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Uber Form S-1 Review

*Uber IPO the biggest since Alibaba despite plateauing revenue amid competition | **Adam Augusiak-Boro***

EXECUTIVE SUMMARY

- ▶ Uber's IPO will likely be the largest of 2019, bringing in \$9 billion to Uber's coffers and valuing the ridesharing giant up to \$91 billion
- ▶ However, the company's public debut comes amid intensifying competition in its global markets, leading to pressure on Uber's take rate and margins
- ▶ Downward pressure on Uber's take rate and margins is as a result of Uber's growing spending on driver and rider incentives to maintain market share
- ▶ In the near-term, Uber will continue to see revenues flatten as it engages in a global price war to undermine its competitors

The last few weeks have seen high-profile IPOs from venture-backed companies like [Lyft](#), [Beyond Meat](#), and [Zoom](#), as well as indications that more of Silicon Valley's elite are on their way to the public markets, with [Slack](#) and [WeWork](#) also filing IPO paperwork. With rumors swirling that [Palantir](#) and [Airbnb](#) will soon be filing to go public, 2019 is living up to our [prediction](#) that we will see a slew of blockbuster IPOs this year.

Not to be outdone, Uber finished its roadshow last week and will reportedly attain an IPO valuation of between \$80 and \$91 billion when it raises as much as \$9 billion (over \$10 billion if its underwriters exercise their over-allotment option) on May 10. Barring any enormous surprises, Uber's IPO will surely be the largest public debut of 2019 and the biggest IPO since Alibaba raised \$25 billion in 2014. Uber, which has raised over \$20 billion in private capital since its founding in 2009, exemplifies the new breed of large-cap, Silicon Valley darlings finally going public that continue to lose hundreds of millions if not billions of dollars a year. Despite its striking unprofitability, investors are clearly not discouraged as Uber shares were reportedly oversubscribed after only two days on the roadshow.

Why are droves of investors rushing to buy stakes in Uber?

Below, we have prepared a comprehensive review of

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EquityZen was founded in 2013 and is headquartered in New York City's NoMad neighborhood.

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Uber Form S-1 Key Definitions

Uber Business Segment Definitions:

- **Offerings:** Uber's Personal Mobility, Uber Eats and Uber Freight offerings
- **Personal Mobility:** Uber's Ridesharing offering and New Mobility Products
- **Ridesharing:** Offering that connects consumers with Drivers who provide rides in a variety of vehicles, such as cars, auto rickshaws, motorbikes, minibuses, or taxis
- **New Mobility:** Offering that provides access to rides through a variety of modes, including dockless e-bikes and e-scooters
- **Uber Eats:** Offering that allows consumers to search for local restaurants, order a meal, and have the meal delivered
- **Uber Freight:** On-demand marketplace offering that connects shippers and carriers
- **Partner:** Any one of a Driver, restaurant, or shipper
- **Driver:** Independent drivers or couriers that provide Ridesharing and/or Uber Eats services

Key Metrics & Non-GAAP Financial Measures:

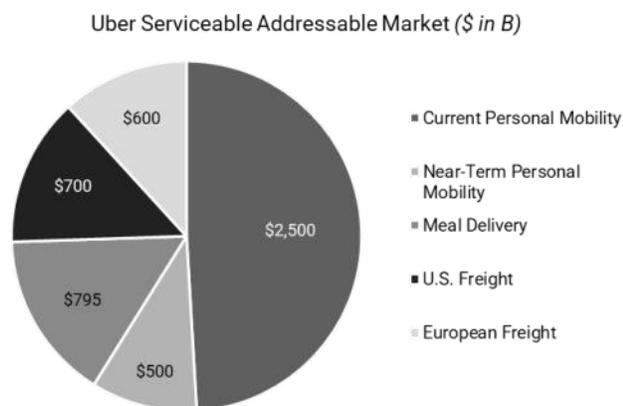
- **Core Platform:** One of the two core operating segments, consisting primarily of Ridesharing and Uber Eats
- **Other Bets:** One of the two core operating segments, consisting primarily of Uber Freight and New Mobility
- **Gross Bookings:** Total dollar value, including taxes, tolls, and fees, of Ridesharing and New Mobility rides, Uber Eats meal deliveries, and amounts paid by shippers for Uber Freight shipments, without adjustment for consumer discounts and refunds, Driver and restaurant earnings, and Driver Incentives
- **Revenue:** Derived primarily from Partners' use of the Core Platform and related services in connection with Ridesharing and Uber Eats and from customers' use of Other Bets offerings including Freight and New Mobility
 - ◆ **Ridesharing:** revenue derived primarily from service fees paid by Drivers for use of the platform to connect with riders and complete trips
 - ◆ **Uber Eats:** revenue derived primarily from service fees paid by restaurants for use of the platform to complete meal deliveries
 - ◆ **Uber Freight:** revenue represents the gross amount of fees charged to shippers for freight services. Costs incurred with carriers are recorded in cost of revenue
 - ◆ **New Mobility:** revenue derived primarily from rider fees for use of New Mobility products, such as dockless e-bikes and e-scooters
- **Adjusted Net Revenue:** Uber defines Adjusted Net Revenue as Revenue less (i) Excess Driver Incentives and (ii) Driver Referrals. Essentially, this is Uber's net amount earned after considering all Driver and restaurant earnings, Driver Incentives, and Driver Referrals
 - ◆ **Driver Incentives:** Payments made to Drivers, which are separate from and in addition to the Driver's portion of the fare paid by the consumer. Driver Incentives are recorded as a reduction of Revenue
 - ◆ **Driver Referrals:** Payments made to existing Drivers to refer new Drivers onto Uber's platform. Driver Referrals are recorded in sales and marketing expenses
 - ◆ **Excess Driver Incentives:** Cumulative payments, including Driver Incentives but excluding Driver Referrals, to a Driver that exceed the cumulative Revenue that Uber recognizes from a Driver. Excess Driver Incentives are recorded in cost of revenue
- **Monthly Active Platform Consumers (MAPCs):** Number of unique consumers who completed a Ridesharing or New Mobility ride or received an Uber Eats meal at least once in a given month, averaged over each month in the quarter
- **Trips:** Number of completed Ridesharing or New Mobility rides and Uber Eats meal deliveries in a given period

Uber’s [Form S-1](#), diving into the company’s (I) market opportunity, (II) recent financial performance, (III) potential path to profitability, (IV) financial and operating metrics vis-à-vis Lyft, (V) illustrative valuation, and (VI) upside and downside potential.

In its Form S-1, Uber defines a number of key financial and operating metrics to help investors parse through this lengthy document. On the prior page, we include the most important of these definitions that will be helpful to reference as we dissect Uber’s filing.

Market Opportunity

Uber breaks up its market opportunity into three different serviceable addressable markets (SAM)—Personal Mobility, Meal Delivery and Freight. Currently, Uber’s SAM includes the fifty-seven countries in which it operates, which contain approximately 3.7 billion people, translating into a SAM of over \$4.5 trillion in potential Gross Bookings. Uber also has near-term plans to bring its Personal Mobility offering into six additional countries, which it estimates contain an additional 425 million people and \$500 billion in Gross Bookings potential. The company also sizes its total addressable market (TAM), which Uber believes it can address over the long term. Below, we provide a high-level overview of Uber’s SAM, ignoring its self-reported TAM given Uber has actually retreated from certain geographic areas in the recent past (notably, China, Southeast Asia and Russia).



Note: All graphics in this report are derived from publicly available data in the Uber and Lyft Forms S-1

Personal Mobility

Uber offers its Personal Mobility products, which include its Ridesharing business as well as New Mobility (e-scooters and e-bikes), in fifty-seven countries throughout the world. In these countries, spanning North and South America, India, Europe, Oceania, and parts of Africa and Asia, the company estimates a 3.9 trillion miles per year SAM (or a \$2.5 trillion Gross Bookings opportunity), which includes all miles traveled in passenger vehicles for trips under thirty miles. Although Uber believes that it competes with public transportation in certain circumstances, it excludes public transportation miles from its SAM calculation. In the near-term, Uber plans to expand its Personal Mobility SAM by expanding into Argentina, Germany, Italy, Japan, South Korea and Spain, where the company is currently limited by legal restrictions. Uber estimates that these countries comprise another 800 billion vehicle miles or \$500 billion in potential Gross Bookings.

Meal Delivery & Freight

Uber Eats’ SAM is the \$795 billion that the company reports consumers spent on meals from home delivery, takeaway, and drive-through worldwide in 2017. Through its \$7.9 billion in Uber Eats Gross Bookings in 2018, Uber has penetrated approximately 1.0% of this global market. Uber notes that the home delivery market, which the company most directly targets through its Uber Eats offering, is worth \$161 billion globally and grew 77% year-over-year on average since 2013. Although not included in Uber’s SAM calculation, the company also believes it can take some share of the \$2 trillion spent on eat-in restaurant dining as more customers opt for home delivery instead of dining out.

Uber Freight currently only addresses the brokerage portion of an estimated \$700 billion trucking market in the United States in 2017, which the company estimates to be \$72 billion. However, the brokerage segment grew at a solid annual growth rate of over 11% from 1995 to 2017. Uber also recently announced that Uber Freight would be expanding into Europe, which it estimates has a \$600 billion annual spend on freight trucking. As such, the company considers its entire freight market to be approximately \$1.3 trillion, which it has hardly penetrated with only \$359 million in Uber

Freight Revenue in 2018.

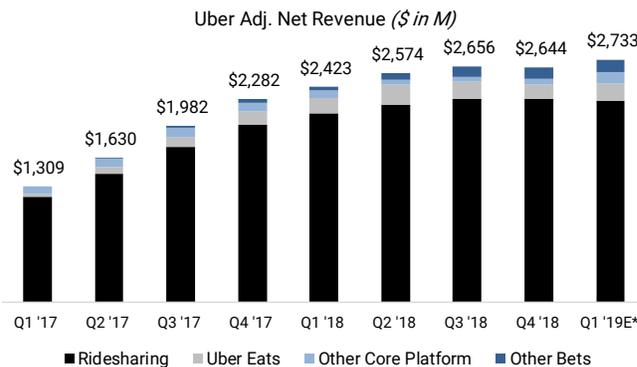
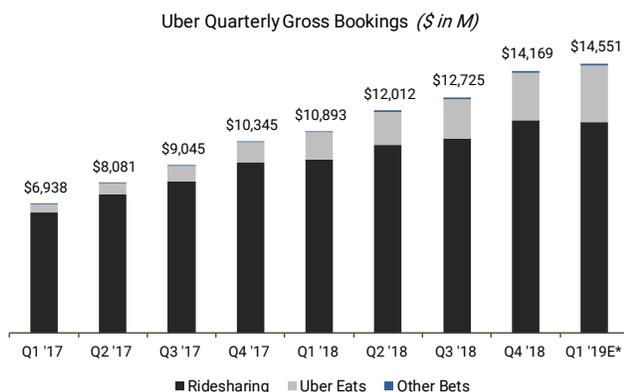
How has Uber’s SAM penetration translated to financial performance? Below, we explore Uber’s recent financial and operating highlights.

Financial Highlights

Uber has come a long way in the last several years. Although the company has yet to make a profit, Uber has grown its Gross Bookings from under \$3 billion in 2014 to nearly \$50 billion in 2018 (that’s 1,617% growth in only 4 years). Below, we provide an overview of Uber’s recent financial and operating performance.

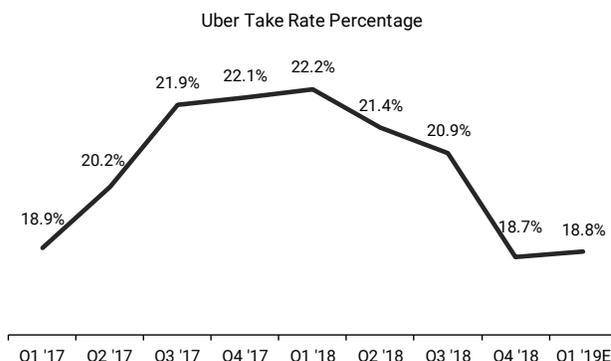
Gross Bookings & Revenue

On April 11, Uber dropped its 395-page (excluding exhibits and schedules) Form S-1 on the investing public in the first step to its May 10 IPO on the New York Stock Exchange. For reference, Uber’s Form S-1 is over 100 pages longer than Lyft’s and contains a glossary full of definitions to help potential investors understand Uber’s business structure and parse through its financial performance. Comparisons to Lyft are inevitable (we will cover these in more detail starting on page 8), and Uber’s disclosures underscore its massive scale compared to its U.S. rival. Available on six continents and in over 700 cities globally, Uber has 91 million Monthly Active Platform Consumers and provides 14 million trips a day, having recently completed its 10 billionth trip. Over the course of 10 billion trips, Uber’s annual bookings and revenues have grown to \$49.8 billion and \$11.3 billion, respectively, in 2018.



Note: Q1 2019E represents midpoint of provided range, and allocations among Ridesharing, Uber Eats, Other Core Platform and Other Bets estimated based on Q4 2018

Recent trends, however, point to slowing topline growth for Uber as it faces increasing downward pressure on its take rate (defined below as Adjusted Net Revenue as a percentage of Gross Bookings) as it penetrates global markets with lower price points and also expands lower-priced products such as auto rickshaws and Uber Bus in certain markets. Moreover, local competition across Uber’s global markets has pushed the company to offer additional Incentives and Referrals to Drivers. In particular, Uber Eats’ take rate has declined in recent quarters as Uber onboards more large-volume restaurants at lower service fees. Uber’s take rate, which peaked in Q1 2018 at over 22%, has fallen steadily to under 19% in Q1 2019.



As demonstrated above, these efforts have successfully translated into solid gross bookings growth (40% average growth quarter-over-quarter in the last twelve months) but have simultaneously compressed Uber’s take rate, with Adjusted Net Revenue plateauing in the last four fiscal quarters. Year-over-year Adjusted Net Revenue growth has fallen from 85% in Q1 2018 to only 13% in Q1 2019 compared to Gross

Bookings year-over-year growth of 57% in Q1 2018 and still a robust 34% in Q1 2019.

Should investors worry about Uber's flattening Revenue and sinking take rate?

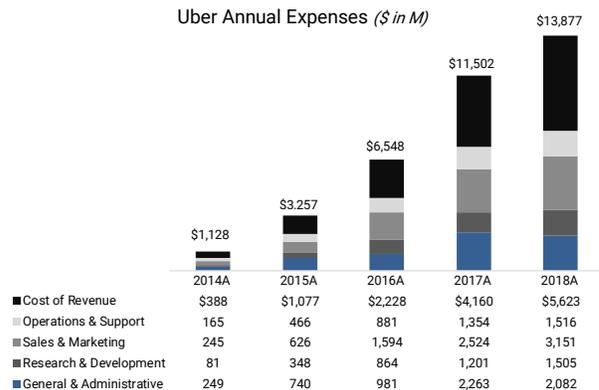
Uber's flattening topline largely distills down to Uber's multi-front, global price war. Facing competition from 99 and Cabify in Latin America, Taxify in Africa, OLA in India and of course Lyft in the U.S. and Canada, among other global competitors, Uber is engaging in a war of attrition, fueling Gross Bookings growth across the world with driver and restaurant incentives and referrals meant to undercut the competition and take market share. As the parable goes, money-losing strategies like this are tolerated in the venture capital world so long as the company can show strong growth and position itself as the market leader, which Uber has arguably done. Public markets investors, however, will eventually hold a money-losing company accountable and will demand a path to profitability (more on this later).

These differences between private and public investors of course oversimplify reality (the public can love a cash burning company as much as any VC). Nevertheless, Uber will have to demonstrate relatively strong Gross Bookings growth to public investors to make up for the take rate and margin compression that the company expects in the foreseeable future. Without commenting on Uber's long-term prospects, we think its stock is in for a bumpy ride.

Expenses

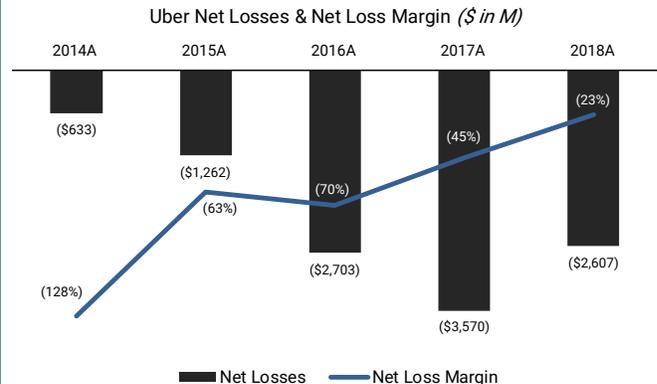
Now that we have covered Uber's topline performance, let's delve a bit into Uber's expenses. Below, we've plotted Uber's main expense line items from 2014 through 2018.

While Uber's Gross Bookings and Revenue have skyrocketed since 2014 to nearly \$50 billion and over \$11 billion in 2018, respectively, this has come with a commensurate increase in expenses. Excluding non-cash depreciation and amortization, Uber's expenses have grown from just over \$1 billion in 2014 to nearly \$14 billion last year, an increase of 1,130%. With revenue of only \$11.3 billion last year, Uber continues to lose billions of dollars. In just the last three years, Uber has cumulatively lost approximately



\$10 billion. Despite another \$9 billion entering its coffers at the end of this week, Uber may only be extending its runway by under three years if it keeps up the same pace of spending.

However, to Uber's credit, the company has managed to dramatically shrink its Net Loss margin, from negative 128% in 2014 to negative 23% in 2018. Regardless, the company still lost \$2.6 billion last year, excluding depreciation & amortization.



Below, we dig into an illustrative path to profitability for Uber, wherein we analyze each of the expense line items referenced above.

Potential Path to Profitability

As Uber competes fiercely with its rivals across six continents, it has become clear that the company is becoming less successful in converting Gross Bookings to Revenue. The key drivers of this divergence between Gross Bookings and Revenue include Uber's increasing reliance on Driver Incentives and Referrals to compete in its vast SAM and Uber's entry into markets with lower price points and

Illustrative Projected Income Statement

(\$ in MMs) Consol. Income Statement	Year Ended December 31,					
	2018A	2019E	2020E	2021E	2022E	2023E
Gross Bookings	\$49,799	\$64,739	\$82,218	\$101,951	\$123,360	\$145,565
Growth %	44.7%	30.0%	27.0%	24.0%	21.0%	18.0%
Revenue	\$11,270	\$13,680	\$16,140	\$18,485	\$20,516	\$26,392
Growth %	42.1%	21.4%	18.0%	14.5%	11.0%	28.6%
Take Rate %	22.6%	21.1%	19.6%	18.1%	16.6%	18.1%
Cost of revenue	\$5,623	\$6,723	\$7,811	\$8,807	\$9,621	\$12,178
% of Revenue	49.9%	49.1%	48.4%	47.6%	46.9%	46.1%
Operations and support	1,516	1,635	1,687	1,655	1,529	1,571
% of Revenue	13.5%	12.0%	10.5%	9.0%	7.5%	6.0%
Sales and marketing	3,151	3,688	4,190	4,614	4,915	6,059
% of Revenue	28.0%	27.0%	26.0%	25.0%	24.0%	23.0%
Research and development	1,505	1,758	1,994	2,191	2,329	2,865
% of Revenue	13.4%	12.9%	12.4%	11.9%	11.4%	10.9%
General and administrative	2,082	2,390	2,659	2,860	2,969	3,556
% of Revenue	18.5%	17.5%	16.5%	15.5%	14.5%	13.5%
Total costs and expenses	\$13,877	\$16,195	\$18,340	\$20,126	\$21,364	\$26,229
% of Revenue	123.1%	118.4%	113.6%	108.9%	104.1%	99.4%
Income/(Loss) from operations	(\$2,607)	(\$2,515)	(\$2,200)	(\$1,642)	(\$848)	\$163
% of Revenue	(23.1%)	(18.4%)	(13.6%)	(8.9%)	(4.1%)	0.6%

expansion of lower-priced products, such as UberPOOL, dockless e-bikes, e-scooters, auto rickshaws, and Uber Bus, in certain markets. As a result of these strategic decisions, Uber has been able to steadily grow Gross Bookings but has seen its quarterly revenue begin to plateau. Using the midpoint of Uber's Q1 2019 results estimate, the company grew Gross Bookings by 34% year-over-year but was only able to grow Adjusted Net Revenue by 13% year-over-year.

It does not seem that Uber's price war is going to end any time soon as it competes against well-capitalized, local competition throughout its markets. This begs the question—does Uber have a reasonable path to profitability over the next several years? Above, we illustratively project Uber's performance through 2023, demonstrating the level of growth and margin improvement that Uber would have to generate to reach breakeven (\$163 million in operating income in 2023E).

We project that Uber reaches profitability by 2023, although this depends on a number of assumptions that we outline below:

Gross Bookings: As discussed, Uber's Gross

Bookings include the total dollar value, including taxes, tolls, and fees, of Ridesharing and New Mobility rides, Uber Eats meal deliveries, and amounts paid by shippers for Uber Freight shipments. Between 2016 and 2018, Uber displayed strong albeit declining Gross Bookings growth, which clocked in at over 116%, 79%, and 45% in 2016, 2017 and 2018, respectively. Going forward, however, we project that Uber will face increased competitive pressure and Gross Bookings growth will fall to only 30% in 2019 and will then decrease by 3% per year to 18% growth in 2023. This implies a projected Gross Bookings compounded annual growth rate (CAGR) of 24% for Uber through 2023; by comparison, certain reports estimate an over [20% CAGR](#) for ridesharing from 2019 through 2025.

Revenue & Take Rate: Uber's Revenue grew 93% in 2016, 106% in 2017 and 42% in 2018, and Uber was able to maintain a take rate (which we define here as Revenue as a percentage of Gross Bookings) of at least 20% in that time period. However, we anticipate that Uber will continue to see deterioration in its take rate in the near future as the company continues to heavily utilize Driver Incentives to grow its platform. In Uber's two most recent

quarters, its take rate fell to below 19%. As such, we assume that Uber's take rate will steadily fall by 1.5% per year to 16.6% in 2022 until finally rebounding a bit in 2023 to 18.1% as Uber's SAM begins to rationalize and competition consolidates.

Cost of Revenue: This is by far Uber's largest expense line item and consists primarily of Core Platform insurance expenses, credit card processing fees, hosting and co-located data center expenses, mobile device and service expenses, amounts related to fare chargebacks and other credit card losses, Excess Driver Incentives, and costs incurred with carriers for Uber Freight transportation. Uber has been able to successfully decrease its Cost of Revenue as a percentage of Revenue, which fell from 78% in 2014 to 50% in 2018. However, we do not expect Uber to be able to recreate this significant margin improvement going forward, particularly as it invests in its Uber Freight offering and New Mobility products, each of which has higher costs as a percentage of Revenue than Ridesharing and Uber Eats. As such, we assume Cost of Revenue will decrease as a percentage of Revenue by only 0.75% per year through 2023.

Operations & Support: Consists primarily of compensation expenses, including stock-based compensation to support operations in cities, Driver operations employees, community management employees, and platform user support representatives, as well as costs for overhead and Driver background checks. Uber has managed to steadily bring down Operations & Support as a percentage of Revenue from 33% in 2014 to 14% in 2018, and we expect Uber to continue to extract efficiencies as the company scales. Despite a 5% average annual decrease as a percentage of Revenue from 2014 to 2018, we conservatively assume a 1.5% decrease in this expense line item as a percentage of Revenue through 2023.

Research & Development: Consists primarily of compensation expenses for engineering, product development, and design employees, including expenses associated with ongoing improvements to Uber's platform offerings and the Advanced Technologies Group (Uber's self-driving car unit). Between 2014 and 2018, Uber's Research & Development spending fluctuated as a percentage of Revenue, although it fell from 23% in 2016 to 13% in 2018. However,

given the intense competition facing Uber, particularly in its self-driving car technology, in the future we do not expect Uber to bring down its Research & Development spend as quickly as it did between 2016 and 2018. As such, we assume that Research & Development costs as a percentage of Revenue will decline at only 0.5% per year through 2023.

Sales & Marketing: Consists primarily of compensation expenses, advertising expenses, expenses related to consumer acquisition and retention, including consumer discounts, promotions, refunds, and credits, Driver referrals, and allocated overhead. Uber has been able to reduce its Sales & Marketing spend as a percentage of Revenue from nearly 50% in 2014 to 28% in 2018, or by an average of 5.4% per year. In our analysis, we assume that Uber's scale will drive some efficiencies in its Sales & Marketing spend, although this expense may be lumpy through 2023 due to the fierce competition facing Uber. Consequently, we conservatively assume Uber will decrease Sales & Marketing as a percentage of Revenue by only 1% per year through 2023, much lower than the 5.4% yearly average reduction in prior years.

General & Administrative: Consists primarily of compensation expenses for executive management and administrative employees, including finance and accounting, human resources, and legal, as well as facilities and general corporate, and director and officer insurance expenses. Uber has been able to quickly bring down these expenses as a percentage of Revenue from 50% in 2014 to 19% in 2018. Going forward, we assume that Uber will benefit from operating leverage as its business scales although the company will face additional expenses as a result of operating as a public company. As such, we assume that Uber will be able to trim General & Administrative expenses as a percentage of Revenue by only 1% through 2023.

Please note that the analysis above is purely illustrative, and we believe that Uber's S-1 generally does not contain sufficient information to accurately forecast if the company will reach profitability. In particular, Uber's filings fail to provide information sufficient to understand the unit economics of its Core Platform offerings and whether Uber's unit economics in its most developed markets display a path to profitability. Nevertheless, the illustrative analysis above is meant to

demonstrate the steady margin improvements that Uber would have to make over the next several years in order to reach profitability, assuming its SAM begins to rationalize and leads to a more stable take rate. Unlike [Lyft](#), which has shown a steady improvement in its take rate, Uber's continues to deteriorate as it seeks to grow Gross Bookings at the expense of Revenue. Below, we further address how Lyft compares to Uber along a number of metrics, given these will be the only two public ridesharing companies for some period of time.

Lyft v. Uber

As mentioned above, the comparisons drawn between Uber and Lyft aren't new. Lyft was born in the shadow of Uber and officially came to market in June 2012 – approximately two years after Uber had its first ride in San Francisco in 2010. Since then, Uber and Lyft have been aggressively competing to capture market share, albeit with markedly different approaches and focuses. While Uber's IPO filings present a story of growth and diversification at all cost, Lyft has employed a focused growth strategy with steadily improving margins. Over the years, Uber ballooned in size, tackling the ridesharing industry globally across six continents and over 700 cities, while Lyft has chosen to focus primarily on the U.S. market. Additionally, Uber has expanded beyond ridesharing and other forms of personal mobility, joining the food delivery and transportation logistics industries with Uber Eats in April 2015 and Uber Freight in May 2017, respectively. As such, a one-to-one comparison of Lyft and Uber is problematic, as Lyft is largely a pure-play ride-hail company, while Uber has billed itself as a diversified, transportation logistics platform. Nevertheless, the public markets will inevitably compare the two transportation pioneers.

Prior to diving in, it's first important to understand the different metrics and definitions that Lyft and Uber have used in their IPO filings and why comparing the two companies is complicated:

- Uber has two reportable segments – “Core Platform,” which includes Ridesharing and Uber Eats, and “Other Bets,” which includes e-bikes and e-scooters as well as Freight. This bifurcation complicates comparisons between Uber and Lyft, as the latter

competes against Uber in scooter- and bike-sharing but not in food delivery or freight logistics. Ideally and for ease of comparison, Uber would report four individual segments: Ridesharing, New Mobility, Uber Eats, and Uber Freight. Where possible, the below metrics have been adjusted to exclude Uber Freight and include New Mobility.

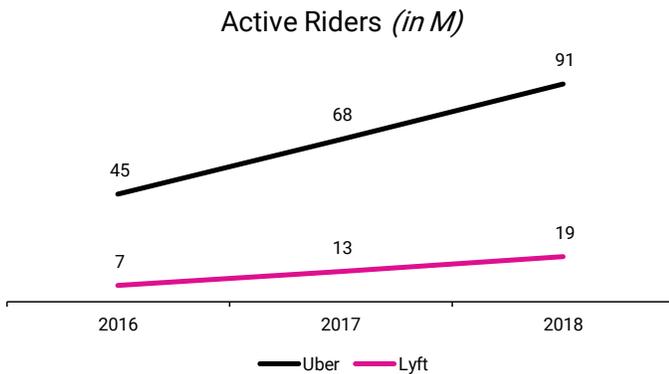
- Uber and Lyft also don't break out their performance by geographic or metropolitan segments. Uber is a global company while Lyft operates primarily in the U.S. The absence of geographic segments obscures the companies' unit economics and potential for profitability in their most mature markets (e.g., North America and metro areas such as New York City and San Francisco) and how the two compare.
- In calculating Gross Bookings, Uber includes promotions, taxes and fees, while Lyft does not. Excluding these items from Gross Bookings is a closer representation to what Lyft and Uber can actually earn in revenue. Below, a Gross Bookings comparison is excluded as a result of these definitional differences.
- Lyft and Uber use different methodologies to account for “Active Riders.” Uber defines it as a unique consumer who completes a Ridesharing or New Mobility ride or received an Uber Eats meal once in a given month and then averages the number of monthly users for the quarter. Lyft defines it as all riders who take at least one ride on its platform during a quarter. Uber's numbers are inflated by Uber Eats but more accurately represent platform engagement, while Lyft's methodology inflates engagement by totaling Active Riders over a quarter (rather than showing a monthly average).
- Uber's metrics below use “Core Platform Adjusted Net Revenue.” Lyft defines revenue as the service fees and commissions charged to drivers, bike and scooter fares charged to riders, and fees charged to renters under its Express Drive program, net of certain incentive fees. While Uber gives a breakdown of its revenues between Ridesharing and Uber Eats, it doesn't provide the same disclosures for trips and

active riders. As such, Uber’s metrics below include Uber Eats to preserve consistency across Uber’s metrics.

With these complications in mind, let’s dive into the Uber vs. Lyft debate.

Active Riders

The number of “Active Riders” provides a topline pulse on each company’s growth. Both Lyft and Uber have focused on increasing this number as it is one of three main levers to grow revenue (the others being fares and number of trips). Uber is the clear winner here, boasting 91 million active riders (i.e., MAPCs) as of December 31, 2018, in contrast to Lyft’s 19 million. Uber’s scale isn’t surprising given its international footprint. However, Lyft, which focuses exclusively on North America, has been able to grow its Active Riders count by over 170% since 2016 compared to just over 100% for Uber.

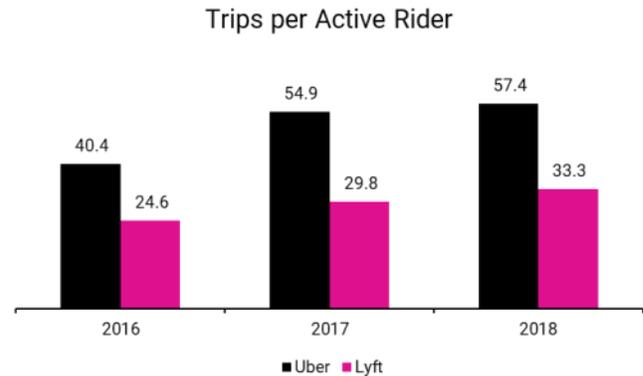
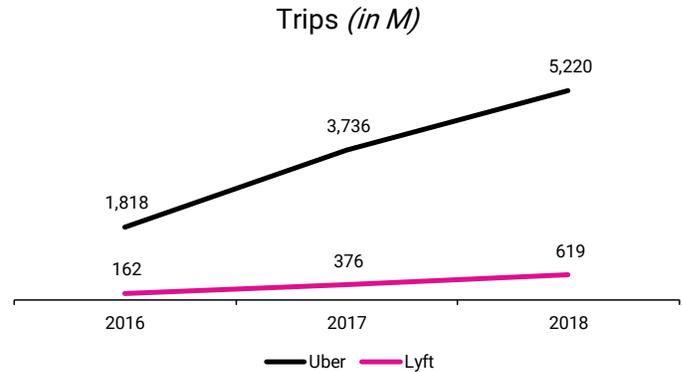


Neither company reports financial performance by geographic segment or metropolitan market, so it’s hard to discern Uber’s exact U.S. market penetration vis-à-vis Lyft’s. Additionally, the ridesharing industry isn’t a zero-sum game, as these companies can’t bar riders from using competitor apps, further complicating market drivers. Riders typically have both apps, opting for the most economical option. Ultimately, Uber and Lyft should disclose geographic segment performance so that the public markets can assess these companies’ viability in their most mature markets.

Trips

Given Uber’s global reach, it’s no surprise that it

also eclipses Lyft’s trip totals. Uber’s impressive trip totals, though, are tempered by its slowdown in trip growth compared to Lyft’s. Uber grew trips by 106% and 40% in 2017 and 2018, respectively, versus 131% and 65% for Lyft. Impressively, Lyft has managed to outpace Uber’s growth while competing predominantly in the most mature ridesharing market in the world.



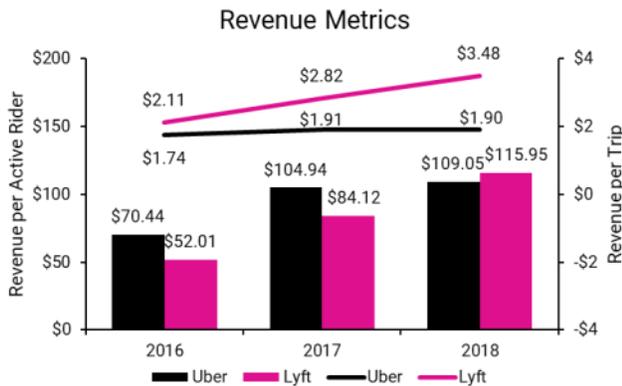
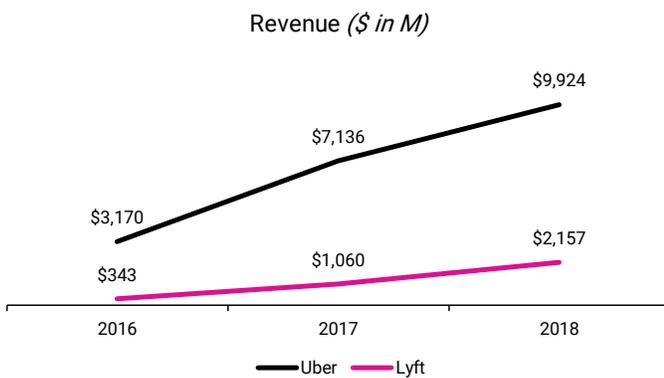
However, it appears that each Uber rider is on balance more engaged than the average Lyft rider. Uber boasted on average 57 trips per rider in 2018, while Lyft managed only 33. Although Lyft is growing trips at a higher pace, Uber’s riders use the Uber platform more often, lending credence to Uber’s point that other services like Uber Eats increase engagement among existing users. While riders can easily switch between apps, over the last three years, Uber has shown that it’s been able to demonstrate stickier customers and a greater ability to re-engage riders.

Revenue Efficiency and Related Metrics

Uber’s riders may engage with the Uber platform more but that doesn’t necessarily mean they are

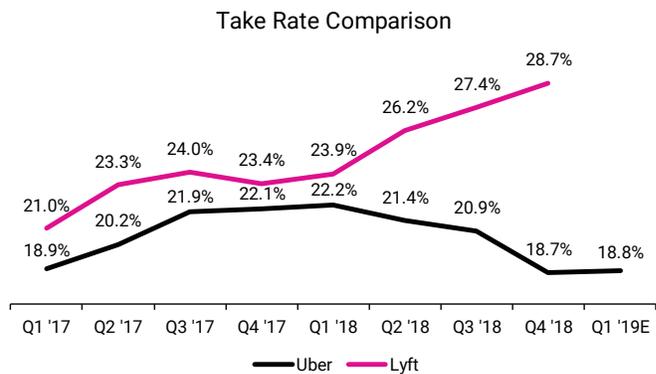
more valuable. The below metrics imply that Lyft, despite its smaller scale, is getting more out of each rider, taking advantage of a more mature, higher-paying market within the U.S. while Uber's user base has become less efficient from a revenue generation perspective as it expands globally.

On a revenue basis, Uber is five times larger than Lyft (\$10 billion vs. \$2 billion in 2018). Uber's revenue growth has followed its trip growth, increasing 125% and 39% in 2017 and 2018, respectively. Lyft's revenue growth, on the other hand, has grown at a higher pace than trips, increasing 209% and 104% in 2017 and 2018, respectively.



This disparity is due to Lyft's steady increase in revenue per active rider and per trip. Lyft has been able to increase its revenue per trip from \$2.11 to \$3.48 from 2016 to 2018, respectively, while Uber's revenue per trip has stagnated at \$1.90 in 2018. Additionally, Lyft has increased its revenue per rider from \$52.01 to \$115.95 between 2016 and 2018, surpassing Uber, which increased its revenue per rider from \$70.44 to only \$109.05.

Revenue per trip is dependent on the mix of services used (i.e., a ride-hail trip presumably has a higher fare than a scooter trip) and local market pricing dynamics, among other things. While it may be troubling to see Uber's revenue per trip stagnate, it speaks towards the company's strategy. Uber's ambitions include amassing a global network and adding adjacent platform services, such as Uber Eats. In doing so, the company's pricing strategy has been aggressive, using promotions to attract and keep riders and incentives to increase Drivers as it competes with Lyft, OLA, Curb, 99, BlaBlaCar, and others across six continents. Similarly, Uber's revenue per rider has flattened as well over the last two years.



Lyft, on the other hand, has concentrated its efforts on the North American market in its quest to become a one-stop-shop for consumer transportation. This strategy is exemplified by its plan to integrate public transportation options with its network. Lyft's performance shows that it continues to grow trips and amount spent on its platform, and the company has become steadily more efficient at converting riders and trips into revenue (see take rate comparison above). The key question now is whether Lyft will improve steadily towards profitability or will plateau as it converges with Uber.

What Are Uber's Public Comparable Companies?

Below, we complete a sum of the parts analysis of Uber's valuation based on public comparable companies. Unlike Lyft, Uber's business contains multiple segments—namely, Personal Mobility, Uber Eats, and Uber Freight; as such, we have prepared individual comparable companies analyses for each of these

Public Marketplace Comparables

Company Name	Price 5/6/19	Market Cap.	% of 52-Wk High	EBITDA Margin	Price / Sales		Revenue Growth		
					2018A	2017A	2018A	2017A	2016A
Booking Holdings	\$1,752	\$78,864	79.6%	5.6%	5.4x	6.2x	14.6%	18.0%	16.5%
eBay	\$37	\$33,704	85.7%	15.6%	3.1x	3.4x	8.3%	6.8%	8.2%
Lyft	\$61	\$17,361	68.5%	(43.7%)	8.1x	16.4x	103.5%	208.7%	NA
Expedia	\$120	\$17,629	85.7%	3.4%	1.6x	1.8x	11.6%	14.7%	31.5%
Etsy	\$66	\$7,838	89.4%	6.1%	13.0x	17.8x	36.8%	20.9%	33.4%
Farfetch	\$27	\$8,171	84.1%	0.7%	13.6x	21.2x	56.1%	59.4%	70.1%
Just Eat	\$5	\$6,408	78.2%	21.9%	6.2x	9.1x	47.4%	38.6%	34.5%
Grubhub	\$71	\$6,475	47.6%	3.1%	6.4x	9.5x	47.5%	38.5%	36.3%
UpWork	\$20	\$2,103	78.8%	(1.5%)	8.3x	10.4x	25.1%	23.2%	NA
Eventbrite	\$20	\$1,542	48.7%	(0.6%)	5.3x	7.6x	44.7%	51.0%	NA
Min					1.6x	1.8x	8.3%	6.8%	8.2%
Median					6.3x	9.3x	40.7%	30.8%	33.4%
Mean					7.1x	10.3x	39.5%	48.0%	32.9%
Max					13.6x	21.2x	103.5%	208.7%	70.1%
Uber		\$91,000		(23.1%)	8.1x	11.5x	42.1%	106.3%	

segments. Before diving into Uber's segments, however, we size Uber up against other public marketplace companies.

Marketplace Comparables

As tech companies have grown they have also become increasingly difficult to classify. Facebook is an excellent example—the company is most widely known as a social media platform, although Facebook also sells hardware (see Facebook's Oculus Rift VR headsets and its relatively new teleconferencing device Portal) and enterprise SaaS (see Workplace). Given Uber's operations in ridesharing, meal delivery and freight, where buyers and sellers of a good or service can transact with each other through an app-based or internet marketplace, Uber is often compared to other marketplace companies. Above, we have included market capitalization and revenue details on ten public comparable marketplaces, including Lyft.

Based on an assumed valuation of \$91 billion, Uber's 2018 price-to-sales ratio (P/S, the ratio of market capitalization to revenue) is approximately 8.1x its 2018 Revenue of \$11.3 billion. Compared to other public marketplaces, Uber's P/S is relatively high—the average P/S ratio among this group of companies is 7.1x, and the P/S ratios for food delivery companies

like Just Eat and Grubhub are in the 6.0x to 6.5x range, implying that Uber may end up trading at a rich multiple. However, other marketplaces such as Etsy and Farfetch, which went public more recently, are currently trading higher than Uber is expected to price upon IPO. Notably, with over 100% growth last year, Lyft is growing significantly faster than either Etsy or Farfetch, despite its lower P/S multiple of 8.1x. However, with an EBITDA margin of (44%), investors are likely balancing Lyft's high growth against its still relatively high losses. At 8.1x P/S, Uber's pricing would sit right on top of its U.S. rival's, although Uber is growing less than half as quickly as Lyft and revenue seems to be plateauing. On the other hand, Uber's EBITDA margin (which we calculate as operating losses plus depreciation & amortization) is substantially better than Lyft's.

If Uber were valued at the median or mean P/S multiple of these marketplace comparables, its valuation would range from just over \$70 billion to just over \$80 billion (on par with the bottom of its currently-proposed pricing range). However, Uber's business is too complicated to compare to other marketplace businesses on a one-for-one basis. Below, we delve into comparables (comps) analysis for each of Uber's main businesses—Personal Mobility, Uber Eats and Uber Freight.

Sum of the Parts Valuation

Company Name	Price	Market	% of 52-Wk	EBITDA	Price / Sales		Revenue Growth	
	5/6/19	Cap.	High	Margin	2018A	2017A	2018A	2017A
Ridesharing								
Lyft	\$60.73	\$17,361	68.5%	(43.7%)	8.1x	16.4x	103.5%	208.7%
Meal Delivery								
Grubhub	\$71.10	\$6,475	47.6%	3.1%	6.4x	9.5x	47.5%	38.5%
Just Eat	\$4.70	\$6,408	78.2%	21.9%	6.2x	9.1x	47.4%	38.6%
Delivery Hero	\$45.00	\$8,438	84.9%	(14.5%)	7.7x	13.7x	77.0%	91.9%
Takeaway.com	\$88.59	\$5,085	99.7%	(12.6%)	19.5x	27.8x	42.2%	46.3%
Freight Logistics								
C.H. Robinson	\$83.18	\$11,425	82.2%	1.5%	0.7x	0.8x	11.8%	13.1%
XPO Logistics	\$65.40	\$6,014	56.2%	1.9%	0.3x	0.4x	12.3%	5.2%
Echo Global	\$23.56	\$657	64.1%	0.8%	0.3x	0.3x	25.6%	13.2%
Summary Statistics								
Ridesharing								
Median			64.1%	(43.7%)	8.1x	16.4x	103.5%	208.7%
Mean			68.5%	(43.7%)	8.1x	16.4x	103.5%	208.7%
Meal Delivery								
Median			81.6%	(4.8%)	7.1x	11.6x	47.5%	42.4%
Mean			77.6%	(0.5%)	10.0x	15.0x	53.5%	53.8%
Freight								
Median			64.1%	1.5%	0.3x	0.4x	12.3%	13.1%
Mean			67.5%	1.4%	0.4x	0.5x	16.6%	10.5%
Uber Personal Mobility		\$73,918			8.1x	16.4x	33.3%	94.9%
Uber Eats		10,344			7.1x	11.6x	148.7%	469.9%
Uber Freight		130			0.3x	0.4x	456.7%	6600.0%
Sum of the Parts Value		\$84,391						

Sum of the Parts Valuation

Above, we have collected P/S and margin information on eight public companies that Uber calls out in its S-1 as its competition across Ridesharing, Meal Delivery and Freight Logistics. We use Lyft as Uber’s only Ridesharing comp, Grubhub, Just Eat, Delivery Hero and Takeaway.com at Uber’s Meal Delivery comps, and C.H. Robinson, XPO Logistics and Echo Global as Uber’s Freight Logistics comps.

In this analysis, we use the median P/S multiples for each of the three segments to then imply a value to Uber’s segments. As discussed, Lyft and Uber appear to be similarly valued, so we have applied an 8.1x P/S multiple to Uber’s Ridesharing Revenue in 2018, which yields a \$74 billion valuation. In 2018, Uber Eats achieved Revenue of nearly \$1.5 billion, which implies an over \$10 billion valuation assuming the median P/S multiple of the Meal Delivery comps. Finally, Uber Freight’s approximately \$373 million in Revenue in 2018 implies only a

\$130 million valuation, given how low the P/S multiples are in the Freight Logistics space. Uber Freight is of course growing rapidly compared to its public comps, but given the de minimis Uber Freight Revenue at this time, even a 7.0x P/S multiple, more in line with Uber’s Core Platform, would only add an additional \$2.5 billion in value.

In sum, Uber’s valuation ends up being somewhere between approximately \$70 billion and \$84 billion, whether we value Uber as a whole against other public marketplaces or as the sum of its parts. This is a bit lower than the approximately \$80 to \$91 billion range contemplated by Uber’s S-1. However, if we add Uber’s minority stakes in Didi, Grab and Yandex.Taxi, which Uber has reportedly valued at [\\$12 billion](#), our valuation range moves up to between \$82 billion and \$96 billion, or much more closely aligned with Uber’s S-1 price range.

But Uber is working on other potential offerings and innovations. Below, we discuss the option

value in some of Uber's longer-term bets.

Uber's Option Value

Uber's Freight, Eats, and Personal Mobility businesses have each been up and running for some time, and, despite Uber's complexity and opacity, Uber's S-1 disclosures have allowed potential IPO investors to value each segment with some confidence using intrinsic (cash flow-based) and extrinsic (company comparables) [valuation methodologies](#). However, Uber spends billions of dollars on Research & Development each year, and that number has been steadily growing. While Uber reports spending on "Other Technology Programs," which include projects like Uber Elevate (aerial ridesharing), most attention on Uber's technological innovations has been focused on its Advanced Technologies Group (ATG), which is Uber's autonomous vehicle unit.

It is no secret that a fleet of autonomous vehicles (AV) has the potential to be incredibly lucrative for ridesharing companies like Uber and Lyft, obviating the need to pay drivers. With this goal in mind, both companies have poured hundreds of millions into autonomous vehicle projects. Just last month, Uber finalized a \$1 billion investment from the SoftBank Vision Fund (already Uber's largest shareholder), Toyota Motor Corporation and DENSO Corporation into ATG at a \$7.25 billion implied valuation. Uber will use these funds to accelerate the development and commercialization of automated ridesharing services. ATG was founded in 2015 in Pittsburgh with 40 researchers from Carnegie Robotics and Carnegie Mellon University. Currently, ATG has offices in Pittsburgh, San Francisco and Toronto with over 1,000 employees. According to Uber, ATG has built over 250 self-driving vehicles, collected data from millions of AV testing miles, and completed tens of thousands of passenger trips. In addition to Toyota, Uber also has partnerships with Volvo and Daimler to develop and introduce fleets of AVs onto Uber's network in the future.

Despite the implied \$7.25 billion valuation of Uber's ATG, we have not included this value in our sum of the parts valuation above. ATG reportedly loses over \$20 million a month, and Uber provides no specific plans for the rollout

and commercialization of self-driving vehicle capabilities on its platform. Instead, Uber states that "[a]long the way to a potential future autonomous vehicle world, we believe that there will be a long period of hybrid autonomy, in which autonomous vehicles will be deployed gradually against specific use cases while Drivers continue to serve most consumer demand." As such, we have not quantified ATG's option value given the highly speculative nature of Uber's prospects in self-driving vehicle technology and the intense competition in the field from larger and better-resourced companies.

Competition is Uber's Greatest Risk

Behind Uber's deteriorating take rate is a slew of competition in nearly every Uber offering. Moreover, offerings like ridesharing and meal delivery are characterized by low barriers to entry and low switching costs, which essentially turns these verticals into a "land grab" battle of resources and local know-how. Uber self-admittedly writes that its consumers have a propensity to shift to the lowest-cost or highest-quality providers, and have a number of existing, well-established, and low-cost alternatives to Uber's platform (e.g., public transportation). Moreover, Uber's Drivers have a propensity to shift to the platform with the highest earnings potential, and its restaurants shift to the platform with the lowest service fee and highest volume of orders. Finally, shippers and carriers shift to the platform with the best price and most convenient service.

Facing difficult market dynamics in all of its key verticals, Uber's competition includes some of the best-funded and innovative companies in the world who have little problem matching Uber's balance sheet.

The Personal Mobility space is the most crowded, and Uber is in a price war of attrition across the globe with companies like Lyft in the United States, OLA in India, Taxify in Europe and Didi in South America. Moreover, Uber's New Mobility offerings face competition from deep-pocketed e-scooter and e-bike alternatives like Motivate (owned by Lyft), Lime, Bird and Skip. While autonomous vehicles have the most potential to transform Uber's business, the competition is the finest in the world—Google's Waymo, GM's Cruise Automation, Tesla, Apple, Zoox, Aptiv (currently working with Lyft),

Pronto.ai, Auroro and Nuro, among others. Waymo, for example, has already introduced a commercialized ridehailing fleet of autonomous vehicles in select markets. In the meal delivery space, the competition seems endless, and includes GrubHub, DoorDash, Deliveroo, Swiggy, Postmates, Zomato, Delivery Hero, Just Eat, Takeaway.com and FAANG giant Amazon. Finally, Uber Freight competes with a mix of industry veterans and tech-focused newcomers, including C.H. Robinson, XPO Logistics, Total Quality Logistics, Transfix, NEXT Trucking, and others.

Unsurprisingly, this intense competition has led to accelerated spending as Uber competes for consumers, drivers, restaurants, and freight carriers. Given the localized nature of ridesharing and food delivery, some of Uber's local competitors have significant competitive advantages such as greater brand recognition, longer operating histories, larger marketing budgets, better localized knowledge, and more supportive regulatory regimes. As a result, we don't expect Uber's margin and take rate pressure to be alleviated any time soon.

Where Does Uber Go Next?

We are two days away from Uber's IPO, and it appears that there will not be a revised price range before Thursday night's final pricing. As such, we can expect Uber to price in the range of \$44 to \$50 per share at a valuation of \$80 to \$91 billion. Over night, Uber will be more valuable than companies like T-Mobile US, Intuit, and Mondelez International, and will be knocking on the doors of Charter Communications, Gilead Sciences and Starbucks Corporation. Moreover, an IPO day share price pop of only 20% to 30% could see it overtake companies like Qualcomm Incorporated, NVIDIA Corporation or Texas Instruments. Needless to say, Uber will be one of the largest public companies in the world and the largest IPO since Alibaba debuted on the NYSE in 2014.

But what's in store for Uber? Despite being nearly a decade old, we are still in the early innings of what Uber has planned next. If they have their way, at some point in the future Uber may own and operate a vast mobility and logistics network powered entirely by autonomous cars, drones, flying taxis and other

AI modes of transportation. While this objective is admirable, we like to stay focused on the near to medium-term. At this time, we see competition as Uber's greatest threat, particularly because it operates in a set of verticals characterized by low switching costs, localization of competition and low barriers to entry. Before evaluating Uber's success in the decades to come (and we do believe Uber will be around for quite a while), investors need to decide if they will bet on Uber in the near-term given how quickly stocks change hands (for reference, Uber's rival Lyft saw each new common share it sold the day of its IPO change ownership over two times on average in only the first day of trading).

For us, a near-term bet on Uber requires a belief that the company will reach an inflection point in its global price war where it has successfully outmaneuvered its competitors and is able to finally wield pricing power. This is clearly Uber's strategy in a series of ridesharing and meal delivery markets that are characterized by winner-take-all (or most) dynamics. Consequently, we expect a continued deterioration in Uber's take rate and revenue growth as it relies heavily on incentives and referrals to maintain and grow market share. If Uber is able to maintain strong Gross Bookings growth, continued losses and decelerating Revenue may be tolerated by the public markets. However, without a clearer understanding of Uber's unit economics, we cannot confidently predict that Uber is in the best position to win a series of localized price wars throughout its markets (particularly given its well-funded, home-grown competition on various continents). For these reasons, we believe Uber's stock is in for a bumpy ride, and IPO investors may not be too pleased with their returns in the near-term.

