



**RESEARCH REPORT** 

Uber & Ride-Sharing: The \$650 Billion Question

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# What Is (and Isn't) in This Report

Few companies in the Private Tech Growth Asset class have the growth potential of Uber, and its growing rival, Lyft. Yet, despite their enormous valuations and success in redefining personal transportation globally, there has been a dearth of comprehensive analysis about the opportunities and risks facing the major players in this category. That is, until now.

In this report, we go deep to analyze the top five ride-sharing companies, including Uber and Lyft. We provide an in-depth analysis of their business models, revenue potential and operational risks. We also present five different valuation models to help investors make their own decisions about the companies' value now and in the future.

What makes this report unique is that we also share usage metrics and consumer attitudes about ride-sharing from our proprietary, nationwide survey of more than 5,400 smartphone users. And, just to make sure we didn't miss anything, the author of this report, SharesPost Managing Director, Rohit Kulkarni, spent five days as a driver for Uber and Lyft to better understand the marketplace dynamics. To the best of our knowledge, this is the most comprehensive research report to date about the dominant ride-sharing companies.

# Specifically, here's what you will find in this report:

- Discussion regarding Uber's market opportunity today & five years from now
- Potential scenarios & events that would give us greater confidence around Uber's positive outlook
- Investment risks and downside scenarios to monitor as an investor
- Proprietary research supporting scenarios & hypothesis
- A valuation framework benchmarking Uber's capital raise track record with public & private peers
- Historical growth & valuation multiples of leading public tech companies to frame Uber's place in tech ecosystem

## It's equally important though to note what you won't find in this report:

- A recommendation to buy or sell Uber shares
- A target price or an implied fair market value on Uber shares
- Estimates around Uber's Gross Billings or Take Rates or Revenue estimates for 2020 and beyond

We believe that very precise calculations of intrinsic company value, if they can be done at all, require detailed current and forward-looking financial statements. Such financial statements are unfortunately not publicly available for the companies discussed in this report. For this and other reasons, the private market is not a place for day traders. Additionally, we believe that the committed long-term investors that thrive in the private market tend to focus less on day-to-day valuation levels and focus more on the long-term ability of a company to disrupt a market, to bring new technology to market, to achieve audacious goals. SharesPost's research is intended to provide our clients with the data and analysis they need to form a reasonable opinion of a company's future value should it achieve those goals.



# **Executive Summary**

Ride sharing companies have raised more than \$25 billion in private capital since 2010. Today, top-5 ride sharing companies – Uber, Didi-Chuxing, Lyft, Ola, and Grab – have a combined market capitalization of roughly \$120 billion (based on most recent primary round valuations). We believe ride sharing apps have a large and expanding market opportunity, and benefit from significant secular and demographic tailwinds. Uber has already established itself as a market leader in most geographies, and its business model has inherent network effects benefits. Key near-term debates include legal/regulatory framework and intense competition weighing on unit economics.

Ride sharing companies have raised more than \$25 billion in private capital since 2010.

# Highlights From Our Proprietary Ride-Sharing Consumer Survey

During Oct-Nov 2016, we conducted an online survey of U.S.-based smartphone users with the basic objective of testing unaided/aided awareness, usage frequency, and consumer likes/dislikes around overall ride sharing offerings. Our survey also included questions related to car ownership and self-driving cars. We received 5,475 complete responses<sup>1</sup>. In this report, we have included 20+ charts and graphs highlighting survey takeaways. Our Top 5 Survey Takeaways:

- **1.** 38% of survey respondents had used one or more ride-sharing apps up 2x from a Pew Survey that measured ride sharing usage and penetration in Q4 '15.
- 2. 76% of ride sharing app users use Uber most frequently, and more than 70% of consumers who haven't used ride-sharing apps are familiar with Uber's brand name, based on both unaided & aided brand awareness test. (Lyft is at 10% usage and 30% awareness levels respectively)
- **3.** Uber & Lyft riders, on average, use such apps about 2.3x per month, per our survey, whereas consumers who haven't used ride-sharing apps in the past use taxi cabs and public transportation about 0.7x and 2.7x per month, respectively, implying an opportunity for ride-sharing companies over the long-term;
- **4.** Our survey highlights the potential of ride-sharing apps to provide a viable alternative for car ownership. We observed marginally higher likelihood of ride sharing usage among people who do not own cars and a marginally lower likelihood of purchasing a car among people who have used ride sharing apps in the past;
- **5.** 61% of non-ride-sharing app users surveyed think that autonomous cars would become safe and reliable in the next 10 years. And, more than 10% of non-ride-sharing apps users are extremely likely to use ride-sharing if it were a driverless car.

# **Investment Positives & Upside Catalysts To Track**

- **1. Large and expandable addressable market:** already a \$650+ billion in market opportunity today and the potential to disrupt several industries involved in human and autonomous transportation;
- 2. Significant secular & demographic trends: at the intersection of Mobile, Technology, and Automobile industries coupled with favorable demographic, cultural, and behavioral changes associated with rising Millennial population;

<sup>1</sup> We used SurveyMonkey to construct the survey logic, and SurveyMonkey & Amazon's Mechanical Turk to gather responses from their respective panels.

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- 3. Uber has a dominant leadership position in ride-sharing: 76% of ride sharing app users use Uber most frequently, per our survey, and more than 70% of consumers who haven't used ride-sharing apps are familiar with Uber's brand name, based on both unaided & aided brand awareness test;
- 4. Ride-sharing apps benefit from marketplace-style network effects inherent to most Internet Marketplaces;
- 5. Uber provides strong value proposition to consumers and drivers: our survey of 1,500+ Uber users indicates, on average, consumers take 2.3x trips per month and spend \$15.10 per trip, with convenience & price as the top two reasons to choose Uber;
- 6. Uber faces several greenfield growth opportunities: Uber ubiquity enables Uber to take share from consumer spend on public transportation, short term car rentals, and short-haul package delivery;
- 7. Uber has a solid board & management team.

# Key Risks & Downside Scenarios To Monitor

- **1.** Uber faces lots of direct, indirect, and emerging competition: pure play ride-sharing peers have raised significant capital and shown willingness to implement irrational economics near-term;
- 2. Uber's cost structure at scale remains unproven: based on our hypothetical analysis we can envision a pathway for ride sharing companies to reach "high-teens" GAAP Op Margins. But, ongoing competition, legal costs, and ambitious long-term investments likely put a ceiling on near-term profitability;
- 3. There are multiple, material potential legal and regulatory challenges:
  - a. Uber faces growing marketplace management risk;
  - b. Uber faces challenges associated with rising consumer expectations

# **Our Experience As An UberX Driver-Partner**

We believe that service quality and scalability are key leading indicators of a marketplace's long-term success. While we have been a consumer of ride sharing services over the past several years, in order to form a better-informed investment opinion, we wanted to get a first-hand experience as a supplier of services.

We believe that service quality and scalability are key leading indicators of a marketplace's long-term success. In this report, we provide details around the on-boarding process, background check process, a visit to Uber's Greenlight location including vehicle inspection, and our daily driver log. All in, we drove for roughly 11 hours over five days, completed 22 rides (including 3 Uber delivery trips), drove 175 miles, and earned \$225, translating to roughly \$20 per hour in gross income. We largely drove during the 9-5 working week hours, and with a fair mix of day-time off-peak/peak-time rides. Our effective take rate was 79%, or Uber retained 21%

of our gross fares. After completing 10 rides, we qualified for Uber Rush (package delivery) and Uber Eats (food delivery), but didn't manage to complete sufficient rides in a single day or a week to qualify for Uber Pool. We enjoyed our experience as an Uber driver, and walked away with lots of interesting observations:

- **1. On-boarding & safety:** We visited Uber's Greenlight location, and feel incrementally comfortable that Uber's on-boarding process ensures driver and vehicle quality. And, quality of supply is a key to marketplace success over the longer term;
- 2. Demand/supply matching: Almost every time we completed a ride, we received another ride request in less than a couple of minutes. Quite often, we received a ride request before dropping off a passenger. We think Uber doesn't appear to have a demand issue at all in places such as San Francisco Bay Area, and it is likely quite close to offering an "unending" trip to its drivers;
- **3. Part-time vs. Full-time:** Obviously, earning money and meeting people are key benefits of driving. We could see a pathway for anybody with a decent car and willingness to spend the hours to earn more than \$2,500 per month working on a part-time basis;
- 4. Driver empathy: We realized that there is frequently a negative stigma that attaches to taxi and Uber drivers. We expect that ride sharing companies will reduce this stigma over time, which in turn will encourage more people to sign up as drivers, and thus help ride sharing companies grow the supply-side of their marketplaces.

# Summarizing Our Private Tech Valuation Framework

Though valuing Private Tech Growth companies is made challenging by the lack of reliable financial information, there is data and analysis that can help guide valuation conclusions. At SharesPost, our valuation framework relies on publicly available data points, funding round-based valuation multiples of private peers, historical valuation ranges of publicly traded comps, as well as the overall market trend since the most recent primary funding round of the company. As a matter of corporate policy, we have decided not to publish a specific market value for a private company as of any particular date but we hope to provide our clients with the tools and framework to enable them to triangulate a reasonable range of investment values.

- Waterfall Model: We have constructed Uber's waterfall model based on the company's public regulatory disclosures. We have modeled both M&A and IPO outcome scenarios for the company. These models provide values for each share class for a given Enterprise Value (EV) in a given liquidity outcome scenario. On SharesPost.com, we provide dynamic tools to generate probability-weighted expected return based on a liquidity outcome assumption.
- 2. Multiple On Invested Capital (MOIC): How much money has the company raised, and what was the implied post-money valuation at the end of each funding round? We focus on a valuation metric called as "Multiple On Invested Capital" (MOIC), and benchmark it for Uber versus comparable private, public, and acquired peers.
- **3. Option Pricing Model:** This model simulates the probability-weighted expected return, estimating returns at the time of a future liquidity event (rather than a liquidation in the present). Companies generally grant stock options with a strike price set equal to the fair market value of the underlying shares. This typically requires a Section 409A valuation report, and discount versus most recent preferred share series. One notable benefit to using the OPM is that it accounts for the economic rights observed in private company cap tables such as preferred liquidation preferences and share class seniority. However, we'd highlight

that a traditional OPM approach, say, based on Black-Scholes-Merton model, for private companies relies on a number of inputs and assumptions such as expected time to exit, risk-free rate today, and volatility derived from similar publicly traded companies. Effectively, valuation output generated by an OPM approach is very much dependent upon the quality and selection of inputs. In this report, we have not provided or concluded a range of values using this approach, but acknowledge its potential use by some shareholders of VC-backed private companies.

- **4. Public Comps:** For a given set of comparable publicly traded companies, what is the range of Revenue and EBITDA multiples, and how do they index versus Revenue and EBITDA growth rates? Also, how have these publicly traded companies trended since the most recent primary round completed by the subject company?
- **5. Mutual fund holdings:** We have observed a growing number of traditional public equityfocused mutual funds report valuations for their respective holdings of private company shares. At SharesPost, we have tracked over 1,500 distinct data points disclosed by more than 20 mutual fund tickers for more than 50 private companies. We believe these public fund marks along with directional trend in these public fund marks provide a key insight into near-term valuation levels of private companies;
- 6. Secondary market transactions: SharesPost is a leading provider of liquidity to the private growth asset class, generating material, proprietary secondary transaction pricing data. While there can be a variety of factors affecting secondary market pricing, we regard recently completed secondary market transactions as a useful input to valuation calculations. Such transactions include implicit signals regarding the market's discount for lack of marketability/ liquidity, discount for commons shares versus most recent preferred shares and other information

SharesPost is a leading provider of liquidity to the private growth asset class, generating material, proprietary secondary transaction pricing data.

# **Company Overview**

Uber's founding tagline was "everyone's private driver." Today, the company's mission statement is "transportation as reliable as running water, everywhere for everyone." Uber's idea came to founders Travis Kalanick and Garrett Camp on a snowy Paris evening in 2008 when they had trouble hailing a cab. So they came up with a simple idea—tap a button, get a ride. What started as an app to request premium black cars in a few metropolitan areas is now changing the logistical fabric of cities around the world. Today, consumers can press a button on their mobile phone to get a ride, or get food delivered, or deliver a package – no matter what they want, when they want it, or where they want it.

Uber launched its service in San Francisco in June 2010 with the moniker "Uber Cab". Within 90 days, the company received a "cease and desist" letter from the San Francisco Municipal Transportation Agency. Immediately thereafter, both co-founders decided to drop the word "cab" from the company name, and arguably coining a powerful brand-verb in Internet slang, "Uber". ("You should Google it", "Why don't you Uber down to our dinner?"). Where does the name Uber come from? In Internet slang, it means "super" or "superior", and in German "Uber" means "above" or, simply, "superior".

One of Uber's defining features is its ease-of-use. Riders simply press a button in the mobile app, and Uber matches the rider to the closest driver (and vice versa). A key derivative of Uber's mission statement is its core business strategy: "Reliability, convenience, & a little bit of magic". Uber strives to increase the reliability and convenience of its offerings to both drivers and consumers. The company believes that the network effects of its business model hinge upon Uber being the most reliable and convenient service to all its marketplace participants. Further, the network effects between drivers, passengers, and information shared across trips, creates a direct feedback loop into improving the value of the marketplace.

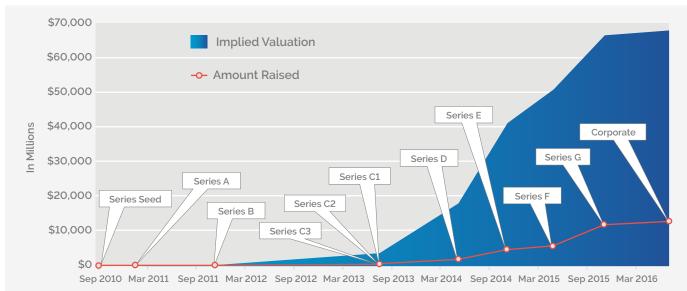
Over the past six years, Uber has expanded to more than 300 cities across 60 countries, and its growth has been staggering across all levels - in terms of execution, raising funds, competition, and legal troubles. Below we provide a brief history of key Uber corporate milestones (for legal and management team related events, please refer to respective sections in this report):

Date	Description
Jun-2010	Uber launches in San Francisco
May-2011	Uber launches in New York City
Jun-2012	Uber launches in London, UK
Jan-2013	Uber launches in Melbourne, Australia and in Singapore (1st city in Asia)
Nov-2013	Uber launches in Tokyo, Japan
Dec-2013	Uber launches Paypal integration
Jan-2014	Uber launches UberX
Jul-2014	Uber launches "Uber for Business"; Partners with Concur to handle employee expenses
Aug-2014	Uber launches "Uber Pool"
Oct-2015	Uber launches an all new Uber Driver Partner App
Feb-2016	Uber rebrands its logo
Jun-2016	Uber introduces Schedules rides
Jun-2016	Uber introduces Upfront fares
Aug-2016	Uber acquires Otto with a mission to launch self-driving trucks
Sep-2016	Uber's self-driving cars arrive in Pittsburgh
Oct-2016	Uber Driver App on iOS

## Exhibit 1: A Brief History of Uber's Corporate History

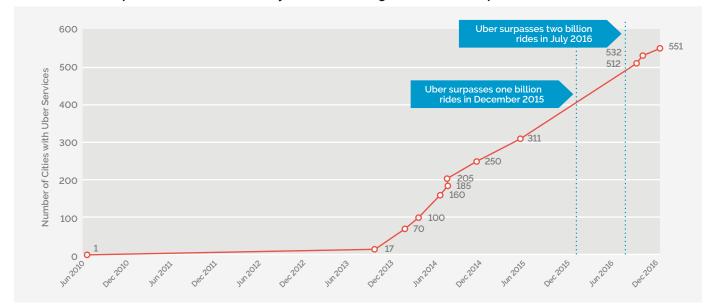
Source: SharesPost Research; Uber press release archive; For management changes & legal time lines, please refer to exhibit 31 and exhibit 41

Another key noteworthy element of Uber's story is its ongoing hyper-growth phase. Uber launched in San Francisco in June 2010, and grew its presence steadily to about 20 cities in three years. However, since Q3:2013, Uber has entered into a dramatic hyper-growth phase – both in terms of geographic expansion and in terms of fund raising. Over the past three or so years, Uber has raised roughly \$12 billion in funds and expanded its geographic footprint more than fifteen-fold. We summarize key publicly available data points in the charts below.





Series G closed in several tranches from Dec 2015 to May 2016; Aug 2016 corporate investment completed as part of Didi-Chuxing & Uber China merger. Source: PitchBook, SharesPost Research; \$ in millions; Uber Certificates of Incorporation and related filings.





Source: SharesPost Research; Uber press release archive

# **Key Investment Positives**

# 1. Ride-sharing apps face a large and expandable addressable market

Ride-sharing apps such as Uber and Lyft have a large revenue opportunity today and the potential to disrupt several industries involved in human and non-human mobility. Based on a sum-of-parts, bottoms-up approach, we estimate more than \$600 billion in revenue opportunity available to ride-sharing apps

"Sizing the market for a disruptor based on an incumbent's market is like sizing the car industry off how many horses there in 1910"

Aaron Levie, Co-Founder & CEO, Box (@levie June 2014). today. Alternatively, if ride-sharing accounts for 5% share of annual human miles traveled in the future, then they stand to benefit from over \$650 billion in economic value created per year. Our proprietary consumer survey of 5,500 smartphone users highlights a marginally higher likelihood of ride sharing usage among people who do not own cars and a marginally lower likelihood of purchasing a car among people who have used ride sharing apps in the past, both indicating that ride-sharing apps have significant potential to alter car ownership decisions in the future.

When we think about doing a market opportunity or target addressable market exercise for disruptive technology companies such as Uber and Lyft, we are largely looking for reasons to believe that Uber or Lyft have a pathway for sustainable top-line growth over the longer term. In addition, we are looking for negative proof points

(i.e. indications of where companies operating in this market would hit a growth wall in, say, seven years from now; Or, would the companies continue to grow and execute regardless of competition, government, and other such externalities, simply because the end market is large and growing.

In this section, we present two approaches to determine the addressable market opportunity of ride-sharing companies.

## Approach #1: Market size based on core, adjacent, & incremental target markets

In the first approach, we group the Uber and Lyft's revenue potential into three categories based on current and potential product set and use cases:

#### 1. What is the revenue potential assuming status quo product set and use cases?

Uber's direct target market is the global taxi cab industry. Industry estimates are roughly \$80 to \$120 billion in global consumer spend on taxi cab rental, including \$10-20B in the U.S., \$20-20B in Japan, \$10-20B in the U.K. Assuming Uber continues to execute over the next five years, and assuming it remains the market leader, we'd guesstimate Uber to have anywhere between 25% to 75% market share of the taxi cab industry in the future (e.g. Amazon's market share of U.S. eCommerce industry or Google's market share of U.S. online advertising industry).

# 2. What is the revenue potential assuming improving product set into logically adjacent expansion of use cases?

(e.g. Amazon introducing Prime shipping guarantee globally and transforming consumer behavior online). We are seeing early evidence of expanding target market into adjacent use cases related to "human and non-human mobility" e.g. short-term rental cars, complementing or supplementing public transportation, last-mile delivery services, and long-haul or freight/ground delivery services:

Short-term Rental Cars: For short-term rental cars, annual combined estimated revenues of large private/public rental car companies including Enterprise-Alamo-National (private), Avis-Budget (NASDAQ: CAR), and Hertz-Dollar-Thrifty (NYSE: HTZ) are roughly between \$30B and \$40B. Assuming three market leaders combined have roughly 50-75% market share, we'd guesstimate annual car rental spend is roughly \$40B to \$60B.

Public Transportation: According to Annual Public Transportation Association's 2015 Fact Book, which includes 18 different types of modes of public transportation (including San Francisco's Trolley), annual consumer spend on public transportation was approximately \$60 R in 2014. Accuming US, put

# *"We see this opportunity around the rental hub as a very interesting one"*

Dan Ammann, GM president, and John Zimmer, Lyft president and co-founder after announcing \$500 million investment (Jan 2016, Bloomberg interview)

was approximately \$60B in 2014. Assuming U.S. public transportation spend under-indexes versus other developed economies (think Japan, Europe), we'd guesstimate annual global public transportation spend to range between \$200B and \$300B.

- Last-Mile Delivery: When we refer to "non-human mobility" or "package delivery", we envision Uber expanding into "last-mile delivery" services in the future. According to McKinsey's recent report on "Parcel Delivery The future of last mile", the cost of global parcel delivery, excluding pickup, line-haul, and sorting, amounts to ~ EUR 70 billion (or approximately \$75B to \$80B globally), with China, Germany, and the United States accounting for more than 40% of the market. And, this market is growing "high single digits" globally, with developing markets such as India growing at 300% or more. We'd clarify that this estimated global spend on last-mile delivery is a subset of global logistics and package delivery spend. For instance, trailing twelve month (TTM) revenues of two of the largest transportation, logistics, and delivery services companies, FedEx and United Parcel Services is roughly \$53B and \$60B, respectively.
- Long-haul freight/ground delivery: Earlier in October, Uber announced that a self-driving truck delivered 20,000 cases of beer over a distance of 120 miles in Colorado. According to FedEx's investor relations website, LTL freight (Less Than Truckload) industry has been growing at sold double digits since the Recession, largely driven by eCommerce shipping volume demand. Total domestic spend is expected to exceed \$40B in 2016. Lacking accurate global estimates, we'd guesstimate that a roughly \$80-100B global revenue opportunity is available for players targeting ground shipping/freight forwarding.

All in, we estimate **Uber's incremental addressable market** assuming improving product set into logically adjacent expansion of use cases **would be roughly between \$350B and \$400B per year.** 

# 3. What is the revenue potential assuming quantum leaps in product sets into incremental new use cases and leading to dramatically different consumer behavior?

(E.g. Amazon renting Internet bandwidth, computing or storage globally)

In a lengthy blog post, Bill Gurley, an Uber investor, argued that companies such as Uber are well-positioned to change consumer behavior with new use cases, greater scale, and high level of marketplace liquidity. We agree. We have seen large technology companies change consumer behavior and alter demand/supply curves by reducing friction and adding efficiencies around somewhat repetitive or mundane human tasks.

In order to provide a frame of reference, here are few pertinent numbers to consider: industry estimates roughly 75 to 80 million cars will be sold globally in 2016. And, industry estimates put used car sales volume to be roughly 3x to 4x new car sales volume, or 200 to 300 million cars exchanging hands every year. For the sake of Uber & Lyft's addressable market opportunity exercise, let's assume that 50% of new car buyers and used car buyers

were replacing their existing cars. In other words, out of the roughly 275 to 375 million cars transacted per year, we assume that approximately 150 million cars are transacted as net new additions (and not replacements).

If we believe that ride-sharing services can evolve into alternatives to car ownership, then they stand to benefit from the economic value created by providing alternative to car ownership for these 150 million car owners globally. Below we provide a sensitivity table displaying a range of outcomes based on following variables.

- 1. Number of cars bought as an incremental purchase every year This does not include replacement car purchase (i.e. I already owned a car, but I sold the car or stopped using it for some reason, and decided to buy another car instead). Given an estimated 275 to 400 million car transactions every year, we believe a range of 100 million to 200 million is reasonable;
- 2. Proportion of car owners that may choose to do ride-sharing instead we believe a range of 1% to 10% is reasonable assumption i.e. 1% of potential car buyers every year would choose to not buy a car but fulfill their mobility needs via a ride-sharing app. Please note that we have used a reverse ordering for this penetration proportion to arrive at a reasonable range of scenarios. In other words, we feel that our approach to estimating the potential revenue opportunity is conservative; and
- **3.** Money saved per year by choosing to not purchase an incremental car On average, the sales price of a new car is between \$10,000 to \$20,000;Used car sales tend to happen at roughly \$5,000 to \$15,000 per car. And, according to AAA, the total cost of ownership of a car per year varies between \$5,000 and \$15,000 per year (for 15,000 miles per year in driving).

300,000,000	
300,000,000	350,000,000
ng vs. car buying e	every year
2.00%	1.00%
ot buy a car	
\$13,000	\$15,000
\$11,000	\$11,000 \$13,000
	native to car owner

Exhibit 4: Sensitivity Analysis Illustrating Economic Value of Car Ownership Alternative Presented By Ride-Sharing

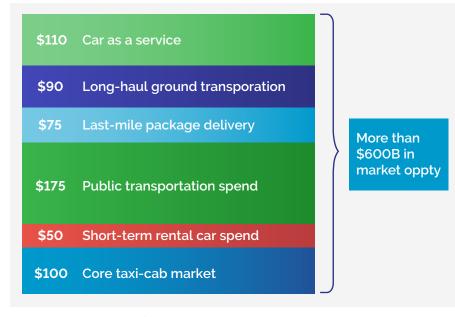
Source: SharesPost Research; \* these figures could also include people who decided to stop driving own car and chose ride-sharing instead

The headline conclusion here is that ride-sharing services could earn up to \$100B in incremental revenues every year, if 5-6% of incremental car buyers decide to use ride-sharing instead of buying a car. In other words, if a company generates \$100B in savings due to its products, the company probably provides \$100B in economic value to its consumers, and, thus, can stake a claim on those savings of \$100B as a payment for the economic value created by its services.

All in, we'd estimate Uber's addressable market opportunity is more than \$600B today. However, we'd add several caveats to this estimated market opportunity for ride-sharing services. We are firm believers of the notion that when a disruptive technology significantly lowers friction around day-to-day consumer and business activities then it alters consumer and business behavior leading to dramatically different use-cases. We have already seen the evidence that ride-sharing services are capable of expanding its target markets by providing new use cases

for consumers and creating new revenue generation opportunities which weren't fulfilled by existing solutions (and hence, not captured in existing consumer spend); Here are a few examples/anecdotes:

- **1.** There are an estimated 13,000 taxi cabs in New York city, and already more than 26,000 Uber drivers in NYC, implying the ride-sharing apps are clearly operating beyond core taxi TAM;
- **2.** As more people choose ride-sharing apps over owning a car, arguably, ride-sharing apps encroach into market value of parking spaces, auto insurance, and adjacent car ownership related spend buckets such as car service centers;
- **3.** Ride-sharing apps have the potential to expand the addressable market to consumers who wouldn't have spent on taxi or public transportation previously (e.g. old people, young kids, etc.);
- **4.** Ride-sharing apps have the potential to launch in cities, suburban, and rural areas where taxi cabs haven't operated till date;
- 5. It is difficult to estimate the effect of self-driving cars on all the aforementioned spend buckets. Ride-sharing coupled with self-driving cars has the potential to significantly disrupt all forms of human and non-human mobility, but it will be several years before we see the evidence of any such potential disruption.



#### Exhibit 5: Approach #1 – Ride-Sharing Total Addressable Market

As additional evidence of a large market opportunity, we would highlight key takeaways from our proprietary consumer survey of smartphone users. During Oct-Nov 2016, we surveyed roughly 5,500 consumers, largely based in the U.S., with the basic objective of testing awareness, frequency of usage, and related likes/dislikes around overall ride-sharing offerings. We provide a lot of charts and data points from this survey in this report. Refer to section "Proprietary Ride-Sharing Survey" for complete details on our survey.

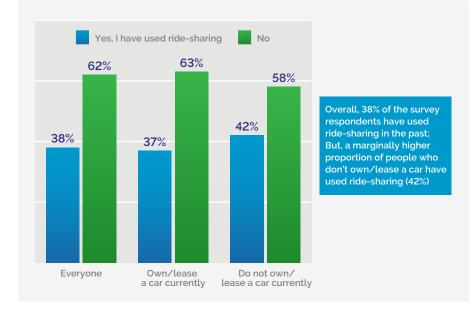
As it relates to the market potential of ride-sharing apps, we asked a couple of questions of all survey participants: Do you own or lease a

Source: SharesPost Research; \$ in billions

car? And have you heard of or used ride-sharing apps? We summarize the findings from both of these questions below, but what we found interesting is the following:

- About 38% of all survey respondents had used ride-sharing apps at least once in the past, in other words, there's still more than 60% of the population that hasn't used ride-sharing at all. We asked a series of questions of these people in our survey. More details in a subsequent section of the report;
- 2. 81% of consumers owned or leased a car; and moreover,

**3.** There was a marginally higher penetration of ride-sharing usage among consumers who did not own or lease a car. Or, 42% of consumers who didn't own or lease a car had used ride-sharing apps in the past.



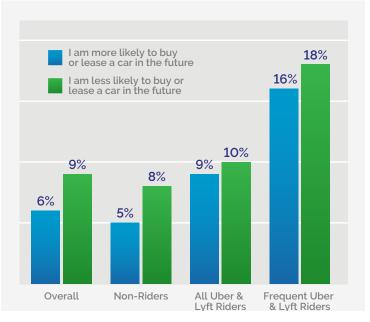
#### Exhibit 6: Have you used ride sharing or taxi hailing mobile apps?

Source: SharesPost Research; N=5,475 survey respondents; 81% or 4,446 of those own/lease a car; 19% or 1,029 of those do not own/lease a car

the survey respondents are more likely to buy a car after using ride-sharing apps. We'd note that all these survey respondents hadn't used ridesharing apps in the past. When we sliced the data by looking at the responses from Uber & Lyft customers, we found largely similar patterns. Interestingly, frequent users of Uber & Lyft had more polarizing responses with 18% of frequent Uber and Lyft users less likely to buy a car in the future.

All in, the headline takeaway, in our opinion, is that ride-sharing apps have significant potential to alter car ownership decisions. Our survey highlights a marginally higher likelihood of ride-sharing usage among people who do not own cars and a marginally lower likelihood of purchasing a car among people who have used ride-sharing apps in the past. Second, we wanted to get a sense of the effect of ride-sharing apps on the likelihood of buying or leasing a car in the future. The hypothesis we wanted to test was whether ride-sharing apps can replace car ownership for consumers. And, if so, what proportion of the population is less likely to buy a car and effectively rely on ride-sharing apps for their family's mobility needs? The headline takeawav here was very interesting to us: Relatively a greater proportion of survey respondents are "less likely" to buy a car after using ride-sharing apps. As highlighted in the chart, 8% of the roughly 5,500 survey respondents indicated that they are less likely to buy a car after using ride-sharing whereas 6% of

Exhibit 7: How has your recent experience with Uber (or Lyft) affected your decision to buy or lease a car in the future? Do you think your usage of ride-sharing or cab hailing apps will affect your decision to buy or lease a car in the future?



Source: SharesPost Research; N=5,475 survey respondents; 1,741 Uber & Lyft Users; Frequent Users defined as using ride-sharing at least once per week; 26% or 458 users regarded as "Frequent Users"

# Approach #2: Market size calculated as a proportion of overall mobility & transportation done in a shared manner

Another approach to determine the revenue potential for ride-sharing apps is to answer the following question: what proportion of overall human mobility could be shared in the future? We have come across several industry reports arguing that the car is one of the most underutilized assets in the world. And, its usage seems to have diminishing marginal returns, largely because driving solo means you are also losing a precious resource, time. And, the more time you spend driving from point A to point B, the more time you lose! In other words, arguably, shared mobility has dual benefits – you can save money, and you can save time. In addition, we believe there is a derivative benefit from the technology behind shared mobility – data. We can envision several use cases of growing amounts of data being gathered by ride-sharing companies around traffic patterns, daily commutes, special events, and many such other things.

In order to determine the economic value of these benefits, we will start with determining the number of miles traveled by car or by train/bus by humans in any given year. Here are our basic assumptions:

- 1. Estimating miles traveled by road: There are about 1 billion cars in the world. Assuming roughly 10,000 miles per year per car, we'd guesstimate about 10 Trillion miles driven on the road by cars in a given year;
- 2. Estimating miles traveled by rail/metro: There are about 200 metro systems in the world. Annual ridership for the top 15 metro systems is in the range of 1 Billion to 3 Billion passengers per year and median trip distance is about 5-10 miles per trip. For the purposes of this exercise, we'd guess, on average 0.5 Billion passengers travel 10 miles on each metro system per year leading to roughly 100 billion passenger trips globally. Or, roughly 1 Trillion miles are traveled via metro systems per year. For context, per 2015 U.S. Public Transportation Fact Book, NY/NJ metro has roughly 25-30 billion passenger miles per year, and the rest of the U.S. combined has another 20-30 billion passenger miles.

As a second step, let's assume that 5% of these trips become shared over the future. Or, 5% x 11 Trillion miles = 550 Billion miles traveled via shared rides. And, at \$1 per mile, ride-sharing companies stand to earn \$550 billion per year. Finally, we believe there is an intrinsic value of saved time and data collected too. For instance, assuming a 20 mile per hour speed, consumers would save about 550 Billion miles divided by 20 miles per hour equal to roughly 27.5 billion hours per year. And, at \$5 per hour, this translated to an incremental \$137.5 billion of

...ride-sharing apps such as Uber and Lyft face \$500 to \$800 billion in market opportunity today economic value generated from using ride-sharing apps. Coupled with data collected on passengers, trips, usage, traffic patterns, we'd guess that savvy tech companies would be able to build deeper mousetraps and generate more revenue opportunities in the future.

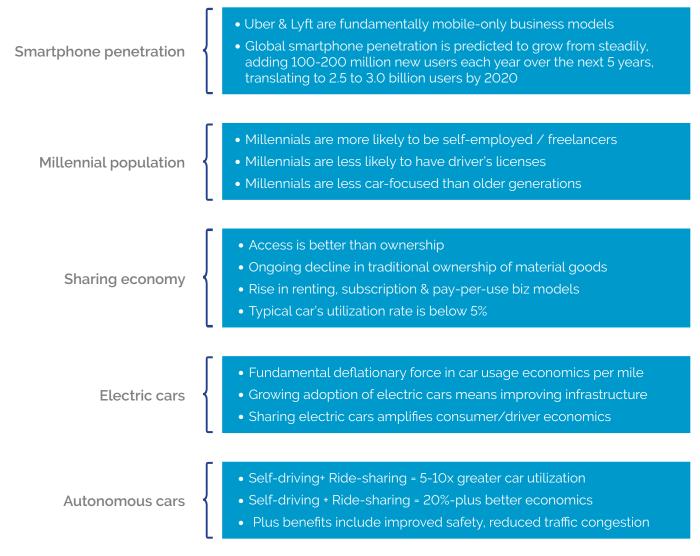
All in, the headline takeaway here is that ride-sharing apps such as Uber and Lyft face a large addressable market opportunity today – roughly in the range of \$500B to \$800B. And, this market opportunity will grow over the longer term due to secular trends (as highlighted below) and scalable use cases related to human and non-human mobility (as highlighted above)

# 2. Ride-sharing apps benefit from significant secular & demographic trends

Ride-sharing companies benefit from significant secular trends at the intersection of Mobile, Technology, and Automobile industries coupled with favorable demographic, cultural, and behavioral changes associated with a rising millennial population. According to our proprietary survey of 5,000+ Smartphone consumers, more than 60% of survey respondents haven't used ride-sharing apps to date, with "lack of number of cars available" cited as #1 reason. And, 30% of these consumers believe autonomous cars would become safe and reliable in the next five years.

Currently, we are witnessing major trends at the intersection of Auto & Tech industries that could be highly disruptive over the next 20 years. While each of these trends are fairly independent and appear to happen simultaneously, we believe these trends are also complementary and contribute to the secular development of other such secular trends. While these trends would take several years to completely manifest themselves, we believe that business models such as ride-sharing will fundamentally benefit from such positive long-term trends. However, we'd also add that end market revenue opportunities or consumer demand may not grow linearly with technological advancements as there would be a large number of regulatory, cultural, and consumer behavior changes expected for the revenue opportunity to grow along with tech advancements.





Source: SharesPost Research

In addition, we'd note that freelance employees are a very large portion of the U.S. employment base, with the Freelancers Union estimating that 53MM Americans (or 34% of the US workforce) are working in such a capacity. In aggregate, this employment base adds roughly \$715B to the US economy each year. Further, Millennials are more likely than older generations to be self- employed, with 38% of these citizens freelancing. Autonomy, a sense of purpose, excitement and giving back are all key motivators for these individuals to work independently. Within this group, women are increasingly contributing to the self-employment trend. These young freelancers are the core of Uber's driver base.

Finally, as more evidence about the potential opportunity for ride-sharing companies, these are relevant takeaways from our consumer survey.

# 1. Ride-sharing consumers use it almost as frequently as Public Transportation is used by non-ridesharing consumers

We compared the frequency of usage of ride-sharing consumers of ride-sharing apps vs. frequency of usage of taxi cab and public transportation by consumers who haven't used ride-sharing in the past. Uber & Lyft riders, on average, use such apps about 2.3x per month whereas consumers who haven't used ride-sharing apps in the past use taxi cabs about 0.7x per month. What we found interesting is that this second cohort of consumers use public transportation systems (bus/rail/metro) about 2.7x per month, implying a clear opportunity for ride-sharing companies over time.

# 2. Lack of car & driver density and other "solvable" problems among top concerns for non-ridesharing consumers

When asked about the biggest concerns to survey respondents who haven't used ride-sharing apps in the past: "What is your biggest concern about ride-sharing or cab hailing mobile apps?"; Roughly 40% of survey respondents indicated that they haven't used ride-sharing due to lack of car/driver density, and the subsequent concerns appear to be largely "Solvable" business cases. For instance, non-riders indicated that they would prefer to schedule rides, or pay with cash, or estimate fares in advance.

# 3. Autonomous Ride-sharing a distant but feasible possibility among consumers

We asked survey respondents several questions related to autonomous or self-driving cars. In particular, we were trying to get a sense of when they think that a self-driving car would become a reality, and when it becomes a reality, how likely are they to use ride-sharing inside a self-driving car. We asked the following questions to consumers who haven't used ride-sharing apps in the past (and, that's the majority of our survey takers – more than 3,400 out of 5,500 survey respondents): When do you expect that autonomous or self-driving cars would become safe and reliable? How likely would you use ride-sharing or cab hailing mobile apps if it were a driverless car or an autonomous vehicle? We illustrate the results from both these questions in the charts below. The headline is that the majority of the people who answered these questions think that autonomous cars would become safe and reliable in the next 10 years. And, more than 10% of the survey takers indicated that they are extremely likely to use ride-sharing if it were a driverless car. Again, these are hypothetical questions based on hypothetical scenarios, so we'd add a big grain of salt and caution readers from drawing actionable conclusions. Nonetheless, these results are encouraging to those bullish on the market potential given a fairly healthy perception of a technology that is still years away from becoming a reality.

# Exhibit 9: How frequently do you use Uber/Lyft, TaxiCabs, or Public Transportation? (Chart indicated no. of times per month)

# xiCabs, Exhibit 10: What is your biggest concern about ridemes per sharing mobile apps? Or, why haven't you used ridesharing apps to date?

ride-sharing cabs where I live

I have heard ride-sharing car

I am unable to find out the

I cannot pay in cash for a ride

fare before the trip ends

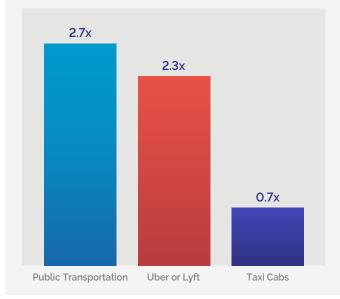
Ride-sharing apps only work with smartphones

I am unable to schedule a ride ahead of time

Ride-sharing apps take up my phone data plan

drivers do not have good records

There aren't a lot of



Source: SharesPost Research; N=5,475 survey respondents; 1,741 Uber or Lyft users; 2,741 Public transportation or Taxicab users

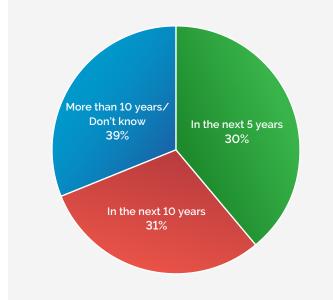
Source: SharesPost Research; N=5,475 survey respondents; 2,741 users who haven't used ride-sharing till date answered the aforementioned question

16%

11%

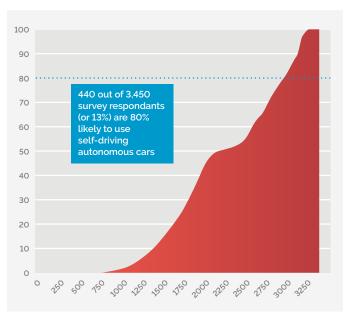
10%

Exhibit 11: Large technology companies and auto manufacturers are investing billions of dollars to create self-driving or driverless cars (also known as autonomous vehicles). When do you expect that such cars would become safe and reliable?



Source: SharesPost Research; N=5,475 survey respondents; 3,453 users answered this question: Large technology companies and auto manufacturers are investing billions of dollars to create self-driving or driverless cars (also known as autonomous vehicles). When do you expect that such cars would become safe and reliable?

# Exhibit 12: How likely would you use ride-sharing or cab hailing mobile apps if it were a driverless car or an autonomous vehicle?



Source: SharesPost Research; N=5,475 survey respondents; 3,453 users answered the aforementioned question on a scale of 1 to 10; Chart illustrates each numerical response

# SHARESPOST

All in, while our survey indicates that we are several years away from the roll-out of any self-driving car that people can purchase, and we are even further from a future city with no human drivers on the street, but progress toward autonomous cars has clearly accelerated. Technology and computing is clearly altering the interactions between people and the transportation system, with a potential to replace majority of manually driven modes of transportation with at least a partially autonomous mode of transportation, which would represent a radical change as compared to basic forms of urban mobility over the past 100 years. Several companies including large technology companies such as Google and Apple, traditional car manufacturers such as BMW and Volvo, and disruptors such as Uber and Tesla suggest that they'll be able to offer such vehicles relatively soon.

# 3. Uber has a dominant leadership position In Ride-Sharing

Uber has established itself as the clear market leader, particularly in the U.S. and several international markets for ride-sharing and related mobility services. Our analysis of 3rd party mobile app review and ratings data (from App Annie, Google Play, and Apple iTunes) along with web/mobile traffic data (from Alexa, Compete. com, and Google Trends) indicates that Uber has a significant lead over its peers across many geographies. Also, 76% of ride-sharing app users use Uber most frequently, per our survey, and more than 70% of consumers who haven't used ride-sharing apps are familiar with Uber's brand name, based on both unaided & aided brand awareness test.

First, we compared the number of mobile app reviews and ratings across key geographies. We use this as a proxy for the consumer usage and, hence, demand for Uber services versus its peers. We also looked at 3rd party mobile app tracking services such as App Annie to gauge the overall penetration of Uber and its peers among consumers. We illustrate below the number of ratings and overall rating for Uber and Lyft's consumer apps on both Apple iTunes and Google Android Play stores. This data is only for the U.S. mobile app stores. We observed that Uber has a significant number of reviews in app stores for China, U.K., France, and several other countries whereas Lyft had fewer than 100 reviews in each of these countries. Interestingly, we observed that Lyft has a higher overall rating from consumers for its iTunes app in the U.S.

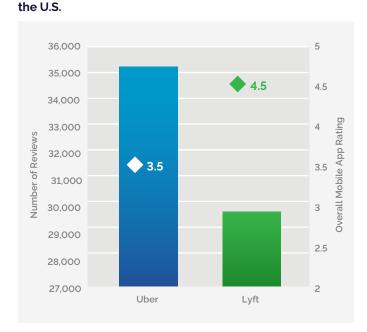
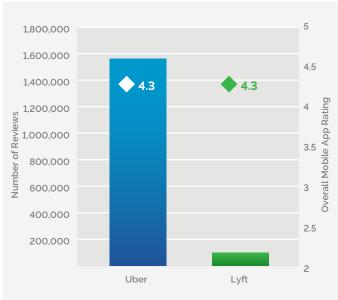


Exhibit 13: Apple iTunes App Store Reviews and Ratings in

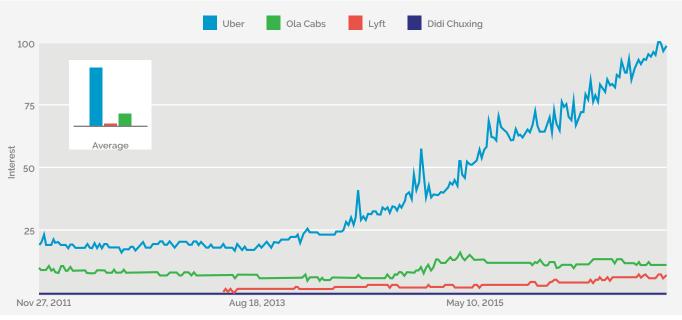




Source: SharesPost Research; App Annie; Apple iTunes; Google Play Android

Source: SharesPost Research; App Annie; Apple iTunes; Google Play Android

Second, we compared mobile app usage and traffic as estimated by 3rd party sources such as Alexa and Compete/ SimilarWeb.com. We also looked at a Google Trends report for specific ride-sharing apps' related keywords (illustrated below). Again, the conclusion is largely in line – Uber is a clear market leader in the ride-sharing space.





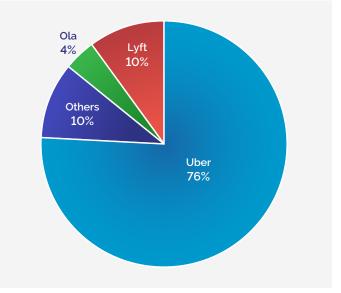
Source: SharesPost Research; Google Trends

Finally, we referred to specific takeaways from our consumer survey highlighting Uber's market position versus its peers. In particular, we highlight key takeaways from our proprietary survey. **The headline is that 76% of ride-sharing app users use Uber most frequently, per our survey, and more than 70% of consumers who haven't used ride-sharing apps are familiar with Uber's brand name, based on both unaided & aided brand awareness tests.** 

As an initial step to determine relative levels of usage of ride-sharing apps, we asked a simple upfront question to all consumers who had indicated that they had used ride-sharing in the past: Which of the following ride-sharing or taxi hailing apps have you used most frequently? Survey respondents had the option to select only one option from more than 20 different ride-sharing app names presented in the choice list. 76% of the survey respondents who answered this question selected Uber as the most frequently used ride-sharing app. Lyft came in a distant second with 10% estimated market share.

Next, we divided the consumers who haven't used ride-sharing apps into two groups to test aided and unaided brand awareness of ride-sharing apps. For the group of consumers who hadn't heard about any ride-sharing apps, we presented a choice list of over 20 brands to test aided brand awareness by asking the following question: Do either of the following brands sound familiar to you? Survey respondents could select multiple answers in this question.

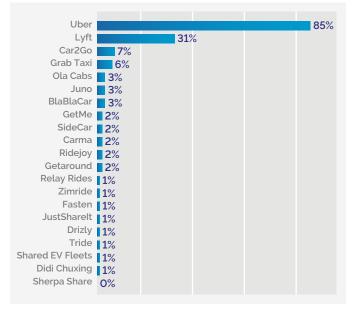
Exhibit 16: Which of the following ride sharing or taxi hailing apps have you used most frequently?



Source: SharesPost Research; N=5,475 survey respondents; 2,063 users answered the aforementioned question;

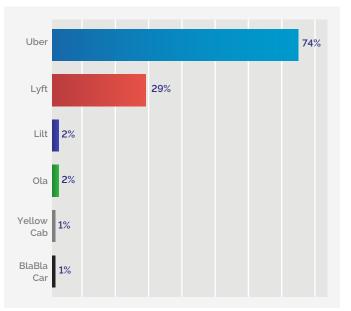
And, for the group of consumers who had heard about ride-sharing apps in the past, we asked them an open-ended question (without presenting any options). When you think of ride-sharing or taxi hailing mobile apps, which brands come to mind? This question helped us in testing unaided brand awareness among consumers. We summarize the results from both these questions below. We are also encouraged to see fairly high brand awareness for Lyft among consumers. We view brand awareness as a key leading indicator for consumer adoption, and hence, this is a sign of emerging healthy competition in the ride-sharing space, which bodes well for innovation and pricing from a customer standpoint.

Exhibit 17: Aided Brand Awareness: Below is a list of companies that operate ride-sharing or cab hailing mobile apps. This is not a comprehensive list by any means. Do either of the following brands sound familiar to you? Please select all that apply



Source: SharesPost Research; N=5,475 survey respondents; 626 survey respondents answered the aforementioned question; these survey respondents hadn't heard of any ride-sharing apps

# Exhibit 18: Un-Aided Brand Awareness: When you think of ride-sharing or taxi hailing mobile apps, which brands come to mind?



Source: SharesPost Research; N=5,475 survey respondents; 2,625 survey respondents answered the aforementioned question; these survey respondents had heard of ride-sharing apps but never used them in the past; others mentioned include EasyTaxi, Hitch-A-Ride, BookMySeat

# 4. Ride-sharing apps benefit from marketplace-style network effects

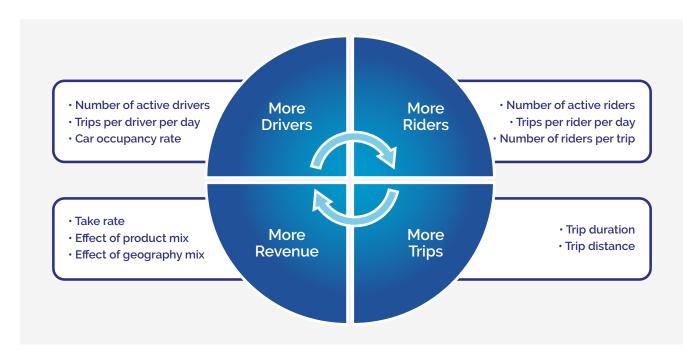
Ride-sharing app companies' business model benefits from network effects inherent to Internet Marketplaces – more drivers, more riders, more trips. Our surveys indicate 78% of the 1,500+ Uber users are "extremely" or "very" satisfied with Net Promoter Scores comparable to successful Internet Marketplaces such as Amazon & Netflix. And an even higher 84% of the 400+ frequent Uber users exhibit similar satisfaction levels, indicating solid network effects at work – higher satisfaction levels among more frequent users.

*"Uber's virtuous cycle ... Geographic density is the new network effect"* 

David Sacks CEO of Zenefits, Ex-Paypal (@DavidSacks; June 6, 2014) Uber and other ride-sharing app players benefit from simple, yet powerful, network effects that can help to drive substantial growth and create barriers to entry and exit. Those looking for a ride benefit when there are more listings to choose from because they are more likely to find an open listing in their specified time frame due to the increased inventory. Conversely, the drivers benefit from additional consumers, which make it more likely that they will be busy driving rather than waiting for a ride. Additionally, Uber stands to benefit incrementally as it can add significant value by owning the marketplace where velocity of transactions completed is higher than comparable marketplaces. In particular, we think a key component in Uber's marketplace is the inherent

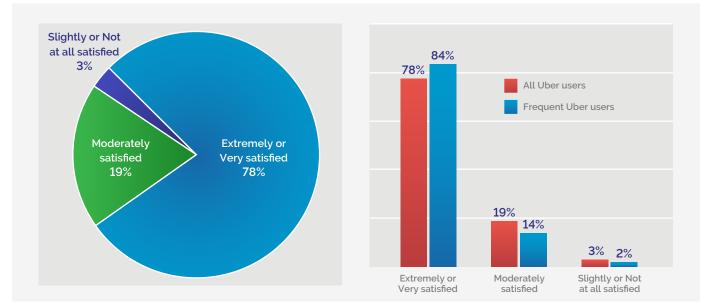
benefit of growing marketplace liquidity with scale. This directly translates in lower wait times for consumers leading to higher satisfaction rates. Interestingly, Uber's 5-year anniversary city report highlighted that wait times in San Francisco have consistently declined on a year-on-year basis. All in, a leading marketplace within its sector can add layers of incremental offerings to all participants in the marketplace services that reduce friction from the transaction process, thus solidifying its competitive barriers to entry as well as exit. In case of Uber, we have already seen evidence of new products such as Uber Pool being offered.





Source: SharesPost Research

Based on our survey data, we saw evidence of these network effects through the very high levels of satisfaction among consumers. Our proprietary survey showed 78% of Uber users were "extremely" or "very" satisfied with Uber's offerings. We'd highlight that our survey captured more than 1,500 current Uber users who indicated that they use Uber most frequently among ride-sharing apps. Furthermore, 84% of frequent Uber users were "extremely" or "very" satisfied with Uber. In our opinion, this is a clear indication of Uber's network effects in play – if you use Uber more, then you are more satisfied! We have observed such network effects at play in leading Internet marketplaces such as Amazon and Netflix.



#### Exhibit 20: Overall, how satisfied are you with Uber?

Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users; Frequent Users defined as using ride-sharing at least once per week; 26% or 399 Uber users regarded as "Frequent users"

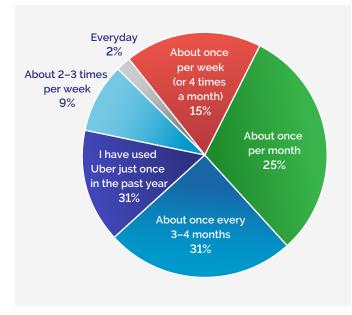
However, we'd add a caveat about network effect business models such as Uber. While they benefit from reaching scale and effectively managing both sides of a marketplace, we think such business models also potentially face negative downward-spiral trajectories if they end up over-monetizing, under-innovating, or creating conflicts in the marketplace. (For instance, we believe companies such as MySpace, eBay Marketplaces, and Groupon benefited from marketplace-driven network effects at one point in their lifetime, but also faced severe headwinds inherent to a marketplace downward spiral. For more thoughts around the risks facing a marketplace, please refer to the "Marketplace management risk" section.

# 5. Uber provides strong value proposition to consumers and drivers

Uber arguably has among the best product/market fit we have observed in the mobile/consumer technology companies recently. Uber has created a simple, easy to use, yet compelling product which is able to satisfy a large cohort of consumers and drivers. Our consumer survey of 1,500+ Uber users indicates, on average, consumers take 2.3x trips per month and spend \$15.10 per trip, with convenience & price as the top two reasons to choose Uber. And, our personal experience as an Uber driver-partner gave us a window into the benefits to drivers. We reckon flexible work hours, ease of use, convenience, incremental earning opportunity, as the top reasons to choose Uber, particularly for the vast majority of part-time drivers.

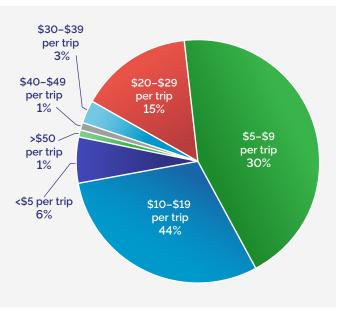
Uber offers a compelling value proposition to consumers with an easy to use on-demand transportation alternative. In our consumer survey, we asked a series of questions to get a sense of "why" consumers use ride-sharing apps and "how much" do consumers spend on ride-sharing apps. We illustrate the findings from relevant questions in our survey below. Key highlights include:

- 1. We asked survey respondents their frequency of Uber usage. About 25% of Uber consumers use Uber several times per month, and another 25% use Uber once per month. On average, we estimate consumers use Uber 2.3x per month;
- 2. About 5% of Uber rides are worth more than \$30 per trip, and another 15% of rides are worth between \$20 and \$29 per trip. Vast majority of rides are between \$10 and \$19 ~ 44% of all trips, which largely coincides with average taxi cab ride around "mid teens" per trip. Overall, on average, a typical Uber trip is worth \$15 per trip;
- **3.** When asked about favorite thing about Uber, consumers chose "convenience" and "price" as the top two reasons to choose Uber, followed by hassle-free payments and reliability;
- **4.** When asked about primary trip purpose to use Uber, consumers chose "driving to/from dinner or a party" and "going to or coming from the airport" as the top two reasons.



# Exhibit 21: How frequently do you use Uber? On average, consumers use Uber 2.3x per month



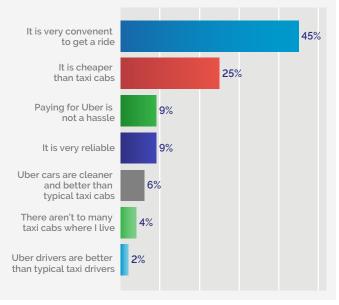


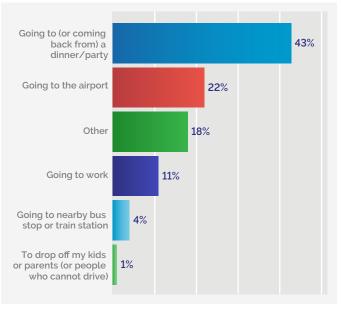
Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users



#### Exhibit 23: What is your favorite thing about Uber?

## Exhibit 24: Under what circumstances do you use Uber most often?





Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users

Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users

From a driver's standpoint, we had first-hand experience signing up as an Uber driver-partner and driving as an Uber partner for more than 15 trips. We came out with a fairly positive disposition of the overall experience. In our opinion, key benefits to driver-partners include:

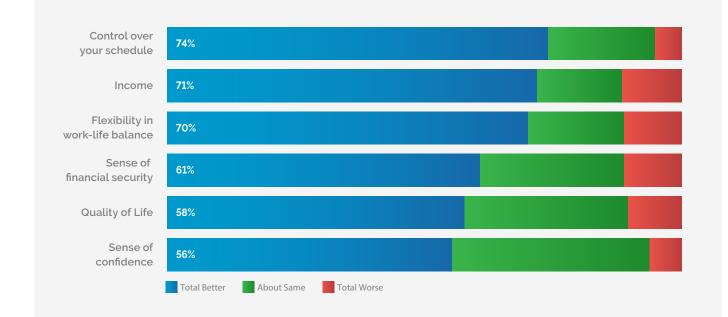
- 1. Flexible work hours: Be your own boss and decide when you want to work or not;
- 2. Easy to use and setup: While the initial on-boarding and background check process was fairly exhaustive, we felt that the sign-up process was quite straightforward. We went from signing up to driving in a matter of couple of days, with fewer than a couple of hours spent to be approved;
- 3. Hassle-free and convenient payments: Hassle-free and convenient payments one of the direct benefits to drivers is the seamless/frictionless experience of getting paid without cash exchanging hands. We linked our Bank of America checking account to our Uber driver partner account, and noticed that Uber deposits dollars directly via ACH at the end of every week. We'd guess that full-time drivers would find this particularly beneficial to be paid seamlessly without hassles; and, more importantly
- 4. Opportunity to earn incremental income: Opportunity to earn incremental income: this was probably one of the most direct benefits, in our opinion. We acknowledge that there is a lot of debate around the effective hourly rate for drivers after paying taxes and deducting all cash and non-cash expenses. So, this may be a governor on the proportion of full-time versus part-time drivers on the platform over the longer term. After driving for more than 10 hours we walked away with the opinion that Uber's scale, ease of use, and quality of marketplace has made it a very compelling value proposition to drivers. While our point of view is that of a part-time driver-partner, we believe these benefits are also applicable to people who are looking to make Uber driving as a full-time gig.

We think Uber CEO Travis Kalanick's quote at the company's 5-year anniversary resonates with us, as a sign of network effect, particularly on the supply-side.

We'd also highlight that the observations from our personal experience largely tie in with the general conclusions of a survey of Uber driverpartners conducted by a 3rd party, Benenson Strategy Group, in late 2014/early 2015. We illustrate below a key highlight from the survey: benefits from driving on Uber. Apart from incremental income, this survey cited "control over schedule", a sense of financial security, and flexible work timing as key reasons why drivers choose to drive with Uber. In addition, key relevant highlights from this Uber commissioned survey include: "Every single month Uber is adding hundreds of thousands of drivers around the world"

Uber CEO **Travis Kalanick** speaking at company's 5-year anniversary event (San Francisco, June 2015)

- **1.** 73% of driver-partners would rather have a job where you choose your own schedule and are your own boss, than a steady 9-to-5 job with some benefits and a set salary;
- 2. 76% of driver-partners say earning more income is a major reason to use Uber.
- 3. 63% use Uber to have more flexibility so they can balance work and family;
- **4.** Major reasons they work with Uber: 76% say "earning more income to better support myself or my family"; 51% say "maintaining a steady income because your other sources of income are unstable or unpredictable"; and 63% say "to have more flexibility in my schedule and balance work with my life and family"



#### Exhibit 25: Key highlights from Uber commissioned survey of Uber Driver-Partners

Source: SharesPost Research; Survey conducted by Benenson Strategy Group during December 2014; Included 601 completed surveys

# 6. Uber faces several Greenfield growth opportunities

We believe Uber has several "low hanging fruit" mediumterm and several long-term Greenfield revenue growth opportunities. Part of Uber's plan is to continue executing along the lines of "more of the same" and become ubiquitous. Over the medium term, such ubiquity can lead to Uber taking share from consumer spend on public transportation, short term car rentals, and short-haul package delivery. Longer term, Uber can become a viable alternative to car ownership, and the advent of self-driving cars could prove to be the tipping point from an economic and technological standpoint. "Uber Pool is Uber's BHAG – Big Hairy Audacious Goal. BHAGs serve as a rallying cry for the company culture, an ambitious target for the future."

**Bill Gurley**, a General Partner at Benchmark and Board Director at Uber (Feb 2015)

First, as evidence of Uber's potential to continue executing along

its play book for a while, below we provide a quick comparison of Uber's potential opportunity. For context, industry estimates say that there are more than 4,000 cities with population exceeding 100,000 people; and, analyzing U.S. and Europe industry estimates, we'd guesstimate that there is bus, rail, metro public transportation in more than 3,000 cities in the world. While there are more than 40,000 airports in the world, according to leading passenger aviation organizations such as IATA, ICAO, and FAA, there are roughly 2,000 airports where the 250-ish passenger airlines fly. (Large U.S. based airlines such as Delta, United, and America Airlines serve roughly 300 to

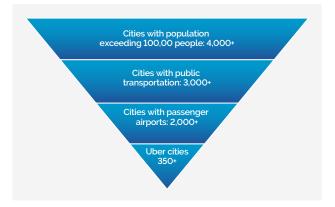
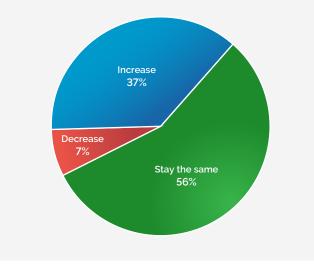


Exhibit 26: In the next 12 months do you think your Uber usage will  $\ensuremath{\mathbb{I}}$ 



Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users

400 destinations globally).

Second, we looked at relevant data points in our survey. Our survey data indicates that 93% of Uber users are planning to "increase" or "maintain" their spend on Uber in the next 12 months, and fairly low penetration of Uber offerings such as Uber Rush, Uber Eats, and Uber Pool. All these initiatives haven't been launched in vast majority of the cities where Uber has presence. In other words, we'd expect these penetration rates to grind higher in the foreseeable future as Uber rolls out these services in more cities.

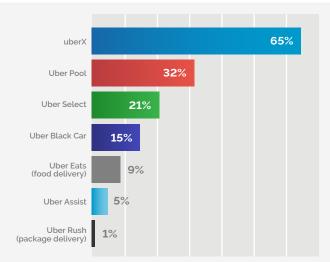


Exhibit 27: Which of the following Uber services have you used? Please select all that apply.

Source: SharesPost Research; N=5,475 survey respondents; 1,539 Uber Users

Third, observing the evolution of large Internet marketplaces such as Amazon and Google, we'd guess Uber has potential to generate revenue in many different ways. Below is a list of potential Greenfield revenue generation opportunities ahead of Uber:

- 1. Higher driver take rates: today, Uber's take rates are largely based on bulk discounts i.e. more you drive, more you keep! Uber could layer in more offerings to drivers or create an auction-based take rate pricing model to increase its monetization potential;
- 2. More driver offerings: today, Uber helps drivers buy or lease cars. Uber could layer in more offerings for drivers and increase their share of wallet;
- **3.** Subscription based model: today, we can buy a monthly pass for public buses or trains, why can't we do the same for Uber?
- **4. Software solutions for business customers:** this could include corporate travel, last-mile delivery logistics and scheduling, etc.
- 5. Advertising solutions inside cars: all of us have watched ads on screens inside cab rides. We are captive audiences during the cab ride, and Uber can choose to monetize rider's time via advertising.

Finally, a significant growth opportunity for Uber could be the advent of a self-driving electric car. In the future, Uber believes this technology will mean less congestion, more affordable and accessible transportation, and far fewer lives lost in car accidents. These goals are at the heart of Uber's mission to make transportation as reliable as running water — everywhere and for everyone. And, as cited in our survey responses above, we believe the self-driving car becoming a reality might be a lot sooner than one might think. We have already come across Uber's autonomous car several times in San Francisco downtown (pictures below). This car collects mapping data as well as tests its self-driving capabilities. When it's in self-driving mode, a trained driver sits in the driver's seat monitoring operations. The Uber ATC car comes outfitted with a variety of sensors including radars, laser scanners, and high resolution cameras to map details of the environment. While Uber is still in the early days of our self-driving efforts, every day of testing leads to improvements.



Exhibit 28: Uber Autonomous Test Cars spotted in San Francisco downtown (Oct-Nov 2016)

Source: SharesPost Research

# 7. Uber has a solid board & management team

We have tracked Uber for the past six-plus years, having been an early adopter of the service in 2010. Uber's management team has an impressive, proven track record, largely encompassing organic growth and acquisitions. Two points here. First, Uber co-founders have assembled a team of seasoned executives with successful track records managing and executing in large organizations. Second, and more important, Uber's board of directors includes seasoned executives with a lot of prior experience handling board decisions in public companies.

Name	Title	Year Joined Company	# of Years At Current Position	Prior Experience	Prior Public Company Mgmt Experience?	Participated in M&A In a Prior Company?
Travis Kalanick	Co-founder and CEO	2009	6	Founder, Red Swoosh (acquired by Akamai)	No	Yes
Garrett Camp	Co-founder and Chairman	2009	7	CEO, co-founder, StumbleUpon	No	No
Thuan Pham	Chief Technology Officer	2013	3	Vice President, R&D, VMware	Yes	Yes
Jeff Holden	Chief Product Officer	2014	2	SVP, Groupon; SVP, Amazon	Yes	Yes
David Plouffe	Chief Advisor	2014	2	Board Member, Obama Foundation	No	No
Joe Sullivan	Chief Security Officer	2015	1	Chief Security Officer, Facebook	Yes	No
Brian McClendon	Head of Maps	2015	1	Founder, KeyHole; Google Maps/ Earth Guru	Yes	Yes
Jeff Jones	President, Ride Sharing	2016	0	CMO, Target	Yes	No

#### Exhibit 29: Uber Management Team

Source: SharesPost Research; PitchBook; LinkedIn; Uber press archives

# Exhibit 30: Uber Board Of Directors

Year Joined Company Board	# Of Years On Board	Current Company
2009	7	Uber Technologies
2009	7	Uber Technologies
2010	6	Uber Technologies
2010	6	First Round Capital
2011	5	Benchmark Capital
2013	3	Google Ventures
2014	2	Summit Partners
2014	2	Klenier Perkins Caufield Byers
2015	1	Uber Technologies
2015	1	Uber Technologies
2016	0	Self
2016	0	Didi Chuxing
2016	0	TPG Capital
	Company Board 2009 2009 2010 2010 2011 2013 2014 2014 2014 2015 2015 2015 2016 2016	Company Board         On Board           2009         7           2009         7           2010         6           2010         6           2010         5           2011         5           2013         3           2014         2           2015         1           2016         0

Source: SharesPost Research; PitchBook; LinkedIn; Uber press archives

# Exhibit 31: Brief History of Changes In Uber Management Team & Board Of Directors

Date	Description
Oct-2010	First Round Capital's Robert Hayes joins the Board (Series Seed funding)
Dec-2010	Travis Kalanick becomes CEO
Feb-2011	Benchmark's Bill Gurley joins the Board of Directors (Series A funding)
Feb-2012	Uber completes Series B funding
Jun-2012	Kees Koen joins as COO
Aug-2013	Google Ventures' David Crane joins the Board of Directors (Series C funding)
Sep-2013	Brent Callinicos as CFO, Emil Michael as SVP of Business, and Ed Baker as Head of Growth
Feb-2014	Jeff Holden joins as Chief Product Officer
Jun-2014	Summit Partner's Andrew COllins & KPCB's Brook Porter join the Board (Series D funding)
Jun-2015	Uber hires Google Maps veteran Brian McClendon
Apr-2016	Arianna Huffington joins Uber Board of Directors
Aug-2016	Didi Chuxing's Cheng Wei joins the Board (as part of Uber China deal)
Aug-2016	Jeff Jones joins as President, Ridesharing from Target

Source: SharesPost Research; PitchBook; LinkedIn; Uber press archives

# **Key Investment Risks**

# 1. Uber faces lots of direct, indirect, and emerging competition

The headline is that Uber competes against a long list of current and potential players, including incumbent taxi cab operators, pure play ride-sharing service providers, and several large companies across a wide range of industries such as Mobile/Tech, Auto, and Transportation. What makes us marginally more cautious on Uber's medium-term outlook? Pure play ride-sharing peers have raised significant capital & there might still be willingness to implement irrational economics. But, our survey highlights Uber's market share, scale, and brand awareness, all pointing towards a sustainable competitive advantage in the near-to-medium term.

Although Uber currently enjoys a dominant share of the ex-India/China consumer ride-sharing market, it is likely to face an increasingly challenging competitive landscape as Uber's focus and the global "mobility" landscape continues to evolve. We have followed Technology companies with secular tailwinds and expandable end markets for a number of years now, and we have consistently found the most under appreciated risk to be indirect and potential competition. We view the Online Ride-Sharing & Mobility segment as still very early stage and thus highly susceptible to major competitive shifts. Especially considering that there isn't a single "Ride-sharing" publicly traded company, and neither of the existing publicly traded companies have a large portion of revenues coming via "ride-sharing" services.

Our conversations with companies in the ride-sharing ecosystem, our consumer survey, our very own personal experience as an Uber and Lyft driver, along with countless conversations with drivers highlight to us that this remains a highly competitive and fragmented sector. Given relatively low barriers to entry, new entrants with a specific focus on geography, vertical, or demographic continue to emerge while Uber still must keep a close eye on large established companies across a wide range of industries (Auto, Tech, and Transportation).

Key factors in determining who will be successful will be who can deliver the best consumer experience at scale. In turn, this depends on several factors including driver network quality & density, technology to match supply and demand, and optimizing pricing which works for both drivers and passengers. Uber is well positioned in its space currently, though should it falter on any of the above factors it could lose market share. As can be seen in the following exhibit, Uber faces competition from a variety of companies and industries. In particular, we'd monitor events and developments in specific companies within the following industries:

- 1. Local taxi cab companies; Short-term rental car providers, and existing car sharing companies
- 2. Ride-sharing companies
- **3.** Sharing economy players with a direct or indirect focus on transportation, mobility, and delivery
- 4. Large technology platforms
- 5. Logistics and transportation companies
- 6. Car manufacturers

# **Uber Current & Potential Competition**

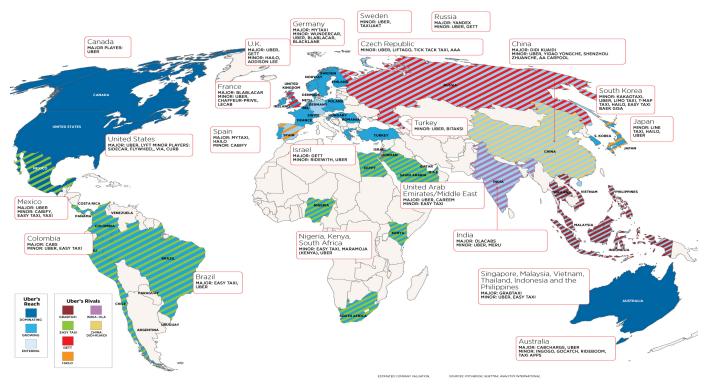
The Incumbents	<ul> <li>Local taxi cab companies, global car rental companies (HTZ, CAR), and existing car sharing offerings (e.g. ZipCar)</li> <li>These companies are fairly low-tech, lack global scale / marketplace benefits</li> <li>They are fairly entrenched with local regulatory framework as well as consumer behavior - both will take time &amp; effort to change</li> </ul>
Ridesharing Companies	<ul> <li>Lots of local players but Lyft, Didi Chuxing, &amp; Ola are key peers to monitor given their fundraising &amp; execution track record</li> <li>Our survey indicates fairly low switching costs among consumers</li> <li>Scale becomes a key source of competitive advantage (moat) in online marketplaces</li> </ul>
Sharing Economy Players	<ul> <li>Misc sharing economy biz models such as food or grocery delivery service companies, last-mile package delivery, alternative car/rideshare models</li> <li>Such businesses compete for consumer share-of-mind as well as share-of-wallet for Uber's potential use-cases</li> <li>Irrational pricing leads to competition for supply (drivers) too</li> </ul>
Large Tech Platforms	<ul> <li>Key players to monitor include Apple, Google, and Microsoft</li> <li>Large Tech platforms have significant tech expertise &amp; proprietary mobile platforms</li> <li>Automobile is the "ultimate mobile device" &amp; too hard for tech companies to ignore</li> <li>Car industry accounts for 25% of global GDP &amp; ripe for tech disruption</li> </ul>
Logistics & Transportation	<ul> <li>FDX &amp; UPS among key global players with lots of experience delivert packages</li> <li>Recent forays include FDX-Bongo, FDX-Genco, UPS-Coyote, UPS-Deliv</li> <li>Amazon also a key player with Prime Now &amp; Same-day delivery, making it more tricky for everyone</li> <li>Last-mile food/package delivery + human mobility = big problem with large payback!</li> </ul>
Car Manufacturers	<ul> <li>Fairly wide range of potential competition IF self-driving cars become a reality</li> <li>Sharing electric cars amplifies consumer/driver economics &amp; lower car ownership</li> <li>IF/WHEN we see clear evidence of declining car sales due to ridesharing, expect more stepped up competition from car industry</li> <li>Forward thinking car manufacturers recognize such an inevitable outcome (e.g. GM investment in Lyft as a hedge)</li> </ul>

Source: SharesPost Research

SHARESPOST

# Uber Vs. Lyft Vs. Didi Chuxing Vs. Ola

While Uber and other leading ride-sharing companies could face significant competition from players in adjacent industries, we believe the near-term competitive dynamic would largely be driven by pure play ride-sharing service providers. We think that the competitive intensity in the ride-sharing industry has continued to rise, given the number of new players emerging, and given fairly low barriers to entry. Furthermore, ride-sharing apps depend on contract labor with no inherent loyalty and specialized skills. Below we provide a graphic created by Forbes magazine, illustrating fairly fragmented and diverse competition among ride -sharing companies globally. The key highlight here is that there are a handful of major players, and over 20 minor players making forays in the ride-sharing market globally.



## Exhibit 32: Uber Vs. Rest Of The World – Illustrating Ride-Sharing Competition By Geography

Source: SharesPost Research; Illustration created by Forbes Magazine (Sep 2015)

While this chart highlights several local and regional players as Uber competitors, we think the competitive risk posed by Lyft, Didi-Chuxing, and Ola to Uber is probably the highest over the near term vs. other companies. As we have observed with other Internet companies with a two-sided marketplace business, we believe competition manifests itself in the following ways in a company's business model:

## Demand growth

- How many new sources of demand are being added to the platform?
- Are the marginal unit economics of adding new sources of demand improving?
- Is there any evidence whether the company is gaining consumer share of wallet?

## Supply growth:

- How many new sources of supply are being added to the platform?
- Are the marginal unit economics of adding new sources of supply improving?
- Is there any evidence whether the marketplace's stickiness for drivers is growing?
- Monetization rates
  - How do the company's monetization rates compare vs. peers?
  - Is there any evidence of competitive or irrational pricing in the marketplace?
  - Is there any evidence of long-term pricing leverage or deleverage?

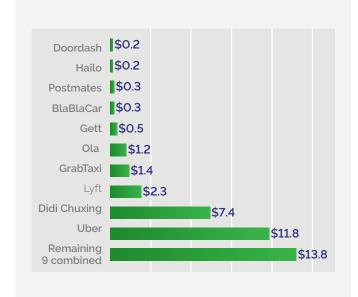
Since all the pure play ride-sharing service providers are private companies, we do not have a quantitative way to argue for or against the hypothesis that competitive pressures on Uber are rising (or falling).

# "Ola's revenue has been growing at an average of 30 percent month-onmonth",

Bhavish Agarwal CEO of Ola at TiE LeapFrog conference (Sep 2015) Until then, we will rely on our recent survey and other publicly available metrics to assess competitive dynamics across ride -sharing companies. For instance, looking at the funds raised by companies in this space, we'd be inclined to believe that competitive dynamic across the space is fairly intense. In addition, we highlight an interesting data point from our survey. We asked all survey respondents the following question: All things considered (quality of cars and drivers, price, overall convenience and reliability, etc.) how do you think Uber compares to Lyft? Not surprisingly, a greater proportion (20%) of the respondents indicated that Uber is better than Lyft whereas 5% of survey respondents indicated that Lyft is better than Uber; coincidentally, the majority of the people who believe Lyft is better than Uber tend to use Lyft more frequently. Another interpretation of this

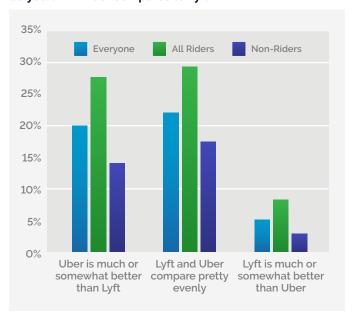
chart is that the remaining 75% of the survey population either don't have an opinion or believe that Lyft and Uber are largely comparable. This highlights that lack of loyalty among consumers or fairly low switching costs among consumers that is prevalent across the ride-sharing industry.

## Exhibit 33: Capital invested in (or funds raised by) ridesharing companies (\$ in billions)



Excludes estimated \$1B corporate investment completed as part of Didi-Chuxing & Uber China merger in Aug 2016. Source: SharesPost Research; PitchBook

Exhibit 34: All things considered (quality of cars and drivers, price, overall convenience and reliability, etc.) how do you think Uber compares to Lyft??



Source: SharesPost Research; N=5,475 for "Everyone"; N=2,010 for "All Riders"

All in, how do we think the competitive landscape shakes out over the next 2-3 years?

- 1. We believe a "winner takes most" competitive dynamic is very much applicable to the ridesharing industry; however, we think wins will be largely regional or local, as this dynamic is largely applicable to a specific geography. In other words, we think that the top 3 or 4 players would likely carve out regional wins over the next couple of years; We have already seen the evidence of this take place given the merger between Uber China and Didi Chuxing;
- 2. We believe there would be consolidation among tier-2 players leading to market leadership within a couple of geographies or specialized services; and
- **3.** We believe irrational pricing by tier-3 players would subside leading to greater evidence of long-term profit potential of these business models.

# 2. Uber's cost structure at scale remains unproven

The headline is that the long-term cost structure and unit economics of ride-sharing companies remain unproven and debatable. Based on hypothetical scenarios, layering in publicly available data points, and drawing from the evolution of comparable public company business models, we can envision a pathway toward profitability with a potential for ride-sharing companies to reach "high-teens" GAAP Op Margins. But, ongoing competition, legal costs, and ambitious long-term investments likely put a ceiling on near-term profitability levels of Uber (and the ride-sharing industry as a whole).

As a first step to answer questions about current and potential profitability of ride-sharing companies, we relied on media reports about Uber financials in early 2016. Okay, we agree this is not a bullet-proof foundation on top of which one can build any sort of reasonable financial analysis. But given the paucity of available and reliable information, we had to start somewhere. We came across several media reports which included financial data for Uber, including contribution margin levels for leading cities. We illustrate the data points in the chart below. The key takeaway here is that, according to data reported in the media, Uber has positive contribution margins in the range of 5% to 11% in several cities, which can be regarded as a proof point that the business model can churn profits, If it reaches sufficient scale. Also, a key point to note is that the contribution margins illustrated in the chart below are calculated as a percentage of overall gross bookings

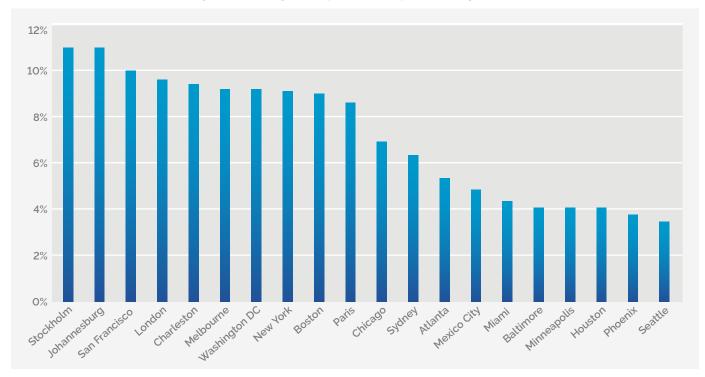
"We have well over 100 cities that are profitable, but you take those profits and you invest"

Uber CEO **Travis Kalanick** on interview with Charlie Rose (March 2016)

"In a lot of mature cities, we don't have subsidy at all, we have business in 400 cities, we are profitable in 200 cities"

Didi Chuxing President **Jean Liu** at Code Conference (June 2016)

(i.e. cab fares collected from passengers). We'd guess that contribution margins calculated as a proportion of net revenues are equally important; and, we'd guesstimate that comparable "net revenue contribution margins" would be in the range of 35% to 50%, since Uber's revenue take rate tends to hover around 20% of gross bookings.



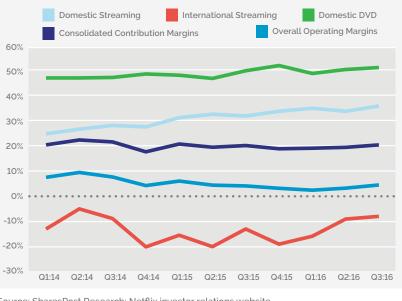
#### Exhibit 35: Uber Contribution Margins in Leading Cities, per media reports in early 2015 (excludes Uber Pool)

Source: SharesPost Research; Media sources; \*\* chart illustrates contribution margins calculated as a percentage of gross bookings; http://www.foxbusiness.com/features/2015/08/28/leaked-documents-show-ubers-cost-structure-best-performing-cities.html; http://www.forbes.com/sites/briansolomon/2016/01/12/leaked-ubers-financials-show-huge-growth-even-bigger-losses/#5f20d6915c99

Okay, there are a bunch of caveats one must consider before relying solely on contribution margin, as we don't think these numbers capture the overall proportion of fixed versus variable costs as the business scales. For instance, Consumer Internet or online marketplace models tend to have a greater proportion of Research and development and Administrative

expenses as fixed in nature where as a greater proportion of Sales & Marketing is at scale. In addition, noncash expenses such as depreciation or stock-based compensation become a larger proportion of operating expenses as the business scales. Just to provide a frame of reference to our readers, we highlight contribution margins for Netflix below. For instance, Netflix's consolidated contribution margin has been in the range of 18-21% whereas consolidated operating margin has been around 3-6% over the past couple of years. In other words, there is a gap of 15-18% between Netflix's variable expense margins and fully-freighted operating margins. Put another way, we interpret the gap between contribution margin and operating margin as 15-18% of Netflix's costs as "fixed" in nature. And, the majority of the other costs including

#### Exhibit 36: Comparing Segment Contribution Margins & Overall Operating Margin for Netflix



Source: SharesPost Research; Netflix investor relations website

streaming content, buying content, and user acquisition costs are regarded as variable.

Second, we again referred to financial documents cited in media reports. We came across several breakdowns of city contribution margins. In particular, we looked at contribution margin breakdown for San Francisco, London, and Shanghai. And, using these breakdowns as a starting point, we created a hypothetical contribution margin profile for Uber (or any ride-sharing company) at scale. We have erred on the side of being more conservative, as our scenario concludes the contribution margin to range in high single digits, say, 6-9%. vs. 10%-plus reported in San Francisco. Key assumptions include:

- 1. Driver commissions range between 75-80%;
- 2. Other fees paid by Uber include driver incentives and passenger return fees. These range between 1-3% in total. We noticed that driver incentives were 140% of gross bookings for Shanghai. In other words, for a \$10 cab fare charged to passengers, Uber was paying \$14 to drivers vs. a typical \$8 in San Francisco and London. We believe such practice still exists in many cities, but, again, we are talking about contribution margin at scale. BIG assumption, we know!
- **3.** Uber fees include safe driver fees for now, but we'd assume that these decline to zero over time;
- **4.** Operating expenses include cost of sales (credit card fees, mobile/Internet access fees, network maintenance fees), sales and marketing, insurance, and other related costs such as customer service, and operations.

#### Exhibit 37: A Hypothetical Scenario Illustrating Median Uber Contribution Margin Breakdown

Gross Bookings	100.0%	100.0%	Notes
Driver commission	-80.0%	-75.0%	SF: 78%, London: 80%
Uber Fees	0.0%	2.0%	Includes Safe Driver fees
Driver Incentives	-1.0%	-2.0%	
Returns	-0.5%	-1.0%	
Take Rate	18.5%	24.0%	
COGS	4.0%	4.5%	Implies 20-22% of net revs
Sales & Marketing	2.5%	3.5%	Implies 13-15% of net revs
Driver Insurance	2.5%	3.5%	Implies 15-17% of net revs
G&A	3.0%	4.0%	Implies 13-15% of net revs
Contribution Margin	6.5%	8.5%	SF: 10.1%, London: 9.7%
(% of gross bookings)			
Contribution Margin	27.1%	45.9%	calculated hi/low and low/high
(% of take rate)			

Source: SharesPost Research

Third, we looked at large and established Internet companies' cost structures. Below we provide a reconciliation of Amazon, Google, and Netflix's operating margins. There are lots of puts and takes in these margin profiles – there are structural and voluntary cost buckets, and each company is likely at a different point in their investment cycle.

Amazon (2	006-200	9)	Google (2	012-201	5)	Netflix (2014-2016)			
Revenue	100.0%	100.0%	Revenue	100.0%	100.0%	Revenue	100.0%	100.0%	
COGS	77.0%	78.0%	COGS	15.0%	20.0%	COGS	68.0%	69.0%	
Sales & Marketing	2.5%	3.0%	Sales & Marketing	12.0%	14.0%	Sales & Marketing	11.0%	12.0%	
R&D/Tech	4.5%	5.0%	R&D/Tech	13.0%	16.0%	R&D/Tech	8.5%	9.5%	
G&A expense	1.5%	2.0%	G&A expense	15.0%	18.0%	G&A expense	5.5%	6.0%	
Other	8.5%	9.0%		0.0%	0.0%		0.0%	0.0%	
GAAP Operating Margin	6.0%	3.0%	GAAP Operating Margin	45.0%	32.0%	GAAP Operating Margin	7.0%	3.5%	

#### Exhibit 38: Comparative Cost Structures At Scale - Amazon Pre-AWS & Google

Source: SharesPost Research; GOOGL, AMZN, NFLX investor relations websites; "Other" for Amazon means Fulfillment Center expense

Finally, based on the "leaked" financials and drawing from the evolution of cost structures of leading online businesses, we created a \*\*hypothetical\*\* operating margin profile for Uber. We think Uber has the potential to reach 15-25% operating margins at scale. Put another way, we'd guesstimate that the profitable part of Uber's business could reach this level, followed by lower or negative margins in segments under heavy investments, such as Uber Pool or Self-driving cars.

#### Exhibit 39: A Hypothetical Scenario Illustrating Uber's GAAP Operating Margins at Scale

Revenue	100.0%	100.0%	Notes
COGS	20.0%	22.0%	assumed majority variable, included in contribution margin
Sales & Marketing	13.0%	15.0%	assumed majority variable, included in contribution margin
R&D expense	12.0%	14.0%	assumed majority fixed, not included in contribution margin
G&A expense	15.0%	17.0%	assumed 80-20 variable-fixed split
Insurance	15.0%	17.0%	assumed majority variable, included in contribution margin
GAAP Operating Margin	25.0%	15.0%	

Source: SharesPost Research

### Thoughts on India, China, & other ambitious goals

While Uber and other ride-sharing companies may have pockets of profitability, we believe the overall levels of profitability would largely be governed by their appetite to invest in long-term growth strategies. In case of Uber, we'd call out four such growth investments:

- 1. China;
- 2. India;
- 3. Uber Pool; and
- 4. Autonomous cars;

We believe #3 and #4 are controllable investments, and Uber has already made a decision about #1. Recently, Uber announced a deal to sell its China business to local rival Didi Chuxing for an ownership stake of 18% in the combined China entity, valued at \$35 billion, with Didi also buying a \$1 billion stake in Uber. 10 years later, we wonder whether this would become the "Yahoo-Alibaba" investment moment; (For the uninitiated, as the CEO of Yahoo, Jerry Yang invested in Alibaba, which has turned out to be one of the most enviable Chinese corporate investments by a U.S. tech company in recent times).

## "Getting to profitability is the only way to build a sustainable business"

Uber CEO **Travis Kalanick** on the merger of Didi Chuxing and Uber China (Aug 1, 2016)

"If we see 5x return, we would spend \$2 billion instead of \$1 billion that we have committed to spending on the India business,"

Uber CEO **Travis Kalanick** addressing aspiring entrepreneurs (Jan 2016, IIT Bombay, India).

After the recent merger between Uber China and Didi Chuxing, we believe Uber is now doubling down on India. China and India combined have almost 35% of the world's population, and arguably, are positioned to account for more than 35% of global GDP growth (and, thus, a significant proportion of "mobility growth" over the next 10+ years). India offers all the right ingredients for being one of the largest markets for shared mobility in the world. It has large clusters of population, a young demographic which is well connected to the internet, and rising real incomes. Economists put India about 10-15 years behind China, in terms of technology, infrastructure, and economic maturity. In other words, one can look back at China's development in the past 15 years from 2000 to 2015 and perhaps get an idea of India's potential from 2015 to 2030. Industry/macro estimates expect 10%-plus growth in Indian passenger vehicle growth from 2015 to 2030, making India the fastest growing car market globally. Currently there are two key players in the Indian market - Uber India and Olacabs. Olacabs per last funding is now valued at \$5.5 billion (USD) and has China's Didi Chuxing as one of its investors, along with other investors such as Soft Bank and Tiger Global. So, the key unknown here is: what is Uber's appetite to invest in India over the next couple of years? And, would Uber be comfortable with a China-like outcome in India too?

## 3. There are lots of unknowns around the regulatory environment

"New technology comes in and appears threatening to incumbent industries at first ... [they] ultimately find ways of using it in a productive manner, and embracing innovation."

**Travis Kalanick**, CEO of Uber, after receiving a "Cease & Desist" letter immediately following company's VC funding (Oct 2010).

Apart from competition and profitability potential, the third debate surrounding Uber's investment thesis is the legal and regulatory issues surrounding ride-sharing companies. Key open issues are around ride-sharing companies' treatment of drivers as independent contractors and local or regional licensing requirements for operating a taxi-like service. Legal troubles have followed disruptive and innovative tech companies as regulatory framework tends to lag innovation (e.g. Google and Microsoft vs. EU, Facebook's privacy related lawsuits). We expect the regulatory framework around ride-sharing companies to stabilize as consumer adoption continues to grow (which may come at a cost to companies such as Uber, Lyft, and Didi).

Uber has had its fair share of legal troubles in the past six years. According to media reports, Uber is currently engaged in more than 150 lawsuits globally. Wikipedia has a stand-alone page

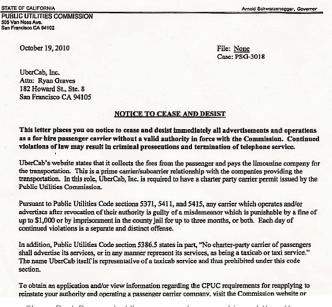
titled "Uber protests and legal actions" with more than 180 footnotes and details around Uber's ongoing litigations in more than 30 countries around the world. In fact, within a couple of months of launching the service in San Francisco, Uber received a "cease and desist" letter from the San Francisco Metro Transit Authority & the Public Utilities Commission of California. This came on the heels of Uber's 1st venture capital funding of \$1.25 million in Oct 2010. At the point, the incumbent taxi industry's concerns about Uber were as follows:

- 1. Ubercab operates a taxi-like company but does not have a taxi license;
- 2. Uber cars don't have insurance equivalent to Taxis' insurance;
- Only Limos can be pre-booked in the U.S. and only licensed taxis can be hailed. Uber does both without appropriate license; and, finally,
   Exhibit 40: State of California Cease and Desist
- **4.** Uber may affect the livelihood of taxi cab dispatchers!

And, more than five years later, these concerns have largely stayed the same. Uber's lawsuits range across a wide variety of topics. We'd categorize them as follows:

- Uber drivers behaving badly (e.g. sexual assault). This has essentially led to Uber doing more rigorous background checks of drivers prior to letting them on to the platform;
- 2. Uber passengers behaving badly (e.g. driver stabbed). This has essentially led to Uber taking on more liabilities on behalf of the drivers and signing them up for greater insurance coverage;

Exhibit 40: State of California – Cease and Desist letter from San Francisco



Source: SharesPost Research; Uber press release archives; https://newsroom.uber.com/ubers-cease-desist/

- **3.** Uber using anti-competitive pricing policies; (i.e. use of surge pricing). This has a somewhat minimal direct impact on Uber's business. We believe appropriate messaging and consumer education can help resolve these issues;
- 4. Uber operating a taxi service without local regulatory approval. This category is probably one of most frequently observed hurdle for Uber and such other ride-sharing companies. Uber has received warnings to cease operations in more than 10 countries globally. We believe this will be a slow grind process for Uber, as the regulatory framework varies by location, and Uber ends up having to work with local government to be approved to operate a "taxi company" (or whatever they end up being categorized as);

"Gambling and prostitution is legal in Vegas but Uber is not."

Uber CEO **Travis Kalanick** at Stanford Startup School (2012)

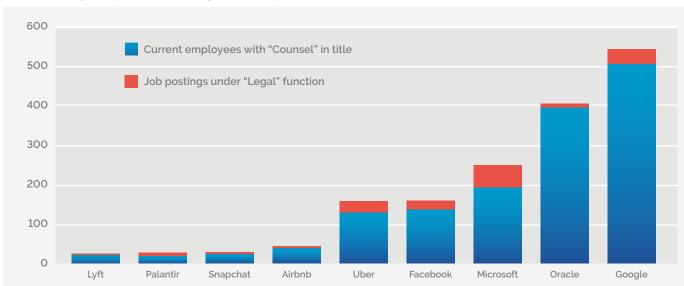
- 5. Uber drivers operating "small businesses" without obtaining local regulatory licenses;
- 6. Uber treating drivers as independent contractors. This category is probably one of the biggest unknowns in Uber's business model right now. Currently, Uber is fighting lawsuits where drivers have demanded employment benefits and where local governments have indicated that drivers should not be treated as independent contractors. We believe a global and permanent resolution of this issue would remove a significant overhang from Uber's investment thesis. (As a somewhat tangential precedent, recall that Amazon used to collect sales tax from a handful of states for the first 10-12 years of its operations. However, over the past 6-8 years, several U.S. states have passed an "Amazon tax" law designed to compel Amazon.com to collect state and local sales and use taxes from customers. Amazon has used such laws to their advantage by opening operations in those states (e.g. California recently), and having Nexus. The Amazon U.S. fulfillment network consists of more than 50 fulfillment centers, over 20 sortation centers and more than 90,000 full-time employees; and
- 7. Uber doesn't respect privacy of drivers and passengers in accordance with local legal framework (i.e. collect and store personal data for future business purposes)

# Exhibit 41: Time line of key legal developments at Uber – this is by no means a comprehensive list but captures key events

Date	Description
Oct-2010	"Cease & Desist" order from SF Metro Transit Authority & the Public Utilities Commission of California
Dec-2012	Uber returns to Washington DC with a new "digital dispatch" legal framework announced
Apr-2013	UberTaxi returns to New York City after shutting down in Oct 2012
Apr-2014	Uber's ridesharing subsidiary Rasier-CA LLC received a TNC permit in California
Jun-2015	California Labor Commission deems Uber drivers as employees
Jul-2015	Administrative judge recommends that Uber be fined \$7.3 million and suspended from operating in California
Sep-2015	Uber provided updates on scope of O'Connor (California) case getting class action status
Oct-2015	Indian govt. proposes a new legal framework for ridesharing services
Apr-2016	Settled with district attorneys of SF and LA; Agreed to pay \$10 million
Apr-2016	Published "Transparency Report" highlighting interactions with U.S. law enforcement agencies & state/local regulators
Apr-2016	Uber settles contractors vs. employee lawsuits viz. O'Connor (California) and Yucesoy (Massachusetts); Uber agrees upto \$100 million in payments split into two parts
May-2016	Uber agrees to work closely with Independent Drivers Guild
Jul-2016	Chinese government issues guidelines to make ride-hailing services legal in the country

Source: SharesPost Research; LinkedIn; Number of current employees in Legal function determined via searches on LinkedIn for keyword "Counsel" in title

However, lawsuits and litigations aren't uncharted territory for successful & disruptive tech companies. Google has been involved in multiple lawsuits over issues such as privacy, advertising, intellectual property and various Google services such as Google Books and YouTube. The company's legal department expanded from one to nearly 100 lawyers in the first five years of business, and by 2014 had grown to around 400 lawyers. Below we compare the size of "legal" departments at large technology companies. We relied on searches done on Linkedin with the word "counsel" in the title of current employees at these respective companies. In addition, we searched for the number of job openings in legal departments of these companies. The key point here is that tech companies, particularly the disruptive ones, tend to be trailblazers, and such disruption tends to come along with legal framework adjustment (which tends to lag technological disruptions, in our opinion.)



#### Exhibit 42: Legal departments in large tech companies

Source: SharesPost Research; LinkedIn; Number of current employees in Legal function determined via searches on LinkedIn for keyword "Counsel" in title

In addition, Uber has taken big strides with being more transparent with both consumers, lawmakers, and other stakeholders in the transportation industry. Earlier this year, Uber published a "Transparency Report", providing a comprehensive overview of information that was provided to U.S. state and local regulators and law enforcement agencies between January and June 2016. This report addressing regulated transportation services and includes information about reporting requirements for regulatory agencies. It provides a comprehensive overview of how many times government agencies in the U.S. at the federal, state and local levels have asked for information about our business or riders and drivers. This report included the following types of information:

- 1. Requirements about regulatory reporting to local agencies: Regulated transportation companies are required by law to provide certain information about their operations to local regulatory agencies. These agencies may request information about trips, trip requests, pick-up and drop-off areas, fares, vehicles, and drivers in their jurisdictions for a given time period;
- 2. Requirements about reporting to airport authorities: Separate from state and local regulatory agencies, airport authorities have the ability to regulate transportation services within and around airports. In order to operate at airports, regulated transportation companies and other similar services are required to enter into agreements created and enforced by each airport authority. These agreements vary by airport and require transportation services to report information such as trip volumes on a monthly basis; when vehicles enter and exit the airport area; where vehicles pick-up and drop-off within the airport area; and/or each vehicle's registration information, license plate, and driver; and
- 3. Law enforcement requests: Uber receives law enforcement requests for information related to criminal investigations, and may provide information about specific trips, riders or drivers in response. Our dedicated team of experts, who are trained to manage these requests, ensure that any disclosure of information is consistent with our internal policies and applicable law. For example, we may require a subpoena, court order, or search warrant before providing different types of information.

All in, we believe Uber has adequate resources as well as a seasoned management team with extensive experience to run the business effectively without material disruption over the longer term.

## 4. Uber faces growing marketplace management risk

As an operator of a two-sided marketplace Uber has limited direct control over quality of consumer experience, its success is dependent on the performance of drivers, and it can potentially face negative downward-spiral trajectories if they end up over-monetizing, under-innovating, or creating conflicts in the marketplace. Uber's ongoing pricing, policy, and product changes should continue to balance the supply- side and demand-side incentives. And, it is hard not to review the history of eBay/Amazon, Yahoo/Google and other Internet Marketplace companies such as Etsy, Grubhub, and HomeAway, and conclude that marketplaces need to strike a balance across all marketplace participants to ensure long-term success.

On the supply side, Uber offers a service to car owners and car drivers, such that the "suppliers" on the marketplace are able to increase utilization leading to a pay-per-use monetization opportunity. We believe Uber's normalized net revenue take rate varies between 15% and 25%. In other words, the car drivers retain roughly 75-85% of gross taxi fares. We have observed that the pricing power of a marketplace depends upon their ability to consistently provide incremental value to its suppliers. Effectively, Uber's' ability to increase its take rate over time largely

"For a hyper growth company, ultimate 'make or break' in terms of growing too fast or not is, did you get quality people on the ground? Do you have quality play book in place for others to follow?"

Uber CEO **Travis Kalanick** at Fortune Brainstorm Conference (July 2013)

depends on the value its driver-partners are able to extract over the longer term. We believe that Uber's play book in providing incremental value to its driver partners depends on introducing new products in a city (e.g. Uber Pool, Uber Rush, Uber Eats) and optimizing pricing based on demand (e.g. surge pricing).

On the demand side, Uber's value proposition is fairly straightforward to its consumers. As highlighted in our survey (exhibits 23 and 24), consumers prefer Uber's reliability, convenience, and price. While pricing will always be a key driver (\*no pun intended\*) for demand, we also think consumers prefer the overall quality and service. In other words, maintaining high quality of supply is critical to ensure an effective marketplace.

All in, Uber's Marketplace model has significant advantages in terms of future margins and cash flow. While such businesses

benefit from reaching scale and effectively managing both sides of a marketplace, we think such business models tend to have relatively low switching costs for both suppliers and consumers. Such businesses can potentially face negative downward-spiral trajectories if they end up over-monetizing, under-innovating, or creating conflicts in the marketplace. For instance, we believe companies such as MySpace, eBay Marketplaces, and Groupon benefited from marketplace-driven network effects at one point in their lifetime, but also faced severe headwinds inherent to a marketplace downward spiral.

Also, it is hard not to review the history of eBay and Amazon and see also the disadvantages in terms of limited control over customer service and fulfillment, logistics, and delivery. Amazon's vertically integrated model was much harder to scale than eBay's, but the end result was a model that was much more sustainable. In some ways, Uber could replicate the Amazon play book by hiring drivers on payroll (i.e. vertically integrating with suppliers, and thus, controlling supply quality). But we believe that Uber management is very conscious of this precedent and determined to avoid it.

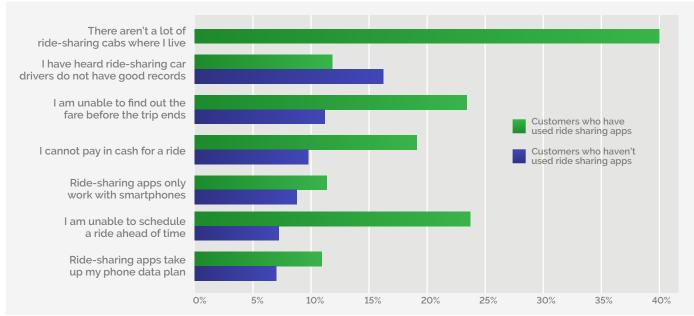
Included as part of this risk is a potential concern over Uber's customer focus & lowering prices for consumers. CEO Travis Kalanick has said repeatedly that his focus is on customers, then employees, and then shareholders. But for a marketplace business, there is the open question of which is the more important customer—the supplier (driver) or the consumer. eBay for years prioritized the needs of the supplier (merchant). Amazon for years prioritized the needs of the consumer. The latter model appears to have won out. Uber investor Bill Gurley argued in his blog post regarding Uber's pricing strategy that Uber is committed to being a transparent, low-price leader. And, we

agree. Uber's dynamic pricing ("surge pricing") affects a tiny minority of all Uber rides, less than 10% of trips. But, one open question for Uber is how will it balance what can at times be conflicting needs?

## 5. Uber faces challenges associated with rising consumer expectations

The headline here is that consumers' expectations around the mobile experience continue to evolve, largely driving technological improvements by leading Internet players such as Amazon, Google, and Facebook. Uber and ride-sharing apps would need to increasingly focus on continuous improvements in wait times, route optimization, pricing policies, and overall website/mobile user experience. And, we think such companies face the risk of playing catch-up to match such rising expectations.

We believe Internet Consumers have become increasingly habituated to an Internet experience delivered to them by large stalwarts such as Amazon and Google. Effectively, if the Internet experience of consumers on any other website isn't on par with either of these stalwarts, then consumers quickly start developing negative perceptions about that website. And, in this era of "winner takes most," we believe such negative perceptions are fairly difficult to overcome.



#### Exhibit 43: What is your least favorite thing about ride-sharing apps?

Source: SharesPost Research; N=5.475 survey respondents; 2,010 consumers have used ride-sharing apps in the past; 2,741 consumers haven't used ride-sharing apps

We believe Uber may experience these negative perceptions if it is unable meet the following rising consumer expectations:

**Wait Times:** We think an increasingly important factor in improving "convenience" in ride-sharing apps is lowering consumer wait times. In fact, we have seen a positive trend in overall satisfaction levels and usage levels among Uber customers. In other words, we have observed a significant overlap in Uber customers who have chosen "convenience" as their top reason to choose Uber and who are among the most frequent users of Uber. And, coincidentally the satisfaction levels among these consumers are also materially elevated.

**Personalized experiences:** We believe Internet consumers, particularly the Millennial consumers, have essentially grown up to expect a "personalized experience" that has led to a greater degree of "relevance bias" among consumers. While the level of personalization offered today by ride-sharing services is fairly minimal, we think Uber's treasure trove of consumer usage data can lead to lots of interesting opportunities for the company. On

the flip side, lack of appropriate and relevant applications of such data may lead to a doubly negative perception among consumers. For instance, Internet users now have come to expect relevant search results from Google and Amazon. We believe Uber faces a risk of playing continuous catch-up to rising consumer expectations as far as relevance and personalization of experience is concerned

**Pricing Optimization:** While this largely ties into the #4 risk above ("Marketplace management risk"), as an online marketplace, Uber has to maintain a critical balance setting optimal pricing policies that incentivize both sides of the marketplace. As of now, we think that Uber's incentives are largely aligned to build greater demand (i.e. lower or more attractive prices for consumers). Effectively, Uber faces the risk of degrading the amount or quality of supply over time. And, this might lead to degrading the unit economics associated with hiring drivers or retaining drivers over the longer term.

## Our experience as an UberX Driver-Partner

We have been big fans of Uber and Lyft as consumers for the past several years now. However, in order to form an opinion of a key component of these marketplaces, the supply-side or the driver-partners, we decided to sign up as Uber and Lyft driver- partners. We were interested in getting an insider's view on "how the sausage is made". So, on a whim, we decided to sign-up as an Uber driver-partner. Below we provide details around the on-boarding process, background check process, a visit to Uber's Greenlight location including vehicle inspection, and our daily driver log.

The headline takeaway is that Uber's driver-partner sign-up and on-boarding process is extremely frictionless with appropriate checks to ensure driver & vehicle quality. From an economic & utilization standpoint, we "worked" for roughly 11 hours over five days, completed 22 rides (including 3 Uber delivery trips), drove 175 miles, and earned \$225, translating to roughly \$20 per hour. We largely drove during the 9-5 working week hours, and with a fair mix of day-time off-peak/peak-time rides. Our hourly net revenue varied between \$15-30 per hour, including gas and other marginal expenses. While this hourly rate may not optically seem high, we'd highlight that we didn't complete a sufficient number of rides to qualify for Uber's lowest 20% take rate.

Uber's driver-partner sign-up and onboarding process is extremely frictionless with appropriate checks to ensure driver & vehicle quality.

Also, we didn't drive nights and weekends, which likely has a potential for greater hourly payout. Our effective take rate was 79%,

or Uber retained 21% of our gross fares. Recall that Uber has a tiered take rate system to incentivize high-frequency driver partners. When we signed up for UberX, this take rate dropped from 30% to 20% after completing 40 rides in a week (and UberXL baseline take rate was 28%). After completing 10 rides, we qualified for Uber Rush (package delivery) and Uber Eats (food delivery), but didn't manage to complete sufficient rides in a single day or a week to qualify for Uber Pool.

[Disclaimer: Please note that the author of this report got paid roughly \$225 to drive for Uber. And, he also got paid to promote Uber while signing up or having friends/family sign-up as drivers]

## **On-boarding Process**

"Long term, we want every driver on the road that is safe and gone through our background check process to be a Lyft driver"

Lyft Co-founder on **Charlie Rose** interview (Sep 2015

We started off doing research on signing up for Uber on the most obvious resource an Internet – Google search. After a couple of searches and reading about the process, clever Facebook re-targeted us with in-app ads. We clicked on a Facebook ad and filled out basic information required to sign up as an Uber driver-partner. This included signing in to the Uber consumer account, and entering basic information. We also noticed that Uber allows commercial taxi drivers to signup as Uber driver-partners on its website. (i.e. if you plan to drive or operate a commercially insured livery vehicle. Or, you plan to drive a licensed and certified commercial taxi). We'd guess that Uber doesn't extend extra insurance to such drivers, and probably their net revenue rate is a tad bit higher vs. part-timers.

After submitting our request, we received the following email explaining the process and next steps required to activate our status as an Uber driver-partner. In addition, we authorized Uber to conduct a background check (email confirmation below) and scheduled a vehicle inspection at a local car mechanic shop.



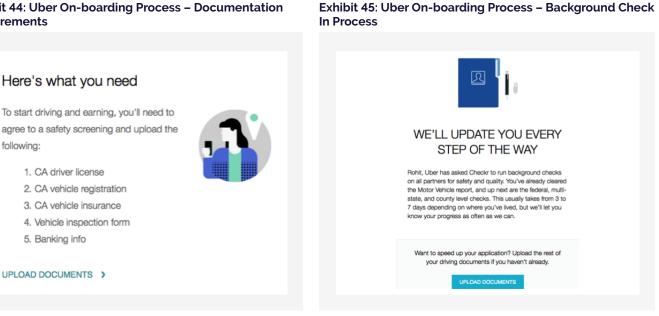
following:

1. CA driver license

5. Banking info

UPLOAD DOCUMENTS >

3. CA vehicle insurance



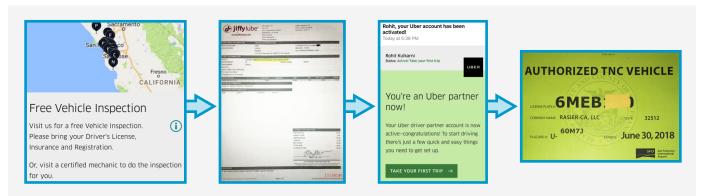
Source: SharesPost Research: Uber Driver Partner Portal communication

Source: SharesPost Research: Uber Driver Partner Portal communication

## Visiting Uber's Greenlight location (a local Jiffy Lube)

Uber has set up a series of pop-up locations to make the document verification and vehicle inspection process relatively frictionless. We noticed more than 15 "Greenlight" locations within a 20-mile radius of our residence (probably skews higher, given the density of San Francisco Bay Area). We picked a local Jiffy Lube store to complete the remaining steps in the sign-up process. This process took about 45 minutes, and included vehicle inspection, document verification, and an in-person meeting with an Uber representative.

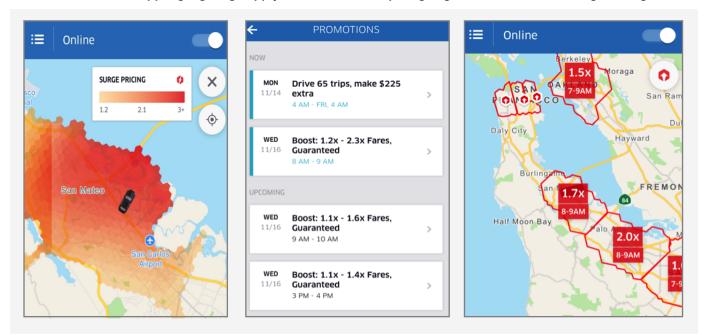


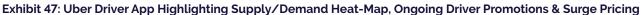


Source: SharesPost Research; Uber Driver Partner Portal communication

## **Our Driver Log**

Earlier in Oct '16, Uber launched a Driver-facing app which marked a series of improvements vs. prior combined app used by both drivers and consumers. In fact, we were surprised to learn that Uber did not have a dedicated driver only app until October this year. As a newly activated Uber partner, we test drove the newly launched Uber Driver app. This App includes real-time traffic and provides supply/demand dynamic via "hotspots", as well as periodic promotions, and ongoing or upcoming surge pricing, as illustrated below.





Source: SharesPost Research; Uber Driver Partner Portal communication

Once we switched to "online" mode on the 1st day of being an Uber driver, the wait had begun! About 10 mins later, the magical alarm started ringing, indicating that we had to pick up a rider about 5 mins away. We accepted the ride and we were on our way as an official Uber Driver-Partner! Our plan was to drive for a couple of hours every day for about a week or so, until we had a reasonable amount of experience and data as an Uber Driver-Partner. We summarize our daily driver log in the exhibits below.

And, below are a few interesting anecdotes:

- 1. Our 1st rider was a Facebook employee who needed a ride to Facebook's shuttle stop. In fact, he noted that he uses Uber at least 20 times per month, and has no plans of buying a second car at least over the near term.
- 2. We picked up a tourist couple from the airport. They had an interesting anecdote to share about their Uber experience they had reserved a rental car but the rental car company informed them that their choice of car was no longer available. So, they are probably going to Uber around the San Francisco Bay area during their vacation.
- **3.** On the 3rd day, we became eligible for Uber Rush and Uber EATs delivery. During lunch time on day #3, we picked up Thai food and dropped it off over lunch time at an apartment. Okay, food delivery wasn't an optimal experience given the series of steps and pauses involved including parking the car, picking up the food, and then retracing the steps for delivery too. However, our impression was that the App is streamlined for this multi-step itinerary, including pickup, drop-off, and intermediate instructions from the restaurant and the recipient.

#### Exhibit 48: Uber Driver Log - Daily rides and Take Rate analysis

	Fare	Uber Commission	Incentives	Driver Payment	Driver's Take Rate	Uber's Take Rate
Day #1	\$48.83	-\$12.21	\$1.60	\$38.22	78%	22%
Day #2	\$26.15	-\$6.54		\$19.61	75%	25%
Day #3	\$58.34	-\$14.58		\$43.76	75%	25%
Day #4	\$81.66	-\$21.09	\$2.66	\$63.23	77%	23%
Day #5	\$68.18	-\$19.75	\$10.81	\$59.24	87%	13%
Overall	\$283.16	-\$74.17	\$15.07	\$224.06	79%	<b>21</b> %

Source: SharesPost Research; Uber Driver Partner Portal communication; Incentives include hourly guarantees, fare boost, and milestone payments; Excludes reimbursement for bridge tolls

#### Exhibit 49: Uber Driver Log - Mileage and Earnings Per Hour

	Driver Payment	Number of trips	Time spent	Miles traveled	Gross Hourly Rate
Day #1	\$38.22	4	2 hrs 35 mins	37.4	\$14.80
Day #2	\$19.61	4	0 hrs 50 mins	8.7	\$23.50
Day #3	\$43.76	4	2 hrs 15 mins	36.5	\$19.45
Day #4	\$63.23	6	3 hrs 35 mins	48.5	\$17.65
Day #5	\$59.24	4	1 hrs 50 mins	43.9	\$32.31
Overall	\$224.06	22	11 hrs 5 mins	174.9	\$20.37

Source: SharesPost Research; Uber Driver Partner Portal communication; Hours spent on the road calculated as time elapsed from start of the 1st trip to returning back to the starting point (or desired destination)

## **Overall Thoughts**

We signed up for Uber with an open mind and the hope that we would have a mixed experience which probably included long wait times and driving in traffic with unfriendly customers. But, we enjoyed our experience as an Uber driver, and walked away with lots of interesting observations as follows:

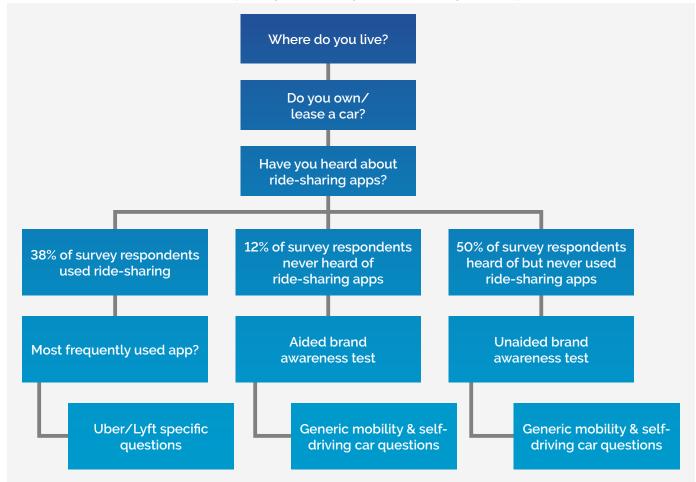
- 1. On-boarding & safety: We now feel incrementally more comfortable that Uber's on-boarding process ensures driver and vehicle quality. And, quality of supply is a key to marketplace success over the longer term.
- 2. Demand/supply matching: Almost every time we completed a ride, we received another ride request in less than a couple of minutes. Quite often, we received a ride request before dropping off a passenger. We ended up declining a couple of rides simply to grab a cup of coffee. And, Uber doesn't appear to have a demand issue at all in places such as the San Francisco Bay Area.
- **3.** Part-time vs. Full-time: Obviously, earning money and meeting people are key benefits of driving. We could see a pathway for anybody with a decent car and willingness to spend the hours to earn more than \$2,500 per month working on a part-time basis. But, another thing to keep in mind is variable expenses as well as opportunity cost, particularly for part-timers.

We have now completed our planned five days as an Uber driver. We came away with a greater empathy for Uber drivers. We realized that sometimes taxi drivers and Uber drivers alike are regarded as low quality workers. We hope that ride-sharing companies lower this stigma over time, which in turn will encourage more people to sign up as drivers, and thus help ride-sharing companies grow the supply-side of their respective marketplaces. We will continue using Uber to get around. But, since we enjoyed driving around so much, we may go back to being a driver every once in a while.

## SHARESPOST

## **Proprietary Ride-Sharing Customer Survey**

During Oct-Nov 2016, we surveyed roughly 5,500 consumers, largely based in the U.S., with the basic objective of testing awareness, frequency of usage, and related likes/dislikes around overall ride-sharing offerings. We used SurveyMonkey to construct the survey logic, and used the SurveyMonkey audience as well as the Amazon Mechanical Turk's survey tools to gather responses from the respective panels. Our survey was divided into three parts: people who had used Lyft or Uber, people who had heard of ride-sharing apps but never used them; and people who had never heard of ride-sharing apps. (Our questions for the 2nd and 3rd group of survey respondents were largely similar. Below we provide an overview of the flowchart/survey logic:





Source: SharesPost Research; N=5,475

Below is the list of questions included in our survey:

- Opening questions:
  - Please enter your zip code
  - Do you currently own or lease a car?
  - Have you heard of ride-sharing or taxi hailing mobile apps?
  - Which of the following ride-sharing or taxi hailing apps have you used most frequently?

#### Uber & Lyft customers

- How frequently do you use <Uber/Lyft>?
- Typically, how much do you spend per trip on <Uber/Lyft>?
- What is your favorite thing about <Uber/Lyft>?
- What is your least favorite thing about <Uber/Lyft>?
- In the next 12 months do you think your <Uber/Lyft> usage will ...?
- Under what circumstances do you use <Uber/Lyft> most often?
- Which of the following <Uber/Lyft> services have you used? Please select all that apply.
- Overall, how satisfied are you with <Uber/Lyft>?
- All things considered (quality of cars and drivers, price, overall convenience and reliability, etc.) how do you think <Uber/Lyft> compares to <Lyft/Uber>?
- How has your recent experience with <Uber/Lyft> affected your decision to buy or lease a car in the future?

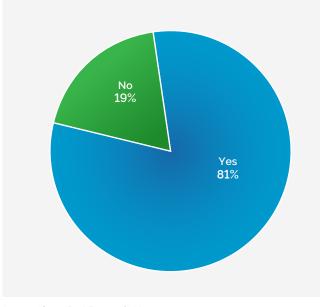
#### • Everybody else:

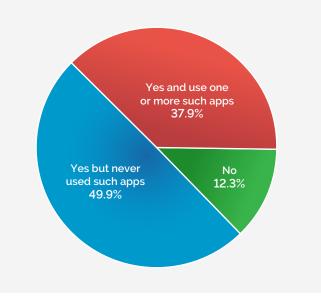
- When you think of ride-sharing or taxi hailing mobile apps, which brands come to mind?
- Below is a list of companies that operate ride-sharing or cab hailing mobile apps. This is not a comprehensive list by any means. Do either of the following brands sound familiar to you? Please select all that apply.
- How frequently do you use taxi cabs?
- How frequently do you use public transportation (buses, trains, subway)?
- What is your biggest concern about ride-sharing or cab hailing mobile apps?
- How likely are you to use ride-sharing or taxi hailing apps in the next 12 months?
- Under what circumstances do you think you would use ride-sharing or cab hailing mobile apps?
- Do you think your usage of ride-sharing or cab hailing apps will affect your decision to buy or lease a car in the future?
- Large technology companies and auto manufacturers are investing billions of dollars to create self-driving or driverless cars (also known as autonomous vehicles). When do you expect that such cars would become safe and reliable?
- How likely would you use ride-sharing or cab hailing mobile apps if it were a driverless car or an autonomous vehicle?

Please refer to charts interspersed in the report. In this section, we have included a handful of charts only.

#### Exhibit 51: Do you currently own or lease a car?

# Exhibit 52: Have you heard of ride-sharing or taxi hailing mobile apps?

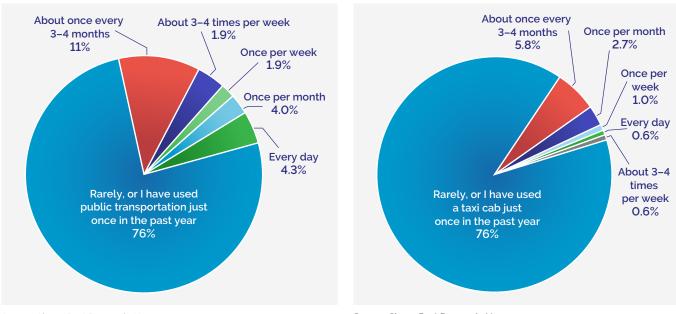




Source: SharesPost Research; N=5,475

Source: SharesPost Research; N=5,475

Exhibit 54: How frequently do you use taxi cabs?



# Exhibit 53: How frequently do you use public transportation (buses, trains, subway)?

Source: SharesPost Research; N=2,741

### Source: SharesPost Research; N=2,741

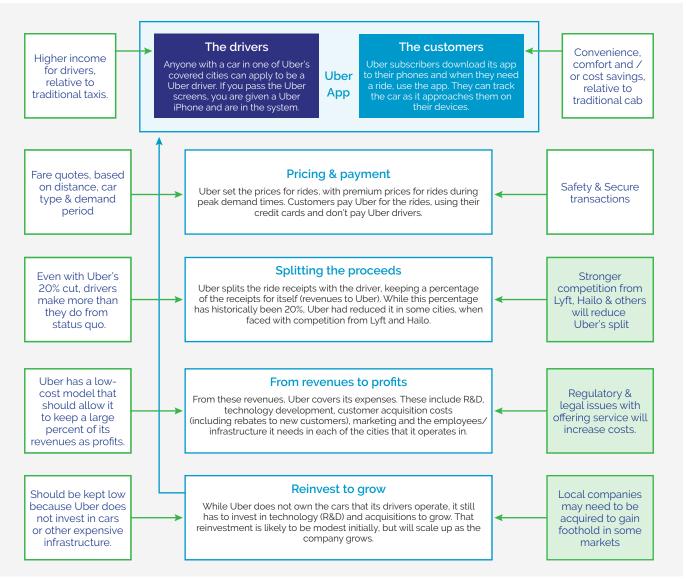
## **Uber's Business Model**

We expect 88% of the readers to largely skip or spend less than a couple of minutes on this section. Hence, we have put this at the end of the report. (Why 88%? Because 12% of roughly 5,500-ish consumers in our survey have never heard of or never used ride-sharing apps).

Uber is an on-demand transportation and mobility service which connects consumers and passengers with car drivers via its smartphone app. Car (or taxi) drivers use their own cars when providing taxi service and Uber gets 20% of the fare. As such, Uber is not in the taxi business, at least in the conventional sense, since it owns no cabs and has no cab drivers as employees. Instead, it operates a marketplace, matching a driver/car with a consumer looking for a ride and taking a slice of the fare for providing the service. From a consumer's standpoint, its value proposition is convenience, reliability, quality, and (of course) price. From a driver's standpoint, Uber provides flexibility (w.r.t. work schedule) and an opportunity to earn incremental.

And, below is a quick illustration, copied from renowned NYU Finance Prof. Aswath Damodaran's blog on ridesharing apps. We think this fairly accurately illustrates Uber (or Lyft's) business model.





Source: SharesPost Research; NYU Prof. Damodaran's Blog; http://aswathdamodaran.blogspot.com/2014/06/a-disruptive-cab-ride-to-riches-uber.html

## **Revenue Drivers**

#### **Number of Cities**

Last we checked, Uber had expanded to roughly 530 cities (as of early November 2016). We'd expect this number to tweak higher steadily by, say, 10-20 new cities per month. This is a key leading indicator of Uber's growth, in our opinion.

#### **Number of Drivers**

This is a key supply-side metric, and the growth rate of the number of drivers is a leading indicator of the growth of the marketplace, given a "field of dreams" approach adopted by a majority of the online marketplaces ("you build it, they will come").

#### **Number of Active Drivers**

This would mean the number of drivers that offered at least one ride in the past 30 days (or 60 or 90 days). In addition, the proportion of all drivers that are active on the platform would be a key indicator of driver satisfaction, retention, and churn rates.

#### **Number of Active Riders**

This would mean the number of consumers who have taken at least one ride in the past 30 days (or 60 or 90 days). This is a key lagging demand indicator, but also provides insights into Uber's ability to gain share of transportation wallet and its ability to retain/grow its customer base. For instance, Amazon has more than 300 million active customers (buyers), Facebook has 1.2 billion monthly active users, and Netflix has almost 90 million monthly paid subscribers. While these aren't exactly apples to oranges comparisons, we'd guess a steady upward trajectory for the number of active Uber riders over the next several years.

#### **Gross Fare Sales**

This is simply the total amount of fares collected by Uber. This is a key headline metric for a marketplace. And, an acceleration in the growth of the gross fare sales could be regarded as a positive inflection point in Uber's business.

#### Number of Rides Per <metric of your choice>

This could mean any combination of aforementioned metrics. In particular, we'd be interested in one supply-side engagement metric (e.g. rides completed per active driver per month) and a demand-side engagement metric (e.g. rides completed per active rider per month).

#### Average Fare Per Ride

Again, a key demand side engagement metric. There would be a lot of moving parts underlying this metric. e.g. mix-shift toward shorter rides, Uber lowering prices, mix-shift toward UberX, mix-shift toward developing markets, etc. Nonetheless, a key indicator of Uber's ability to grow demand-side engagement.

## Take Rate

Uber charges a roughly 20% commission to drivers on its platform. Uber could potentially implement an auctionbased take rate model where drivers or a group of drivers could determine their own take rate based on demand/ supply shifts. We believe that marketplaces have the ability to flex its supply by lowering take rates, and think Uber has significant flexibility to do so in profitable cities.

### **Other Revenue**

This includes a lot of things: Uber Eats (food delivery), Uber Rush (package delivery), Uber Business (for corporate travel), Uber Insurance services (for drivers without insurance), Uber vehicle solutions (for drivers without cars), and so on and so forth. While we don't know the pricing model or revenue model for these individual products, we'd guess there is a fairly material proportion of Uber revenues coming without facilitating on-demand rides for consumers. Below is a quick illustration of customers and helpful information highlighted on respective product websites.

Uber for Business	Uber Rush for Retail	<b>Platforms &amp; Logistics</b>	Uber Eats—Food Delivery
Salesforce	WalMart	SAP	Delivery.
Goldman Sachs	Nordstrom	Shopify	Noodles & Company
Dell	Cole Haan	BigCommerce	ChowNow
Adroll	T-Mobile	Clover	Which Wich
Zillow	Google Express	Bergen Logistics	Olo
Wunderman	1-800-Flowers	TradeGlobal	

#### Exhibit 56: Uber Customers in Adjacent segments

Source: SharesPost Research; Uber website

## **Cost Drivers**

#### Sales and marketing

Among other things, we believe sales and marketing expenses consist of salaries, commissions, benefits, stockbased compensation expense, and bonuses for employees and contractors responsible for consumer and driver acquisition. Sales and marketing expenses also contain advertising expenses including search-engine marketing, television, online display, media, and other programs and facilities costs allocated on a headcount basis. We'd expect incentives to drivers and consumers to be included under S&M expense. This will probably be the largest spend bucket for Uber.

#### **Operations and support**

Operations and support expenses consist of salaries and benefits for employees and contractors engaged in customer service and operations. Operations and support expenses also include payment processing costs for diner orders, costs of uploading and maintaining restaurant menu content, communications costs related to orders, and facilities costs allocated on a headcount basis.

### **Research & Development**

Technology expenses consist of salaries and benefits for employees and contractors engaged in the design, development, maintenance, and testing of Uber's platform including its websites, mobile applications, and other products. Technology expenses also include facilities costs allocated on a headcount basis but do not include amortization of capitalized website and software development costs.

#### **General and administrative**

General and administrative expenses consist of salaries and benefits for executive, finance, accounting, legal, human resources, and administrative support. General and administrative expenses also include legal, accounting, other third- party professional services, other miscellaneous expenses, and facilities costs allocated on a headcount basis.

#### **Other Costs including Insurance**

Uber will likely break out its insurance and driver specific spend separately. This would be an indicator or a proxy for legal or regulatory overhead on Uber's business model.

## **Uber Valuation Framework**

Though valuing Private Tech Growth companies is made challenging by the lack of reliable financial information, there is data and analysis that can help guide valuation conclusions. We believe that very precise calculations of intrinsic company value, if they can be done at all, require detailed current and forwardlooking financial statements. Such financial statements are unfortunately not publicly available for the companies discussed in this report. In addition, investment opportunities in private technology companies appear at variety of different phases of growth across the company's S-curve, which makes valuation incrementally challenging. For this and other reasons, the private market is not a place for day traders. Additionally, we believe that the committed long-term investors that thrive in the private market tend to focus less on day-to-day valuation levels and focus more on the long term ability of a company to disrupt a market, to bring new technology to market, to achieve audacious goals.

At SharesPost, our valuation framework relies on publicly available data points, funding round-based valuation multiples of private peers, historical valuation ranges of publicly traded comps, as well as the overall market trend since the most recent primary funding round of the company. As a matter of corporate policy, we have decided not to publish a specific market value for a private company as of any particular date but we hope to provide our clients with the tools and framework to enable them to triangulate a reasonable range of investment values "It is better to be involved in a company with accelerating potential return than to get hung up on valuation"

John Burbank, Passport Capital

"We prefer to buy a company growing 25% per year trading at 25x earnings [versus a slowgrowing company at a discounted valuation]. In 2.5 years, it will double its earnings"

Julian Robertson, Tiger Global

- Waterfall Model: We have constructed Uber's waterfall model based on the cap table disclosures from its most recent certificate of incorporation (COI) filing. We have modeled M&A and IPO outcome scenarios for Uber. These models provide a range of values for each share class for a given Enterprise Value (EV) in a given liquidity outcome scenario. On SharesPost. com, we provide dynamic tools to generate probability-weighted expected return based on a liquidity outcome assumption.
- 2. Multiple on Invested Capital (MOIC): How much money has the company raised, and what was the implied post-money valuation at the end of each funding round? We focus on a valuation metric called "Multiple on Invested Capital" (MOIC), and benchmark it for Uber versus comparable private, public, and acquired peers.
- **3. Option Pricing Model:** This model simulates the probability-weighted expected return, estimating returns at the time of a future liquidity event, and not a liquidation in the present. For common stock holders, companies generally provide stock option strike prices as well as fair market values for non-restricted shares. This typically includes a Section 409A valuation report, and discount versus most recent preferred share series. One notable benefit to using the OPM is that it accounts for the economic rights observed in private company cap tables such as preferred liquidation preferences and share class seniority. However, we'd highlight that a traditional OPM approach, say, based on Black-Scholes-Merton model, for private companies relies on a number of inputs and assumptions such as expected time to exit, risk-free rate today, and volatility derived from similar publicly traded companies. Effectively, valuation output generated by an OPM approach is very much dependent upon the quality

and selection of inputs. In this report, we have not provided or concluded a range of values using this approach, but acknowledge its potential use by some shareholders of VC-backed private companies.

- **4. Public Comps:** For a given set of comparable publicly traded companies, what is the range of Revenue and EBITDA multiples, and how do they index versus Revenue and EBITDA growth rates? Also, how have these publicly traded companies trended since the most recent primary round completed by the subject company?
- 5. Mutual fund holdings: We have observed a growing number of traditional public equityfocused report valuations for their respective holdings of private company shares. At SharesPost, we have tracked over 1,500 distinct data points disclosed by more than 20 mutual fund tickers for more than 50 private companies. We believe these public fund marks along with directional trend in these public fund marks provide a key insight into near-term valuation levels of private companies.
- 6. Secondary market transactions: On SharesPost, accredited & institutional investors can request access to recent trends in secondary market transactions. While there can be a variety of factors affecting secondary market transactions and implied EVs for private companies, we recommend investors in private companies to regard recently completed secondary market transactions as one of the inputs to their valuation calculations because such transactions include implicit assumptions for the following: discount associated with lack of marketability, discount associated with lack of liquidity, discount/premium versus most recent primary funding round, and discount for commons shares versus most recent preferred shares.

As a first step, we recap Uber's fundraising activity till date. Uber has raised more than \$12 billion in the past six years. Please note that Uber's cap table below is based on all the public filings including recent COI filings. We have estimated the number of common shares based on the most recent publicly reported valuation.

Date	# Shares	Issue Price/ Share	\$ invested	Conversion Ratio	Liq.Pref	Liq. Pref Order	Participation	Сар	Dividend
7/16/10	484,713,423			1.0					
9/30/10	174,029,880	\$0.01	\$1,577,146	1.0	1.00	1	No	No	8%
2/14/11	152,053,436	\$0.09	\$14,062,282	1.0	1.00	1	No	No	6%
12/7/11	123,645,856	\$0.35	\$43,829,365	1.0	1.00	1	No	No	8%
8/14/13	76,551,280	\$3.56	\$272,790,486	1.0	1.25	1	No	No	8%
8/14/13	31,003,680	\$2.85	\$88,385,291	1.0	1.25	1	No	No	8%
8/14/13	841,864	\$3.56	\$2,999,982	1.0	1.25	1	No	No	8%
6/6/14	87,193,208	\$15.51	\$1,352,632,595	1.0	1.00	1	No	No	8%
12/4/14	84,504,220	\$33.32	\$2,815,475,688	1.0	1.00	1	No	No	8%
5/26/15	25,227,947	\$39.64	\$1,000,000,021	1.0	1.00	1	No	No	7%
12/3/15	126,096,353	\$48.77	\$6,150,006,635	1.0	1.00	1	No	No	8%
	7/16/10 9/30/10 2/14/11 12/7/11 8/14/13 8/14/13 8/14/13 6/6/14 12/4/14 5/26/15	7/16/10       484,713,423         9/30/10       174,029,880         2/14/11       152,053,436         12/7/11       123,645,856         8/14/13       76,551,280         8/14/13       31,003,680         8/14/13       841,864         6/6/14       87,193,208         12/4/14       84,504,220         5/26/15       25,227,947	Date         # Shares         Price/Share           7/16/10         484,713,423            9/30/10         174,029,880         \$0.01           2/14/11         152,053,436         \$0.09           12/7/11         123,645,856         \$0.35           8/14/13         76,551,280         \$3.56           8/14/13         31,003,680         \$2.85           8/14/13         841,864         \$3.56           6/6/14         87,193,208         \$15.51           12/4/14         84,504,220         \$33.32           5/26/15         25,227,947         \$39.64	Date         # Shares         Price/ Share         \$ invested           7/16/10         484,713,423            9/30/10         174,029,880         \$0.01         \$1,577,146           2/14/11         152,053,436         \$0.09         \$14,062,282           12/7/11         123,645,856         \$0.35         \$43,829,365           8/14/13         76,551,280         \$3.56         \$272,790,486           8/14/13         31,003,680         \$2.85         \$88,385,291           8/14/13         841,864         \$3.56         \$2,999,982           6/6/14         87,193,208         \$15.51         \$1,352,632,595           12/4/14         84,504,220         \$33.32         \$2,815,475,688           5/26/15         25,227,947         \$39,64         \$1,000,000,021	Date         # Shares         Price/ Share         \$ invested         Conversion Ratio           7/16/10         484,713,423         1.0           9/30/10         174,029,880         \$0.01         \$1,577,146         1.0           2/14/11         152,053,436         \$0.09         \$14,062,282         1.0           12/7/11         123,645,856         \$0.35         \$43,829,365         1.0           8/14/13         76,551,280         \$3.56         \$272,790,486         1.0           8/14/13         31,003,680         \$2.85         \$88,385,291         1.0           8/14/13         841,864         \$3.56         \$2,999,982         1.0           6/6/14         87,193,208         \$15.51         \$1,352,632,595         1.0           12/4/14         84,504,220         \$33.32         \$2,815,475,688         1.0           5/26/15         25,227,947         \$39,64         \$1,000,000,021         1.0	Date         # Shares         Price/Share         \$ invested         Conversion Ratio         Liq.Pref           7/16/10         484,713,423         1.0         1.0         100           9/30/10         174,029,880         \$0.01         \$1,577,146         1.0         100           2/14/11         152,053,436         \$0.09         \$14,062,282         1.0         1.00           12/7/11         123,645,856         \$0.35         \$43,829,365         1.0         1.00           8/14/13         76,551,280         \$3.56         \$272,790,486         1.0         1.25           8/14/13         31,003,680         \$2.85         \$88,385,291         1.0         1.25           8/14/13         841,864         \$3.56         \$2,999,982         1.0         1.25           6/6/14         87,193,208         \$15.51         \$1,352,632,595         1.0         1.00           12/4/14         84,504,220         \$33.32         \$2,815,475,688         1.0         1.00           5/26/15         25,227,947         \$39.64         \$1,000,000,021         1.0         1.00	Date         # Shares         Price/ Share         \$ invested         Conversion Ratio         Liq.Pref         Liq.Pref         Crder           7/16/10         484,713,423         1.0         1.0         100         1           9/30/10         174,029,880         \$0.01         \$1,577,146         1.0         100         1           2/14/11         152,053,436         \$0.09         \$14,062,282         1.0         100         1           12/7/11         123,645,856         \$0.35         \$43,829,365         1.0         1.00         1           8/14/13         76,551,280         \$3.56         \$272,790,486         1.0         1.25         1           8/14/13         31,003,680         \$2.85         \$88,385,291         1.0         1.25         1           8/14/13         841,864         \$3.56         \$2,999,982         1.0         1.25         1           6/6/14         87,193,208         \$15.51         \$1,352,632,595         1.0         1.00         1           12/4/14         84,504,220         \$33.32         \$2,815,475,688         1.0         1.00         1           5/26/15         25,227,947         \$39,64         \$1,000,000,021         1.0         1.00	Date         # Shares         Price/Share         \$ invested         Conversion Ratio         Liq.Pref         Liq.Pref         Order         Participation           7/16/10         484,713.423         10         10         100         1         No           9/30/10         174,029,880         \$0.01         \$1,577,146         1.0         1.00         1         No           2/14/11         152,053,436         \$0.09         \$14,062,282         1.0         1.00         1         No           12/7/11         123,645,856         \$0.35         \$43,829,365         1.0         1.00         1         No           8/14/13         76,551,280         \$3.56         \$272,790,486         1.0         1.25         1         No           8/14/13         31,003,680         \$2.85         \$88,385,291         1.0         1.25         1         No           8/14/13         841,864         \$3.56         \$2,999,982         1.0         1.25         1         No           6/6/14         87,193,208         \$15.51         \$1,352,632,595         1.0         1.00         1         No           12/4/14         84,504,220         \$33.32         \$2,815,475,688         1.0         1.00	Date         # Shares         Price/Share         \$ invested         Conversion Ratio         Liq.Pref         Liq.Pref         Participation         Cap           7/16/10         484.713.423         10         10         10         1         No         No           9/30/10         174,029,880         \$0.01         \$1,577,146         10         100         1         No         No           2/14/11         152,053.436         \$0.09         \$14,062,282         10         100         1         No         No           12/7/11         123,645,856         \$0.35         \$43,829,365         10         100         1         No         No           8/14/13         76,551,280         \$3.56         \$272,790,486         10         125         1         No         No           8/14/13         31,003,680         \$2.85         \$88,385,291         10         125         1         No         No           6/6/14         87,193,208         \$15.51         \$1,352,632,595         10         100         1         No         No           12/4/14         84,504,220         \$33.32         \$2,815,475,688         10         100         1         No         No

#### Exhibit 57: Uber Cap Table

Series G closed in several tranches from Dec 2015 to May 2016; Chart excludes estimated \$1B corporate investment completed as part of Didi-Chuxing & Uber China merger in Aug 2016; Excludes debt capital investments.

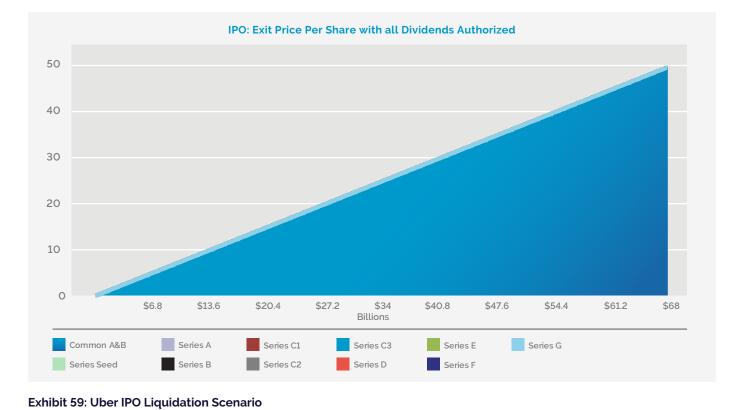
Source: SharesPost Research; Underlying data based on Uber's public filings including Form D filings at SEC and Certificates of Incorporation filed with State of Delaware

And, based on this aforementioned cap table, we illustrate below Uber's M&A and IPO outcome scenario payouts for individual share classes.



Exhibit 58: Uber M&A Liquidation Scenario

M&A waterfall model based on public filings as of 05/27/16; for the most current version, please visit http://www.SharesPost.com; Source: SharesPost Research; Underlying data based on Uber's public filings including Form D filings at SEC and Certificates of Incorporation filed with State of Delaware.



IPO waterfall model based on public filings as of 05/27/16; for the most current version, please visit http://www.SharesPost.com; excludes special provisions and adjustments to preferred shareholders (Series C to Series G) and is calculated on an estimated total shares count basis. Note actual distributions may be affected by contractual provisions not publicly disclosed. Excludes special provisions and adjustments to preferred shareholders (Series C to Series G); IPO

waterfall model assumes automatic conversion to common shares per aforementioned conversion ratios.

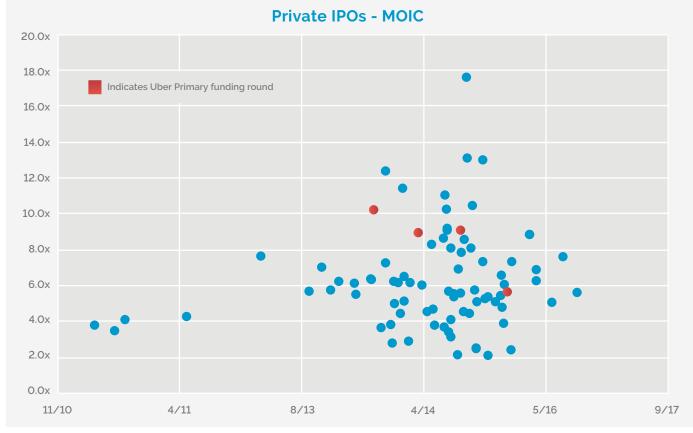
## SHARESPOST

#### 60

Source: SharesPost Research; Underlying data based on Uber's public filings including Form D filings at SEC and Certificates of Incorporation filed with State of Delaware

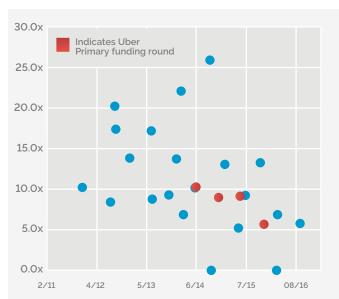
Second, we have benchmarked the multiple of invested capital defined as "implied post money valuation divided by amount raised till date" for private, acquired, and public companies. We'd note that this multiple is different from MOIC multiple tracked to gauge the performance of private equity funds. But, in a way, this measures the estimated returns for every dollar invested in a private or a public company, assuming that every dollar has the identical amount of ownership in the company. We understand that this is a big caveat, and also every company has a different level of capital intensity. Also, the potential to return invested capital depends upon the stage of the company too. But, we observed a strange level of correlation across companies that had raised, say, \$150 million in capital, and went public or were acquired or remained private. We illustrate the findings from our study in the charts below, and also highlight Uber's relevant funding rounds. We'd note that we have included only those transactions that resulted in the implied valuation of the company to be greater than \$1 billion. We'd highlight following takeaways from this analysis:

- 1. MOIC can be used a proxy for capital efficiency within a sector and not across sectors. For example, enterprise software companies tend to be valued at a higher multiple of private capital raised versus consumer internet companies;
- 2. We observed that MOICs declined as the companies raised more private capital. We observed this pattern across companies that are currently private and previously VC-backed companies that went public. As the companies raised more capital, their value as a multiple of capital raised declined; and
- **3.** We estimate that leading ride-sharing app companies have raised about \$25 billion in total, and are cumulatively valued at about \$120 billion. This translates to a roughly 5.5 to 6.0x multiple on private capital raised, which is largely consistent with Unicorn VC-backed companies that eventually went public (such as FB. TWTR, and LNKD).



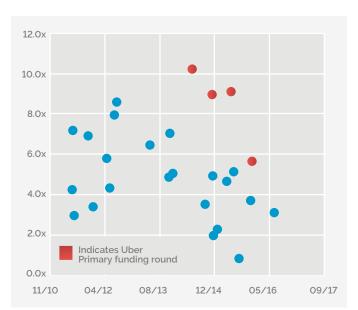
#### Exhibit 60: Multiple On Invested Capital = Implied Enterprise Value Divided By Capital Invested in "Unicorns"

Source: SharesPost Research; Chart illustrates MOICs for private companies when the post-money valuation exceeded \$1B after a funding round (includes data for private financings since Jan 2010)



#### Exhibit 61: Multiple On Invested Capital for Acquired Unicorns = Acquisition Value Divided By Capital Invested in "Unicorns"

# Exhibit 62: Unicorn IPOs MOIC = Post-money Valuation at IPO divided by total capital raised (incl IPO raise)

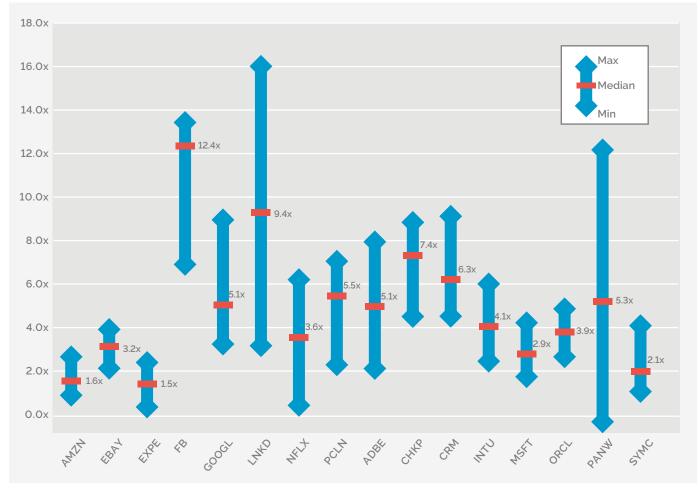


Source: SharesPost Research; Chart illustrates MOICs for acquired private companies when the acquisition value exceeded \$1B; (includes data for VC backed acquisitions since Jan 2010; Excludes Whatsapp and Cruise Automation as both acquisitions had very high MOICs; Whatsapp at estimated 360x and Cruise at 53x invested capital

Source: SharesPost Research; Chart illustrates MOICs for Public companies. Numerator = Post-money valuation on the day of IPO; Denominator=Capital invested as a private company Plus capital raised on IPO (excludes secondary shares sold on IPO)

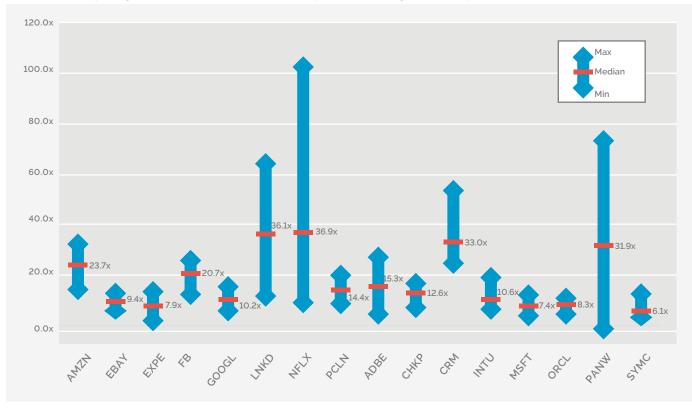
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Third, we provide historical valuation multiple ranges and historical growth rates for leading public tech companies. Our primary objective in providing these valuation ranges is to help readers with a frame of reference, and help them construct arguments such as .... "If Uber's next 12 months' projected revenue growth is in the range of 50% to 75% then a reasonable valuation multiple based on my 2018 revenue estimates will be in the range of 8x and 12x". But, if Uber's revenue growth exceeds 75%, or 100%, then it would be able to get a premium valuation versus large technology companies. In the charts below, we illustrate peak historical multiples and peak revenue growth rates too. For instance, as a public company, LinkedIn was valued at 16x 1-year forward revenues when LNKD's top-line growth projection clearly exceeded 100%.



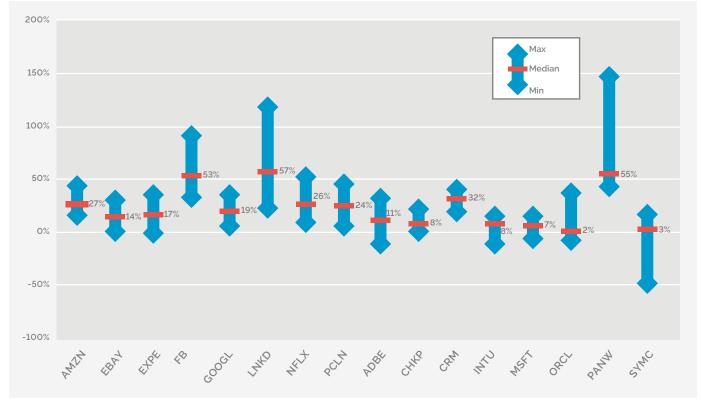


Source: SharesPost Research; Chart illustrates the minimum, maximum, and median multiples of publicly traded companies since Jan 2010



#### Exhibit 64: Comparing EV/EBITDA (1-Yr Forward) Multiples for Leading Tech Companies

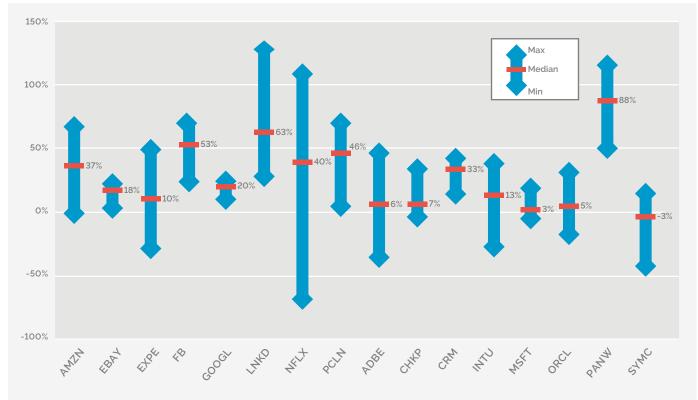
Source: SharesPost Research; Chart illustrates the minimum, maximum, and median multiples of publicly traded companies since Jan 2010



#### Exhibit 65: Comparing Revenue Growth (Y/Y) for Leading Tech Companies

Source: SharesPost Research; Chart illustrates the minimum, maximum, and median Y/Y annual Revenue growth for publicly traded companies since 2010





Source: SharesPost Research; Chart illustrates the minimum, maximum, and median Y/Y annual EBITDA growth for publicly traded companies since 2010

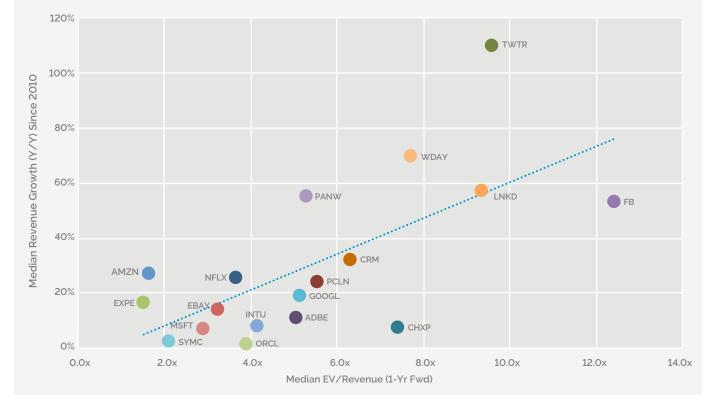


Exhibit 67: Comparing Revenue Growth (Y/Y) Vs. EV/Revenue multiple for Leading Tech Companies

Source: SharesPost Research; Chart illustrates the minimum, maximum, and median Y/Y annual EBITDA growth for publicly traded companies since 2010

Finally, we provide a snapshot of Uber valuations disclosed by public equity mutual funds. As mentioned previously, this is a key input for helping us frame a valuation reference point for private tech companies.

Reporting Date	Fund Ticker	Name of Fund	Security	Price per Share	Number of Shares	Total Cost	Estimated FMV per Share	Estimated FMV for position
06/30/2015	MALOX	Black Rock Global Allocation	Series D	\$15.51	247,908	\$3,845,800	\$40.02	\$9,921,948.00
12/31/2015	BST	BlackRock Science and Technology Trust	Series E	\$33.32	90,044	\$3,000,048	\$48.77	\$4,391,644.00
01/29/2016	FDGRX	Fidelity Growth	Series E	\$33.32	209,216	\$6,971,000	\$48.77	\$10,203,930
03/31/2016	ITHAX	Hartford Capital Appreciation	Preferred	\$15.51	2,000,820	\$31,038,821	\$48.77	\$97,584,450
03/31/2016	BOE	BlackRock Global Opportunities	Series D	\$15.51	247,908	\$3,845,800	\$48.77	\$12,091,019
06/30/2016	BOE	BlackRock Global Opportunities	Series D	\$15.51	75,832	\$1,176,386	\$48.77	\$3,698,493
07/31/2016	MALOX	Black Rock Global Allocation	Series D	\$15.51	5,844,432	\$90,664,966	\$48.77	\$285,032,949.00
07/31/2016	PPUNX	Principal Fund	n/a	n/a	209,292	n/a	\$48.77	\$10,207,631
07/31/2016	PPUNX	Principal Fund	n/a	n/a	98,844	n/a	\$48.77	\$4,820,839
08/31/2016	FDGRX	Fidelity Growth	Series E	\$39.62	209,296	\$8,293,000	\$48.75	\$10,203,930
09/30/2016	FBGRX	Fidelity Blue Chip	Series D	\$48.77	5,156,948	\$251,516,000	\$48.77	\$251,515,844
09/30/2016	FBGRX	Fidelity Blue Chip	Series E	\$48.77	102,648	\$5,006,000	\$48.77	\$5,006,372
09/30/2016	FCNTX	Fidelity ContraFund	Series D	\$48.77	4,868,916	\$237,468,000	\$48.77	\$237,467,881
09/30/2016	FDGRX	Fidelity Growth	Series D	\$39.64	4,770,180	\$189,090,000	\$48.77	\$232,652,307
09/30/2016	HGOAX	Hartford Growth Opportunity	Preferred	\$15.51	2,311,920	\$35,864,931	\$48.77	\$112,757,489

Exhibit 68: Mutual Funds Holding Uber Shares – Publi	cly available valuation data points

Source: SharesPost Research; \*\* more details and additional valuation tools available on SharesPost.com

# **Reading List / Watching List**

## Exhibit 69: Reading List / Watching List (Ordered in a chronological manner)

	Date	Category	Publisher	Description
1	May-1984	Research	Federal Trade Commission	An Economic Analysis of Taxicab Regulation
2	Jan-2012	Video	YourStoryTv	Ola Cabs CEO at eSparks Tech conference
3	Oct-2012	Video	Stanford University	Uber CEO at Stanford Startup School
4	Jul-2013	Video	Fortune	Uber CEO at Fortune Brainstorm Conference
5	Sep-2013	Video	Techcrunch	Lyft CEO at Techcrunch Disrupt 2013
6	Oct-2013	Video	StartUp Grind	Lyft Founders at Startup Grind SF 2013
7	Sep-2014	Research	Univ Of California at Berkeley	Mobility & the Sharing Economy (Transportation Sustainability)
8	Jan-2015	Research	NYC Taxi & Limousine Commission	2014 Taxicab Fact Book
9	Jan-2015	Research	Uber	Survey of Uber Driver-Partners By Benenson Strategy Group
10	Jan-2015	Research	Uber/Princeton University	An Analysis of the Labor Market for Uber's Driver-Partners in the U.S.
11	Jun-2015	Video	Uber	Uber CEO speech on company 5-year anniversary
12	Aug-2015	Video	RISE conference	Didi Kuaidi CEO at RISE conference
13	Sep-2015	Print Magazine	Fast Company	Uber CEO editorial interview
14	Sep-2015	Video	Salesforce	Uber CEO fireside chat at Salesforce Dreamforce
15	Sep-2015	Video	The Late Show with Stephen Colbert	Uber CEO on Late Night Show with Stephen Colbert
16	Sep-2015	Video	PBS	Lyft Co-Founders interview on Charlie Rose
17	Sep-2015	Video	TieCon	Ola Cabs CEO at TiE Tech conference
18	Jan-2016	Video	Davos	Uber CEO interview at Davos 2016
19	Jan-2016	Video	IIT Bombay	Fireside chat with Uber CEO at IIT Bombay
20	Jan-2016	Video	Geek Park	Uber CEO GeekPark Innovation Festival 2016 in Beijing China
21	Jan-2016	Video	Bloomberg	Lyft President & General Motors President interview on Bloomberg
22	Feb-2016	Video	Ted Talks	Uber CEO's TED Talk
23	Feb-2016	Video	CNBC	Lyft CEO on Mad Money on CNBC
24	Feb-2016	Research	American Public Transportation Assocn	2015 Public Transportation Factbook
25	Feb-2016	Research	The Boston Consulting Group	What's Ahead For Car Sharing?
26	Mar-2016	Video	PBS	Uber CEO interview with Charlie Rose
27	Apr-2016	Video	CNBC	Uber CEO interview on CNBC Squawk Box
28	Jun-2016	Video	Code Media	Didi Chuxing CEO & Grab Taxi CEO at Code Conference 2016
29	Jul-2016	Video	World Economic Forum	Uber CEO at "Disrupting Mobility" Conference in China
30	Sep-2016	Video	Techcrunch	Uber CEO interview with Techcrunch's Michael Arrington
31	Sep-2016	Research	McKinsey & CO.	Parcel delivery - The future of last mile
32	Oct-2016	Research	Uber	Fast-Forwarding to a Future of On-Demand Urban Air Transportation

Source: SharesPost Research; \* \*\* Highlights, Transcripts, and Links available upon request

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