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Lyft Form S-1 Review

*Lyft to become first ride-hail IPO in history amid rapid growth and staggering losses | **Adam Augusiak-Boro***

EXECUTIVE SUMMARY

- Lyft to become first ride-hail IPO in history, chasing $1.2 trillion U.S. consumer transportation market
- Multi-modal network integrates ride-hail, bikes, scooters, public transit and autonomous vehicles
- 2018 revenue increased 100%+ year-over-year to $2.2 billion on net losses of over $900 million
- Despite staggering losses, Lyft has improved loss margin from (199%) to (42%) between 2016 and 2018
- Path to profitability remains challenging due to demand price sensitivity and intense competition

Lyft, Inc.'s public debut will kick off one of the most highly-anticipated IPO seasons in recent memory. As companies stay private longer and the number of public companies in the U.S. remains at an all-time low, blockbuster IPOs like Lyft are an increasingly less common occurrence. We cover some of the reasons behind the fall in IPO activity in EquityZen's 2019 IPO Outlook, which predicts that Lyft and 15 other companies, including its larger, global competitor Uber, will finally go public in 2019 and reignite what has been a largely muted IPO calendar over the last several years compared to previous bull markets. With Uber on its heels, Lyft is set to begin trading on March 29 at a fully-diluted valuation of around $25 billion (Lyft's latest S-1 filing indicates a price range of $70 to $72 per share), allowing public investors access to Lyft's stock for the first time in its history. Previously, investors looking to purchase Lyft shares had to participate in private financing rounds with high minimum investment thresholds or seek secondary offerings on pre-IPO trading platforms like EquityZen.

Now that we finally have access to Lyft's full financial statements and management commentary within Lyft's Form S-1, we have prepared the below report with our thoughts on the company's total addressable market (TAM), path to profitability, comparable companies, and a number of growth levers and downside risks. As Lyft cements its IPO pricing post-roadshow, we expect that

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institutional investors have asked Lyft's management many of the same questions that we cover below.

Sector Overview: Transportation-as-a-Service

Ride-hail companies like Lyft identify as multimodal transportation networks operating within the burgeoning Transportation-as-a-Service (TaaS) industry—also referred to as Mobility-as-a-Service (MaaS). TaaS describes a shift away from personally-owned modes of transportation and towards mobility solutions that are consumed as a service, often on-demand, and tailored to the individual needs of a traveler through a variety of transportation options, like ride-hailing and carpooling. This industry, born in the wake of the Great Recession, was made possible by the mass adoption of smartphones, which for the first time allowed millions of drivers and riders to connect via ride-hailing apps. As the industry developed, several modes of transportation have been incorporated into TaaS networks, including:

- **Ride-hail:** Ride-hailing is a service that connects riders with local drivers, giving riders a door-to-door transportation option. Example: Lyft's core, on-demand ride-hail offering.

- **Carpool:** Carpooling connects drivers with other passengers looking to travel to the same long-distance destination, sharing the cost of the journey between the driver and passengers. Example: Paris-based BlaBlaCar's long-distance service.

- **Shared rides:** Shared rides are the intersection of ride-hailing and carpooling, where riders traveling similar routes share a trip, often for short distances. Examples: Via, UberPool and Lyft's Shared rides

- **Bikes and Scooters:** Bike and scooter rentals provide consumers with a first- and last-mile option, giving riders the option to pick up and drop off these rentals anywhere they are available. Examples: Bike and/or scooter rentals are now offered by a number of companies, including Uber, Lyft, Lime and Bird.

- **Autonomous Vehicles:** Autonomous vehicle (AV) rides are still in their infancy, but ride-hail companies like Lyft and Uber hope AVs will eventually provide all of the rides on their respective networks. Examples: In addition to Uber and Lyft, a number of diverse companies are chasing AV ambitions, including General Motors, BMW, Tesla, Apple and Waymo.

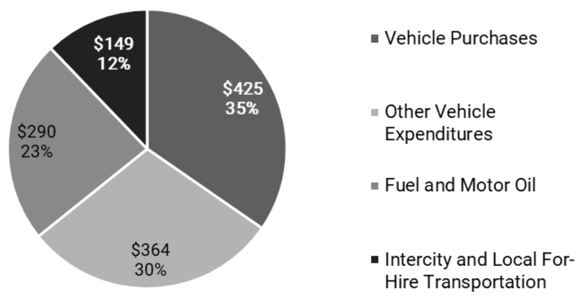
So how large is this TaaS market? Below, we dive into the greenspace Lyft and its competitors are chasing.

Total Addressable Market

The Transportation-as-a-Service sector has come a long way from its early days of disrupting the taxi industry. As the sector has progressed, more transportation options have emerged, and TaaS has spilled into various transportation silos across the U.S. Lyft states that its platform is currently available to over 95% of the U.S. population and in select Canadian cities. As such, our report below focuses on the U.S. market size, given Lyft's geographic concentration. In order to frame the potential size of the TaaS market, we primarily examine 1) U.S. Household Transportation Spend and 2) the U.S. Taxi-Limousine and Public Transit markets. At its logical extreme, the TaaS industry could theoretically capture the vast majority of the consumer transportation industry as it exists today, as TaaS participants grow their transportation networks and seek to integrate not just automobiles but also light vehicles (e.g., scooters and bikes), air travel, public transit and eventually AVs.

U.S. Household Transportation Spend

In 2017, U.S. households spent approximately $1.2 trillion on transportation, making it the fourth largest household expenditure behind healthcare, housing and food. Transportation expenditures include vehicle purchases, fuel and motor oil, intercity and for-hire transportation (includes air) and other miscellaneous vehicle expenditures (e.g., vehicle insurance, vehicle parts, and maintenance and repair costs). Below, please see a breakdown of U.S. household transportation expenditures:



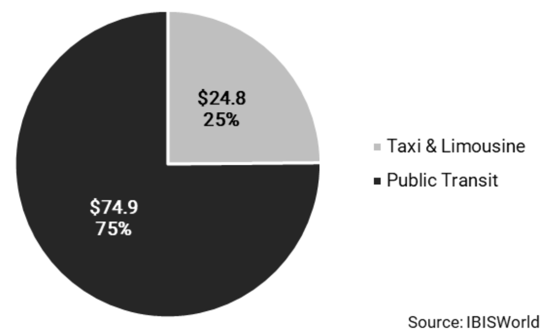
Source: Bureau of Transportation Statistics

Nearly 88% of all transportation-related household expenditures were spent in relation to vehicle ownership. Of the $149 billion spent on intercity and local for-hire transportation, 64% was spent on air travel, with the balance spent on local and other ground transportation and intercity bus, train and ship fare. In 2018, Lyft generated $2.2 billion in revenue, which translates to an approximately 0.18% share of total household transportation expenditures.

U.S. Taxi-Limousine & Public Transit

While Uber and Lyft have plans to tackle the entire consumer transportation market, a more realistic assessment of ride-hail's current U.S. TAM lies in the taxi-limousine and public transit markets. The taxi-limousine sector provides transportation options to riders via various automobiles, such as taxis, sedans and limousines. This market is distinctly characterized by nonregular ride schedules and routes, where drivers are hired to transport riders door-to-door. The public transit sector provides riders with transportation options along regular routes and schedules, such as public subway or bus lines. These two sectors have been the main intracity battlefields for Lyft and its TaaS competitors. Based on IBISWorld data, these two sectors generated $99.7 billion of revenue in 2018.

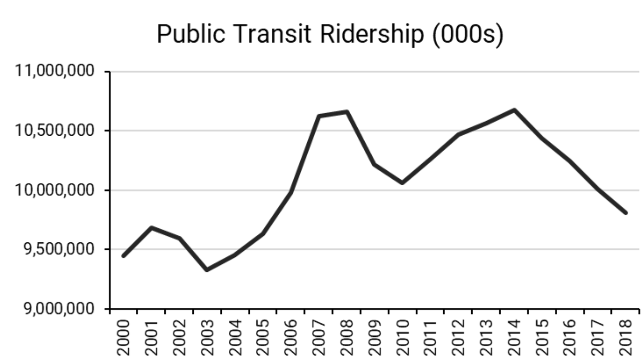
The taxi and limousine services sector grew 8.5% annually between 2013 and 2018 and is expected to grow 4.2% annually through 2023 (note that IBISWorld includes TaaS within this sector but does not breakout growth



Source: IBISWorld

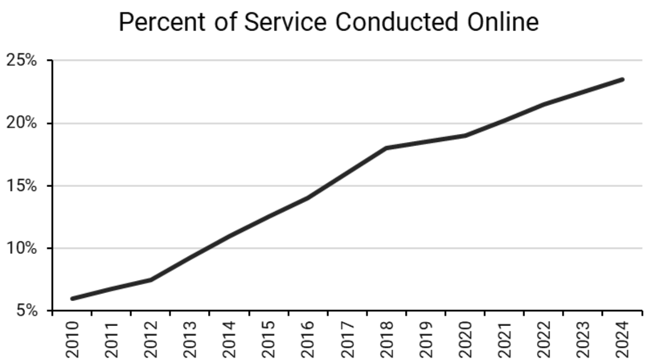
separately). Public transit revenue grew much more slowly at 2.5% annually between 2013 and 2018 and is projected to grow only 1.2% annually through 2023. The metropolitan transportation authorities in New York City and Los Angeles currently account for nearly 20% of all public transit revenue in the country. These growth rates imply that the total taxi and limousine and public transit markets will grow to $110 billion by 2023. With $2.2 billion in revenue, Lyft's current market share in these sectors is approximately 2.2%.

Over the last four years, total public transit ridership has steadily decreased. While previous dips in ridership since 2000 have been associated with economic downturns, the recent decrease in ridership has coincided with one of the longest periods of economic expansion in history. There is at least some evidence that this trend is partly as a result of would-be public transit riders in large cities opting to use ride-hail services like Uber or Lyft instead.



Source: U.S. Bureau of Transportation

The traditional taxi and limousine industry has also not been immune to changes caused by the growth of ride-hailing apps. Since 2010, the percent of taxi and limousine services transacted online has increased from just over 5% to approximately 18% and is projected to reach nearly 25% by 2024.



Source: IBISWorld

The percent of service conducted online serves as a proxy for the growth of e-commerce, mobile technologies and other innovations that has transformed transportation over the last several years and includes a proliferation of ride-hailing technologies such as Uber and Lyft. Lyft, Uber and other players have provided convenient and often cheaper transportation options to consumers, and increasingly riders have opted to use their apps rather than traditional taxi and limousine services.

Now that we have delved a bit into Lyft's TAM, below we dissect Lyft's Form S-1 filing, diving into its financial performance, profitability potential, comparable companies, and upside and downside scenarios.

Lyft S-1 Breakdown

The Future of Multimodal Transportation & Transportation-as-a-Service

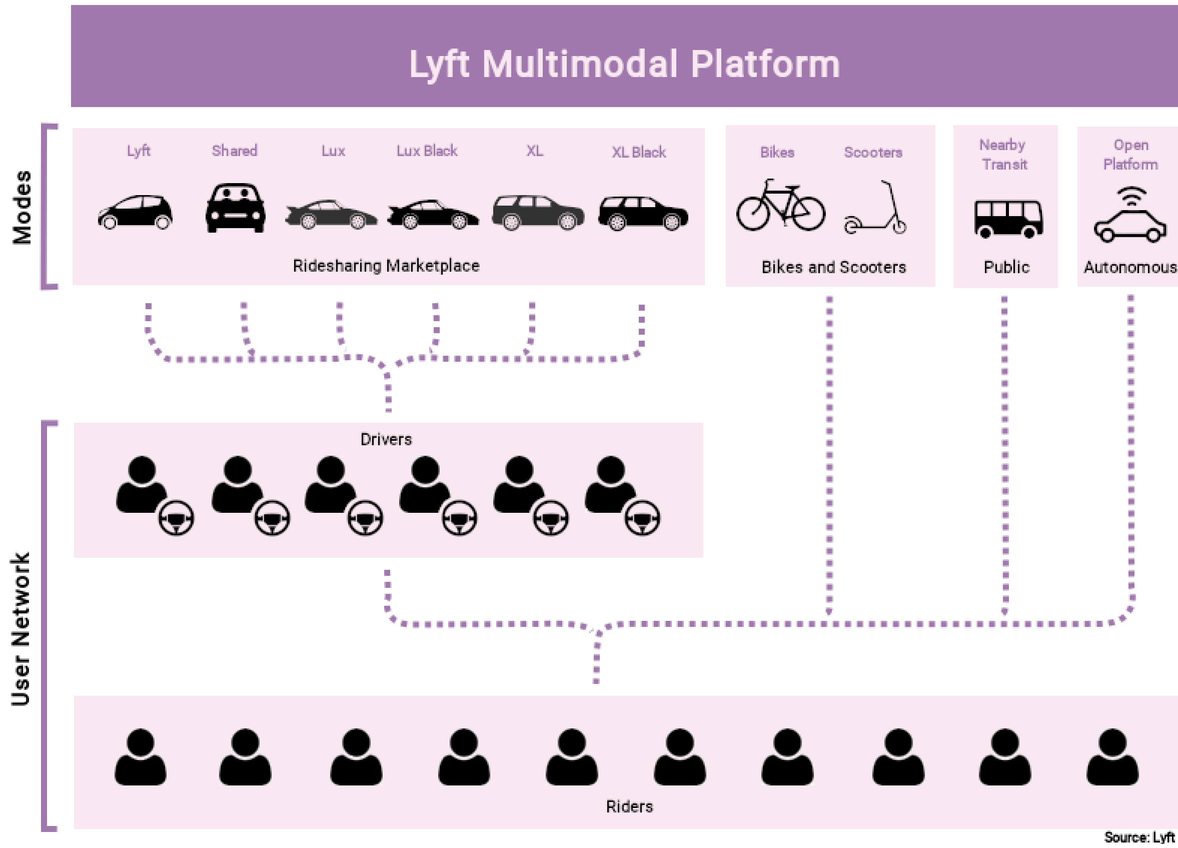
As covered above, Lyft implies that its total addressable market includes nearly the entire consumer transportation industry in the United States (and presumably Canada, where the company operates in select cities as of 2017), on which U.S. consumers spent $1.2 trillion in 2017. Lyft's view is that the transportation sector is currently undergoing rapid change, with society steadily forgoing car ownership in favor of disruptive, app-based transportation services like on-demand ride-hail. Lyft and Uber call this service industry Transportation-as-a-Service, or TaaS, of which they are the two leading forces in the U.S., with Uber also pursuing an aggressive global agenda. Lyft envisions a future where consumers will consult their on-demand transportation apps to construct the most efficient (from a cost and time perspective) route from Point A to Point B, integrating various modes of transportation, including automobiles (in the future, autonomous vehicles), bikes, scooters, public transit and other modes (Uber notably has invested in an air unit that is working on flying taxicabs). With only 1% of all vehicle miles in the U.S. currently traveled on ride-hail networks, Lyft argues that it has an enormous greenspace to pursue in a nascent industry.

Lyft correctly states that it is one of two scaled ride-hail networks in the country and it has worked quickly in 2018 to integrate a number of other transportation modes onto its platform. While substantially all of Lyft's revenue currently comes from its ride-hail network of drivers and riders, the company has recently integrated public transit options and launched scooters and bikes (through its 2018 acquisition of Motivate, the nation's largest operator of bikes). Albeit several years down the line, Lyft also intends to unleash a fleet of autonomous vehicles to hurry passengers along its scaled transportation network—in doing so, Lyft would eliminate one of its biggest cost items, the cut drivers take from bookings on the Lyft platform. We will dive into these segments when we discuss the upside and downside scenarios to Lyft's business. On the next page, please see a graphic representation of Lyft's current multi-modal transportation network, reconstructed from its S-1 Filing.

Notably, Lyft considers both its drivers and riders as "users" of its network and will be setting aside cash bonuses and allocations of Class A Common Stock for a number of loyal Lyft drivers who have completed at least 10,000 rides on the Lyft network. Lyft undoubtedly has grand plans as it expands into various modes of transportation and pours hundreds of millions of dollars into research and development for its autonomous car efforts. However, the company burned over $500 million in cash last year and generated losses of over $900 million. We dig into key financial and operational highlights of Lyft's recent performance below.

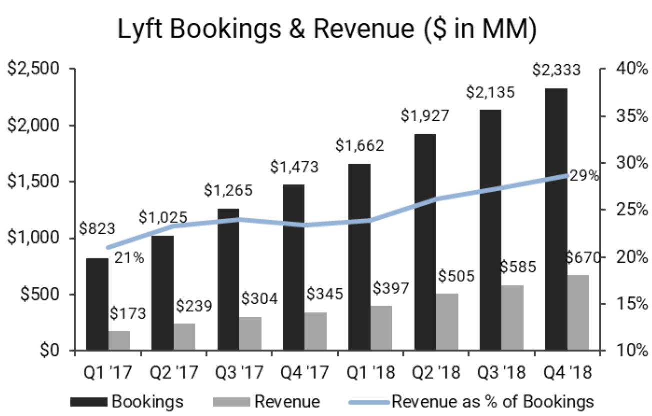
Ride-Hail Business Displays Tremendous Growth Amid Staggering Losses

Despite expanding into scooters and bikes and growing other business segments, including its



Source: Lyft S-1

Concierge and Express Drive vehicle rental programs, Lyft remains almost entirely a ride-hail company, albeit one with 39% of the U.S. market (we can assume Uber has almost all of the balance) and billions in revenue. As far as its core business is concerned, Lyft has demonstrated quite impressive topline growth over the last three years:

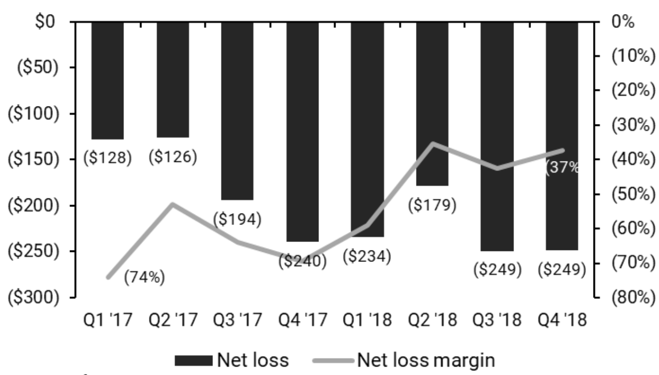


Source: Lyft S-1

Lyft generated bookings, which the company defines as the total dollar value of transportation spend on its platform less discounts, market-wide price adjustments, driver fees and other pass-through fees and taxes, of $1.9 billion, $4.6 billion and $8.1 billion in 2016, 2017 and 2018, respectively, demonstrating 141% growth in 2017 and 76% growth in 2018. On the revenue side, Lyft has demonstrated strong growth as well as increasing efficiency, steadily converting a greater portion of bookings into revenue. Lyft grew 2016 revenue of $343 million to $1.1 billion in 2017 and $2.2 billion in 2018, representing growth rates of 209% and 103% in 2017 and 2018, respectively. By comparison, despite bringing in over [$11 billion]() in 2018 revenue, Uber grew [less than half]() as quickly as Lyft last year. Lyft's revenue as a percentage of bookings steadily increased from 17% in 2016 to 23% in 2017 and 29% in 2018, indicating that Lyft has improved its ability to match driver incentives with rider demand as well as its ability to match multiple riders on its Shared Rides (i.e., carpooled rides). In the future, Lyft hopes that increased utilization of its scooter and bike network, which yields a 1-for-1 bookings-to-revenue ratio, will continue to improve its bookings conversion.

On the expense side, however, Lyft continues to raise eyebrows for the staggering losses it generates every year in absolute dollar terms. Net losses have grown by over 33% from 2016 to 2018, as Lyft saw net losses increase from $683 million in 2016 to over $911 million in 2018. However, to Lyft's credit, the company has steadily decreased its net losses as a percentage of revenue. In 2016, Lyft's net loss margin was (199%), after which the company improved dramatically, achieving a (65%) and (42%) net loss margin in 2017 and 2018, respectively. Despite its falling loss margin, Lyft's road to profitability remains in doubt and investors question whether ride-hail as a business is viable without large subsidies from venture capital that have enabled Lyft and its competitors to keep prices down and attract millions of riders with on-demand convenience.

Lyft Net Losses & Margin ($ in MM)



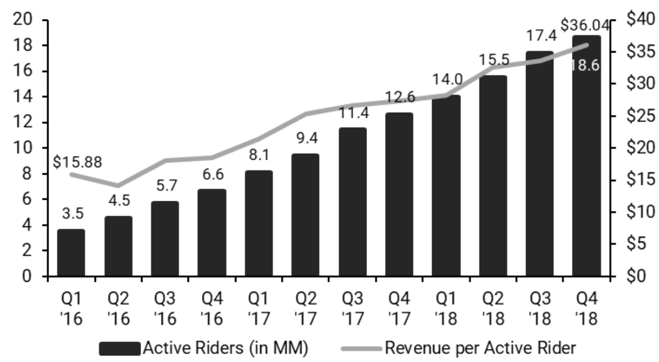
Source: Lyft S-1

Lyft's greatest expense (other than driver fees, which reduce its revenue) is its cost of revenue, which primarily includes insurance costs that are required under transportation network company (TNC) and city regulations for ride-sharing but also bike and scooter rentals. Additional cost of revenue items include payment processing charges, hosting and technology costs, and personnel-related compensation, among others. In a positive sign, Lyft has managed to increase its contribution (revenue less cost of revenue), with cost of revenue as a percentage of revenue shrinking from 81% in 2016 to 62% in 2017 and 58% in 2018. Lyft's contribution has grown to over $900 million in 2018 from only $64 million in 2016. A detailed breakdown of other expense line items can be found on the next page. We will address other aspects of Lyft's cost structure later in this report.

Other Key Financial & Operating Metrics

In addition to strong growth in bookings, revenue, and revenue to bookings conversion, other metrics indicate that Lyft's core business is improving steadily. The company is maintaining and growing a loyal cohort of active riders, which Lyft defines as those riders who utilize the Lyft platform at least once a quarter, more than quintupling its active rider base from 3.5 million to nearly 19 million over the last three years. Moreover, the company is becoming more efficient at monetizing each active rider, improving revenue per active rider from $15.88 in Q1 2016 to $36.04 by Q4 2018.

Active Riders & Revenue per Active Rider



Source: Lyft S-1

The above data demonstrate that Lyft's core ride-hail business has improved significantly over the last three years. Revenue continues to see strong growth while costs have fallen greatly as a percentage of revenue. Moreover, Lyft's unit economics continue to improve with revenue per active rider increasing sharply from 2016. Finally, Lyft has become more effective in converting bookings to revenue as the company has increased service fees and commissions, improved the efficiency and effectiveness of driver incentives (thereby boosting revenue) and reduced market-wide price adjustment promotions to riders. While Lyft remains far from profitable, recent performance indicates it is addressing its greatest criticism—that billion-dollar investments have subsidized both driver and rider incentives, and that ride-hail may be unable to achieve profitability at competitive pricing without these subsidies. Below, we dive into Lyft's path to profitability.

Can Lyft Find a Path to Profitability?

Now that we have covered Lyft's financial

Historical Financial Performance

($ in MMs)	Year Ended December 31,		
Consolidated Income Statement	**2016**	**2017**	**2018**
Revenue	$343	$1,060	$2,157
% Growth		*209%*	*103%*
Cost of revenue	$279	$660	$1,243
Operations and support	98	184	338
Research and development	65	137	301
Sales and marketing	434	567	804
General and administrative	160	221	448
Total costs and expenses	**$1,036**	**$1,768**	**$3,134**
Loss from operations	**($693)**	**($708)**	**($978)**
% Margin	*(202%)*	*(67%)*	*(45%)*
Interest income, net	$7	$20	$66
Other income, net	3	0	1
Loss before income taxes	**($682)**	**($688)**	**($911)**
Provision for income taxes	0	1	1
Net loss	**($683)**	**($688)**	**($911)**
% Margin	*(199%)*	*(65%)*	*(42%)*

Source: Lyft S-1

Illustrative Projected Financial Performance

($ in MMs)	Year Ended December 31,					
Consolidated Income Statement	**2018A**	**2019E**	**2020E**	**2021E**	**2022E**	**2023E**
Ride-Hail	$2,102	$3,548	$5,257	$7,030	$8,689	$10,125
Growth %	*98%*	*69%*	*48%*	*34%*	*24%*	*17%*
Scooters & Bikes	-	150	207	286	394	544
Growth %	-	-	*38%*	*38%*	*38%*	*38%*
Express Drive Program	55	72	95	125	164	215
Growth %	-	*32%*	*32%*	*32%*	*32%*	*32%*
Total Revenue	**$2,157**	**$3,770**	**$5,559**	**$7,440**	**$9,247**	**$10,885**
Growth %	-	*75%*	*47%*	*34%*	*24%*	*18%*
Cost of revenue	1,243	1,993	2,795	3,526	4,098	4,471
% of Revenue	*59%*	*56%*	*53%*	*50%*	*47%*	*44%*
Operations and support	338	529	720	879	982	1,023
% of Revenue	*16%*	*15%*	*14%*	*13%*	*11%*	*10%*
Research and development	301	514	762	1,019	1,260	1,468
% of Revenue	*14%*	*15%*	*15%*	*15%*	*15%*	*15%*
Sales and marketing	804	1,233	1,642	1,950	2,106	2,100
% of Revenue	*38%*	*35%*	*31%*	*28%*	*24%*	*21%*
General and administrative	448	732	1,050	1,357	1,619	1,819
% of Revenue	*21%*	*21%*	*20%*	*19%*	*19%*	*18%*
Total costs and expenses	**$3,134**	**$5,001**	**$6,970**	**$8,731**	**$10,065**	**$10,881**
Loss from operations	**($978)**	**($1,231)**	**($1,411)**	**($1,291)**	**($818)**	**$4**
Margin %	*(45%)*	*(33%)*	*(25%)*	*(17%)*	*(9%)*	*0%*

Source: Lyft S-1; Projected financials are illustrative estimates performance over the last three years, the logical next step is to project when Lyft may reach profitability. The company, along with its rival Uber, has been lambasted for generating enormous losses. Lyft has indeed been losing a staggering amount of money, over $900 million in 2018 alone. However, there is precedent for money-losing tech companies attracting strong investor interest (see Snap). Moreover, some of these money-losing companies have become household names as they have revolutionized their industries (we count both Uber and Lyft in this group). Amazon, at times the most valuable company in the world, famously struggled to achieve and maintain profitability for years. More recently, Twitter experienced net losses until just last year despite going public in 2013.

Can Lyft Turn It Around Like Amazon And Twitter, Or Will It Meet the Same Fate as Snap?

Lyft's recent financial performance indicates that the core business has improved tremendously. However, just how much more it can improve is the key question. In helping to answer this, we have illustratively forecast Lyft's financial performance over the next five years on the prior page.

We project that Lyft can achieve profitability by 2023, although this depends on a number of assumptions that we outline below:

Revenue: Lyft's ride-hail business grew over 200% from 2016 to 2017 and over 100% from 2017 to 2018. We assume that Lyft will remain a predominantly ride-hail business over the next five years, despite its entry into scooter and bike rentals and Lyft's Express Drive Program, through which the company connects drivers who need access to a car with third-party rental car companies. We assume that Lyft's ride-hail growth rate declines 30% year-over-year through 2023, and the company ends 2023 with only an 18% annual growth rate. Because we lack an understanding of the cost structure and growth potential of Lyft's bike and scooter business as well as the Express Drive Program, we have modestly assumed that bikes and scooters and the Express Drive Program will comprise 5% and 2%, respectively, of Lyft's total revenues by 2023. We assume that scooters and bikes will hit approximately $150 million of revenue in 2019, given public reports that Motivate, the largest bikeshare operator in the U.S. and which Lyft acquired in 2018, hit $100 million of revenue in 2017.

Cost of Revenue: This represents Lyft's greatest expense line item and consists primarily of insurance costs required under TNC and city regulations for ridesharing and scooter and bike rentals. Additional costs in this category include payment processing charges, hosting and platform-related technology costs and certain direct costs related to bikes and scooters and the Select Express Drive Partner program. Lyft was able to decrease this expense as a percentage of revenue by nearly 20% from 2016 to 2017 and by slightly over 3% from 2017 to 2018. In its S-1 filing, Lyft states that it has made substantial investments in its insurance program that will enable the company to drive cost savings over the longer term.

Moreover, Lyft has several initiatives to lower payment processing charges, including consolidating ride fare and tips into a single transaction and identifying cheaper payment processors. Assuming that Lyft can execute on some of these initiatives, we project that cost of revenue as a percentage of revenue will decrease by 3% per year through 2023.

Operations & Support: This expense category consists primarily of personnel-related compensation costs of local operations teams and teams who provide phone, email and chat support to users, Express Drive program support costs and fees paid to third parties providing operations support and driver background checks. Lyft states that it is engaging in root-cause analysis of inbound service tickets from drivers and riders to improve the user experience. Moreover, the company is investing in more sophisticated support tools to further improve the quality and efficiency of the support function. Lyft has decreased operations and support as a percentage of revenue by 11% and 1.2% in 2017 and 2018, respectively. As such, our analysis assumes a 1.2% annual decrease in operations and support as a percentage of revenue through 2023.

Research & Development: Lyft is engaged in a costly race towards the development of autonomous vehicles, and the company plans to continue to hire employees to support its research and development efforts. We assume that Lyft maintains research and development costs at 14.5% of revenue through 2023 and may even increase this spend given the intense competition facing Lyft from the likes of Uber, Waymo, Tesla and General Motors, among several other competitors in the ride-hail, artificial intelligence and car manufacturing spaces.

Sales & Marketing: Lyft has made substantial investments in its sales and marketing to grow its driver and rider base. The company's investments have driven scale and some efficiencies in its sales and marketing spend, which has declined significantly as a percentage of revenue, decreasing by 73% from 2016 to 2017 and over 15% from 2017 to 2018. Given Lyft's strong growth in ridership (active riders grew 91% and 48% year-over-year in 2017 and 2018, respectively), our analysis assumes that Lyft will continue to leverage its brand name and size to steadily decrease sales and marketing spend as a percentage of revenue by 3.5% per year through 2023.

General & Administrative: These expenses consist of certain insurance costs that are not included within cost of revenue as they are not required by TNC or city regulations, as well as personnel-related compensation costs, professional services fees, administrative fees and other corporate costs. Lyft has been able to decrease its general and administrative costs from nearly 47% of revenue in 2016 to 21% of revenue at the end of 2018. However, we expect that Lyft will incur additional general and administrative costs as a result of operating as a public company, which will include compliance with SEC regulations and Nasdaq listing standards. As a result, we expect Lyft's general and administrative expenses to hold steady at approximately 20% of revenue for the next couple years and then decrease slightly to 18% of revenue by 2023.

Please note that this analysis is purely illustrative, and we believe that Lyft's S-1 generally does not contain sufficient information to accurately forecast if the company will reach profitability. However, assuming the company continues to improve its cost margins while maintaining strong revenue growth, the company can mathematically reach profitability within 5 years extrapolating from 2017 and 2018 historical performance. Whether Lyft can repeat past performance is of course a major uncertainty—nevertheless, Lyft has decreased total costs as a percentage of revenue from 302% to 145% in only three years. As for revenue, Lyft will certainly experience decreasing top line growth going forward, even while the company steadily gains market share away from Uber. For comparison, Lyft's often-cited public comparable, Grubhub, has maintained average topline growth of nearly 30% since its IPO in April 2014. Our analysis implies that Lyft will maintain average revenue growth of just under 40% through 2023, although Lyft's revenue grew over 100% in 2018 compared to Grubhub's 46% growth in the year prior to its IPO. Below, we further address how Lyft compares to other marketplace companies like Grubhub.

Who Are Lyft's Public Company 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). Classifying Lyft is a bit easier as it remains largely a ride-hail company, but it will also be the first ride-hail company in history to go public. As such, Lyft has often been compared to public marketplaces, where buyers and sellers of a good or service can transact with each other through an app-based or internet marketplace. On the next page, we have included market capitalization and revenue details on nine public comparable marketplaces.

Based on an assumed valuation of $25 billion, Lyft's 2018 price-to-sales ratio (P/S, the ratio of market capitalization to revenue) is approximately 11.3x its 2018 revenue of $2.2 billion. Compared to other public marketplaces, Lyft's P/S is relatively high—the average P/S ratio among this group of companies is 7.0x, 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 Lyft may be trading at a rich multiple. However, other marketplaces such as Etsy and Farfetch, which went public more recently, are currently trading higher than Lyft 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 11.3x. However, with an EBITDA margin of (44%), investors are likely balancing Lyft's high growth against its still relatively high losses. Unlike the majority of its public comparables, Lyft is still wildly unprofitable, despite significant cost reductions over the last three years.

However, despite its losses, Lyft's relatively high P/S multiple appears to be in line with reports of Uber's potential IPO valuation. Investment banks reportedly valued Uber as high as [$120 billion](), and with $11.3 billion in revenue last year, Uber's implied P/S multiple is similar to Lyft's at approximately 10.6x. Like Lyft, Uber is also highly unprofitable and lost nearly [$900 million]() in Q4 2018 alone. However, Uber only grew approximately 43% in 2018 compared to Lyft's 104% annual growth, indicating that investors may be offsetting Lyft's faster growth with Uber's global and more diversified business.

Assuming Lyft goes public at approximately 11.3x P/S, based on its public marketplace comparables, we can expect Lyft's multiple to contract to approximately 6.0x-7.0x once Lyft's growth slows and hopefully it achieves or comes close to profitability (assuming, of course, similar market conditions to today).

Lyft's Growth Levers

Now that we have covered Lyft's business, recent financial performance, path to profitability and comparable companies, we will finish off our analysis with a review of Lyft's growth levers and downside risks.

Growth in Lyft's Existing Ride-Hail Business & Use Case Expansion

Lyft has been able to steadily pull away market share from its much larger competitor Uber, increasing its share of the U.S. market from only 22% at the end of 2016 to 39% by the end of last year. We can safely assume that Lyft has been able to do this almost entirely at the expense of Uber, whose market share is likely around 60% compared to over [80%]() only a couple years ago. Lyft has been able to pull share away from Uber even while it has decreased its sales and marketing spend from 127% of revenue in 2016 to 37% of revenue in 2018. Lyft of course treats certain driver and rider incentives as a reduction in revenue instead of sales and marketing spend. However, Lyft has also been able to decrease these incentives as a percentage of revenue from over 69% in 2016 to 25% in 2018. For a breakdown of Lyft's sales and marketing expenses as well as driver and rider incentives, please see the next page.

The company's strong revenue growth, increasing market share, and decreasing reliance on driver and rider incentives indicates that Lyft has indeed been able to grow its core business at a lower relative cost despite continued competition from Uber. Moreover, Lyft has room to grow beyond its traditional ride-hail use cases, such as transportation to work. To this end, the company has introduced subscription plans, university safe rides

Lyft Public Company Comparables

Company Name	Price 3/27/19	Market Cap.	% of 52-Wk High	EBITDA Margin	Price / Sales 2018A	Price / Sales 2017A	Revenue Growth 2018A	Revenue Growth 2017A	Revenue Growth 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%
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	$6,689	81.7%	19.9%	6.4x	9.5x	47.4%	38.6%	34.5%
Grubhub	$66	$5,963	43.9%	2.1%	5.9x	8.7x	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					**5.9x**	**8.7x**	**36.8%**	**23.2%**	**33.4%**
Mean					**7.0x**	**9.6x**	**32.4%**	**30.1%**	**32.9%**
Max					**13.6x**	**21.2x**	**56.1%**	**59.4%**	**70.1%**
Lyft, Inc.		**$25,000**		**(43.7%)**	**11.3x**	**23.6x**	**103.5%**	**208.7%**	**NA**

Source: Lyft S-1 and YCharts

programs, public transit integrations and its Concierge offering for businesses. For 2018, any revenue stemming from Lyft's Concierge, subscription or university safe rides offering was immaterial. To what extent Lyft can successfully monetize other uses cases, however, remains unclear based on the information in Lyft's S-1.

Scooter & Bike Expansion

The role of scooters and bikes as first- and last-mile transportation modes is top of mind for Lyft, although the company provides few details on the growth potential for these modes of transportation and indicates that scooter and bike revenue remains immaterial. The advantages of Lyft's acquisition of Motivate, the largest bike-sharing platform in the U.S., remain to be seen, although reports indicate that Motivate achieved $100 million of revenue in 2017. As for scooters, Lyft faces formidable competition from Lime, Bird and Uber's Jump. Lime and Bird are already each reportedly worth over $2 billion, despite only coming into existence a couple years ago, as growth in scooter use has been astronomical. For reference, Bird reported $65 million in annual run rate revenue in May 2018 and grew run rate revenue to "hundreds of millions" by October 2018. At Bird-like growth rates, Lyft scooters and bikes could quickly become a major component of its multimodal transportation network.

Autonomous Vehicle Ambitions

While Lyft has steadily increased its revenue as a percentage of bookings, fees paid to drivers will likely represent the company's largest expense for quite some time. However, it is no secret that a fleet of autonomous vehicles (AV) has the potential to be incredibly lucrative for ride-hail companies like Lyft and Uber, obviating the need to pay drivers. With this goal in mind, both companies have poured hundreds of millions into autonomous vehicle projects, with Uber currently negotiating a $1 billion SoftBank-led investment into its autonomous vehicle unit.

In an effort to compete with Uber, Lyft touts a two-pronged autonomous vehicle approach, which includes building its own autonomous vehicle system at its Level 5 Engineering Center. As part of its AV efforts, Lyft also recently acquired Blue Vision Labs, a UK-based computer vision company to speed up its AV development. Additionally, through Lyft's Open Platform, third-party developers of autonomous vehicle technology are able to access Lyft's network and enable their vehicles to fulfill rides on the Lyft platform. Along with Aptiv, a manufacturer of motor vehicle parts and AV developer, Lyft has deployed a fleet of AVs on its platform in Las Vegas, facilitating over 35,000 rides in Aptiv autonomous vehicles with a safety driver since the beginning of last year. Lyft also states that it has a variety of other strategic partnerships to co-develop autonomous technology, including a five-year strategic development agreement with an unnamed manufacturer and supplier of automotive parts.

While Lyft provides little in terms of progress updates concerning its AV development, the company's goal is to deploy a scaled AV network within 10 years that is capable of delivering a majority of rides on its platform. While we cannot properly evaluate where Lyft sits vis-à-vis Uber with respect to AV

Lyft Sales & Marketing and Incentives Expenses

	($ in MMs)	Year Ended December 31, 2016	2017	2018
	S&M Expense			
(A)	Driver / Rider Incentives	$196	$156	$297
	Passenger Refunds	14	26	42
	Advertising	170	316	352
	Personnel-related Comp	55	69	113
	Total S&M Expense	**$434**	**$567**	**$804**
(B)	Revenue Reduction from Incentives	$238	$384	$540
(A)+(B)	Total Driver / Rider Incentives	$433	$540	$837
	As % of Revenue	*126%*	*51%*	*39%*

Source: Lyft S-1

development, the two ride-hail giants face intense competition from a variety of leading companies in the space. Lyft lists AV competitors including Alphabet (Waymo), Apple, Baidu, and Zoox, as well as several automobile manufacturers and suppliers such as Tesla, General Motors and BMW, among others. While AVs represent an unquantifiable opportunity for Lyft, the company has its work cut out for it in the face of such intense competition.

Downside Risks?

Lyft has shown tremendous financial and operational improvement, but the company has justifiably faced criticism over its growing losses and other downside risks.

The Path to Profitability May Not Exist

In an effort to incentivize both drivers and riders to use its platform, Lyft spent $433 million, $540 million and $837 million in 2016, 2017 and 2018, respectively, in the form of various incentives, some of which Lyft characterized as sales and marketing expenses and others as reductions in revenue. We note above that Lyft has been able to offer fewer incentives as a percentage of revenue over the last few years, but it is unclear if Lyft will be able to bring down these incentives and remain competitive with its many transportation rivals—other ride-hail networks, public transit, scooter and bike companies, taxis, and new ride-hail entrants such as BMW, among others. Ride-hailing demand has proven extremely sensitive to pricing, and Lyft will have to balance its pricing competitiveness very carefully with lowering incentives. Without a more granular breakdown of cost reduction efforts and unit economics by market, the summary content in Lyft's S-1 prevents investors from making well-supported projection models that would aid in assessing Lyft's ability to become profitable. At this time, it is unclear how quickly and efficiently Lyft can leverage its technology to optimize driver and rider incentives without ceding market share to its competition.

Lyft Faces Intense Competition in Every Mode of Transportation

We have covered Lyft's rivals at length above, but it is important to note that, while Lyft has competed effectively against Uber in the U.S. market, the company faces perhaps greater competition in its growth levers outside of ride-hailing. Ride-hail competitors such as Uber, Gett (Juno), and Via will continue to challenge Lyft in key markets, and as the company expands into bikes and scooters, it will face equally well-capitalized and growing competitive pressure from Uber's Jump and the rapidly growing Lime and Bird scooter networks. On the AV front, we should mention again competition from Waymo, Tesla, Uber, BMW, and General Motors, among others. Scooters and bikes and to a greater extent AVs remain nascent verticals for Lyft, and the company will remain a pure play ride-hail enterprise if it is not able to navigate its new -found competition. Notably, Lyft states that the first companies to offer autonomous ride sharing are expected to have long-term advantages compared with traditional non-autonomous ride sharing offerings.

Labor & Legal Challenges Are a Constant Threat

Lyft states that it is regularly subject to claims, lawsuits, arbitration proceedings, administrative actions, government investigations and other legal and regulatory proceedings challenging the classification of its more than 1 million drivers as independent contractors. In the event Lyft is ever forced to classify its drivers as employees, the company will potentially face a litany of additional expenses, including claims for employee benefits, social security, workers' compensation and unemployment. Moreover, a reclassification of its drivers would potentially force Lyft to significantly change its business model and operations, reducing the flexibility it currently enjoys in attracting drivers onto its platform.

On the legal and regulatory side, ride-hail has been an embattled industry since Lyft and Uber each first launched their networks several years ago. Lyft notes that it has been subject to "intense regulatory pressure from state and municipal regulatory authorities across the United States and Canada," and a number of these authorities have imposed limitations on or attempted to ban ridesharing. Recent such limitations include New York City's August 2018 imposition of a maximum limit on new vehicle licenses for drivers on certain ridesharing platforms like Lyft. Other rules adopted by New York City in late 2018 govern minimum driver earnings, which Lyft states have on average increased the cost to Lyft riders. Additional or similar regulatory developments could adversely affect Lyft's business throughout the country.

Where Does Lyft Go Next?

The company is widely expected to begin trading on Friday, March 29, offering 35.4 million Class A common shares to the public for the first time in its history. Assuming a price range of $70 to $72 per share, Lyft will raise approximately $2.5 billion at a fully-diluted valuation of approximately $25 billion. Despite concerns over Lyft's mounting losses and ride-hail's potential to achieve profitability, Lyft's IPO was oversubscribed by investors after only two days on its roadshow. With such strong investor demand, it appears Lyft will successfully fill its IPO allocation at its target price range—but what is in store for Lyft in the near-term as a public company?

From our perspective, we were impressed by how quickly Lyft has grown over the last 3 years while cutting costs as a percentage of revenue. That being said, more than $900 million in 2018 losses is concerning, and Lyft did not provide any guidance on when it may reach profitability (in fact, it warned that it may never do so). Without any ride-hail precedent in the public markets, we hoped that Lyft would have provided more granular details on its cost-cutting efforts and also revenue and cost structure information for its new scooter and bike businesses. Although Lyft has pitched itself as a multi-modal transportation network, details on Lyft's non-ride-hail verticals are sparse. In the near-term, we expect Lyft to continue to execute on its cost-cutting strategies, hopefully bringing down insurance costs and driver and rider incentives. With limited historical data on its bike, scooter, Express Drive vehicle rental and Concierge services, 2019 will be telling with respect to how quickly Lyft can realize on its multi-modal ambitions.

Prediction for 2019?

As of now, Lyft's primary market is the U.S. and select cities in Canada, which Lyft entered in 2017. Lyft's S-1 filing states that the company may expand its international operations but provides no details on an international roadmap. Having steadily acquired nearly 40% of the U.S. market, we predict that Lyft is eyeing opportunities to challenge Uber and others globally. In 2019, we predict that Lyft will expand beyond North America. The company opened an office in Munich in 2018 and recently acquired UK-based Blue Vision Labs, which specializes in mapping street layouts, making Europe a potential destination for Lyft's network. Moreover, Rakuten, the Japanese e-commerce company, is Lyft's largest shareholder and an investor in other ride-hail companies like Indonesia's Go-Jek and Dubai-based Careem (which Uber is reportedly acquiring). Rakuten would be a natural partner for Lyft in pursuing expansion or acquisition opportunities in Asia.

Wait and See.

With Lyft set to IPO on Friday, March 29, many of the above questions will be answered only in subsequent public filings and months and years of trading. Thus far, Lyft has remained such a difficult investment to underwrite because a bullish view on the company requires several assumptions that may be impossible to quantify at this time. The unit economics around scooters and bikes are just as if not more opaque than ride-hail itself, and it is difficult to bet on AVs when Lyft itself says they are a decade away. In the time span Lyft hopes to deploy AVs on a majority of its network, the company will have released 40 different quarterly and annual reports, which will likely send Lyft's stock in a number of directions. A bet on Lyft is a belief in a paradigm shift in transportation—from car ownership and traditional taxi or livery services to on-demand, multi-modal Transportation-as-a-Service delivered through an app—and a belief that Lyft is among the best positioned to lead this transformation. How the Lyft story ends will be told through countless public filings, company announcements, acquisitions, and developments in the competitive landscape, among other events, and it may take several years to confidently say whether Lyft was a failure, success or somewhere in between.