Melbourne and the Australian total, with expenditure estimates for visitors to the other capital cities and the states and territories estimated from TRA data. This is then weighted by the total number of nights attributable to Airbnb customers in each region, to estimate the total level of expenditure in the region.

The pattern of guest expenditure highlights the sectors of the economy that benefit (in revenue and employment terms) from Airbnb's guests, including food service (restaurants, cafes, bars, etc.), shopping, transportation, leisure and groceries being the key categories of expenditure.

Value added is the most appropriate measure of the economic contribution to gross state product (GSP). It is the sum of the returns to the primary factors of production – labour and capital (i.e. wages to workers and profit to shareholders) – and can be calculated by adding the gross operating surplus and wages paid to workers in the tourism sector.

The estimates of the direct and indirect economic contribution are based on Input-Output (IO) modelling techniques. The Australian Bureau of Statistics (ABS) produces IO tables which provide the value added for each sector of the Australian economy, as well as the linkages between sectors. This allows the expenditure by Airbnb guests to be traced through the economy, to estimate the value added at each stage. Deloitte Access Economics' Regional Input-Output Model (DAE-RIO-M) is used to estimate the direct value add and employment for each region. The indirect value add and employment, generated by expenditure on the intermediate inputs is determined based on the cost structure of each industry.

While we have not assessed the value of induced effects quantitatively, in addition to the direct and indirect economic contribution, in some regions tourism expenditure associated with Airbnb would likely result in additional consumption beyond expenditure on intermediate inputs. In areas where tourism is especially important to local industry, these effects could be locally significant.

Appendix A provides further background on the economic contribution modelling framework.

3.3 Contribution to the Australian economy

The total economic contribution associated with the tourism expenditure of Airbnb guests in 2015-16 was \$1.6 billion in value added, with 14,409 full time equivalent (FTE) jobs supported around Australia.

The total tourism expenditure of Airbnb guests in Australia in 2015-16 is estimated to be \$2.041 billion. This figure includes spending on items such as food, shopping and entertainment, as well as the amount paid to Airbnb hosts for accommodation. Table 3.4 shows a breakdown of Airbnb guest expenditure. As the amount spent varies by jurisdiction, these figures are based on state-by-state expenditure estimates.

Table 3.4: Tourism expenditure of Airbnb guests in Australia, 2015-16

Category	Total expenditure (\$m)	Share of expenditure
Accommodation	\$441.6	22%
Food service (e.g. restaurants)	\$554.1	27%
Groceries	\$185.6	9%
Shopping	\$353.8	17%
Other leisure (e.g. entertainment)	\$245.8	12%
Transportation	\$216.7	11%
Other services	\$43.7	2%
Total	\$2,041.3	100%

Source: Deloitte Access Economics estimates for categories based on Airbnb and TRA²⁵ survey and other data

It is necessary to consider how the expenditure flows through the economy to estimate the economic contribution associated with Airbnb guest spending.

The amount spent directly by Airbnb guests at local businesses represents revenue for those businesses. Each business employs workers and capital to provide goods or services to the Airbnb guest. The returns to labour (employee wages) and returns on capital (business owner's profits) associated with the Airbnb guests' spending comprise the *direct* economic contribution.

However, some of the revenue earned by those businesses is spent sourcing intermediate inputs and paying other expenses to run the business. For example, a restaurant might source ingredients from a market, and pay for gas, electricity and water. This expenditure generates flow-on economic activity, as supplying businesses will also employ workers and capital to produce goods and services. This additional economic activity comprises the *indirect* economic contribution.

Guests also pay hosts to stay in their Airbnb accommodation. This revenue represents income for hosts, with the profits (or gross operating surplus) from this exchange comprising the direct economic contribution.²⁶ The indirect contribution reflects the purchase of intermediate inputs by hosts to be able to provide Airbnb accommodation. This principally includes intermediate inputs provided by the construction and finance sector required to build and pay for the property. It also includes other intermediate inputs used to provide Airbnb accommodation (such as cleaning services).

The total economic contribution is the sum of the direct and indirect economic contribution. The direct and indirect contribution are calculated by considering the value added to the Australian economy arising from Airbnb guests' visitor expenditure.

Our analysis has found that the total economic contribution is on average 1.6 times the direct contribution.

Visitor expenditure of Airbnb guests is estimated to directly contribute \$1 billion in value added to the Australian economy, with a further indirect contribution of \$602 million in value added. Tourism expenditure of Airbnb guests also supported 14,409 FTE jobs around Australia (see Table 3.5).

Table 3.5: Economic contribution of tourism expenditure associated with Airbnb in Australia, 2015-16

	Direct contribution	Indirect contribution	Total contribution
Expenditure (\$m)	\$2,041.3		
Value added (\$m)	\$1,005.3	\$601.6	\$1,606.9
• Labour income (\$m)	\$449.2	\$307.3	\$756.5
• Gross operating surplus (\$m)	\$556.1	\$294.3	\$850.4
Employment (FTE)	10,025	4,384	14,409

Source: Deloitte Access Economics based on Airbnb, TRA²⁷ and ABS²⁸ data

Note: Expenditure is calculated in the input-output model using basic prices, which reflect the revenue received by producers of goods and services. The spending on accommodation is based on the amount of revenue received by hosts (i.e. it excludes Airbnb charges). These contributions do not include induced impacts, which is the spending of those who receive additional income.

Table 3.6 provides a breakdown of the economic contribution by state or territory. This highlights that the two largest contributions to value add are in New South Wales and Victoria, which together account for 58 per cent of total value add and 59 per cent of employment. This reflects the higher number of listings in these cities, their higher tourism visitation, and may also reflect the relative cost of accommodation in these states compared to the other states and territories.

The table also reflects that in calculating the economic contribution of tourism expenditure state by state, some indirect activity is excluded as it leaks out of that jurisdiction's economy as imports. However, this interstate activity is accounted for in the national totals.

Table 3.6: Economic contribution of tourism expenditure associated with Airbnb in Australian states and territories, 2015-16

	Direct contribution (\$m)	Indirect contribution (\$m)	Total contribution (\$m)	Total employment (FTE)
New South Wales	376.8	135.7	512.5	4,452
Victoria	305.2	107.3	412.6	4,084
Western Australia	76.5	23.2	99.7	780
Queensland	160.5	56.8	217.4	2,115
Tasmania	42.1	12.5	54.5	599
South Australia	29.1	9.1	38.2	407
Northern Territory	5.1	1.3	6.5	55
Australian Capital Territory	9.9	2.7	12.6	99
Interstate indirect activity		252.8	252.8	1,818
Australia	1,005.3	601.6	1,606.9	14,409

Source: Deloitte Access Economics based on Airbnb, TRA²⁹ and ABS³⁰ data

Note: Expenditure is calculated in the input-output model using basic prices, which reflect the revenue received by producers of goods and services. The spending on accommodation is based on the amount of revenue received by hosts (i.e. it excludes Airbnb charges). These contributions do not include induced impacts, which is the spending of those who receive additional income.

3.4 Contribution to the Tasmanian economy

Airbnb guests are estimated to have spent \$86.0 million while visiting Tasmania in 2015-16, generating \$54.5 million in value added to the Tasmanian economy and supporting 599 full time equivalent (FTE) jobs. Of this amount, \$37.7 million in value add and 417 FTE jobs are connected to the greater Hobart region. Tourism is particularly important in the Tasmanian economy; overall, tourism directly and indirectly contributes around 9.9 per cent to Gross State Product (GSP), the highest of any Australian jurisdiction.³¹

The tourism expenditure of Airbnb guests is estimated using survey and booking data provided by Airbnb, and tourism regional expenditure data from TRA. The guest spend in Tasmania across a variety of categories is shown in Table 3.7.

Table 3.7: Tourism expenditure of Airbnb guests in Tasmania, 2015-16

Category	Average spend per guest per day	Total expenditure in Tasmania (\$m)	Share of expenditure
Accommodation	\$55	\$17.6	20%
Food service (e.g. restaurants)	\$74	\$23.7	28%
Groceries	\$25	\$7.9	9%
Shopping	\$47	\$15.1	18%
Other leisure (e.g. entertainment)	\$33	\$10.5	12%
Transportation	\$29	\$9.3	11%
Other services	\$6	\$1.9	2%
Total	\$267	\$86.0	100%

Source: Deloitte Access Economics estimates for categories based on Airbnb and TRA³² survey and other data

Guests using Airbnb are estimated to have spent \$58.7 million in Hobart in 2015-16. This expenditure is associated with \$37.7 million in value added to the Hobart economy, and supported 417 FTE jobs directly and indirectly. A further breakdown is shown in Table 3.8.

Table 3.8: Economic contribution of Airbnb guests in Hobart, 2015-16

	Direct contribution	Indirect contribution	Total contribution
Expenditure (\$m)	\$58.7		
Value added (\$m)	\$28.5	\$9.2	\$37.7
• Labour income (\$m)	\$13.2	\$4.6	\$17.8
• Gross operating surplus (\$m)	\$15.3	\$4.6	\$19.9
Employment (FTE)	341	76	417

Source: Deloitte Access Economics based on Airbnb, TRA³³ and ABS³⁴ data

Note: Expenditure is calculated in the input-output model using basic prices, which reflect the revenue received by producers of goods and services. The spending on accommodation is based on the amount of revenue received by hosts (i.e. it excludes Airbnb charges). These contributions do not include induced impacts, which is the spending of those who receive additional income.

Airbnb guests also stay outside the greater Hobart region, including in Launceston and other towns. The economic contribution to these regional economies is estimated to be \$16.8 million in value added, based on the difference between the value added to the Tasmanian and regional Hobart economies. Airbnb guests in Tasmania spent a total of \$27.3 million outside the greater Hobart region.

Table 3.9: Economic contribution of Airbnb guests in Tasmania outside Hobart, 2015-16

	Direct contribution	Indirect contribution	Total contribution
Expenditure (\$m)	\$27.3		
Value added (\$m)	\$13.5	\$3.3	\$16.8
• Labour income (\$m)	\$6.0	\$1.7	\$7.7
• Gross operating surplus (\$m)	\$7.5	\$1.6	\$9.2
Employment (FTE)	153	29	182

Source: Deloitte Access Economics based on Airbnb, TRA³⁵ and ABS³⁶ data

Note: Expenditure is calculated in the input-output model using basic prices, which reflect the revenue received by producers of goods and services. The spending on accommodation is based on the amount of revenue received by hosts (i.e. it excludes Airbnb charges). These contributions do not include induced impacts, which is the spending of those who receive additional income.

Overall, it is estimated that Airbnb guest expenditure is associated with \$54.5 million in value add to the Tasmanian economy, and supports 599 FTE jobs across the state. Our analysis found that the total economic contribution is on average 1.3 times the direct contribution in Tasmania.

Table 3.10: Economic contribution of Airbnb guests in Tasmania, 2015-16

	Direct contribution	Indirect contribution	Total contribution
Expenditure (\$m)	\$86.0		
Value added (\$m)	\$42.1	\$12.5	\$54.5
• Labour income (\$m)	\$19.2	\$6.3	\$25.5
• Gross operating surplus (\$m)	\$22.8	\$6.2	\$29.1
Employment (FTE)	494	105	599

Source: Deloitte Access Economics based on Airbnb, TRA³⁷ and ABS³⁸ data

Note: Expenditure is calculated in the input-output model using basic prices, which reflect the revenue received by producers of goods and services. The spending on accommodation is based on the amount of revenue received by hosts (i.e. it excludes Airbnb charges). These contributions do not include induced impacts, which is the spending of those who receive additional income.

Although induced effects were not assessed quantitatively as part of this analysis, these effects may be locally significant in some regions – especially where tourism plays a significant role in the economy.

4. Consumer effects



Guests choose to use Airbnb for a range of reasons – sometimes price, but often for a different type of service. The value of these non-price benefits, measured by consumer surplus, is twice the value of cost savings enjoyed by Airbnb guests in Sydney.

Airbnb provides a number of benefits to guests who book stays on the platform. These benefits arise due to the differentiated service provided by Airbnb and the lower average cost of accommodation on the platform.

This chapter outlines the differentiation benefits associated with the Airbnb platform and accommodation booked through Airbnb, as well as additional benefits for business travellers using the Airbnb for Business platform.

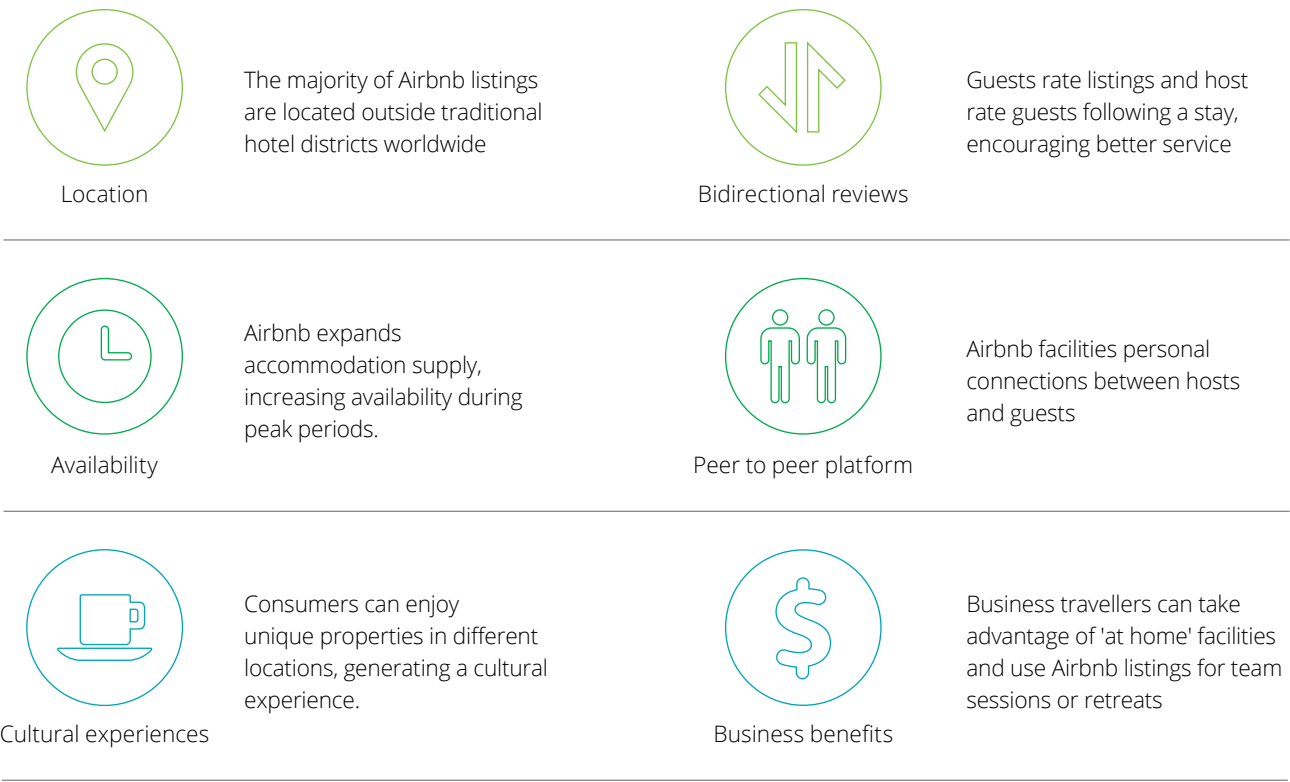
It also describes the economic model used to quantify these consumer effects and cost savings, using Sydney as a case study.

4.1 Beyond lower prices: benefits of Airbnb's features

While cost may be a factor in motivating travellers to use Airbnb,³⁹ it's not the only reason. A number of studies have suggested that collaborative consumption is driven by the perceived value and benefits of these transactions.⁴⁰

These benefits are related to the specific product offered by Airbnb to consumers in the market, and the extent to which it differs from the current traditional offering. These features of Airbnb are summarised in the diagram below.

Figure 4.1: Features of Airbnb



Source: Deloitte Access Economics

These features create additional consumer surplus for travellers using Airbnb. In this context, consumer surplus is defined as the difference between what consumers are willing to pay for Airbnb accommodation, and what they actually paid – in other words, the value individuals receive from their Airbnb over and above what they paid for it. The differentiation benefits described in the diagram may influence the amount consumers are willing to pay for accommodation, and therefore the amount of consumer surplus they receive.

The following sections describe the benefits of Airbnb's features qualitatively, while a case study in Section 4.3 quantifies consumer surplus for people using Airbnb in Sydney.

4.1.2 Location and availability of Airbnb properties

The vast majority of properties listed on Airbnb are located outside the traditional hotel areas of major cities around the world.⁴¹ This is in contrast to the location of traditional tourist accommodation, which is generally centred on the CBD and the inner suburbs.

The varied location of Airbnb properties leads to two key benefits.

Firstly, it allows consumers to book accommodation close to their desired location. In providing greater choice, Airbnb is more likely to facilitate a booking which meets the needs of guests. For example, guests may choose to stay outside the CBD if visiting a suburban business, hospital or university.

Secondly, visitors are able to explore areas 'off the beaten track' by staying in an area outside the location of traditional tourist accommodation. Guests can stay in the suburban areas of a city, generating a living experience more similar to a local resident.⁴² Guests may place value on this differentiated and authentic experience.⁴³

Meeting the demand for rooms during Mardi Gras

The Sydney Gay and Lesbian Mardi Gras is an annual event which has its origins in a night of political protest in 1978. Today, it is a two-week festival which celebrates diversity and queer pride. In 2016, over 12,500 members of the queer community and their supporters joined the key event, the Mardi Gras parade, on 178 floats. Around 300,000 people attended the parade as spectators.

Airbnb supported the Mardi Gras as a major partner in 2015 and 2016, and entered a corporate float in the Mardi Gras parade in both years. In 2016, Airbnb's house-float was offered as a prize in a competition. Pink Media Group arranges Mardi Gras' sponsorships and partnerships on their behalf.

Mardi Gras is not only the biggest queer celebration in Australia, but is also Sydney's second most-attended event, following only New Year's Eve. In this context, Pink Media reports that accommodation can be expensive and difficult to come by, with hotels and other lodgings frequently selling out. The availability of Airbnb properties may mean that more interstate and international visitors can attend the event, with around 100,000 attendees coming from the rest of Australia and around 50,000 from overseas. Visitors tend to stay around a week for the event, and according to Pink Media, many continue to travel around Australia.

Airbnb offers an alternative place to stay for Mardi Gras participants, and at a range of price points to suit different budgets. Importantly, many Airbnb listings are located in Surry Hills, Darlinghurst and Newtown – neighbourhoods which are not only nearby to Mardi Gras events, but according to Pink Media Group, also have a high proportion of queer residents in their communities. Given there is limited hotel availability in these suburbs, Airbnb facilitates an enhanced experience for Mardi Gras attendees. Hosts are also able to benefit from the interaction, particularly those who are attending the event.

The other key benefit of Airbnb is its facilitation of expanded accommodation supply. While this point will be discussed further in the following sections, the greater availability of Airbnb properties in a wider area means that it may be easier, on the whole, for a guest to book a short-term stay in a city. This can be particularly so during periods of peak demand, such as special events or long weekends.

4.1.3 Cultural experiences

Consumer preferences for accommodation vary significantly. Preferences may be influenced by personal tastes, purpose of travel, travel party size or a range of other factors. Travellers may look for a number of key attributes when booking accommodation – such as location, the number of beds or rooms, free Wi-Fi or kitchen facilities.⁴⁴

Airbnb's platform allows for the listing of a wide variety of property types in varying locations. This means that travellers are more likely to find a listing which meets all of their wants and needs, especially when outside the realm of traditional tourism accommodation. The location of a listing is important to guests who are seeking a particular cultural experience when travelling – such as terrace house in Surry Hills, or a cottage in Fitzroy.

Airbnb also provides certain unique listings that are unavailable in the traditional tourist accommodation market. Airbnb's listings include treehouses, castles and caves; this may suit tourists seeking a more unique experience. Airbnb hosts may be able to facilitate a wider range of requests which are often disallowed in traditional tourist accommodation, such as travelling with pets.

Airbnb properties can also provide additional 'at-home' facilities, such as a laundry and kitchen, or a separate study. These facilities provide additional benefits to travellers, especially in the context of long-term stays.

4.1.4 Bidirectional reviews

Airbnb employs a bidirectional review system, whereby guests and hosts are invited to rate their counterpart following the conclusion of a reservation. Importantly, each party is unaware of their own rating before submitting their response, reducing the prospect of potential retaliation bias.⁴⁵

Ratings can encourage the provision of better service, as ratings are publicly available on the platform. Reputation can also affect listing prices according to one US study.⁴⁶ Guests are able to view reviews when searching for accommodation, and may take this into account when choosing a property. Hosts are also able to see a guest's rating when a guest requests a reservation at their property, and may similarly choose whether to approve the stay based on ratings. Hosts can also set a minimum ratings requirement for guests where instant booking of their property is available.

TripAdvisor performs a similar role in the traditional accommodation market, although accommodation providers cannot rate guests. Out of all Airbnb reservations in Tasmania between July 2015 and August 2016, listings were rated 4.69 stars on average.

Ratings also support the development of the online Airbnb community. In allowing guests to review the space in which they stayed, rapport is generated between the host and the guest and between others on the platform. While this community is an integral feature of Airbnb, one study has noted that social interactions between hosts and guests can introduce positive bias in reviews. Omitting negative feedback from reviews is said to occur due to the empathy generated in social interactions between hosts and guests.

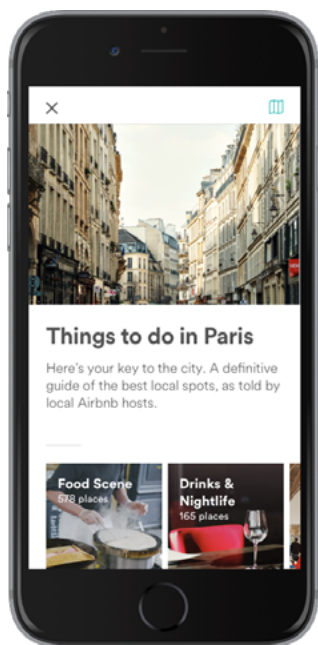
One study estimated this effect by assuming that social interactions are more likely to occur where a guest is staying in a private room of a private residence, and less likely to occur where a host has more than three listings. Fradkin et al found that trips to private rooms have a 0.005 star higher rating and trips to hosts with multiple listings have a 0.112 lower rating, holding guest characteristics fixed.⁴⁷ Notably, however, this bias is minimal.

4.1.5 Peer to peer platform

The peer to peer nature of Airbnb may provide additional benefits to guests. In many cases, hosts will greet guests on arrival, and assist their guests in settling in to the accommodation and the local area. This additional service may be valued by guests, as they are able to connect with a local resident in the area.⁴⁸ Airbnb also facilitates hosts to write guides for guests, which are available on the Airbnb platform (as shown in Figure 4.2).

Some guests may also derive value from the peer-to-peer connection facilitated by the platform, with this experience offering value beyond the provision of the good or service purchased. Peer to peer networks like Airbnb allow participants to form friendships and develop and maintain social connections.⁴⁹ Guests and hosts can also share recommendations and personal experiences, allowing tourists to connect with the local community.⁵⁰

Figure 4.2: Host guidebook on Airbnb mobile application



Source: Airbnb

4.2 Cost savings for consumers

The additional room supply facilitated by Airbnb increases competition in the market, while also providing different types of accommodation for consumers. Increased competition and additional supply in the market can have a number of effects, including lower prices for consumers and greater availability during peak periods.

This report does not analyse in detail the drivers of the cost differential between hotel accommodation and Airbnb listings. It is likely there are a number of factors. There is a relatively low marginal cost in letting an empty room in a property or an apartment that would have been empty while the owner was on an extended holiday.

Airbnb listings also typically do not have many of the services which are provided by hotels and expected (and valued) by guests, such as a permanent reception desk, baggage storage or daily housekeeping. Finally, the regulatory requirements for hotel accommodation and Airbnb listings are different. This report does not analyse or compare the regulatory arrangements for home sharing or traditional accommodation.

Lower accommodation prices can have a number of effects. Clearly, for those who are incentivised to switch from using traditional accommodation to Airbnb, there are resulting cost savings. The magnitude of these savings depends on the differential between Airbnb prices and hotel prices.

Importantly, the lower average price of Airbnb listings may encourage people to travel who could otherwise not have afforded hotel prices, or encourage more frequent travel. These new entrants to the accommodation market increase the overall size of the market, and can help boost tourism more broadly. In one study, 67 per cent of respondents agreed that peer to peer accommodation expands their selection of places to travel, with the lower accommodation cost making more destinations affordable. 41 per cent of respondents also agreed that peer to peer accommodation increases the frequency of their travel, mainly due to the social aspects of using peer to peer accommodation.⁵¹ In a survey undertaken across the United States, United Kingdom, Germany and France, respondents indicated that price was the most important factor in choosing Airbnb. The survey, conducted by Morgan Stanley and AlphaWise in 2016, also showed that 2 per cent of trips would not have been taken if not for Airbnb.⁵²

There are also benefits for those who continue to use traditional accommodation. In the longer term, hotels may reduce their prices in order to compete with Airbnb listings – leading to cost savings for this segment of the market. Whether this occurs depends on the extent to which hotels compete with Airbnb listings. However, the location of Airbnb listings in Australia – primarily outside the major hotel districts – may bring into question the extent to which Airbnb and the hotel industry directly compete.

It is important to note that Airbnb listings are not always less expensive than hotels. As shown by CBRE analysis in the United States,⁵² the average daily rate for Airbnb may exceed that of hotels, depending on the type of listing. But the overall effect of Airbnb is to drive competition – with lower prices and differentiation attracting new consumers to the market.

4.3 Sydney – a case study

Deloitte Access Economics quantified the two core consumer effects of Airbnb:

- The cost savings for consumers switching from hotels to Airbnb
- The consumer surplus arising from the quantity and differentiation benefits of Airbnb.

This case study focuses on Sydney to illustrate these two effects. Given the unique market conditions across Australian cities, these results are only applicable to the Sydney area. However, similar results are likely to occur in other cities.

We found that consumers who switched from traditional accommodation to Airbnb homes and apartments saved \$25.8 million in 2015-16. Net consumer surplus enjoyed by all Airbnb guests totalled \$48.4 million.

Appendix B contains further detail about our modelling framework and technical assumptions. For this case study, ‘Central Sydney’ is defined to include the Sydney CBD, Redfern, Pyrmont, Chippendale, Ultimo, Surry Hills and Potts Point. References to ‘hotels’ incorporate all traditional accommodation included in the ABS definition, including hotels, motels and serviced apartments with 15 or more rooms. Notably, this analysis excludes other types of accommodation, such as bed and breakfasts, hostels and caravan parks.

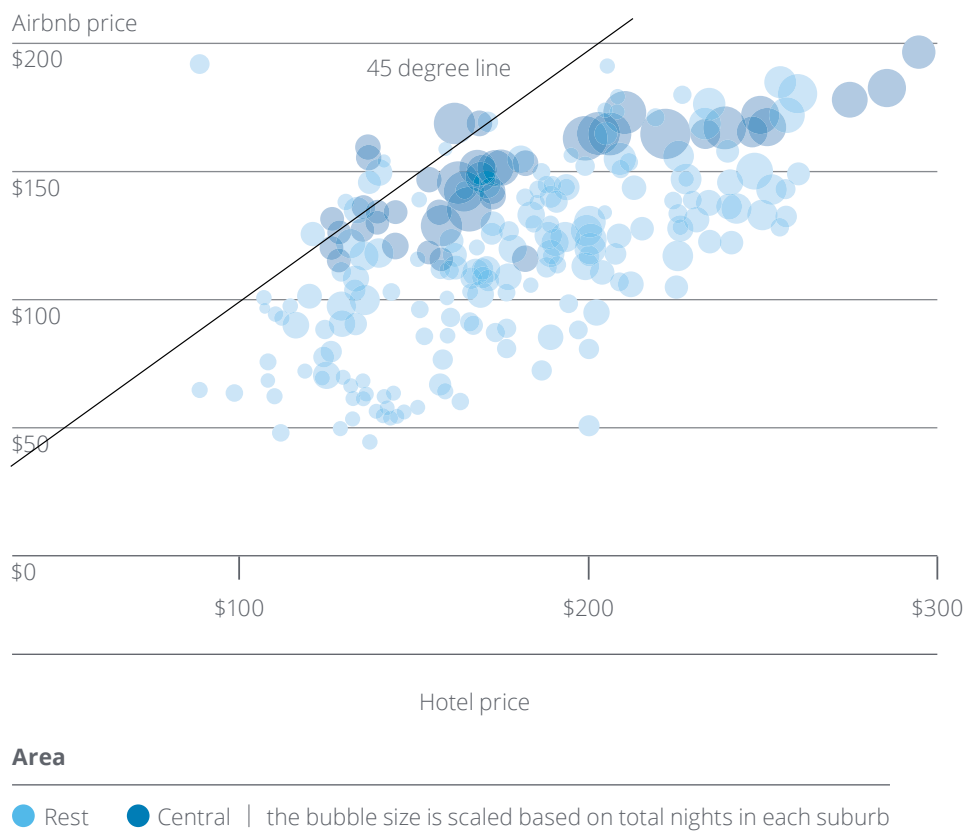
4.3.1 Savings to consumers

Consumers who switch from booking traditional accommodation to staying in Airbnb listings enjoy cost savings on average because, in most cases, Airbnb listings are relatively cheaper.

4.3.1.1 Difference in price between Airbnb and traditional accommodation

Airbnb listings are often – but not always – cheaper than booking traditional accommodation. Chart 4.1 shows a comparison between average nightly prices in Airbnb apartments and homes and hotels in central and greater Sydney. Entries below the line represent that hotels are more expensive on average, while entries above the line show that Airbnb listings are more expensive on average.

Chart 4.1: Comparison of average price per night in hotels and Airbnb listings

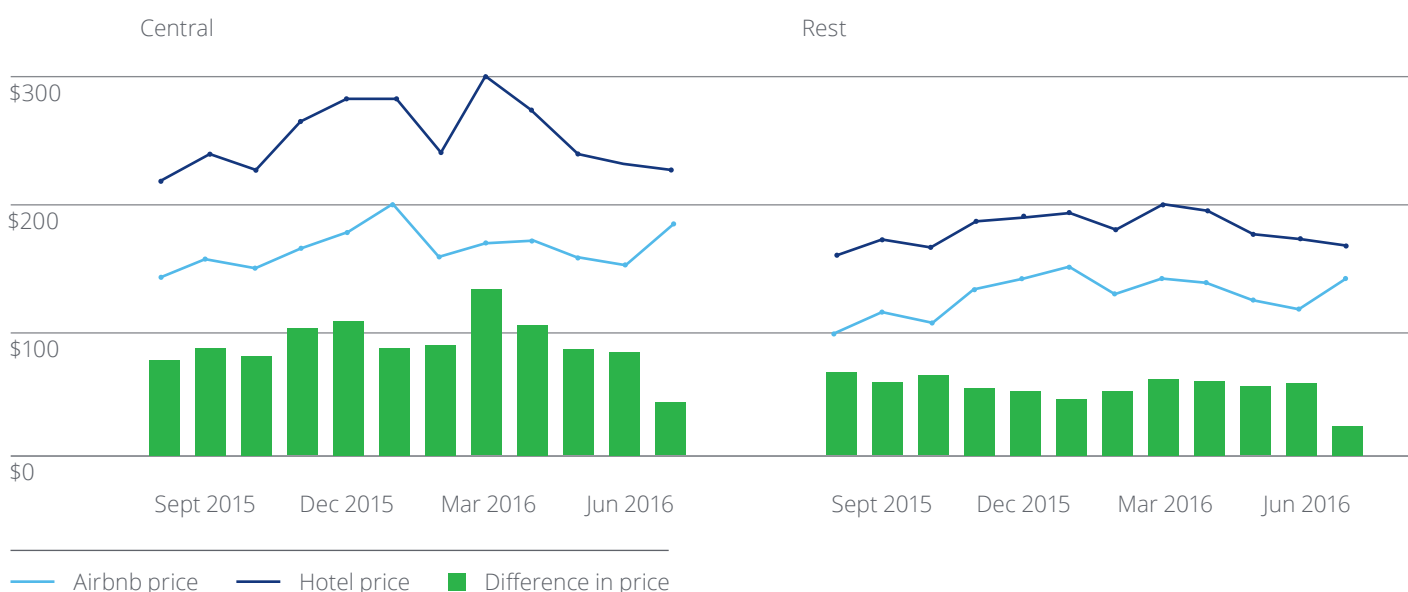


Source: Deloitte Access Economics, using Airbnb and ABS⁵⁴ data.

Note: The comparison between areas is subject to data availability, as postcodes in Airbnb data and Statistical Area 2 areas in ABS data may not perfectly align. Shared rooms and private rooms within dwellings were excluded from Airbnb data to provide better comparability to hotels. Hotel prices are determined by considering total takings from accommodation and room nights occupied. Airbnb prices are determined by considering total takings from accommodation and the number of room nights in occupied listings – i.e. prices are provided per room, not per listing.

Chart 4.2 shows monthly movements in price in central Sydney and the rest of Sydney. It is clear that Airbnb listings are cheaper per room, per night on average. Interestingly, the monthly movements in price are remarkably similar for both Airbnb listings and hotels, suggesting that seasonal factors have an important impact on price. The variation in price is also greater in central Sydney compared to the rest of Sydney, potentially reflecting capacity constraints during peak seasons.

Chart 4.2: Comparison of average nightly room price in Airbnb listings and hotels, 2015-2016



Source: Deloitte Access Economics, using Airbnb and ABS⁵⁵ data.

Note: Shared rooms and private rooms within dwellings were excluded from Airbnb data to provide better comparability to hotels. Hotel prices are determined by considering total takings from accommodation and room nights occupied. Airbnb prices are determined by considering total takings from accommodation and the number of room nights in occupied listings – i.e. prices are provided per room, not per listing.

Table 4.1 shows a comparison of average nightly room prices in Airbnb listings and hotels across 2015-16. In central Sydney, Airbnb properties are on average \$88 cheaper per night, while this difference is \$50 per night outside central Sydney. Note this report does not analyse in detail the drivers of the cost differential between hotel accommodation and Airbnb listings.

Table 4.1: Comparison of average nightly room price in Airbnb listings and hotels in Sydney, 2015-2016

Area of interest	Hotel	Airbnb	Difference	Price ratio
Central Sydney	\$250	\$163	\$88	1.5
Rest of Sydney	\$182	\$132	\$50	1.4

Source: Deloitte Access Economics, using Airbnb and ABS⁵⁶ data.

Note: Shared rooms and private rooms within dwellings were excluded from Airbnb data to provide better comparability to hotels. Hotel prices are determined by considering total takings from accommodation and room nights occupied. Airbnb prices are determined by considering total takings from accommodation and the number of room nights in occupied listings – i.e. prices are provided per room, not per listing. Difference may not sum due to rounding.

4.3.1.2 Savings arising from cheaper average prices

Deloitte Access Economics used an in-house model to estimate the effect of growth in Airbnb room nights on the number of hotel room nights booked. Although both Airbnb and the traditional accommodation market are growing, the relatively faster growth of Airbnb bookings suggests there may be an associated effect on hotels. Further detail on this analysis is contained in Appendix B.

Using this price differential and an analysis of how Airbnb interacts with the traditional accommodation market, the total savings enjoyed by consumers switching from traditional accommodation to Airbnb was calculated to be \$25.8 million in 2015-16. This is comprised of \$9.1 million in savings to consumers staying in central Sydney and \$16.7 million to consumers staying in the rest of Sydney. Shared rooms and private rooms located in dwellings were excluded from Airbnb bookings data, as these offerings are less similar to traditional accommodation.

Table 4.2: Total consumers savings for consumers switching from hotels to Airbnb accommodation in Sydney, 2015-16

Area of interest	Total nights	Total Airbnb spending	Consumer saving
Central Sydney	162,536	\$33.8 million	\$9.1 million
Rest of Sydney	395,772	\$86.2 million	\$16.7 million
Total	558,308	\$119.9 million	\$25.8 million

Source: Deloitte Access Economics, using Airbnb and ABS⁵⁷ data.

Note: Shared rooms and private rooms within dwellings were excluded from Airbnb data to provide better comparability to hotels.

4.3.2 Benefits other than price

Travellers who book Airbnb accommodation in Sydney enjoy the differentiation benefits provided by Airbnb. These benefits may affect the value consumers place on Airbnb accommodation. If this value is greater than the price paid for accommodation, consumer surplus is created.

Estimating consumer surplus requires an understanding of the demand curve for Airbnb accommodation. The slope of the demand curve is determined by the responsiveness of consumers to changes in price – also known as price elasticity.

Given the wide variety of accommodation offered on the Airbnb platform – across different areas of Sydney and in various forms – Deloitte Access Economics divided Airbnb booking data into five key regions (Sydney CBD, Blue Mountains, eastern suburbs, northern beaches, and other areas) and six accommodation sizes. Each sample was then analysed separately to determine the price elasticity of demand, and therefore the value of consumer surplus.

Deloitte Access Economics used hedonic regression to estimate price elasticities. Hedonic models break down a consumer's value of a good into its constituent parts, such that it is possible to estimate how much each characteristic contributes to willingness to pay. In this context, the price paid for Airbnb accommodation was broken down into elements such as the number of nights booked, the number of guests staying, and the number of days in advance the booking was made. Each of these components contributes to the price a consumer is willing to pay for Airbnb accommodation.

Two different forms of hedonic modelling were used to elicit elasticities, and therefore consumer surplus. The first is a traditional two-stage hedonic model, while the second uses a direct utility estimation approach. These approaches, and further technical assumptions regarding the models, are described in Appendix B. The results of the two approaches were averaged to provide a robust estimate.

Overall, Deloitte Access Economics estimates that total consumer surplus for Airbnb trips to Sydney was \$48.4 million in 2015-16. This is based on the difference between aggregate willingness to pay (derived using elasticities) and the total amount spent on Airbnb accommodation in Sydney in 2015-16.

4.4 Benefits for business travellers

Airbnb provides a specialised service for companies, Airbnb for Business. As its name suggests, this service tailors Airbnb's regular offering for corporate travel. Listings are curated for business features, including 24 hour check in, provision of an entire space (e.g. a whole apartment or house) and extra amenities, such as Wi-Fi and toiletries. Travel managers are able to make bookings on behalf of team members, and Airbnb for Business also integrates with spend management platforms such as International SOS and Concur, with booking data readily available from the Airbnb website.

Over 200,000 clients have registered and used the Airbnb for Business platform worldwide. Notable companies which use Airbnb for Business include Google, Facebook and Morgan Stanley. Around 10 per cent of Australian bookings were business-related in 2016, with the majority of bookings made in Sydney and Melbourne. In the United States, Fast Company estimates that 10 per cent of Airbnb rentals are business travellers.⁵⁸ On average, business travellers rated their stay 4.7 stars, reflecting the amenities and standards required for business-ready listings. 24 per cent of business trips within Australia are made by international travellers, with the remaining 76 per cent being domestic travellers.

The key benefits of Airbnb for Business relate to the different service offering it provides, and are in some cases similar to the broader consumer benefits of Airbnb.

Firstly, Airbnb's business clients have reported to Airbnb that listings are up to 35 per cent less expensive than traditional hotel accommodation. As highlighted in Table 4.3, standard Airbnb listings were around 54 per cent cheaper compared to traditional accommodation in central Sydney. Although it is important to note that these prices may reflect different standards of accommodation, the overall sentiment remains the same – that business travel is, on average, less expensive through Airbnb.

Table 4.3: Comparison of average nightly room price in Airbnb listings and hotels in Sydney, 2015-2016

Area of interest	Hotel	Airbnb	Difference	Price ratio
Central Sydney	\$250	\$163	\$88	1.5
Rest of Sydney	\$182	\$132	\$50	1.4

Source: Deloitte Access Economics, using Airbnb and ABS⁵⁹ data.

Note: Shared rooms and private rooms within dwellings were excluded from Airbnb data to provide better comparability to hotels. Hotel prices are determined by considering total takings from accommodation and room nights occupied. Airbnb prices are determined by considering total takings from accommodation and the number of room nights in occupied listings – i.e. prices are provided per room, not per listing. Difference may not sum due to rounding.

As noted earlier, Airbnb expands accommodation supply, particularly in areas outside of traditional tourist hotspots. This may provide benefits for businesses which require accommodation for employees outside the CBD of capital cities; for example, where a client is based in the inner metro area. Business travellers may also enjoy the opportunity to explore a new area of the city, particularly for an extended stay.

For those requiring accommodation within the CBD, Airbnb can expand supply during peak periods where the availability of traditional tourist accommodation may be limited. This can particularly occur during special events, such as the Mardi Gras Festival in Sydney. Recent statistics show that in 2016, hotel occupancies in the cities of Melbourne and Sydney reached 87 per cent and 88 per cent respectively.⁶⁰ Robyn Johnson, CEO of Meetings & Events Australia, recently stated:⁶¹

"The conference cycle in Australia often coincides with peak corporate activity and festivals that puts high demand on hotel accommodation. Airbnb could be an option that may be attractive to conference attendees who are looking for a different experience."

The nature of Airbnb properties may also benefit both businesses and travellers. The ability to rent an entire space – such as a whole apartment or house – is particularly useful for businesses wishing to facilitate a retreat or offsite team session. It is also beneficial for business travellers on an extended stay or preparing for relocation, as the property is more similar to a home than a hotel. 67 per cent of Airbnb's business travel bookings are for an entire home or apartment.

As with Airbnb's regular offering, stays booked through Airbnb for Business are protected by a \$1 million host guarantee (covering damages and protecting the guest and host) and \$1 million host protection (providing coverage if a guest is injured). Airbnb also partners with International SOS and iJET such that itinerary data can be integrated into these travel assistance platforms, and provides 24/7 phone support for corporate travellers. Companies can choose a list of pre-approved listings that meet their individual travel policies and requirements.

Aesop – using Airbnb for Business

Aesop is an Australian skincare company headquartered in Melbourne. Aesop has 180 stores worldwide, with global offices in New York, London, Paris, Tokyo and Hong Kong. While the senior leadership team is based in Melbourne, frequent international and interstate travel is required to open and manage stores around the world.

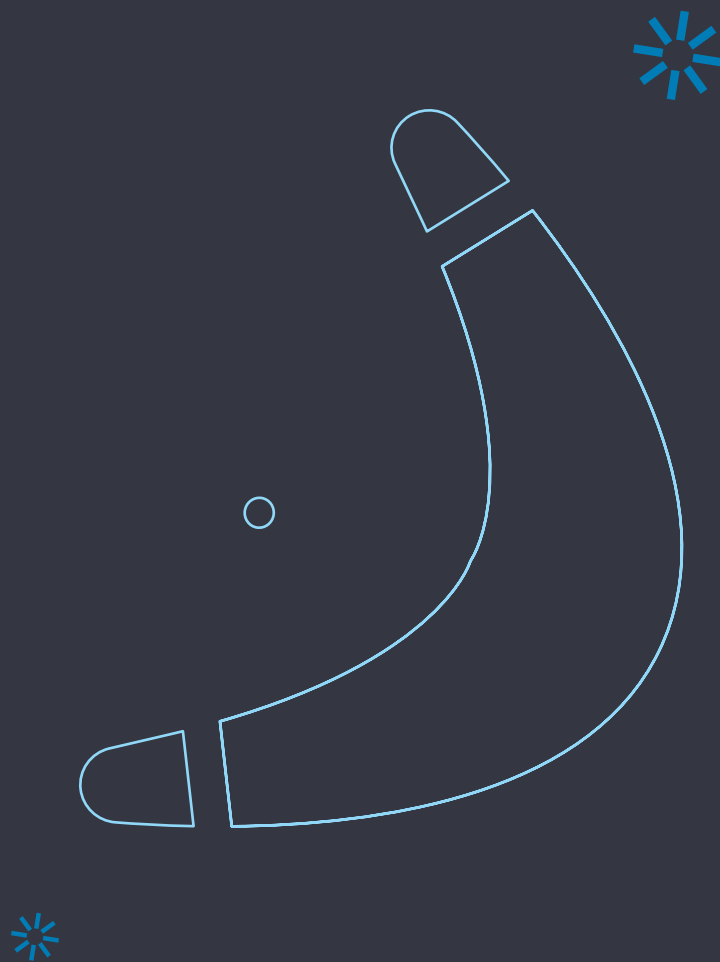
Driven by employee demand, Aesop began using Airbnb for Business for corporate travel. Airbnb complements traditional tourist accommodation and is generally used for different travel purposes. As Aesop stores are frequently established in local neighbourhoods rather than corporate areas, Airbnb is often more convenient for travelling staff. Employees can stay in the neighbourhood near the proposed or established Aesop store, and experience the local culture shaping each location.

Airbnb is ideal for longer-term stays where Aesop employees will be living out of home for an extended period of time. Aesop reported that people who use Airbnb tend to engage more with the local community, as opposed to experiencing their destination at a purely business level. Kitchen and laundry facilities are also useful for extended stays, as they render the living and working environment more similar to home than to a hotel. Pricing can also be more affordable through Airbnb for long term stays.

Hotels are still important in the context of Aesop's corporate travel, especially for shorter stays or long trips with multiple stopovers and complex itineraries. Staff who are travelling to unfamiliar locations may also choose to stay at a hotel where easy airport transfers are available. Airbnb and hotels are alternative options which each have different advantages depending on travel requirements.

The Airbnb for Business platform provides for ease of booking in a corporate environment. Authorised travel organisers can book accommodation on someone else's behalf, which is important for Aesop given the frequency of travel required for some employees and directors. Global applications are increasingly changing how Aesop undertakes corporate travel around the world.

5. Producer effects



Airbnb hosts are rewarded beyond the income they earn – they also enjoy the benefits of cultural exchange. While traditional accommodation may be impacted by Airbnb, competition can drive better quality and the size of the market.

5.1 Benefits for Airbnb hosts

Airbnb hosts enjoy a number of benefits arising from their activities on the platform. These benefits are not limited to the income earned from Airbnb stays – hosts also benefit from the interactions with their guests and the broader community, and can experience new cultures without leaving their hometown.

5.1.1 Income

Airbnb allows ordinary households to have an extra source of income by sharing their existing property, whether that be a spare room or a holiday house. For over 80 per cent of Airbnb hosts across Australia, this property is the home in which they live. Airbnb hosts in Tasmania earned a median income of \$7,120 in 2015-16.

A survey of Sydney Airbnb hosts in 2013 found that 31 per cent rely on their Airbnb income to make ends meet, spending on average 47 per cent of this income on essential living expenses. The remaining income is used as extra spending money, to pay for holidays or contributes to long-term savings.

Beyond comprising an additional source of income, Airbnb can also support hosts to explore new business ventures. In 2013, 27 per cent of Sydney Airbnb hosts surveyed were freelancers, entrepreneurs or self-employed. Airbnb income can help bridge the gap between earnings and expenses during the start-up period, or fund new projects which may otherwise not occur.

5.1.2 Cultural exchange and community benefits

Airbnb hosts can benefit from the cultural exchange facilitated by Airbnb. With over 80 per cent of Australian hosts listing their primary residence on Airbnb, there are ample opportunities to connect with people from different countries and cultures through peer to peer transactions.

Broadly, platforms like Airbnb connect people – with one participant providing accommodation, and the other (or others) requiring accommodation. This personal connection can range from the mere exchange of services, to a conversation or lasting friendship. The ability of Airbnb to facilitate social interactions as well as accommodation is a key benefit of the platform.⁶²

These interactions are even more beneficial when it's considered that a substantial proportion of people using Airbnb when travelling are from overseas. Both the host and guest can experience another culture through Airbnb, whether that be through a conversation, a meal or a guided tour. This can be a learning opportunity for hosts who have never travelled, and can help develop a greater understanding of diversity and culture.

Through the interactions between hosts and guests, travellers can connect with local communities and vice versa.⁶³ With the majority of Airbnb accommodation situated outside major hotel districts and instead nearby local neighbourhoods, travellers are likely to visit restaurants, bars, attractions and shops in the area – as recommended by their host. In this way, the broader community can also benefit from the cultural exchange facilitated by Airbnb, instead of this effect being more limited to major hotel districts or tourist areas.

5.2 Driving competition and growing the market

Platforms like Airbnb are adding to accommodation supply and in doing so, are growing the overall size of the market. This growth arises as Airbnb's lower prices and features may encourage people to enter the market, or stay longer or more often in tourist accommodation than what they would otherwise.

Airbnb is also increasing competition in the tourism accommodation market, with more rooms and more players in the space overall. There may, however, be costs and impacts for existing operators in the accommodation market. Research undertaken by Zervas, Proserpio and Byers in the US found that Airbnb limited the ability of the hotel industry to raise prices during peak periods, with flexible Airbnb supply positioned to absorb additional demand.⁶⁴

CBRE also analysed the impact of Airbnb on the traditional accommodation market in 59 key markets in the US. It concluded that while Airbnb may impact a hotel's ability to raise rates and may lead to hotels lowering rates to stay competitive, it is having a minimal impact outside the top markets. Airbnb generated 2 per cent or more of hotel revenue in only 15 of the 59 markets assessed – and in those 15 markets, the vast percentage of that revenue was generated in downtown.⁶⁵

Despite the impact on existing operators, consumers stand to gain from competition in the long term. Competition is a good thing – more competitive markets can help deliver greater variety, choice and quality of goods. Competition and choice are also important in the context of the broader economy, supporting productivity and income growth.⁶⁶

Airbnb has also spurred the development of new jobs, such as Airbnb host coaching. Jodie and Rob, for example, established Guest Ready to provide support and advice on getting started as an Airbnb host. Airbnb also indirectly supports jobs in other industries – for example, some hosts may employ a cleaner, or use a short term rental manager while on holiday. Deloitte Access Economics found that 4,384 FTE jobs are indirectly supported by Airbnb guest expenditure, including the amount paid to hosts and other holiday expenses.

5.3 Supporting local economies

Airbnb can activate local communities by distributing visitors across cities. 74 per cent of Airbnb properties are located outside traditional hotel districts in major markets across the world⁶⁷ – meaning that both visitors and their spending is dispersed rather than concentrated.

The dispersal of visitors across cities provides benefits to local communities, as Airbnb guests spend money in the area where they stay, rather than in areas which traditionally benefit from tourism. Airbnb survey data shows that 46 per cent of guest daytime spending is in the suburbs in which they stay, and that 98 per cent of hosts suggest local restaurants, cafes, bars and shops in their neighbourhoods. This expenditure can assist local businesses which generally rely on foot traffic and residents who live in the area.

Local communities may also benefit from the presence of tourists (particularly those from overseas) in the context of cultural exchange. As discussed in Section 5.1.2, residents may be able to benefit from interactions with travellers of different backgrounds.⁶⁸ These exchanges may otherwise not occur, and can introduce locals to people from all over the world.

Katinka – how the Airbnb community benefits a Tasmanian small business

Katinka is the sole owner and operator of Lily & Dot, a retail store and online shop based in Hobart, Tasmania. Lily & Dot showcases Tasmanian-made gifts and homewares, with a focus on children's products. Katinka also hosts crochet classes and other 'nanna craft' workshops at the store on a regular basis.

While Lily & Dot has only been open for just over a year, Katinka quickly realised the importance of tourists to the Hobart mid-town precinct and Tasmania more broadly.

"I underestimated how many customers would not be local residents, and how many Airbnb properties were located in such close proximity to the store."

She noticed from speaking to customers that many were staying in hosted accommodation in the nearby historical Hobart area.

Katinka began to form relationships with local Airbnb hosts, which have now developed into mutually beneficial partnerships. Both Katinka and Airbnb hosts benefit from the referrals and the special offers they can give to their customers. This provides a unique experience for the guest who can discover stores like Lily & Dot, and support other small Tasmanian makers and craftspeople who supply Katinka's products.

Importantly, these partnerships can benefit small businesses and give them an "effective and inexpensive channel" to advertise in what Katinka described as a "noisy marketplace". The way in which Airbnb can help facilitate a new network is important, and as Katinka stated, is gaining traction across other small Tasmanian businesses. Importantly, the connections made in store can continue and translate to benefits down the track, with Katinka noting that many customers will return via her online store – even if they did not purchase something on their first visit.

Katinka drew parallels between the shop small movement and Airbnb. In both cases, consumers desire an authentic experience, and one which is focused on building relationships. In Katinka's store, she forges relationships with her customers and can explain the stories behind products in a way that large chain stores cannot. Similarly, Katinka noted the importance of living the local experience for Airbnb guests.

"I know who made the products, where they came from, and the stories behind them".

Katinka's store has also benefited from Airbnb in that she is now more aware of the importance of reviews and referrals. Seeing how vital positive ratings are for Airbnb hosts encouraged her to review her own online presence on other platforms, such as Google and TripAdvisor. Her involvement with Airbnb has impacted how she interacts with other technologies, especially given that Lily & Dot is a small one-person business.

Appendix A: Economic contribution modelling framework

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

All direct, indirect and total contributions are reported as gross operating surplus (GOS), labour income, value add and employment, with these terms defined in Table A.1.

Table A.1: Definitions of economic contribution estimates

Estimate	Definition
Gross operating surplus (GOS)	GOS represents the value of income generated by the entity's direct capital inputs, generally measured as the earnings before interest, tax, depreciation, and amortisation (EBITDA).
Labour income	Labour income is a subcomponent of value add. It represents the value of output generated by the entity's direct labour inputs, as measured by the income to labour.
Value add	Value add 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 add across all entities in the economy equals gross domestic product. Given the relationship to GDP, the value add measure can be thought of as the increased contribution to welfare.
Employment (FTE)	Employment is a fundamentally different measure of activity to those above. It measures the number of workers (measured in full-time equivalent terms) that are employed by the entity, rather than the value of the workers' output.
Direct economic contribution	The direct economic contribution is a representation of the flow from labour and capital committed in the economic activity.
Indirect economic contribution	The indirect contribution is a measure of the demand for goods and services produced in other sectors as a result of demand generated by economic activity.
Total economic contribution	The total economic contribution to the economy is the sum of the direct and indirect economic contributions.

Source: Deloitte Access Economics (2016)

Value added

The measures of economic activity provided by a 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 state product (GSP).

There are a number of ways to measure GDP:

- **Expenditure approach** – measures the 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 or firm 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. One measure is value added.

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:

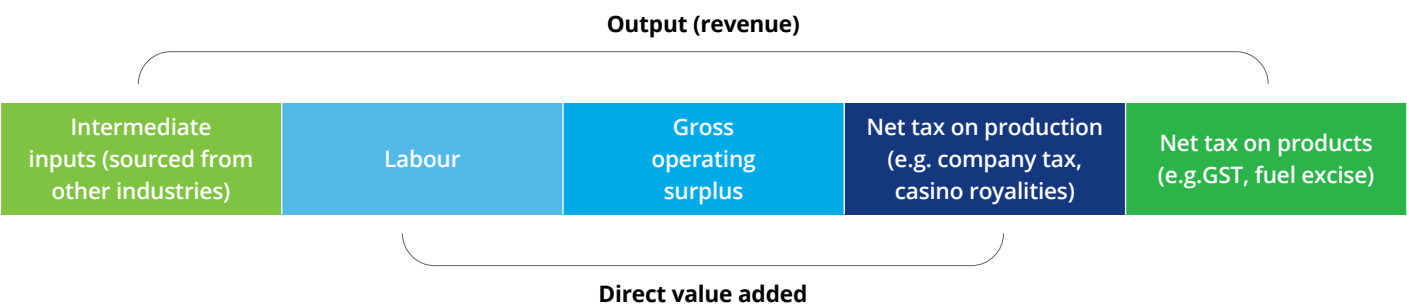
- Gross operating surplus (GOS) represents the value of income generated by the entity's capital inputs, generally measured as the earnings before interest, tax, depreciation and amortisation (EBITDA)
- Tax on production less subsidy provided for production. Note: given the manner in which returns to 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. Net taxes on products are not included in value added but are included in GDP.

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 Airbnb-facilitated tourism. Estimation of the indirect economic contribution is undertaken in an input-output (IO) framework using Australian Bureau of Statistics IO tables which report the inputs and outputs of specific sectors of the economy.

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 unused capacity in the economy (such as unemployed labour) there may not be a strong 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.

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:⁶⁹

"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 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 (CGE) model.

For guest expenditure on accommodation (i.e., payments to Airbnb hosts), the analysis is based on the ownership of dwelling industry group within the ABS Input-Output tables and it should be noted that the profile of expenditure on intermediate inputs for those providing Airbnb accommodation may differ somewhat from owners of dwelling more generally. Ownership of dwellings is not assumed to create any direct employment in the ABS national accounts but the purchase of intermediate inputs by owners does contribute to indirect employment in the economy.

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.

The IO matrix used for Australia is derived from the ABS 2012-13 IO tables. 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.

Appendix B: Consumer effects modelling framework

Savings to consumers

Approach

The purpose of this analysis is to investigate the impact of Airbnb on the demand of hotel room nights in central Sydney since 2012. To accomplish this goal, we have developed a dynamic econometric functional model based on Deloitte Access Economics' Tourist Accommodation Regional Demand, Investment and Supply model (TARDIS).

The TARDIS model consists of a system of equations that combines underlying visitor demand forecasts with a hotel accommodation supply pipeline growth profile to develop estimates of key hotel market outcomes. It is a bespoke model of the hotel accommodation market in Australia which has been implemented and updated over 15 years. Coupled with the Deloitte Access Economics Tourism Forecasting Model (DAE-TFM), it forms the core modelling engine behind the Deloitte Tourism and Hotel Market Outlook.

For this analysis, we augmented the TARDIS model with a new equation for Airbnb, for which the dependent variable also enters the demand equation for hotel room nights. The demand and supply system can be collapsed into a system of three simultaneous equations:

$$\begin{aligned}\ln RNO &= \gamma_0 + \gamma_1 \beta_1 \ln \left(TFA \left(1 + k \times \frac{ROR}{1 - ROR} \right) \right) \\ &\quad + \gamma_2 (1 - \beta_1) \ln \left(TFA \times TWI \left(1 + k \times \frac{ROR}{1 - ROR} \right) \right) + \gamma_3 \ln DEM_{DOM} \\ &\quad + \gamma_4 \ln DEM_{INT} + \gamma_5 S2 + \gamma_6 S3 + \gamma_7 S4 + \gamma_8 \ln ABN \\ \ln ABN &= \alpha_0 + \alpha_1 \ln ABL + \alpha_2 ROR + \alpha_3 S2 + \alpha_4 S3 + \alpha_5 S4 \\ \ln TFA &= \delta_0 + \delta_1 ROR + \delta_2 \beta_2 \ln WGE + \delta_3 S2 + \delta_4 S3 + \delta_5 S4\end{aligned}$$

The first equation captures the relationship between the monthly hotel Room Nights Occupied (RNO) and Takings from Accommodation (TFA). TFA, along with Room Occupancy Rate (ROR) and a congestion parameter k ,⁷⁰ are used to derive the own and competitor price variables (to capture effective takings). The competition between Australian and foreign destinations are captured through the trade weighted exchange rate (TWI) in the competitor price variable. Income effects are captured by DEM_{DOM} and DEM_{INT} . Airbnb enters the competition for hotel room nights via the last variable, $\ln ABN$, which is the log of monthly Airbnb nights booked in the same period. This variable becomes the dependent variable in the second equation which relates Airbnb nights with the total number of unique Airbnb listings (ABL) and Hotel Room Occupancy Rate (ROR). Finally, the third equation captures the supply-side relationship between hotel takings (TFA), index of real wages (WGE) and hotel room occupancy rate (ROR). S2, S3 and S4 are quarterly dummies to adjust for seasonality.

The system of equations has to be solved numerically. Improvements in econometric software make it possible to estimate this highly non-linear system of equations using 'off the shelf' programs such as R.⁷¹ The system is estimated using a technique known as 'Full Information Maximum Likelihood' (FIML) which maximises the fit of the equations to the data simultaneously.

It should be noted that all of the variables in the model are differenced for the purpose of estimation – as the Augmented Dickey-Fuller Test suggests that the time-series are not stationary in level but stationary in first difference, at 1 per cent statistical significance.

Table B.1 : Augmented Dickey-Fuller Test results

Alternative hypothesis	Variable	Statistic	P value	Variable	Statistic	P value
Stationary	lnRNO	-2.858	0.236	d.lnRNO	-8.872	<0.01
Stationary	lnTFA	-2.919	0.211	d.lnTFA	-7.945	<0.01
Stationary	lnABL	-2.083	0.541	d.lnABL	-14.888	<0.01
Stationary	lnABN	-1.463	0.785	d.lnABN	-9.035	<0.01

Source: Deloitte Access Economics

One simplification of our model is that the two exogenous demand indices derived from the DAE-TFM model do not take into account the potential impact from Airbnb on the total number of visitors to Sydney. As a consequence, although the coefficient on $\ln ABN$, y_g , can reflect the competition between hotels and Airbnb, the residuals from the model would necessarily capture a combination of new visitors who would not otherwise visit Sydney, and people who would otherwise stay with friends or relatives, etc.

Data

We have compiled our estimation data from three separate sources. Firstly, Airbnb Australia has provided Deloitte Access Economics with the monthly number of Airbnb nights booked (ABN) and total unique Airbnb listings (ABL) in Sydney from January 2012 to June 2015, on a confidential basis. Secondly, we have collected the monthly hotel RNO, TFA and ROR from the tourist accommodation series released annually by the Australia Bureau of Statistics (ABS) for the same period. Finally, the two demand indices and the real wage index are obtained directly DAE-TFM.

Result

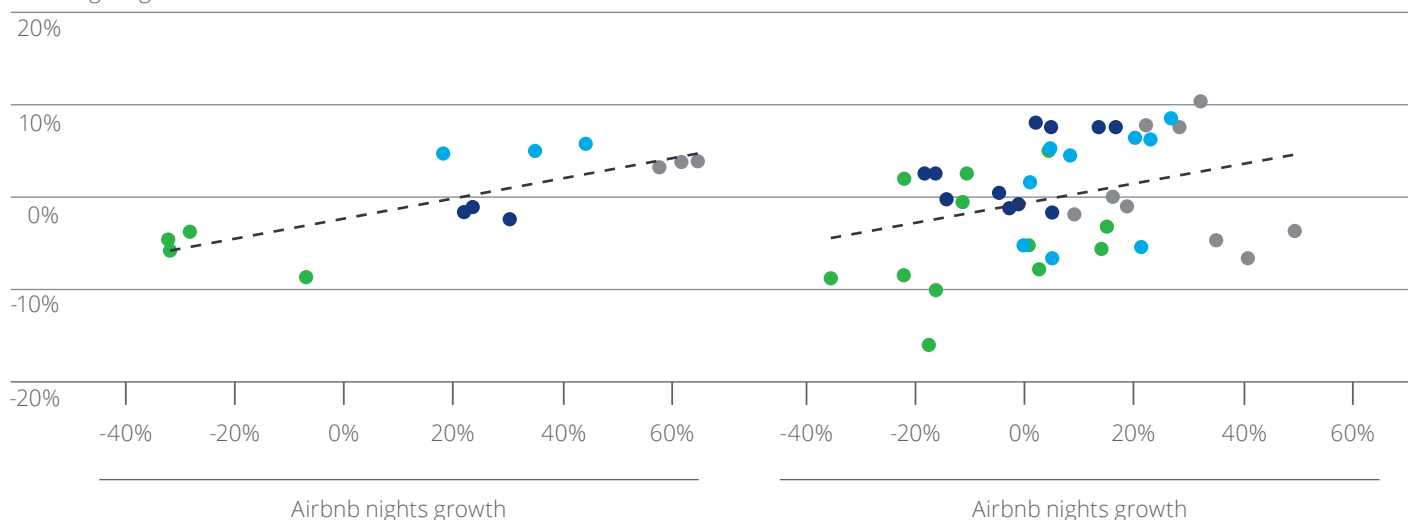
Chart B.1 illustrates the relationship between the monthly and quarterly growth rate of Airbnb nights booked and hotel nights occupied during the sampling period. It can be seen that higher growth in Airbnb nights is usually associated with higher growth in hotel nights.

Chart B.1 : Scatter plot of the growth rate of hotel and Airbnb nights

Hotel vs Airbnb nights quarterly growth, Jan 2012-Jun 2015

Hotel vs Airbnb nights monthly growth, Jan 2012-Jun 2015

Hotel nights growth



Quarter

Mar Jun Sep Dec

Source: Deloitte Access Economics

Incorporating Airbnb listings and bookings into Deloitte Access Economics' Tourism Accommodation Regional Demand, Investment and Supply (TARDIS) model shows the effect of Airbnb on the number of hotel room nights booked. Applying this relationship to historical Airbnb bookings data reveals the number of booked Airbnb nights which can be attributed to those switching from traditional accommodation, and those which are booked by new entrants to the market. Estimates for the proportion of new entrants each year range between 40 to 62 per cent. We have adopted a midpoint of 51 per cent to calculate the number of Airbnb guests who enjoyed cost savings due to the price differential between Airbnb listings and hotels.

Consumer benefits

Approach

From a microeconomic perspective, the advent of Airbnb has effectively brought down the transaction cost of providing and screening peer to peer short-stay accommodation services. Consequently, consumers are better off with the expanded budget set to reach goods and services that were previously unattainable. Similar to any economic transaction, consumption of Airbnb rooms would happen if and only if the consumer's willingness to pay (WTP) is above the actual price required to secure the accommodation. The difference between total WTP and actual price is called net 'consumer surplus', which is an integral component of consumer benefit.

The purpose of this analysis is to quantify the amount of consumer surplus obtained by Airbnb customers that visited Sydney during 2015-16. To accomplish this goal, we have developed two hedonic price models in the spirit of Rosen⁷² and Bajari and Benkard.⁷³ The analysis is performed separately on data for 30 sub-markets, with each sub-market representing a certain type of accommodation⁷⁴ in a certain area of Sydney,⁷⁵ to account for product heterogeneity and heteroscedasticity.

The first approach is a two-stage regression similar to that described by Rosen. In the first stage, the total prices of Airbnb bookings are regressed on various booking characteristics:

$$\begin{aligned} \log(\text{Total payment}_i) &= \beta_0 + \beta_1 \log(\text{Nights}) + \beta_2 \log^2(\text{Nights}_i) + \beta_3 \log(\text{Guests}_i) \\ &+ \beta_4 \log(\text{booking_in_advance}) + \beta_5 \log(\text{listing_n_booked}) \\ &+ \text{AirbnbRating} + \text{GuestOrigin}_i + \text{ExchangeRate}_i \\ &+ \text{QuarterlyDummies} + \text{WeekendDummies} \end{aligned}$$

From each of the 30 regressions, we obtain the coefficients β_1 and β_2 , the fitted total payment values and the number of nights from each booking. These estimates can then be used to calculate the marginal willingness to pay for the last consumed night for each observation:

$$\frac{\partial \text{Utility}_i}{\partial \text{Nights}_i} = \frac{\partial \text{Total payment}_i}{\partial \text{Nights}_i} = [\beta_1 + 2\beta_2 \log(\text{Nights}_i)] * \frac{\text{Fitted payment}_i}{\text{Nights}_i} = \text{WTP}_i \quad (*)$$

Where the first equals sign follows from consumers maximising their utilities.⁷⁶

Compared with the approach described by Rosen,⁷⁷ it is clear that our model has an insufficient number of product characteristics such as room size, neighbourhood environment, distance to public transport, etc. In this respect, equation (*) can only be regarded as an assumed functional form of marginal WTP. Intuitively, it assumes that the marginal enjoyment from an extra night of stay with Airbnb is higher for more expensive listings while become increasingly lower as the period of stay extends.

In the second stage, the log of marginal WTPs are regressed on the log of nights booked, along with other booking characteristics:

$$\begin{aligned} \log(\text{marginal WTP}_i) &= \gamma_0 + \gamma_1 \log(\text{Nights}) + \beta_2 \log(\text{booking_in_advance}) \\ &+ \gamma_3 \log(\text{listing_n_booked}) + \text{GuestOrign}_i + \text{ExchangeRate}_i \\ &+ \text{QuarterlyDummies} + \text{WeekendDummies} \end{aligned}$$

The elasticity of demand can be calculated as the inverse of the coefficient γ_1 in each of the corresponding regressions for the 30 sub-markets. Consumer surplus can then be calculated based on the estimated elasticity, the total nights booked and weighted average price per night in each sub-market:⁷⁸

$$\text{Surplus}_j = -\frac{P_j * Q_j}{2 * \epsilon_j}, \quad \text{in each sub_market}_j$$

where ϵ_j is the elasticity of demand (negative) in the sub-market.

One limitation of the two-stage hedonic approach is that the second-stage regression has a simultaneity problem because consumers with a higher preference for a longer period of stay would naturally book from hosts that provide long-term contracts. This simultaneity problem causes inconsistent estimates in the second stage.⁷⁹ To address this issue, Bajari and Benkard introduce a different two-stage approach that specifies a functional form of utility and uses Gibbs sampling to simulate the population distribution of consumers' taste coefficients. However, the lack of product characteristics has limited the value in adopting such complicated methodologies. Therefore, we have only estimated consumer surplus based on a simplified log-linear utility function, as a complement to the first approach:

$$\text{Utility}_i = \frac{\text{Fitted payment}_i}{\text{Nights}_i} + \alpha * \log(\text{Nights}_i)$$

where $\alpha = [\beta_1 + 2\beta_2 \log(\text{Nights}_i)] * \text{Fitted payment}_i$

Similar to the two-stage model, this specification assumes utility to increase with total expenditure but at a declining rate as the period of stay extends.

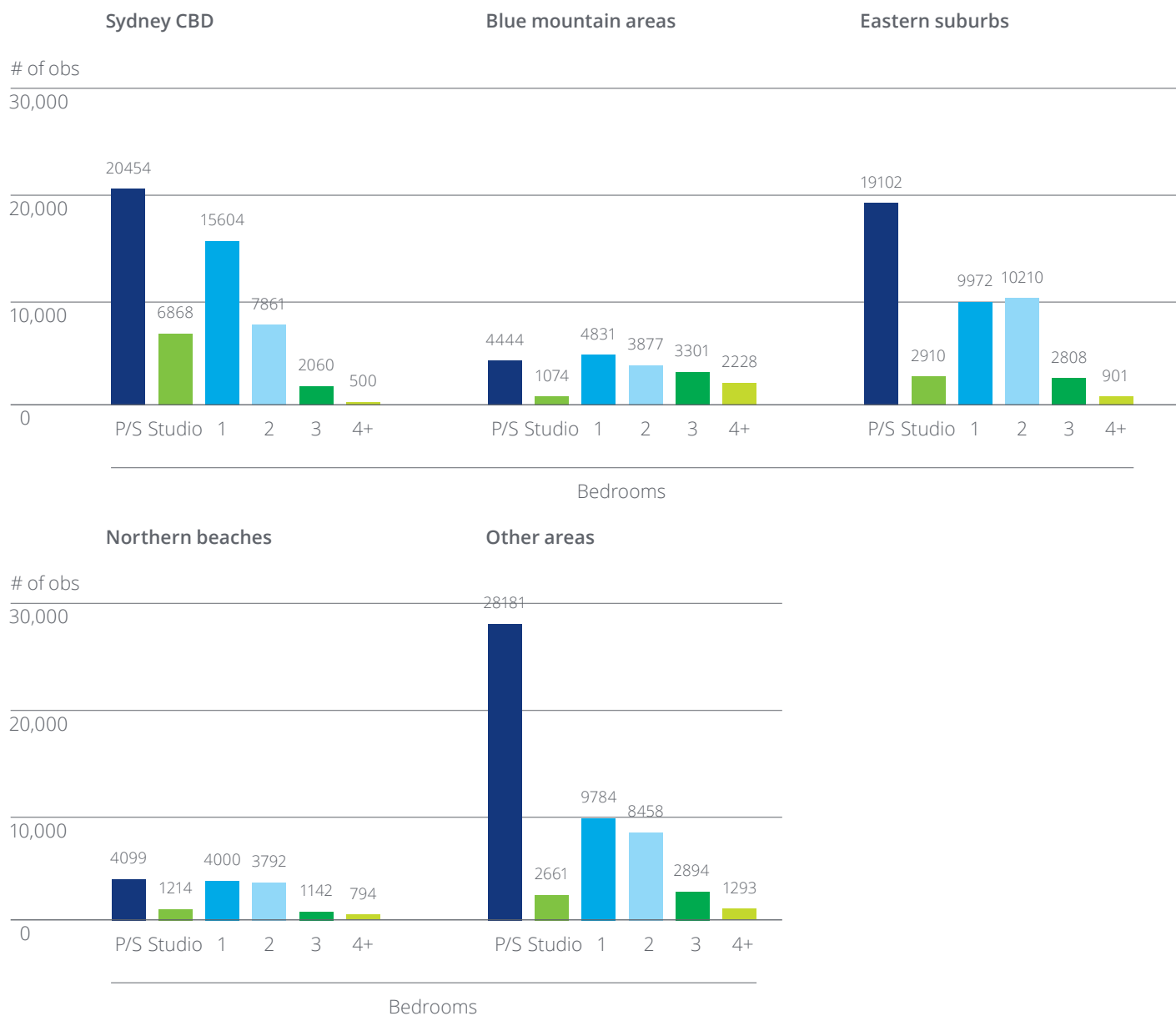
Data

We obtained transaction data for all of the Airbnb bookings to Sydney during July 2015 to June 2016, on a confidential basis. Table B.2 shows the list of variables, along with their transformations, that are used for the analysis.

Table B.2: List of variables supplied from Airbnb

Variable	Description	Transformation
Nights booked	Total nights booked	–
Total guests	Total number of guests	–
Total guest price	Total amount of payment	–
Guest country	The country where the guests are from originally.	Coded as 'AU' or 'Foreigner'.
Listing postcode	The postcode	Used to classify each observation into the five regions in Sydney ⁸⁰
Check-in date	Date of check-in	Used to derive quarterly and weekend dummies
Booking date	Date of booking	Used to derive variable 'booking_in_advance'=number of days between booking and check-in, as a measure of flexibility
Listing type	Whether the listing is a private/shared room or entire house/apartment	Used to split the sample by different accommodation types ⁸¹ .
Total bedrooms	Total number of bedrooms	
Overall rating	Airbnb rating (integer 1-5)	Coded as 'low' (0-3), 'medium' (4) and 'high' (5)
AUD	Australian dollar exchange rate	Matched with the date of reservation for each observation

Chart B.2 below shows the respective number of observations from the 30 sub-markets. It is not surprising that private/shared rooms comprise a significant share (40 per cent) of the observations. However, they only represents one fifth of the total expenditure due to their relative lower prices.

Chart B.2 : Number of observations for the 30 sub-markets

Source: Deloitte Access Economics

Result

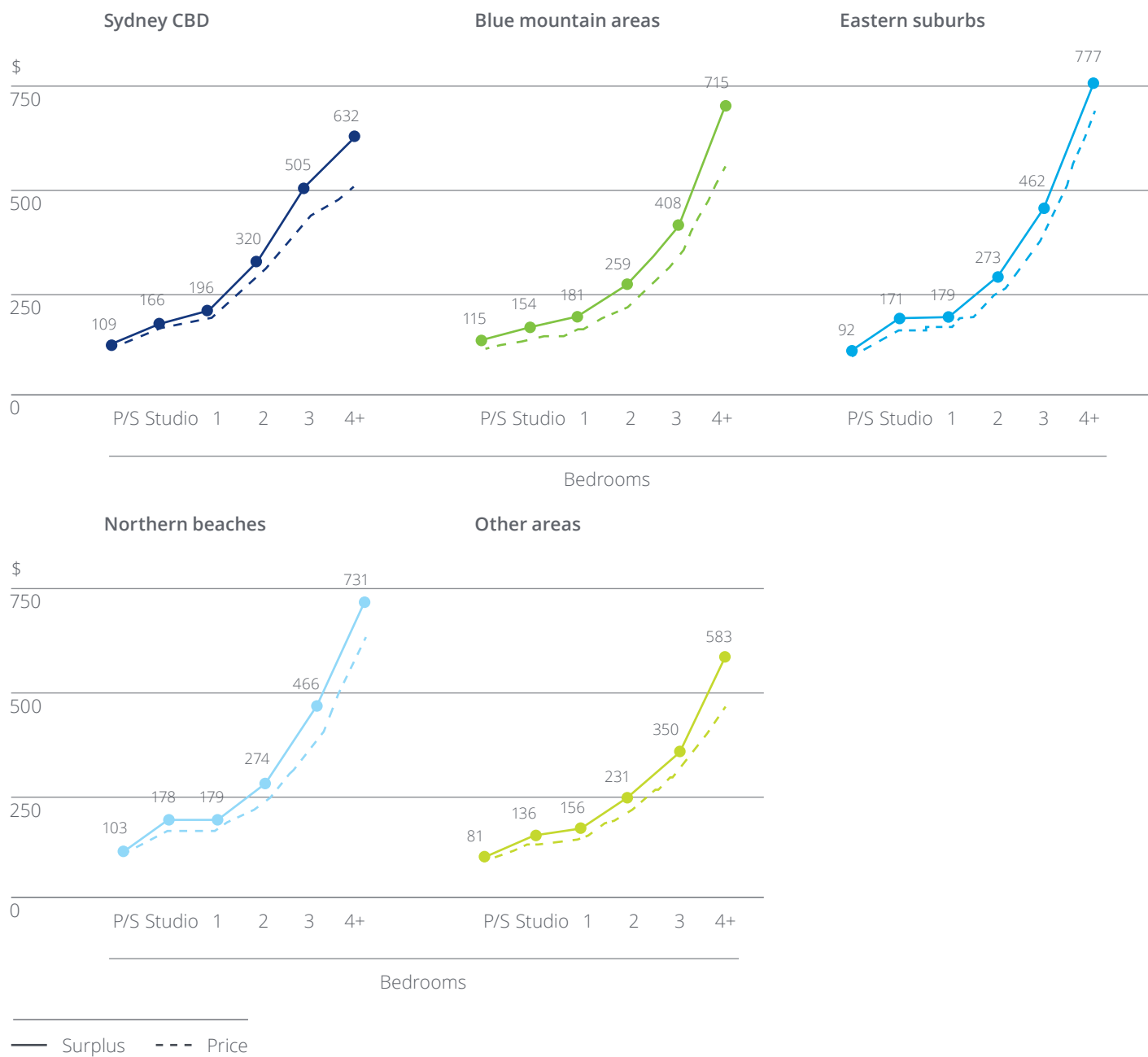
The first stage regression provides a decent fit to the price equations. Chart B.3 below shows the adjusted R-square from the 30 regressions performed. The overall average is 73.5 per cent.

Chart B.3: Adjusted R-square from the first-stage regression



Source: Deloitte Access Economics

Based on results from the second stage regression, Chart B.4 shows the weighted average consumer surplus and price per night in each of the 30 sub-markets. It can be seen that accommodation with higher number of bedrooms are yielding, on average, a higher proportionate surplus. This is because the demand for multi-bedroom accommodation is found to be relatively more inelastic. It is conceivable that consumers that booked for multi-bedroom listings would be less sensitive to prices due to the scarcity of supply and/or the potentially higher demand for quality.

Chart B.4 : Weighted average surplus vs price

Source: Deloitte Access Economics

Table B.3 shows the calculated surplus from the two hedonic approaches. The two approaches are distinct in the specification of consumer preferences. In particular, the first approach assumes linear demand which implies a quadratic utility function while the second approach assumes a log-linear utility function. We believe the average of the two estimates provides a sensible measure of the total consumer surplus.

Table B.3: Consumer surplus created by Airbnb

Method	Aggregate willingness to pay	Total amount paid	Consumer surplus
Two-stage hedonic	\$173.6 million	\$149.2 million	\$24.4 million
Direct utility estimation	\$221.6 million	\$149.2 million	\$72.4 million
Average	\$197.6 million	\$149.2 million	\$48.4 million

Source: Deloitte Access Economics, using Airbnb data.

Footnotes

1. Estimating consumer surplus required an understanding of the demand curve for Airbnb accommodation. The slope of the demand curve is determined by the responsiveness of consumers to changes in price – also known as price elasticity. Deloitte Access Economics used hedonic regression to estimate price elasticities. Hedonic models break down a consumer's value of a good into its constituent parts, such that it is possible to estimate how much each characteristic contributes to willingness to pay
2. Tourism Accommodation Australia, Submission to The Federal Opposition Discussion Paper, Sharing the future: Getting policy right in the Age of the App, June 2015
3. Tourism Research Australia, Tourism Satellite Account – Summary of Key Results 2015-16 (21 December 2016) <https://www.tra.gov.au/documents/Economic-Industry/State_Tourism_Satellite_Account_2016.pdf>
4. Tourism Research Australia, International Visitors in Australia: September 2016 Quarterly Results of the International Visitor Survey (7 December 2016) <<https://www.tra.gov.au/research/latest-ivs-report.html>>
5. Tourism Research Australia, Travel by Australians: September 2016 Quarterly Results of the National Visitor Survey (21 December 2016) <<https://www.tra.gov.au/research/latest-nvs-report.html>>
6. Tourism Research Australia, Travel by Australians: September 2016 Quarterly Results of the National Visitor Survey (21 December 2016) <<https://www.tra.gov.au/research/latest-nvs-report.html>>; Tourism Research Australia, International Visitors in Australia: September 2016 Quarterly Results of the International Visitor Survey (7 December 2016) <<https://www.tra.gov.au/research/latest-ivs-report.html>>
7. Deloitte, Tourism and Hotel Market Outlook (January 2017)
8. The ABS definition only incorporates establishments with 15 or more rooms. In contrast, TRA data captures tourist nights spent in all traditional visitor accommodation establishments, regardless of the number of rooms. The differences between these definitions are highlighted throughout the text where relevant
9. Tourism Research Australia, Travel by Australians: September 2016 Quarterly Results of the National Visitor Survey (21 December 2016) <<https://www.tra.gov.au/research/latest-nvs-report.html>>; Tourism Research Australia, International Visitors in Australia: September 2016 Quarterly Results of the International Visitor Survey (7 December 2016) <<https://www.tra.gov.au/research/latest-ivs-report.html>>
10. Tourism Research Australia, Tourism Forecasts 2016 (14 July 2016) <<https://www.tra.gov.au/research/Tourism-Forecasts-2016.html>>
11. Ibid
12. Australian Bureau of Statistics, Tourist Accommodation, Australia, 2015-16, cat. no. 8635.0 (25 November 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8635.0Main+Features12015-16?OpenDocument>>
13. STR Global, STR Trend Report - Australia, January 2010 to December 2016 (18 January 2017)
14. Deloitte, Tourism and Hotel Market Outlook – The changing face of travel (August 2016).
15. IBISWorld, Industry Report OD4163 – Online Travel Bookings in Australia (March 2016)
16. Tourism Australia, Tourism 2020: Setting the foundations (2010-2014) (October 2013) <http://www.tourism.australia.com/documents/Statistics/TACP8132_2020_Update_2013-SP.pdf>
17. STR Global, STR Trend Report - Australia, January 2010 to December 2016 (18 January 2017).
18. Tourism Research Australia, State of the Industry 2016 (February 2017) <http://tra.gov.au/reports/soi2016/state_of_the_industry_2016.pdf>
19. Tourism Australia, Tourism 2020: Setting the foundations (2010-2014) (October 2013) <http://www.tourism.australia.com/documents/Statistics/TACP8132_2020_Update_2013-SP.pdf>
20. Tourism Research Australia, Tourism Investment Monitor 2016 (July 2016) <https://tra.gov.au/documents/Economic-Industry/Tourism_Investment_Monitor_2016.pdf>; Tourism Research Australia, Tourism Investment Monitor 2015 (May 2015) <http://tra.gov.au/documents/Economic-Industry/Tourism_Investment_Monitor_2015_FINAL.pdf>
21. Tourism Research Australia, State of the Industry 2016 (February 2017) <http://tra.gov.au/reports/soi2016/state_of_the_industry_2016.pdf>
22. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
23. Premier Will Hodgman, 'CEDA Tasmanian State of the State Address' (Speech delivered at CEDA, 26 September 2016) <http://www.premier.tas.gov.au/releases/ceda_speech2>.
24. Tasmanian Government, Policy Statement – Accommodation Sharing – Supporting Tasmania's Visitor Economy (2017) <http://www.premier.tas.gov.au/_data/assets/pdf_file/0004/318136/Accommodation_Sharing_Policy_Tas_3_2_16.pdf>.
25. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
26. Note that this payment is not assumed to create any direct employment within the ABS IO tables, meaning that Airbnb hosts are not included in the overall employment figures
27. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
28. Australian Bureau of Statistics, Australian National Accounts: Tourism Satellite Account, 2015-16, cat. no. 5249.0 (21 December 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12015-16?OpenDocument>>; Australian Bureau of Statistics, Australian National Accounts: Input-Output Tables, 2012-2013, cat. no. 5209.0.55.001 (25 June 2015) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4EF352A3D213A4ACA257FE000172FCB?opendocument>>
29. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
30. Australian Bureau of Statistics, Australian National Accounts: Tourism Satellite Account, 2015-16, cat. no. 5249.0 (21 December 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12015-16?OpenDocument>>; Australian Bureau of Statistics, Australian National Accounts: Input-Output Tables, 2012-2013, cat. no. 5209.0.55.001 (25 June 2015) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4EF352A3D213A4ACA257FE000172FCB?opendocument>>

31. Tourism Tasmania, Tourism Fast Facts: A quick guide to tourism in Tasmania as at December 2016 <http://www.tourismtasmania.com.au/_data/assets/pdf_file/0007/46672/Fast-Facts-December-2016.pdf>.
32. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
33. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
34. Australian Bureau of Statistics, Australian National Accounts: Tourism Satellite Account, 2015-16, cat. no. 5249.0 (21 December 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12015-16?OpenDocument>>; Australian Bureau of Statistics, Australian National Accounts: Input-Output Tables, 2012-2013, cat. no. 5209.0.55.001 (25 June 2015) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4EF352A3D213A4ACA257FE000172FCB?opendocument>>
35. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
36. Australian Bureau of Statistics, Australian National Accounts: Tourism Satellite Account, 2015-16, cat. no. 5249.0 (21 December 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12015-16?OpenDocument>>; Australian Bureau of Statistics, Australian National Accounts: Input-Output Tables, 2012-2013, cat. no. 5209.0.55.001 (25 June 2015) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4EF352A3D213A4ACA257FE000172FCB?opendocument>>
37. Tourism Research Australia, Tourism Region Profiles <http://tra.gov.au/Tourism_Region_Profiles/Region_profiles/index.html#about>
38. Australian Bureau of Statistics, Australian National Accounts: Tourism Satellite Account, 2015-16, cat. no. 5249.0 (21 December 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/5249.0Main+Features12015-16?OpenDocument>>; Australian Bureau of Statistics, Australian National Accounts: Input-Output Tables, 2012-2013, cat. no. 5209.0.55.001 (25 June 2015) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/allprimarymainfeatures/A4EF352A3D213A4ACA257FE000172FCB?opendocument>>.
39. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism <https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>
40. Iis Tussyadiah and Juho Antti Pesonen, 'Drivers and barriers of peer-to-peer accommodation stay – an exploratory study with American and Finnish travellers' [2016] Current Issues in Tourism <<http://www.tandfonline.com/doi/abs/10.1080/13683500.2016.1141180>>, citing Rachel Botsman and Roo Rogers, What's Mine Is Yours: The Rise of Collaborative Consumption (HarperBusiness, 1st ed, 2010) and Jeremiah Owyang, The Collaborative Economy (4 June 2013) <<http://www.slideshare.net/Altimeter/the-collaborative-economy>>
41. Airbnb, Submission No 207 to Committee on Environment and Planning, Adequacy of the regulation of short-term holiday letting in New South Wales, 1 December 2015
42. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism <https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>, citing Dean MacCannell, 'Staged Authenticity: Arrangements of Social Space in Tourist Settings' (1973) 79(3) American Journal of Sociology 589
43. Adam Dennett and Hanqun Song, 'Why tourists thirst for authenticity – and how they can find it', The Conversation (online), 26 November 2016 <<http://theconversation.com/why-tourists-thirst-for-authenticity-and-how-they-can-find-it-68108>>; Expedia, Millennial traveller report – Why millennials will shape the next 20 years of travel (October 2016) <<http://expediablog.co.uk/wp-content/uploads/2016/10/Expedia-Millennial-Traveller-Report.pdf>>
44. See, e.g., Hotels.com, Chinese International Travel Monitor 2016 <<http://www.citmhotels.com/english.pdf>>
45. Lian Jian, Jeffrey K. MacKie-Mason and Paul Resnick, 'I Scratched Yours: The Prevalence of Reciprocity in Feedback Provision on eBay' (2010) 10(1) The B.E. Journal of Economic Analysis & Policy 1; Gary Bolton, Ben Greiner and Axel Ockenfels, 'Engineering Trust: Reciprocity in the Production of Reputation Information' (2013) 59(2) Management Science 265
46. Teubner et al, 'It's only pixels, badges, and stars: On the economic value of reputation on Airbnb' (Paper presented at the Australasian Conference on Information Systems, Wollongong, 2016)
47. Andrey Fradkin et al, Bias and Reciprocity in Online Reviews: Evidence From Field Experiments on Airbnb (National Bureau of Economic Research and Airbnb Inc., 19 December 2014)
48. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism <https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>
49. Iis Tussyadiah and Juho Antti Pesonen, 'Drivers and barriers of peer-to-peer accommodation stay – an exploratory study with American and Finnish travellers' [2016] Current Issues in Tourism <<http://www.tandfonline.com/doi/abs/10.1080/13683500.2016.1141180>>, citing Rachel Botsman and Roo Rogers, What's Mine Is Yours: The Rise of Collaborative Consumption (HarperBusiness, 1st ed, 2010)
50. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism <https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>
51. Iis P. Tussyadiah and Juho Pesonen, 'Impacts of Peer-to-Peer Accommodation Use on Travel Patterns' (2016) 55(8) Journal of Travel Research 1022
52. Morgan Stanley Research, Who Will Airbnb Hurt More – Hotels or OTAs?... One Year Later (Morgan Stanley, 13 November 2016)
53. Jamie Lane and R. Mark Woodworth, The Sharing Economy Checks In: An Analysis of Airbnb in the United States (January 2016) CBRE <<http://rss.hsyndicate.com/file/152006083.pdf>>
54. Australian Bureau of Statistics, Tourist Accommodation, Australia, 2015-16, cat. no. 8635.0 (25 November 2016) <<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/8635.0Main+Features12015-16?OpenDocument>>
55. Ibid
56. Ibid
57. Ibid
58. Dublin and Deloitte Consulting, The Hotel of the Future (2016) <<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/consumer-business/us-cb-the-hotel-of-the-future.pdf>>, citing Fast Company
59. Ibid
60. TR Global, STR Trend Report – Country: Australia, Tract: Sydney City, January 2010 to December 2016 (18 January 2017); STR Global, STR Trend Report – Country: Australia, Tract: Melbourne City, January 2010 to December 2016 (18 January 2017)
61. Email from Robyn Johnson to Deloitte, 19 March 2017
62. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism <https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>
63. Ibid

64. Georgios Zervas, Davide Proserpio and John W. Byers, 'The Rise of the Sharing Economy: Estimating the Impact of Airbnb on the Hotel Industry' (Research Paper No 2013-16, Boston U. School of Management, 18 November 2016)
65. Jamie Lane and R. Mark Woodworth, The Sharing Economy Checks In: An Analysis of Airbnb in the United States (January 2016) CBRE < <http://rss.hsyndicate.com/file/152006083.pdf>>
66. Professor Ian Harper et al, Competition Policy Review: Final Report (Australian Government, March 2015)
67. Airbnb, Submission No 207 to Committee on Environment and Planning, Adequacy of the regulation of short-term holiday letting in New South Wales, 1 December 2015
68. Daniel Guttentag, 'Airbnb: Disruptive innovation and the rise of an informal tourism accommodation sector' [2013] Current Issues in Tourism < https://www.researchgate.net/publication/271624904_Airbnb_Disruptive_innovation_and_the_rise_of_an_informal_tourism_accommodation_sector>; Iis Tussyadiah and Juho Antti Pesonen, 'Drivers and barriers of peer-to-peer accommodation stay – an exploratory study with American and Finnish travellers' [2016] Current Issues in Tourism < <http://www.tandfonline.com/doi/abs/10.1080/13683500.2016.1141180>>
69. Productivity Commission (1999), Australia's Gambling Industries, Report No. 10, AusInfo, Canberra, page 4.19
70. The system is estimated with k held constant at 0.05. Note that k can be estimated econometrically, but due to the non-linearity of the system of equations and limited degrees of freedom it can be quite difficult to estimate a consistent or reliable estimate
71. The "sem" package in R is used for this analysis
72. Sherwin Rosen, 'Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition' (1974) 82(1) Journal of Political Economy 34
73. C Lanier Benkard and Patrick Bajari, 'Demand Estimation with Heterogeneous Consumers and Unobserved Product Characteristics: A Hedonic Approach' (2005) 113(6) Journal of Political Economy 1239
74. Studio, private/shared room, one bedroom, two bedrooms, three bedrooms, over four bedrooms, based on the number of bedrooms and accommodation types (entire house/apartment vs. private/shared room)
75. Sydney CBD, Blue Mountain areas, Eastern Suburbs, Northern Beaches and other areas, based on postcodes of Airbnb listings
76. Consumers consume up to the point where the extra surplus from the last consumed unit of goods is equal to the marginal/shadow price of the goods at that consumption level
77. Sherwin Rosen, 'Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition' (1974) 82(1) Journal of Political Economy 34, 50
78. Assuming linear demand curves
79. James N Brown and Harvey S Rosen, 'On the Estimation of Structural Hedonic Price Models' (1982) 50(3) Econometrica 765; Timothy J Bartik, 'The Estimation of Demand Parameters in Hedonic Price Models' (1987) 95(1) Journal of Political Economy 81; Dennis Epple, 'Hedonic Prices and Implicit Markets: Estimating Demand and Supply Functions for Differentiated Products' (1987) 95(1) Journal of Political Economy 59
80. Sydney CBD, Blue Mountain areas, Eastern Suburbs, Northern Beaches and Other areas
81. Studio, private/shared room, one-bedrooms, two-bedrooms, three-bedrooms, over-four-bedrooms.

Authors



John O'Mahony

Partner
Deloitte Access Economics
+61 2 9322 7877
joomahony@deloitte.com.au



Ric Simes

Senior Advisor – Economics
Deloitte Access Economics
+61 2 9322 7772
rsimes@deloitte.com.au



Aaron Hill

Director
Deloitte Access Economics
+61 8 8407 7130
aahill@deloitte.com.au



Yanjun Liu

Senior Analyst
Deloitte Access Economics
+61 2 8260 4277
yanjliu@deloitte.com.au



Elizabeth Alvaro

Analyst
Deloitte Access Economics
+61 8 8407 7093
ealvaro@deloitte.com.au



Limitation of our work

General use restriction

This report is prepared solely for the use of Airbnb Australia Pty Ltd. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of providing an analysis of the economic contribution of and selected economic effects related to short-stay rentals facilitated by Airbnb in Australia. You should not refer to or use our name or the advice for any other purpose.

Deloitte.

Access Economics

Contact us

Deloitte Access Economics

ACN: 149 633 116

Level 14, 225 George Street

Sydney NSW 2000

Tel: +61 2 9322 7000

Fax: +61 2 9322 7001

Deloitte Access Economics is Australia's pre-eminent economics advisory practice and a member of Deloitte's global economics group. For more information, please visit our website

www.deloitte.com/au/deloitte-access-economics

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee, and its network of member firms, each of which is a legally separate and independent entity. Please see www.deloitte.com/au/about for a detailed description of the legal structure of Deloitte Touche Tohmatsu Limited and its member firms.

The entity named herein is a legally separate and independent entity. In providing this document, the author only acts in the named capacity and does not act in any other capacity. Nothing in this document, nor any related attachments or communications or services, have any capacity to bind any other entity under the 'Deloitte' network of member firms (including those operating in Australia).

About Deloitte

Deloitte provides audit, tax, consulting, and financial advisory services to public and private clients spanning multiple industries. With a globally connected network of member firms in more than 150 countries, Deloitte brings world-class capabilities and high-quality service to clients, delivering the insights they need to address their most complex business challenges. Deloitte's approximately 200,000 professionals are committed to becoming the standard of excellence.

About Deloitte Australia

In Australia, the member firm is the Australian partnership of Deloitte Touche Tohmatsu. As one of Australia's leading professional services firms, Deloitte Touche Tohmatsu and its affiliates provide audit, tax, consulting, and financial advisory services through approximately 6000 people across the country. Focused on the creation of value and growth, and known as an employer of choice for innovative human resources programs, we are dedicated to helping our clients and our people excel. For more information, please visit our web site at www.deloitte.com.au.

Liability limited by a scheme approved under Professional Standards Legislation.

Member of Deloitte Touche Tohmatsu Limited

© 2017 Deloitte Touche Tohmatsu

MCBD_HYD_04/17_054308