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Revisiting the Sharing Economy in Singapore

Abstract

The sharing economy had only started to take off in Singapore in recent years, but had already shaken up certain sectors, with the likes of Uber, Grab and Airbnb making the biggest splashes. These businesses introduced innovations in the business models and technologies that helped to address market inefficiencies and resource under-utilisation. At the same time, they were at odds with existing regulatory frameworks, challenged incumbents, and produced other knock-on effects. This case study discusses the development of sharing economy in Singapore – particularly ride-sharing and home-sharing which were more prevalent – in a for-profit context, and examines how policymakers in Singapore have approached the sectors, and managed the policy considerations.

Introduction

The terms 'sharing economy', 'collaborative consumption', and 'peer-to-peer economy' entered popular usage only in the last few years. Sharing economy companies had given a new spin to age-old activities, allowing large numbers of individuals or groups of individuals to rent underused assets, exchange services, or recirculate used goods. Their platforms quickly expanded into a wide range of activities, from ride-sharing, car-sharing, bicycle-sharing, peer-to-peer loans, borrowing of unused assets, hiring for odd-jobs and delivery services etc.

The likes of Uber and Airbnb were seen as the standard-bearers for this emerging and fiercely competitive industry. The sharing economy companies had shaken up traditional market players, and helped to address market inefficiencies and resource under-utilisation. At the same time, they were at odds with existing regulatory frameworks that had lagged behind evolving market structures and new technologies. This case study discusses the development of sharing economy in Singapore – particularly ride-sharing and home-sharing which were more prevalent – in a for-profit context, and examines how policymakers in Singapore have approached the sectors, and managed the policy considerations.

Overview of sharing economy

A key concept of the sharing economy was shared access to asset utilisation. The emerging sharing economy platforms were highly technology-driven, and provided supply 'on demand', that is, immediately, or at least very promptly. The platforms enabled peer-to-peer transactions to take place at an unprecedented scale and speed, shrinking transactions costs in the process. Despite the 'sharing' label, the transactions were often commercial in nature, and sharing economy companies positioned themselves as brokers facilitating such transactions and exchanges, and extracted commissions, typically without the burden of owning assets. Instead sharing economy companies leveraged the assets of individuals shared through their platforms to meet demand. In transport for example, one could book a ride from a private-hire car driver via a ride-sharing or ride-hailing platform like the Uber app, or rent a car from a car owner through CarsClub.

At the same time, the sharing economy platforms gave users more choices, and often at lower prices. The dominance of traditional intermediaries was eroded, as individuals dealt directly with other individuals through such platforms and reaped a greater share of the value generated. While price was a key attraction,

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many sharing economy platforms also promoted ethical, social or environmental credentials. For instance, the opportunity to build social networks had been touted as a key benefit of participating in the sharing economy.

Proponents of the sharing economy were optimistic about its prospects. Consulting firm PwC projected that global revenues from the top five sharing economy activities, including home-sharing and ride-sharing, would jump from US$15 billion in 2014 to US$335 billion in 2025.[1] Some even labelled the sharing economy a 'social revolution' that allowed individuals to balance self-interest with the greater good of the larger community.[2] Dominant sharing economy firms attracted large amounts of capital funding, and several were crowned tech unicorns – private companies valued at US$1 billion or more. At the top of the food chain was Uber, which had an estimated valuation of US$62.5 billion and had attracted US$8.6 billion in equity funding by 2017.[3] Its rival in China, Didi Chuxing, was valued at US$50 billion, while Singapore-based Grab attracted a more modest valuation of US$6 billion.[4] With $3.4 billion of equity funding, Airbnb was valued at US$31 billion.[5]

As traditional business models were disrupted, and established players faced stiff competition, sharing economy firms encountered increasing scrutiny from authorities and vocal opposition from traditional players such as taxi drivers and hotel owners. The demarcations between so-called sharing economy activities and more conventional businesses were also blurring. For example, Uber ventured into booking services for regular taxis. In many jurisdictions, sharing economy platforms operated in a legal grey area, or faced outright bans. Uber's operations had been partially restricted or banned in places such as Germany, India, Rio de Janeiro, Manila and Jakarta. In Jakarta for example, taxi drivers staged violent protests against ride-sharing, prompting the Indonesian Transport Ministry to rule that Uber and Grab had to partner local public transport businesses and register their cars, or face a ban.[7]

On the other hand, some cities such as Seoul, London and Amsterdam had taken a more welcoming stance to the sharing economy. The Seoul Metropolitan Government, for instance, had declared the Seoul a 'sharing city'. It enacted local legislation in 2012 to facilitate the sharing economy, and launched a 'Share Hub' to act as a clearinghouse and information portal for sharing economy services. Yet even there, Uber's private-hire car business encountered setbacks. While taxi-booking apps were permitted in Korea, existing legislation restricted chauffeured services to specific groups, such as foreigners and people with special needs. Uber's private-hire vehicle services met with fierce resistance from the local taxi industry, and was suspended in late 2015, after tussles with the Seoul Metropolitan Government.[9]

In many respects, Singapore with its dense population and enthusiastic adoption of mobile technology, seemed well-suited for sharing economy platforms to take off. The sharing economy had only started to take off in recent years, but had already shaken up certain sectors, with the likes of Uber, Grab and Airbnb making

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[1] PwC. "Five key sharing economy sectors could generate £9 billion of UK revenues by 2025." August 15, 2014. http://pwc.blogs.com/press_room/2014/08/five-key-sharing-economy-sectors-could-generate-9-billion-of-uk-revenues-by-2025.html (accessed February 5, 2016)
[2] Botsman, Rachel and Rogers, Roo. "What's Mine is Yours – The Rise of Collaborative Consumption." HarperCollins, 2010.
[3] TechCrunch. "CrunchBase Unicorn Leaderboards." Last modified August 22, 2017. https://techcrunch.com/unicorn-leaderboard/ (accessed September 2, 2017).
[4] *Ibid.*
[5] *Ibid.*
[7] "Uber and Grab must get local partners, says Indonesia after protests." The Straits Times, March 26, 2016; "Indonesia threatens to ban ride-hailing apps." Financial Times, March 31, 2016
[9] "After getting forced out of South Korea, Uber prepares to fight back." TechinAsia, December 3, 2015.

the biggest splashes. Dockless bicycle-sharing also made its debut in Singapore at the beginning of 2017, and quickly gained popularity. Not surprisingly, there was intense debate on how such businesses should be treated by regulators.

To promote this emerging business model, some sharing economy firms, including Airbnb (although not Uber) banded together to form the Sharing Economy Association of Singapore (SEAS). Some firms also set up their own policy and government liaison teams to engage governments in Singapore and the region. On the policy front, the Singapore government signalled a willingness to keep an open mind and not be too hasty to block private sector innovations, at least on the transport front.[10]

The development, impacts and issues involving two prominent sharing economy sectors in Singapore – ride-sharing and home-sharing – are discussed in the following sections.

Ride-sharing in Singapore

Ride-sharing through private-hire car rides, where a passenger shared a one-time use of a vehicle with a driver, gained much ground in Singapore in the last few years. While a number of ride-sharing apps were launched, Uber and Grab[11] were the most recognisable. The ride-sharing platforms excelled in developing technology to match demand from commuters with supply from private-hire cars and taxis. For commuters, the ride-sharing platforms offered a range of price points and services that could be conveniently booked using proprietary mobile applications (apps) installed in ubiquitous mobile devices. More importantly, the platforms helped to meet the demand gaps left by existing taxi industry.

Founded in San Francisco in 2008, Uber had already established its presence in the US, Europe and Australia, before launching its UberExec service using premium cars in Singapore in early 2013. It subsequently introduced UberX service with mid-range cars, as well as a taxi-booking service. Grab started out in Malaysia as a taxi-booking app, before it entered the Singapore market in late 2013 with a taxi booking app, and later extended its platform to private-hire cars. Other sharing economy platforms for the transport sector included CarsClub which provided car-sharing[12] services, and Ryde which offered car-pooling.

Ride-sharing platforms like Uber and Grab typically did not own fleets of passenger cars, and instead recruited individual car-owners and drivers as ‘partners’, rather than employees. These private-hire car drivers could only take bookings, and were not allowed to pick up passengers from the streets or taxi stands, which remained the preserve of taxis. The drivers could use their own cars or rent one; Uber even set up an in-house car rental company to cater to its drivers in Singapore.

Private hire car services fares were fixed upfront by the ride-sharing platforms based on distance and location, and sometimes demand, when demand surged (*Exhibit 1*). The ride-sharing platforms offered a range of transport services from four-seater cars to larger vehicles, and various price points for economy and premium services, although the UberX and GrabCar Economy services were most comparable to taxis. In return, the ride-sharing firms took a 20 per cent commission of the fares charged. Drivers were also provided with

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[10] “Sharing economy in transition.” Moving News blog, October 2, 2015. https://motsingapore.wordpress.com/2015/10/02/sharing-economy-in-transition/ (accessed February 10, 2016).
[11] Previously known as GrabTaxi, the company rebranded to Grab on 28 January 2016.
[12] Car-sharing referred to sharing the use of cars among individual car-owners and users.

monetary incentives, such as additional payments for meeting certain targets, to encourage them to accept bookings.

Exhibit 1: Fare schedules for UberX, GrabCar and regular taxi

	UberX	**GrabCar**	**Taxi (ComfortDelGro)**
Base rate / Flag-down rate	$3.00 ($3.50)	$2.50 ($3.00)	$3.20 - $3.90
Rate per km	$0.45 ($0.50)	$0.50 ($0.80)	$0.55 (up to 10 km) $0.628 (after 10 km)
Rate per minute	$0.20 ($0.25)	$0.16 (Nil)	Nil
Others	• Fare fixed upfront. • Minimum fare $3.00 ($3.50). • Dynamic/surge pricing may apply. • Toll charges, if applicable.	• Fare fixed upfront. • No minimum fare. • Additional waiting time $3 per 5 minutes. Additional stops/additional distance $5 per stop/per 5 km, up to 3 stops. • Dynamic/surge pricing may apply, capped at $100. • Toll charges, if applicable.	• Option for fixed fare.* • Booking fee $2.30 - $3.30. • $0.22 every 45 seconds of waiting or less. • Various time-based and area-based surcharges, eg. city area surcharge, peak period surcharge, late night surcharge. • Toll charges, if applicable.

Note: Fares as at September 1, 2017; figures in brackets indicate corresponding fares as at April 19, 2016; * introduced on April 10, 2017.
Source: Uber, https://www.uber.com/cities/singapore/ (accessed April 19, 2016 and September 1, 2017); Grab, https://www.grab.co/sg/car/ (accessed April 19, 2016 and September 1, 2017); ComfortDelGro, https://www.cdgtaxi.com.sg/commuters_services_rates.mvn (accessed April 19, 2016 and September 1, 2017)

Uber and Grab were initially operating in Singapore largely unfettered. The ride-sharing companies tended to see themselves as technology firms first, rather than transport providers, and their business models did not fit neatly into the existing regulatory landscape. As Grab made its foray into Singapore with its taxi-booking platform in late 2013, the regulator, the Land Transport Authority (LTA), indicated at the time that third-party taxi-booking apps did not fall within its regulatory ambit, although it reminded taxi drivers to charge within the fare structure set by their taxi operators.[15] Private-hire car drivers were not required to hold vocational licences at the time, but had to incorporate their own chauffeured or limousine services company to meet LTA's regulations that restricted private individuals from operating a chauffeured service.

As taxi-booking apps became more popular, the regulatory landscape saw a shift in November 2014. LTA announced that third-party taxi booking apps with at least 20 participating taxis would be subjected to a 'basic regulatory framework'.[16] Under the Third Party Taxi Booking Service Providers Act, third-party taxi booking apps were required to hold certificates of registration from LTA, and meet certain conditions relating to fares and charges, service standards, use of only licensed taxis etc. Although LTA acknowledged that the taxi-booking apps had improved demand and supply matching, particularly during commuting peak hours, a 'light-touch' regulatory framework was still needed to safeguard commuter safety and interests. The new regulatory framework came into effect from 1 September 2015.

[15] "GrabTaxi to abolish tips for cabbies." MyPaper, December 30, 2013. Grab's taxi-booking platform initially allowed customers to offer taxi drivers a tip for picking them up.
[16] LTA. "New regulatory framework for third-party taxi booking services to protect the safety and interests of commuters." News release, November 21, 2014.

On the other hand, the private-hire car business of these ride-sharing platforms – aside from being restricted to taking bookings – remained unregulated, and continued to expand. In particular, the private-hire car services introduced by Grab and Uber came to be seen by the taxi industry as competitors. Registering as a private-hire car driver with Uber or Grab was a relatively straightforward process.[17] While taxi drivers had benefited from the taxi booking apps rolled out by the ride-sharing firms, they claimed that the private-hire car business was unfair, as among other things, their drivers did not have to hold vocational licences, and were not subject to the various regulations, service standards, and fare structures that applied to taxis.[18]

In an acknowledgement that technology innovations had made chauffeured vehicle services more accessible to the public, LTA indicated in June 2015 that it was considering removing the current exemption for private-hire car drivers from obtaining a vocational licence.[19] The new Transport Minister, Khaw Boon Wan[20] commented that while he thought places which banned Uber had over-reacted, he felt that taxi drivers' demands for a 'level playing field' had merit.[21]

In order to forge 'a fair solution', an industry review led by Senior Minister of State for Transport, Ng Chee Meng started in October 2015. This included consultation with various parties, including commuters, taxi drivers, private-hire car drivers, taxi companies, car rental companies and ride-sharing platforms. The National Taxi Association (NTA) presented feedback from over 300 taxi driver members, and proposed principles for the review.[22] Firstly, commuter safety should be protected by clearly identifying private-hire car drivers, requiring them to go through the same checks as regular taxi drivers, and having clear accountability in cases where liability claims or disputes arose. NTA also called for 'fair competition' between taxis and private-hire cars through clear fare structures, fees and charges, as well as consistent regulations and monitoring for both private-hire cars and taxi services.

Following the review, LTA announced in April 2016 new licensing requirements for private-hire car drivers and vehicles 'to better protect commuter interests, in particular safety'.[23] The drivers were required to obtain a Private Hire Car Driver's Vocational Licence (PDVL), which required applicants to pass a PDVL course.[24] Singapore citizens could now apply for the licence as self-employed drivers. The cars used for private hire had to be registered with LTA and display decals identifying them as such. The new regulations under the Road Traffic Act, which took effect in July 2017, also allowed the government to bar all private-hire car drivers from driving for a ride-sharing platform, if there were three or more instances of their drivers committing major

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[17] Ride-sharing platforms typically required private-hire drivers to meet certain conditions such as being a Singapore citizen or permanent resident, have a valid driving licence for at least a year, and be of minimum age of 21.

[18] "Third-party apps lead to calls to ensure 'level playing field' for taxi drivers." Channel NewsAsia, October 5, 2015.

[19] LTA. "Ways to better safeguard commuters under study." June 9, 2015.

[20] Khaw Boon Wan was appointed Minister for Transport on 1 October 2015, after the General Elections in September 2015.

[21] "Sharing economy in transition." Moving News, October 2, 2015. https://motsingapore.wordpress.com/2015/10/02/sharing-economy-in-transition/ (accessed February 10, 2016).

[22] National Taxi Association (NTA). "NTA's Report to Ministry of Transport." November 16, 2015. http://www.nta.org.sg/latest-news/84-nta-s-report-to-ministry-of-transport.html (accessed February 10, 2016).

[23] LTA. "New regulations for private hire car drivers and vehicles to better protect commuter interests." News Release, April 12, 2016. http://www.lta.gov.sg/apps/news/page.aspx?c=2&id=59c466e2-8eff-46bc-8d60-f13bb00de4b2 (accessed April 13, 2016)

[24] Existing private-hire car drivers who applied for the PDVL licence by 30 June 2017, were given up to one year to pass the PDVL course, and could continue to drive in the interim.

offences[25] within a rolling 12-month period. By June 2017, LTA had received about 39,000 PDVL applications.[26] A month into the new law taking effect, 27 private-hire car drivers were caught flouting the new regulations.[27]

Plugging the transport demand gap

The public transport systems in Singapore had been ranked highly in terms cost efficiency.[29] Singapore had one of the highest number of taxis-to-population ratio – 5.3 taxis per 1,000 people – in the world. Some 28,000 taxis catered to 5.5 million in Singapore, and made just over 1 million passenger-trips daily in 2014. In comparison, Hong Kong had 2.5 taxi per 1,000 people for its 7.2 million population, while Tokyo's population of 13 million had 3.6 taxis per 1,000 people.[30] Yet, one perennial bugbear of Singapore commuters was the difficulty of getting taxis during peak periods, in out-of-the-way areas, or during bad weather. Despite the government's efforts, the travel experience in Singapore was not quite a seamless one yet.

Between 2012 and 2016, the taxi population reached a high of 28,736 in 2014, before declining to 27,534 in 2016 (*Exhibit 2*), although the actual number of taxis actively plying the roads was likely lower. The taxi industry comprised of six licenced taxi operators, and was dominated by one player, which ran two taxi operators that accounted for about 60 per cent of the total taxi fleet in Singapore. A more pressing issue was the persistent under-utilisation of taxis in Singapore. The share of one-shift taxis, which tended to clock less mileage compared to two-shift taxis, in the overall taxi fleet had risen over the years. Between 2006 and 2011, the proportion of one-shift taxis increased from 40 per cent to 48.6 per cent,[31] which in turn implied lower daily taxi utilisation rates (the proportion of total taxi mileage under hire per day).

Although taxi fares were deregulated in 1998 and new taxi operators were introduced in 2003, commuters remained dissatisfied with the taxi industry. In an attempt to ensure better matching of supply and demand, LTA imposed taxi availability standards on taxi operators since January 2013. Taxi operators had to ensure that certain percentages – ranging from 60 to 85 per cent – of their taxi fleets were on the roads during peak periods, and ran at least 250 km a day. The expansion of the taxi fleet was linked to the overall vehicle growth rates set by LTA to manage traffic congestion, as well as taxi operators' performance under the taxi availability framework, and had been capped at 2 per cent a year in the past few years.

In late 2014, LTA embarked on a trial of a taxi information system, which used heat sensor and camera technologies to detect the number of waiting passengers at selected taxi stands, and transmitted the information to taxi operators. LTA also came up with its own mobile app, Taxi-Taxi@SG which showed the location of available taxis, and allowed street hailing commuters to broadcast their locations to taxis, but stopped short of making taxi bookings. LTA also shared static and real-time data (such as taxi availability) publicly, with the aim of engaging the private sector and members of the public to co-create innovative transport solutions.[32]

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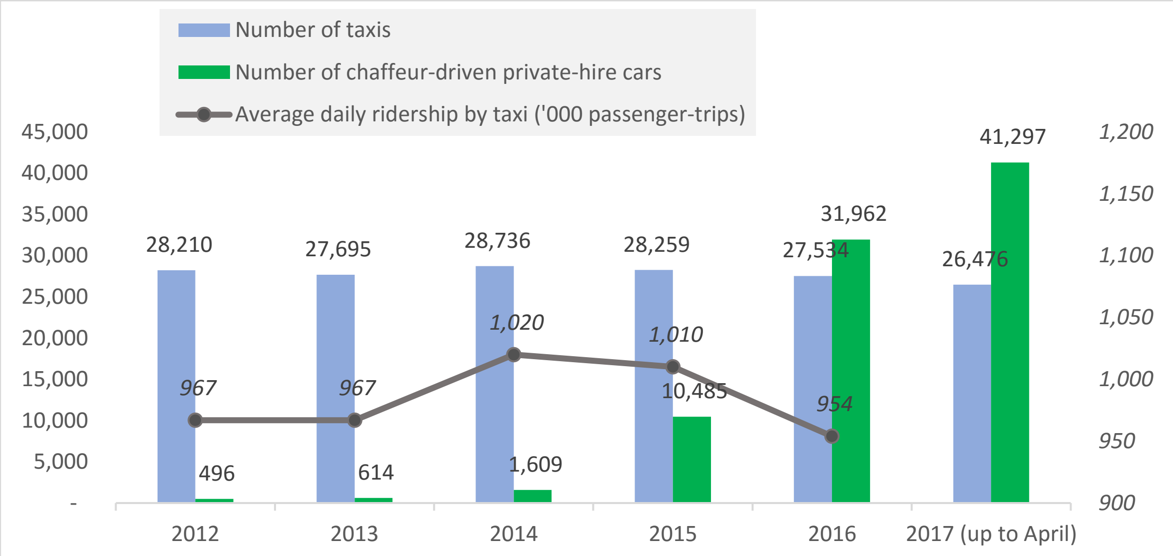
[25] Offences included having unlicensed vehicles provide private-hire car services, operating without a valid vocational licence, and not having appropriate motor insurance.
[26] "LTA has received 39,000 applications for the Private Hire Car Driver's Vocational Licence." *The Straits Times*, June 23, 2017.
[27] "27 drivers caught flouting private-hire industry regulations." *The Straits Times*, September 4, 2017.
[29] "Study: Singapore's public transport system one of world's most efficient." *The Straits Times*, June 2, 2014.
[30] Teo, Josephine. "Creating a Car-Lite Society." Committee of Supply Debate 2015, March 11, 2015.
[31] LTA. "Improving taxi availability to serve commuters better, and taxis taken out of the COE bidding process from August 2012" and "Fact sheet: Improving taxi availability." LTA News Release, July 27, 2012.
[32] LTA. DataMall. http://www.mytransport.sg/content/mytransport/home/dataMall.html

Exhibit 2: Indicators for taxis and private-hire cars



Sources: land Transport Authority (LTA), "Land Transport Statistics in Brief", various years; LTA, "Taxi population, no. of trips & no. of taxi driver's vocational licences issued", 2015 and 2017; LTA, "Public Transport Utilisation - Average Daily Public Transport Ridership", https://data.gov.sg/dataset/public-transport-utilisation-average-public-transport-ridership (accessed September 4, 2017); "Private-hire cars outnumber taxis by a mile", *The Straits Times*, May 24, 2017.

The changes for the taxi industry resulted in some improvements. According to LTA, the percentage of taxis plying the roads during peak hours increased from 82 per cent in 2012 to 91 per cent for the first nine months of 2015.[34] Over the same period, the proportion of taxis on two-shifts increased from 53 per cent of the taxi fleet in 2012 to 68 per cent in 2015, while the daily taxi utilisation rate improved slightly from about 65 per cent in 2013 to 66 per cent in the first nine months of 2015. However despite the extensive efforts to improve the performance and availability of taxis, commuters' grievances had not been completely eased. Even as LTA reported improvements in taxi availability, only one taxi operator had consistently met the standards in 2015, while the other five operators had not fully met the taxi availability standards, and were fined by LTA.[35]

In only a few years, the private-hire car population had soared to overtake taxis. What ride-sharing platforms offered was an opportunity for a recalibration of the existing public transport framework comprising of rail, buses, and taxis. Ride-sharing platforms improved efficiency in resource allocation and reduced transaction costs for commuters, through their real-time matching of supply and demand. Private-hire car drivers acted like marginal suppliers, coming onto the roads when demand for point-to-point transfers spiked. For example, about 40 to 45 per cent of Uber drivers worked less than 10 hours a week, with many coming onto the roads to meet peak demand.[36] Given that ride-sharing platforms attracted drivers who used their own vehicles, this meant that otherwise idle assets were being put to better use.

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[34] LTA. "Factsheet: More taxis plying the roads from commuters in 2015." News release, November 16, 2015. http://www.lta.gov.sg/apps/news/page.aspx?c=2&id=766364af-eb2f-4d2a-9575-1499d862777f (accessed March 1, 2016) It should also be noted that the method of calculation for taxi availability was adjusted from 1 January 2015, to be based on the taxi companies' hired-out fleet, rather than registered fleet.

[35] LTA. "Factsheet: More taxis plying the roads for commuters in 2015." News Releases, November 16, 2015. http://www.lta.gov.sg/apps/news/page.aspx?c=2&id=766364af-eb2f-4d2a-9575-1499d862777f (accessed March 1, 2016).

[36] Personal communication from Uber, March 4, 2016; Uber website. "3 Years in Singapore; and the ride ahead!" March 28, 2016. https://newsroom.uber.com/singapore/3-years-in-singapore-and-the-ride-ahead/ (accessed April 1, 2016).

The private-hire car drivers served commuters on the ‘first-mile, last-mile’ gap, a weak link within Singapore’s public transport framework, where the density of the rail and bus networks still lagged behind that of similarly densely populated cities like Hong Kong. A significant proportion – about a quarter – of Uber’s private-hire car trips started or ended at transport nodes like MRT stations.[37] By the Ministry of Transport’s (MOT) own estimation, private-hire car drivers facilitated by ride-sharing platforms had boosted point-to-point transport services by a third during peak commuting periods.[38]

Commuters generally cheered the introduction of ride-sharing apps that plugged the demand gap left by taxis, especially during the morning and evening peak periods. The experience of other cities such as Portland suggested that while ride-sharing was competing with taxis in the city, but it also appeared to be meeting latent demand that had been underserved by the taxi industry.[40] Even the ride-sharing platforms’ use of ‘dynamic’ or ‘surge’ pricing – where fares were raised in multiples of the normal rate during times of high demand – arguably helped by attracting more private-hire car drivers to take bookings. Both commuters and drivers also benefited from the frequent incentives, promotions and discounts that ride-sharing platforms offered, although some have pointed out that such financial incentives could not be sustained over the longer run.

The results of a YouGov survey in October 2015 also reflected the close substitutability between taxis and private-hire cars; 29 per cent and 23 per cent respectively indicated that they would simply take whichever was the cheaper, or more available, option.[42] More than half of the respondents (53 per cent) also felt that private ride-sharing should be regulated by the government, as opposed to 22 per cent who thought that the government should not intervene. In a more recent 2016 survey of taxis and private-hire cars services by the Public Transport Council (PTC),[43] the latter had a slight edge over taxis in terms of satisfaction scores and levels.[44]

On the other hand, despite having a Vehicle Quota System[45] in place to limit vehicle population growth, ride-sharing could end up undermining the government’s policy of nudging Singapore towards a ‘car-lite’ city. According to a news article, some private-hire cars clocked about 50 percent more in mileage compared to regular passenger cars.[46] If demand for ride-sharing encouraged significantly more vehicles on the roads than before especially during peak hours, and coupled with the swelling numbers of private-hire cars, congestion could well worsen.

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[37] Personal communication from Uber, March 4, 2016.
[38] Ministry of Transport (MOT). “Speech by Senior Minister of State Ng Chee Meng at the Committee of Supply Debate 2016, on Car Ownership and Taxi and Chauffeured Services.” April 12, 2016.
[40] “Uber, Lyft now dominate Portland ride market.” The Oregonian, October 19, 2015.
[42] YouGov. “Singapore 3rd party taxi apps.” October 20, 2015. https://ap.yougov.com/en/news/2015/10/20/singapore-3rd-party-taxi-apps/ (accessed March 7, 2016). The survey, which was conducted from 8 to 11 October 2015 with a sample size of 1,929, asked respondents about their usage of taxi booking apps in September 2015.
[43] The PTC is an independent body that regulates public transport fares and ticket payment services, and undertakes the role of an advisor to the Minister for Transport on public transport matters.
[44] Public Transport Council. “Commuters Satisfied with Taxi and Private Hire Car Services.” PTC News Release, February 13, 2017.
[45] The Vehicle Quota System served to limit the growth of Singapore’s vehicle population, and vehicle owners had to obtain a Certificate of Entitlement (COE) allocated through an open bidding system, in order to register their vehicles. From February 2015 to January 2018, the growth rate was set at 0.25% per annum.
[46] “Private-hire cars may be adding to congestion.” *The Straits Times*, September 4, 2017.

Safeguarding the public interest

Regulations were usually designed to safeguard the public against the undesirable impacts of certain activities. These included maintaining public health and safety, protecting consumer interests, or safeguarding industry reputation etc. On the other hand, regulations could become barriers to entry, if conditions of entry such as requiring hefty upfront investments, were too onerous for aspiring entrants.[47] Regulators were often called upon to balance the different needs of various stakeholders, while ensuring that the market remained competitive.

One issue was the safety of private-hire car services. Uber and Grab pointed out that their private-hire car drivers were already put through in-house background checks and training. Service standards were maintained through their mandatory peer-to-peer rating system, which required both drivers and passengers to rate each other after each trip, while their apps provided safety features such as tracking of routes. Drivers who fell short of expected service standards could be suspended, or have his or her contract terminated by the company. Nevertheless, accidents involving Uber and Grab drivers grabbed headlines.[48]

There was also the question of where the burden of responsibility fell, and the scope for recourse, should things go wrong. Without regulation, any recourse for incidents that fell outside the ambit of existing laws, would be largely limited to the discretion of the ride-sharing companies and drivers. In the case of road accidents, all vehicles were already required under the Motor Vehicle (Third-Party Risks and Compensation) Act to be insured against third-party liability risks, which allowed passengers to claim compensation from the driver and his or her insurer. Whereas private insurance typically restricted vehicle usage to social, domestic and pleasure purposes, Uber and Grab required their private-hire car drivers to have commercial insurance, similar to that for taxis, to cover situations where the car was on hire.[49] However the exact terms of insurance coverage could vary among private-hire cars. Insurance claims against private-hire drivers – who spent more time on the roads, and thus more likely to be involved in traffic accidents – could also be harder to settle in practice.[50]

In Singapore, the LTA regulated the safety, conduct of taxi drivers, and taxi booking services under the Road Traffic Act. Taxi operators were required to use vehicles that were not more than eight years old, and maintain their vehicles regularly. Taxi operators were also subjected to regular benchmarking exercises, such as monthly tracking of taxi availability (measured by percentage of taxis on the road during peak hours, minimum daily mileage per taxi), quality of service standards covering performance standards, safety and taxi drivers' conduct (such as at least 92 per cent of taxis should be matched to bookings, booked taxi should arrive within 10 minutes at least 95 per cent of the time, accident rates of not more than 0.02 per 100,000 km), as well as monthly public opinion surveys where the public would rate the taxi services. Since 2016 however, private-

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[47] Theories of economic regulation discuss the possibility of regulatory capture, a situation where the regulator served the interests of the industry being regulated, rather than the interests of the public.

[48] See for example, "Uber passenger killed, driver arrested after accident along Xilin Avenue." TODAY, July 9, 2017; "14-year-old cyclist sustains facial injuries in accident involving Grab driver." Channel NewsAsia, August 17, 2017.

[49] "Our drivers are covered with commercial insurance: Uber, GrabCar." Channel NewsAsia, October 16, 2015. Grab also rolled out additional group personal accident insurance for GrabCar drivers and passengers at its own cost in March 2016. It also launched a pay-as-you-use commercial motor insurance policy for private-hire car drivers which charged part-time drivers lower premiums. See Grab, "Grab Provides Free Personal Accident Insurance for Passengers and Drivers." March 3, 2016. https://www.grab.com/sg/grab-provides-free-personal-accident-insurance-for-passengers-and-drivers-2/ (accessed April 19, 2016), and "New motor insurance for part-time Grab drivers." The Straits Times, May 12, 2016.

[50] "Tougher to claim against private-hire cars: Lawyers." *The Straits Times*, January 28, 2017.

hire car services were included in the PTC's revamped Point-to-Point Transport Services Customer Satisfaction Survey, alongside taxi services.

Taxi drivers had to meet the requirements for a taxi vocational licence from LTA,[52] and undergo a training course – which previously cost $335 and took 60 hours to complete – covering road safety, taxi regulations, routes, and service quality. With the introduction of the PDVL, prospective private-hire car drivers were similarly subjected to background and medical screening by LTA, and had to undergo 10 hours of training on road and passenger safety, and relevant regulations. PDVL holders were also subjected to a demerit point system, similar to that for taxi drivers. In tandem with the introduction of the PDVL training, LTA simplified the taxi vocational training to 25 hours, and updated it with training on newer technology such as Global Positioning System for navigation. Moreover, licenced taxi drivers could also drive private-hire cars.

Price competition had increased with the entry of ride-sharing platforms, with the fare structure becoming another bone of contention with the taxi industry. Private-hire fares fell (*Exhibit 1*) as competition between Uber and Grab, as well as between private-hire cars and taxis, heated up. The ride-sharing platforms had been free to set their own rates since their entry into the market. The fare structures of UberX and GrabCar were competing with, and in some cases undercutting, existing taxi fares. More controversially, Uber and Grab also employed a pricing tool, known as 'surge' or 'dynamic' pricing, which had left some passengers unhappy as they felt they had been over-charged.[53] Both Uber and Grab lowered their fares in quick succession, after the PDVL was made compulsory for private-car hire drivers.

In contrast, while taxi fares in Singapore had been deregulated since 1998 to allow taxi operators to prescribe their own fares, the different taxi fares across operators became complicated and confusing for commuters. LTA then introduced new regulations in January 2016 to standardise the taxi fares by distance and by waiting times, while allowing for some price competition in the flag-down rates. The fare structure continued to evolve; with LTA's approval, Grab collaborated with five taxi operators – accounting for 40 percent of the taxi population – to use its dynamic pricing system alongside private-hire cars since March 2017.[54]

Ride-sharing platforms also displayed a propensity to continually innovate. For example, both Uber and Grab introduced other, less contentious, new services, such as carpooling to complement their existing transport services. Grab pushed out GrabHitch in November 2015, which matched drivers and riders for carpooling. Uber also announced plans to bring its carpooling service, UberPool to Singapore. Unlike private-hire car services, carpooling involved passengers sharing transport costs with drivers going the same way, rather than paying a commercial fare for a dedicated hire. To clarify the legality of carpooling, LTA introduced new regulations on carpooling in March 2015. Carpooling rides were limited to no more than two a day, and drivers could accept compensation from carpooling, which was not to exceed expenses incurred for the trip.

Impact on taxi and other industries

The taxi industry's opposition to private-hire cars paralleled the experience in many other cities where the ride-sharing platforms operated. Ride-sharing platforms had upended the traditional taxi business model as

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[52] A prospective taxi driver had to be a Singapore citizen at least 30 years old, hold a valid driver's licence continuously for at least a year, speak and read basic English, pass a medical check-up, and pass a training course.

[53] See for example, "She pays $169 for 27-minute Uber ride from Beach Road to Ayer Rajah." The New Paper, November 11, 2015.

[54] "Slow start for taxi surge-pricing option, JustGrab." The *Straits Times*, March 29, 2017.

they could tap on large fleets of privately-owned vehicles and individual drivers on-demand, without costly upfront capital investments. However, the impacts on the taxi industry were uneven.

Taxi drivers benefited from the ride-sharing platforms' third-party taxi-booking apps. The availability of credible alternatives with Uber and Grab also arguably gave them greater bargaining power against taxi operators. Some had switched to become Uber or GrabCar drivers, where they enjoyed greater flexibility in working hours and lower vehicle rental rates. An estimated 30 to 40 per cent of drivers who signed up with GrabCar and Uber in 2015 were former taxi-drivers.[55] More recently, Grab was reported to be offering discounts in a bid to lure ComfortDelgro taxi drivers to switch to one of its five taxi partners.[56]

For those who remained taxi drivers however, there were complaints of unfair competition from the private-hire car businesses of Uber and Grab. The at-times overly aggressive marketing tactics of the ride-sharing platforms also did little to assuage taxi drivers' perception of unfair competition.[57] The taxi driving profession was also ring-fenced for Singapore citizens, and had traditionally been viewed as an employment sponge for Singaporeans, especially in tough economic times. On the other hand, the PDVL was open to non-Singaporeans, provided they were employees of a limousine company.[58]

Taxi operators were arguably under greater pressure. They had invested in fleets of taxis, which were rented to taxi drivers, and could have seen their revenues affected in recent years if fewer taxis were hired out,[59] taxi rental rates were slashed, and their commissions from taxi bookings using their proprietary systems were eroded. Moreover, unlike ride-sharing companies, taxi operators were obliged to pay an operating licence fee, which was raised from 0.1 to 0.3 percent of gross revenue.[61] A taxi could cost as much as $150 a day to hire from a taxi operator, whereas a private-hire car driver could rent a car for as low as $50 a day.[62]

To stem the number of taxi drivers switching to ride-sharing platforms, and compete with the ride-sharing platforms directly, the taxi operators rolled out their own private-hire car businesses, and cut taxi rental rates. For example, the third-largest taxi operator, SMRT Corp, reportedly ordered a fleet of more than 300 cars, while Prime was poised to add more cars to its existing private-hire fleet.[63] Trans-Cab, with a fleet of about 4,500 taxis, reduced its taxi rental rates by 20 to 30 percent.[64]

One industry that enjoyed an unexpected positive spillover from the growth in ride-sharing, was the car rental industry. Given the high costs of car ownership in Singapore, which included a hefty upfront payment for a Certificate of Entitlement (COE),[65] a significant proportion of private-hire drivers were likely to be using rental cars. Another potential knock-on effect was the possibility that individual bidders for COEs could be crowded

[55] "Can't find cabs on the road? Try the yard." *The Straits Times*, October 10, 2015.
[56] "Grab moves to woo taxi drivers from ComfortDelGro." *Channel NewsAsia*, September 5, 2017.
[57] "Taxi drivers cry foul over Uber's 'overly aggressive marketing efforts'." *TODAY*, November 12, 2015.
[58] Singapore citizens to apply for the PDVL as self-employed drivers, while non-Singapore citizens must be employees of a company providing chauffeured services. Previously, an individual applying for the PDVL had to be a registered owner (applicable only to Singapore citizens), or employee (applicable to all) of a chauffeured services business.
[59] "Can't find cabs on the road? Try the yard." *The Straits Times*, October 10, 2015. The article estimated that as many as 2,000 taxis could have been left un-hired.
[61] "Cab firms hit by higher operating licence fees." *The Straits Times*, June 24, 2016.
[62] "New entrants turn the taxi industry on its head." *TODAY*, October 24, 2015.
[63] "More taxi firms eyeing Uber business model." *The Straits Times*, April 14, 2016.
[64] "Trans-cab slashes taxi rentals amid growing competition." *Channel NewsAsia*, December 28, 2017.
[65] Under Singapore's Vehicle Quota System, vehicle owners have to obtain a COE allocated through an open bidding system, in order to register the vehicle. A COE represents a right to vehicle ownership and use of the road space for 10 years.

out, if ride-sharing companies adopted a more aggressive approach in bidding for available COEs to support its car rental business. Taxi operators that were expanding into the private-hire car business, could likewise raise demand for COEs. The taxi operators had a similar impact on COEs before LTA removed taxis from the bidding process in 2012, and required them to pay the Prevailing Quota Premiums, based on the previous three-month average of COE prices, for COEs drawn from the open category.

Interests of private-hire car drivers

While the perceived threat to taxi drivers' livelihoods captured much attention, the private-hire car drivers who acted as independent contractors also had legitimate interests. A new National Private Hire Vehicles Association was formed in May 2016, initiated by a group of private-hire vehicle drivers to represent their interests.[66] At the time, there were an estimated 8,000 to 10,000 private-hire car drivers during peak hours.[67] The profile of drivers likely included a significant proportion of part-time private-hire car drivers, drawn by the relative ease of entering the industry. They were also more likely to work during demand peaks when the earning potentials were highest, making the ride-sharing platforms more effective in meeting demand spikes.

The few studies on the sharing economy elsewhere seemed to indicate that earning from gigs enabled by sharing economy platforms were more likely to be supplementing incomes from full-time employment, and were correlated to negative income shocks from other sources, acting as a buffer against volatility in earnings.[68] Costly licencing requirements could discourage some from offering their services on ride-sharing platforms.

Home-sharing in Singapore

Home-sharing, a term commonly used within the sector and in the media to refer to renting of housing units typically on short-term leases through online platforms. Given that the accommodation being let were typically private residences where the homeowner might be living onsite or temporarily away, the activity was labelled 'home-sharing' or 'peer-to-peer accommodation'. Home-sharing platforms eschewed physical assets for virtual ones, namely their online marketplaces to match property-owners ('hosts' in the home-sharing platforms' terminology) to short-term renters ('guests') for a fee. Platforms such as Airbnb had grown quickly to become global businesses. Airbnb's reach was global; it claimed to have served more than 60 million guests, and had more than 2 million accommodation listings in over 34,000 cities worldwide.[69]

In the home-sharing model, the nightly rate of the accommodation was set by the host. With the home-sharing platform as an intermediary, a guest would pay the platform upon confirmation of booking, and payment would be released to the host 24 hours after the guest checked out of the accommodation. Airbnb made its revenue from charging guests a 'guest service fee' of between 6 and 12 per cent of the price of the accommodation reservation before fees and taxes. It also took a 3 per cent 'host service fee' of the reservation subtotal from the host.

Like the ride-sharing platforms, mutual reviews of guests and hosts were a cornerstone of the business model, and allowed the platforms to maintain services standards without high monitoring costs. To build trust among its users, Airbnb provided a verification process, such as requiring users to upload a government-issued

[66] "New group to represent private-hire drivers." *The Straits Times*, May 12, 2016.
[67] "Parliament: Uber, GrabCar drivers to have vocational licences; undergo background checks." *The Straits Times*, April 12, 2016.
[68] The Economist. "The gig economy – Smooth operators." February 20, 2016.
[69] Airbnb. "About us." https://www.airbnb.com.sg/about/about-us (accessed February 10, 2016).

identification. Guests and hosts could communicate with each other directly, as well as provide reviews and ratings through its platform. Airbnb provided other safeguards, such as a 'host guarantee' insurance of up to $1.2 million to protect hosts from property damage arising from its bookings. Hosts could also ask for a security deposit from guests to offset instances of wear and tear. A corresponding 'guest refund policy' was put in place to manage disputes brought up by guests, or in instances where hosts had failed to meet Airbnb's hospitality standards. When it came to local laws and regulations, Airbnb put the onus for compliance and payment of local taxes and fees, on the host.

Airbnb set up its Asia headquarters in Singapore in late 2012 to spearhead its expansion into the region. Singapore already had a significant tourism industry, with over 10 million visitors arriving each year. By then, Airbnb found itself competing with other start-ups such as Roomorama, TravelMob (now HomeAway) and PandaBed. The Airbnb platform was well-received in Singapore – over 1,000 listings were seen on its platform in 2014,[70] and this had expanded to over 5,800 listings by 2015.[71] The listings offered a wide range of accommodation for rent in various parts of Singapore, with prices ranging from less than $50 a night for a simple bedroom, to over $500 in a luxury apartment. Within Southeast Asia, travellers in Singapore were one of the most avid users of Airbnb's services for outbound travel.[73]

Policy and regulation of subletting

Home-sharing – termed 'short-term rental' by some regulators – drew controversy in Singapore and elsewhere. While these platforms helped to address market inefficiencies and under-utilisation of resources, they also unsettled incumbents including neighbours and hotels, and were at odds with existing regulatory frameworks. In some cities such as New York, San Francisco and Tokyo, the push-backs against Airbnb and its kind emerged as home-sharing grew in popularity.[74]

Even before the emergence of home-sharing platforms, most cities already had legislation that restricted short-term rentals, and many listings on Airbnb were technically in breach of such regulations. Locals griped that the appearance of strangers staying in their areas were changing the ambience of their neighbourhoods, and making them unsafe. There were worries about growing speculative property investments aimed at operating short-term rentals, which raised fears of housing bubbles and unaffordable homes. Wary that the likes of Airbnb could upend their business model, the hotel industry started lobbying lawmakers to clamp down on the new businesses. Some cities like London and Amsterdam permitted short-term stays with stringent restrictions. Others, including Singapore, banned them.

In Singapore, the regulatory authorities for public flats and private residences were the Housing and Development Board (HDB) and the Urban Redevelopment Authority (URA) respectively. As short-term rentals facilitated by home-sharing platforms grew in popularity, HDB and URA publicly clarified an existing rule that only long-term leases of at least six months were permitted for residential properties.[77] Given the prevalence

[70] "Two lose HDB flats for renting them to tourists." The New Paper, June 9, 2014.
[71] Personal communication from Airbnb, March 30, 2016.
[73] Bloomberg Business. "Singapore's Millennials Are Escaping Their Parents for a Night With Airbnb." July 16, 2015. http://www.bloomberg.com/news/articles/2015-07-16/singapore-s-millennials-are-escaping-their-parents-for-a-night-with-airbnb (accessed March 7, 2016).
[74] See for example, "A $2,400 fine for an Airbnb host." The New York Times, May 21, 2013; "Fastest-growing Airbnb market under threat as Japan cracks down." The Straits Times, February 19, 2016.
[77] URA. HDB and URA's reply, "Rules on short-term rentals." September 25, 2013. https://www.ura.gov.sg/uol/media-room/forum-replies/2013/sep/forum13-19.aspx (accessed March 7, 2016)

of high-density housing in Singapore, the rational was that short-term stays would lead to high turnover of occupants and high human traffic, which could cause nuisance and safety concerns to neighbours.

Touching on the issue in parliament, then Senior Minister of State for National Development, Lee Yi Shyan indicated that the sharing of resources in an economy was a positive trend, but could come at the 'expense of existing regulations that tend to protect both consumers and service providers'.[78] Then-Minister for National Development, Khaw Boon Wan also weighed in on the issue, when he said in a blog post that short-term rentals were "not a good idea", and "their neighbours would not like to see their quiet neighbourhood becoming a hotel district".[79]

The concerns were not unfounded. Between 2013 and 2014, URA had received about 520 complaints about the rental of private condominiums for periods of less than six months.[80] The complaints centred on privacy and security concerns associated with having transient guests, and their use of common facilities. The penalties for flouting the regulations could be stiff. For private housing, such arrangements could be considered an unauthorised change in the residential use of the premises, an offence under the Planning Act, and could result in a fine of up to $200,000, and/or a jail term of up to a year.

In Singapore, the issue of short-term rentals was also complicated by the fact that a high proportion of the resident population – more than 80 per cent – lived in close to 970,000 public (HDB) flats, which were strictly regulated. The minimum subletting period for an entire HDB flat or a bedroom was set at six months, and flat owners were required to seek HDB's approval to sublet. Only Singapore citizens were allowed to sublet their entire HDB unit, provided they met certain conditions such as fulfilling a minimum occupation period (of 3 or 5 years, depending on whether it was a new or resale flat).[81] There were also additional rules, such as the eligibility of subtenants and caps on the number of subtenants depending on flat type. Between January 2013 and December 2014, HDB conducted over 13,000 flat inspections and took action against 24 flat owners for unauthorised subletting.[82] Those caught infringing HDB's regulations on subletting could be fined up to $50,000, or even faced compulsory acquisition of their flats by the Board. Two HDB flat owners reportedly had their units repossessed by HDB in 2014 for renting them out to multiple short-term visitors for between $25 and $75 a night.[83]

While private homes faced fewer restrictions in subletting, a guideline was set in 2009 that leases for private residences should be at least six months.[84] Breaching the guideline could be considered a material change of use, which was an offence under the Planning Act. For private housing, illegal subletting could be considered an offence of unauthorised change in the residential use of the premises under the Planning Act, and could attract a fine of up to $200,000, and/or a jail term of up to 12 months.

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[78] Singapore Parliament Debates (Hansard). "Short-team Rental Leases at Private Condominiums." Parliament No:12; Session No:2; Volume No:92; Sitting No:12; September 8, 2014.
[79] "Housing Matters" Blog. "Some things are harder to share." January 21, 2015. https://mndsingapore.wordpress.com/2015/01/21/some-things-are-harder-to-share/ (accessed February 10, 2016).
[80] Singapore Parliament Debates (Hansard). "Short-team rental leases at private condominiums." Vol. 92; September 8, 2014.
[81] Singapore Permanent Residents were barred in 2013 from subletting their entire units.
[82] HDB. "Subletting Regulations." http://www.hdb.gov.sg/cs/infoweb/residential/renting-out-a-flat-room/renting-out-your-flat/subletting-regulations?resolvetemplatefordevice=true (accessed February 10, 2016).
[83] "Two lose HDB flats for renting them to tourists." The New Paper, June 9, 2014.
[84] Singapore Parliament Debates. "Planning (Amendment) Bill." Vo. 94, February 6, 2017.

The government's stand on short-term rentals seemed to put a damper on the budding home-sharing sector, at least as far as HDB flats were concerned. Private houses and apartments on the other hand, continued to be listed for short-term rentals on home-sharing platforms. Notwithstanding the existing regulations, URA launched a public feedback exercise in January 2015, seeking feedback on allowing short-term stays in private residences. The survey included questions on the concerns that residents would have if their neighbours rented out their premises; what would be a reasonable duration for short-term rentals; and how could URA increase its effectiveness in investigating infringement of regulations. The results of the feedback exercise, which closed on 23 February 2015, were however not made public. HDB did not announce any plans to solicit feedback on the issue.

The sharing economy's business association in Singapore, SEAS, released its own position paper in December 2014, on home-sharing in Singapore which highlighted its benefits, while Airbnb commissioned its own poll of 600 Singaporeans in early 2015. Among other things, its survey found that 72 per cent believed that Singaporeans should be allowed to temporarily rent out their homes.[85] The survey, however did not include questions on the potential adverse impacts of short-term rentals.

Lawrence Wong, who took over as National Development Minister in October 2015, said that while short-term stayers tended to be seen as intruding into people's private spaces, attitudes towards home-sharing could change in the future.[86] A similar sentiment was shared by Prime Minister Lee Hsien Loong at a May Day rally in 2016. Referring to new business models and companies such as Taobao, Airbnb, and Uber, which were disrupting existing ones, Lee remarked that, "I don't think we can stop this phenomenon and I don't think we should try to stop it."[87]

Nevertheless, the Planning Act was subsequently amended in February 2017 to explicitly make short-term subletting in private properties illegal without planning permission.[88] The maximum number of tenants for private residential properties – regardless of size – was also cut from eight to six, unless they had been given planning permission.[89] In an earlier media interview, Wong called short-term rentals a "breach of faith" for those who had bought houses to live in, and "an intrusion into (their) private space" that most would find intolerable, especially if the rules were suddenly changed.[90]

The parliamentary debate on the bill also saw several members of parliament speak about their constituents' negative experiences and express opposition to short-term rental.[91] Wong also commented that premises that were rented out on a daily basis should be regulated like hotels, rather than residential homes. At the same time, the possibility was raised that the government could create a new use class for private residences that

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[85] Airbnb. "New Poll: Singapore Supports Home Sharing." February 17, 2015. http://publicpolicy.airbnb.com/wp-content/uploads/2015/02/DBR-Singapore-Survey-Research-Results-3.pdf

[86] "Complaints over rentals jump as home sharing takes hold." *The Straits Times*, October 31, 2016.

[87] Lee, Hsien Loong. "May Day Rally Speech." Prime Minister's Office, May 1, 2016. Accessed June 14, 2017. http://www.pmo.gov.sg/newsroom/pm-lee-hsien-loongs-may-day-rally-speech-1-may-2016

[88] Singapore Parliament Debates. "Planning (Amendment) Bill." Vol. 94, February 6, 2017. The Planning Act was amended to add a Fourth Schedule, which listed the uses of residential property that are illegal without permission. The uses listed were short-term accommodation, and dormitory accommodation.

[89] "New cap on tenants for private homes, deadline looms for agents, landlords to ink deals." *The Straits Times,* May 13, 2017. As a comparison, it should also be noted that the maximum number of subtenants allowed for a four-room or larger HDB flat was nine.

[90] "Short-term home stays a 'breach of faith' but Singapore will not close door on it permanently." The Straits Times, October 10, 2016.

[91] Singapore Parliament Debates. "Planning (Amendment) Bill." Vol. 94, February 6, 2017.

could be used for short-term rentals. New residential sites could be sold with such an approved use, while existing residential buildings could apply for planning permission for such a change of use. In 30 June 2017, the minimum subletting period was lowered from six to three months for private housing. According to URA, demand for shorter-term stays was growing among certain groups, such as professionals on work assignments; a majority of respondents to its 2015 public consultation exercise had also supported a reduction.[92]

Means of monetising assets

For home-owners, Airbnb offered a convenient way of monetising their assets. This appealed to home-owners who preferred to let out space for short-term stays in their primary residence, rather than be locked into a long-term arrangement. Short-term rentals were also usually more profitable on a per day basis than a longer-term lease. For individuals and households, the supplementary income provided by home-sharing could serve as a buffer when main income sources fell short. For retirement households, it could also serve as an alternative source of retirement income to tap on when needed, in lieu of longer subletting leases. According to Airbnb, its average host in Singapore earned about $5,000 a year providing 45 nights of accommodation.[93] This was equivalent to 1.2 months of the median monthly income from work in 2016[94] from less than 4 days of subletting each month.

The public housing policy objectives in Singapore had evolved over the years, from simply providing decent shelter, to encouraging home ownership to create a sense of belonging to the country, and in more recent years, offering home owners opportunities for investment gains. Although the government's stand was that HDB flats were primarily for owner-occupation, the subletting of rooms within a HDB flat had long been permitted, and the door was opened in the early 2000s to allow flat owners sublet their entire units. The rules were relaxed in 2003 to allow HDB flat owners, who had lived in their flats for at least 10 to 15 years, to sublet their entire unit on a long lease. The stated aim at the time was to provide flat owners with a source of retirement income.[98] This was a sea change to a longstanding rule that HDB flats had to be occupied by the flat owners. Generally, about five per cent of all owned HDB flats were being sublet. As at the end of March 2016, this involved 51,052 flats.[99]

Considering the high levels of home ownership in Singapore, and that for many, a residential property would be their single largest investment, additional avenues to monetise that asset should, in theory, be welcome. Where public policy and private enterprise diverged was on the duration and frequency of subletting. On the other hand, questions had been raised about how the economic benefits of home-sharing were spread within a city. A study on Airbnb in London indicated that the demand for Airbnb listings – and by extension, economic benefits – tended to stay concentrated in desirable neighbourhoods that were already bustling, even when the supply of listings had expanded to other neighbourhoods.[101]

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[92] Urban Redevelopment Authority. "Revision of minimum stay duration (from six to three months) for private residential properties." June 30, 2017. https://www.ura.gov.sg/uol/media-room/news/2017/Jun/pr17-44

[93] "Average Singapore Airbnb host 'makes about $5,000 a year'", *The Straits Times*, December 6, 2016.

[94] Ministry of Manpower. "Median Gross Monthly Income from Work (including Employer CPF Contributions) of Full-Time Employed Residents." Last modified May 31, 2017. http://stats.mom.gov.sg/Pages/Income-Summary-Table.aspx. The median gross monthly income from work for 2016 was $4,056.

[98] Singapore Parliament Debates (Hansard). "Retuning of CPF." Parliament No:10; Session No:1; Volume No:76; Sitting No:19; August 29, 2003.

[99] Housing & Development Board. "HDB Annual Report 2015/2016, Key Statistics". Accessed June 30, 2017. http://www10.hdb.gov.sg/eBook/AR2016/key-statistics.html

[101] Bliss, Laura. "A Novel Idea for Regulating Airbnb." CityLab, February 10, 2016. http://www.citylab.com/cityfixer/2016/02/london-airbnb-sharing-rights/462162/ (accessed March 10, 2016)

Managing dis-amenities and housing affordability

In Singapore, the public discourse had largely centred on the negative externalities that frequent short-term rentals could cause. The government saw frequent short-term rentals as a source of dis-amenities for neighbours, such as noise, over-crowding, privacy and safety concerns that would erode the residential nature of a neighbourhood. The archetypal scenario was that of an absentee landlord running an overcrowded boarding house in his apartment, with tenants misusing or hogging common facilities.

The authorities had frequently received complaints of private and public residential premises being illegally rented out, and enforcement appeared to be largely in response to such complaints. Enforcement was a time-consuming and onerous exercise conducted by HDB and URA through random spot checks and upon receiving tip-offs or complaints. HDB alone conducted some 6,000 to 7,000 flat inspections a year, which accounted for less than 1% of all HDB flats. Allowing property-owners to have frequent short-term rentals would invariably raise the hackles of more neighbours.

On the other hand, according to Airbnb, the majority (61 per cent) of listings in Singapore on its platform hosted fewer than 90 nights in a year, while rooms comprised 60 per cent of the listings.[102] This seemed to suggest that a majority of the hosts were listing their primary residences, rather than running a commercial operation that rented out multiple properties.

In some cities, opposition to home-sharing platforms raised also the spectre of unaffordable housing. In particular, there were fears that commercial operators were muscling into the home-sharing business by buying up properties primarily to profit from frequent short-term rentals. By reducing the available housing stock, the argument was that housing prices would rise, pricing out genuine home-buyers. This had emerged as a controversial issue in cities such as San Francisco, New York City and Paris, where Airbnb had enjoyed explosive growth, but had also seen increasing participation from commercial operators.[103]

Unlike most cities where the housing market was largely commercially-driven, the housing market in Singapore was rather unique. The majority of the population lived in public flats developed by HDB, which sold flats directly to eligible home-buyers, as part of the government's policy of encouraging home ownership. As a statutory board, housing affordability was a key consideration in HDB's housing development programmes, and was closely monitored by the government. Flats were typically priced such that monthly housing instalments were pegged to about a quarter of average monthly incomes for target groups. This was below the 30 to 35 per cent used in some international housing affordability benchmarks. Home buyers could also use their funds set aside in the mandatory national social security system, the Central Provident Fund (CPF), to finance housing purchases. Even in the resale (secondary) market for HDB flats, and the private housing market, the government retained several fiscal and financial levers to moderate housing prices and stabilise the housing market, including various housing grants for the purchase of resale HDB flats, Additional Buyer's Stamp Duty, and limits on loan-to-value and total debt servicing ratio.

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[102] Personal communication from Airbnb, March 30, 2016.

[103] See for example, "Protesters occupy Airbnb HQ ahead of housing affordability vote." The Guardian, November 2, 2015. http://www.theguardian.com/us-news/2015/nov/02/airbnb-san-francisco-headquarters-occupied-housing-protesters (accessed March 1, 2016); "Study: Professional Landlords Generate $500 Million Per Year on Airbnb." Bloomberg Business, January 20, 2016. http://www.bloomberg.com/news/articles/2016-01-20/study-professional-landlords-generate-500-million-per-year-on-airbnb (accessed March 1, 2016); "Paris Confronts Airbnb's Rapid Growth." The Wall Street Journal, June 25, 2015. http://www.wsj.com/articles/SB12147335600370333763904581058032330315292 (accessed March 1, 2016).

By setting certain rules, some cities had come to a compromise that enabled property-owners to supplement their incomes with short-term rentals, while minimising dis-amenities to neighbours. These included restricting short-term rentals to primary residences, limiting the number of guests, and allowing a reasonable number of short-term rentals a year. For example, in May 2015, London relaxed its housing laws that had been inconsistently enforced, and legalised short-term rentals for up to 90 days a year without property owners having to seek planning permission.[105] Home-sharing platforms could also take the initiative in establishing clear and impartial mechanisms to handle third-party complaints from neighbours and other affected parties.

Impact on tourism and hotel industry

Another potential benefit of home-sharing was its impact on tourism. Unlike ride-sharing, the demand for home-sharing which depended on external demand, was less obvious. The range of home-sharing options could attract tourists looking for more unique experience and opportunities to interact with locals. Home-sharing could also help to absorb occasional surges in visitor numbers during major events, such as the Formula 1 Singapore Grand Prix.

There had been previous attempts to provide short term homestays for tourists in Singapore. For example, the Association of Management Corporations in Singapore launched a programme in 2004 with almost 1,000 rooms in various condominiums offering homestays to tourists at US$30 a night.[107] The hosts reportedly ranged from retirees and families with children studying abroad, to investors with vacant properties. However, the programme fizzled out after a few years for various reasons, including homeowners opting for long term leases when rental rates spiked. Over the years, there had been similar proposals for HDB flats to be opened out for homestays to tourists wanting to experience a typical Singaporean lifestyle.[108] Even locals seemed keen on short-term stays or ‘staycations’ in space-squeezed Singapore.[109]

While home-sharing platforms faced strident objections from the hotel industry elsewhere,[110] the reactions from the hotel industry in Singapore seemed more muted, especially given the existing restrictions on short-term rentals. The objections from the hotel industry focused on safety, security and cleanliness standards of unlicensed accommodations. The home-sharing platforms’ listings in Singapore were likely a small percentage, compared to the more than 400 hotels offering close over 63,000 rooms in Singapore.[111] The customer base associated with home-sharing platforms were more likely to be leisure travellers, whereas hotels tended to cater to business travellers. The home-sharing listings were more likely to compete with cheaper budget hotels and hostels. Indeed, budget hotels had started to list themselves on such platforms. At the same time, despite

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[105] “Airbnb to be legalised in London.” The Guardian, February 10, 2015. http://www.theguardian.com/travel/2015/feb/10/airbnb-to-be-legalised-in-london (accessed March 10, 2016)

[107] “Your home, their hotel; More than 100 households will open their doors to tourists.” The Straits Times, December 21, 2003; “Homestay scheme draws 250 tourists.” The Straits Times, August 28, 2004.

[108] “Chinese tourists to get a taste of HDB life.” The Business Times, March 8, 2003.

[109] Bloomberg Business. “Singapore’s millennials are escaping their parents for a night with Airbnb.” July 16, 2015. http://www.bloomberg.com/news/articles/2015-07-16/singapore-s-millennials-are-escaping-their-parents-for-a-night-with-airbnb (accessed March 7, 2016).

[110] See for example, “Rising angst over airbnb operations.” Herald Sun, February 11, 2015. Australian tourism operators were reportedly seeking government intervention to halt the rise of Airbnb in the country, and force the company to abide by the same laws as the hotel industry.

[111] Singapore Tourism Board. “Number of licensed rooms as at 31 December 2016.” https://www.stb.gov.sg/industries/hotels (accessed June 30, 2017).

fluctuations from year to year, Singapore welcomed a growing pool of visitors – 16.4 million visitors in 2016, compared to 13.17 million in 2011 – that both hotels and home-sharing could accommodate.[113]

Similarly, the issue of hotel taxes – that Airbnb and its hosts paid no hotel taxes – which had surfaced in other cities, was also non-starter in Singapore, since the cess rate had been reduced to zero in 2007.[114] Nevertheless, home-sharing platforms could set up systems to collect taxes and other fees for the authorities on behalf of its hosts and guests. For example, Airbnb had agreements with 190 cities, states, and tax jurisdictions around the world to collect and remit hotel, occupancy, and tourist taxes.[115]

Conclusion

In many respects, the sharing economy companies were putting a new spin on familiar economic activities. What had changed was that new technologies and business models had significantly reduced transaction costs for users by allowing activities to be scaled up exponentially, demand and supply matched in real time, and service delivery and standards monitored at low cost (to the firms). The sharing economy businesses did not fit neatly into existing regulatory categories. Today's UberX and GrabCar drivers were a different breed from the pirate taxis of the past. Airbnb hosts in Singapore were unlikely to be listing overcrowded boarding houses on its platform. Given that the impact of sharing economy differed from sector to sector, it was clear that a sector approach was needed, rather than a one-size-fits-all policy.

At the same time, the technology-driven platforms that formed the nerve centres of the sharing economy firms played well into Singapore's Smart Nation ambitions. Public sector agencies were already sharing extensive real-time data in the public domain in the hopes of generating innovative solutions. Mobile apps formed a crucial platform for public sector agencies to communicate with the public. Like taxi operators, the ride-sharing platforms may have to be prepared to share real-time data with the authorities such as LTA, to facilitate comprehensive transport planning.

The ride-sharing and home-sharing platforms proved to be adroit at plugging market gaps, and a heavy-handed regulatory approach could do more harm than good. For regulators, this called for a nuanced policy approach and smart regulation to harness the benefits of the sharing economy, while minimising or managing the downsides. If, and when, sharing economy platforms grow to dominate markets, regulators would have to contemplate stepping in – as with any competitive market – to moderate excessive monopolistic power.

While ride-sharing and home-sharing were not novel in themselves, the sharing economy created innovative business models and disrupted traditional ones. The rapid rise of ride-sharing and home-sharing activities pointed to economic opportunities that existing businesses had failed to satisfy. In effect, the sharing economy had the potential to create new markets. It was by no means certain that the sharing economy would live up to its hype, but as the regulatory dust settles, the question remains of how Singapore can make better use of the sharing economy. Sharing may not be for everyone, but more could certainly benefit.

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[113] Singapore Tourism Board. Visitor Arrivals, 2011 and 2016. https://www.stb.gov.sg/statistics-and-market-insights/Pages/statistics-Visitor-Arrivals.aspx.

[114] Cess was a tax imposed on certain types of hotel and food and beverage establishments to help fund tourism promotion in Singapore. Cess was still imposed on hotels during certain events such as during the Formula 1 races.

[115] Airbnb. "Airbnb Has Collected Over $85 Million in Tax Revenue for Cities Worldwide." Last modified June 9, 2016. https://www.airbnbcitizen.com/airbnb-has-collected-over-85-million-in-tax-revenue-for-cities-worldwide/