

uber

NYSE: UBER
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Executive Summary

\$57.68 USD
Market Price
(April 9th, 2021)

\$53.45 USD
Reconciled Price

\$51.00 USD
RV Price

\$54.50 USD
DCF Price

- **Fiscal Year Ends:** Dec 31
- **Currency of Financial Statement:** USD
- **Impact of COVID:** Page 8 - 10
- **WACC:** Page 27 - 31
- **Last 12 Months Revenue:** Page 38
- **NCWC Worksheet:** Page 45
- **Terminal Growth:** Page 48
- **Lease:** Page 50
- **Funded Debt:** Page 51
- **DCF Matrix:** Page 46 - 47

Recommendation: Sell

Firm Description

Uber Technologies Inc:

Uber is a technology firm that offers consumer discretionary services. It connects consumers with independent services providers through the platform

Business Model:

A digital platform that provide the mobility services from point A to point B.

In general, the business model could be expanded in three parts:

Passengers: Generates the demand

Drivers: Supply for the demand

Uber (platform): the platform connects the demand and supply



Principal Business Segments:

1. Rides (Mobility)
2. Eats (Food Delivery)
3. Freight (Public Transportation / Shipping)
4. Other Bets (examples: e-bike, e-scooter)
5. Advanced Technologies Group (examples: autonomous car)

Financial Snapshot

2021 – April

\$107.188B

Market Cap

FY 2020

\$11.139B

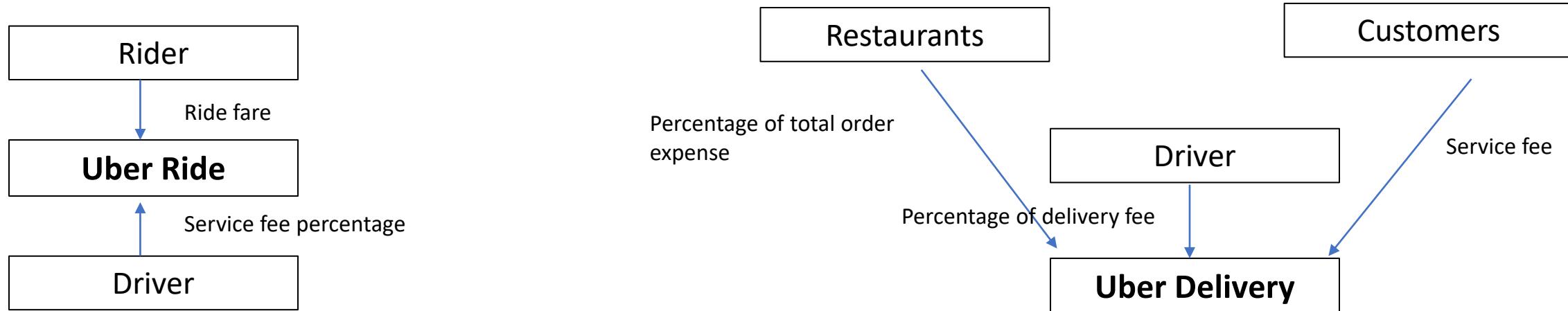
Revenue

FY 2020

\$-6.768B

Net Income

How Uber generate revenue



Ride:

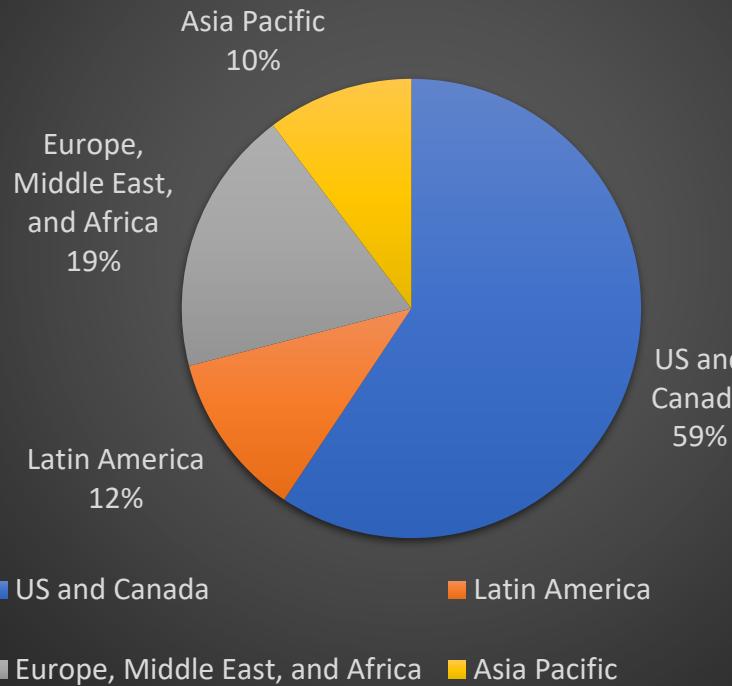
Uber charges the rider fare from the customer and the percentage of service fee from driver

Delivery:

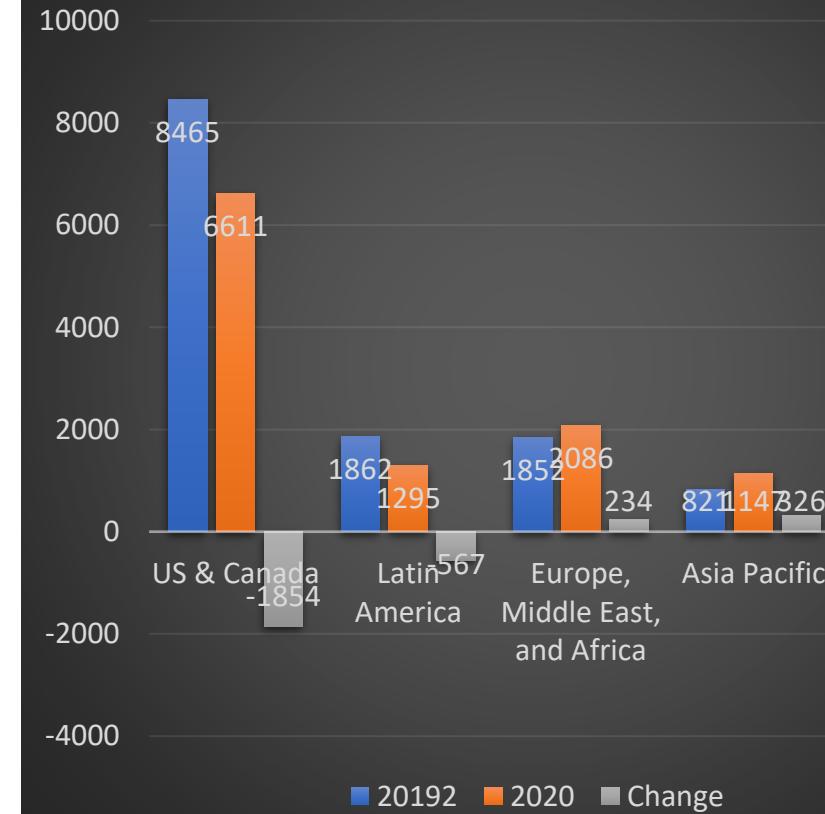
Uber charges the customers the service fee, and the percentage of delivery fee from the drivers, as well as the percentage of the takeout fee from the restaurants

Revenue: Geography

Revenue distribution by region
2020



Revenue Growth 2019 - 2020

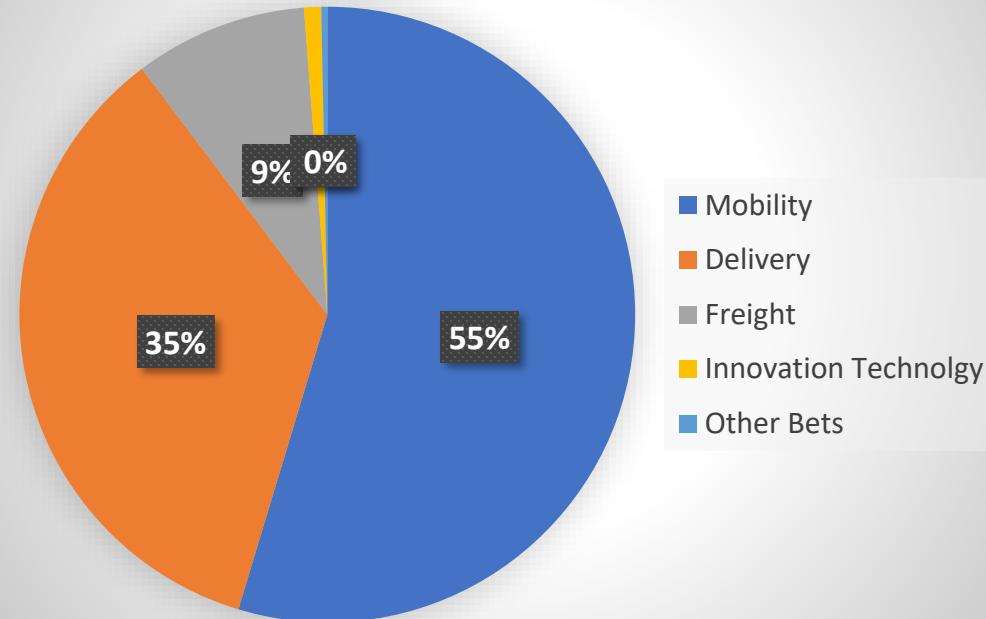


Key Takeaway:

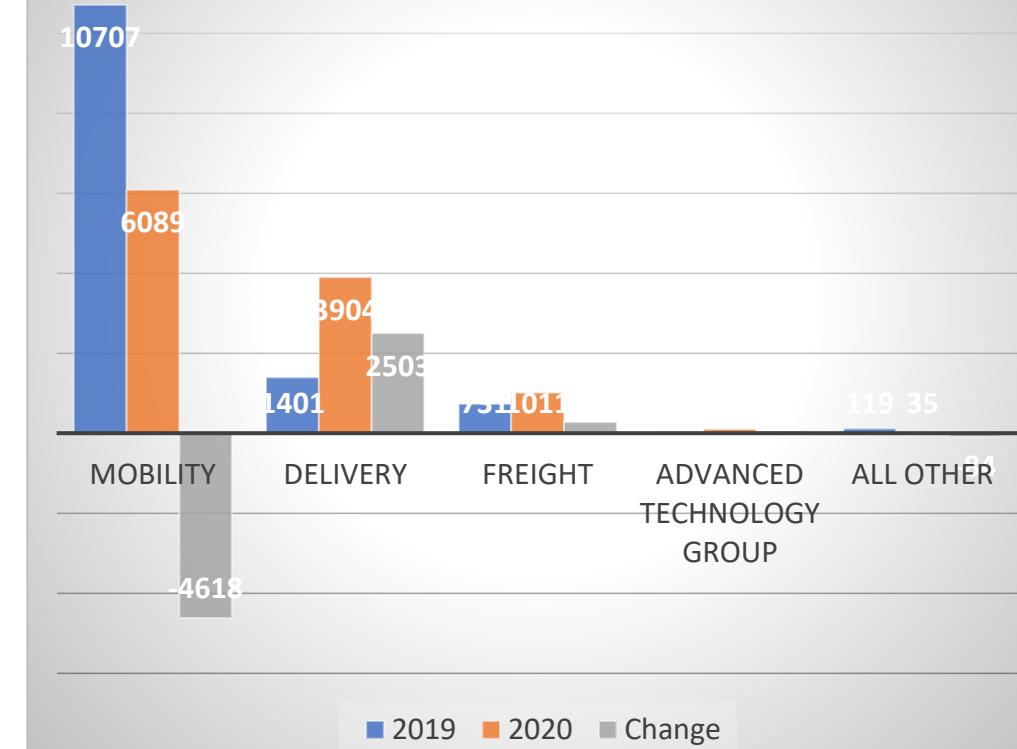
- 59% of Uber's revenue generated in the US and Canada, which implies that North America is Uber's major market
- Revenue shrunk significantly in the Uber's main markets, which is affected by the COVID-19 pandemic

Revenue: Streams

2020 Revenue Streams



2019 – 2020 Revenue Growth



Key Takeaway:

- Ride and Delivery are the major business revenue source for Uber
- Delivery had a impressive performance in 2020, with the growth rate of 170%, which is benefited by the lockdown policies. While, Ride had declined by 40% in 2020 which is also affected by the pandemic.

Data Source: Capital IQ



Impact of COVID-19 Industry

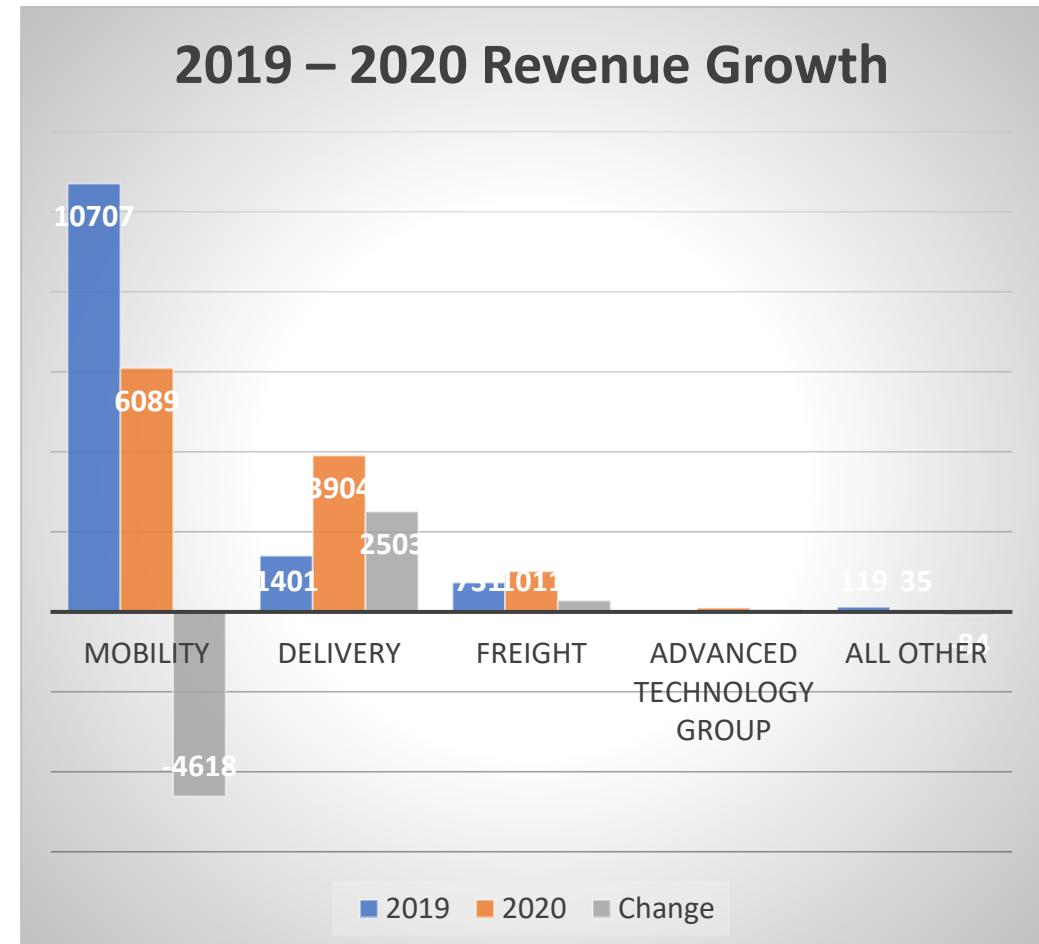
Impact of COVID-19: Industry

Negative (Rideshare):

- The consumer discretionary services are significantly impacted by the global pandemic
- The international travel restrictions and the city lockdown order strongly impacted the ride services industry, as the result of fewer tourists, lower demand for booking rides, and safety concerns from both clients and drivers.
- Rideshare leading companies, Uber and Lyft, lost around 50% of their business due to COVID-19

Positive (Delivery):

- COVID-19 do have the positive impact on the food delivery sector as more people choose to order food instead of going to the restaurants
- The gross booking, active users, and revenue from delivery expand sharply during the pandemic



Impact of COVID 19: Firm

- The ride business heavily impacted during the pandemic. For Uber, rideshare business revenue declined (40%) compared to 2019
- Gross bookings for rideshare declined around (50%) annually
- The food delivery service had a great performance in 2020, the gross bookings expanded **170%** annually
- Other sectors in Uber remain a high growth, such as freight and Advanced Technological Group, due to the early stage of the operating.
- The overall revenue from the Uber's largest markets (US & Canada) drop by 20% annually.

The background image shows a panoramic night view of the Tokyo skyline from an elevated vantage point. The Tokyo Tower is prominently visible on the right side, illuminated with its signature red and white stripes. To its left is the Tokyo Skytree, another iconic skyscraper. The city is densely packed with numerous skyscrapers of varying heights, all brightly lit against the dark night sky. In the foreground, a portion of a highway or bridge structure is visible, also illuminated. The overall scene conveys a sense of a bustling, modern metropolis at night.

Recent firm and Industry Development

COVID-19 Response

Distribute safety equipment, such as disinfectant spray and masks, to ensure public safety. This is recognized as a process of building the trust between consumers and platform, which may potentially improve Uber's competitiveness among its competitors.

Innovation Development

Uber introduced their ambitions in the field of autonomous cars. However, it still take time to ensure its reliability and safety. This could be a potential stimulus of Uber's future revenue. In the future, Uber would capable to offer its autonomous ride services. Compare to today, it does not need a driver to provide such services, which lower its cost. It may make Uber to be very competitive in its pricing to other competitors.

Business Development (Delivery)

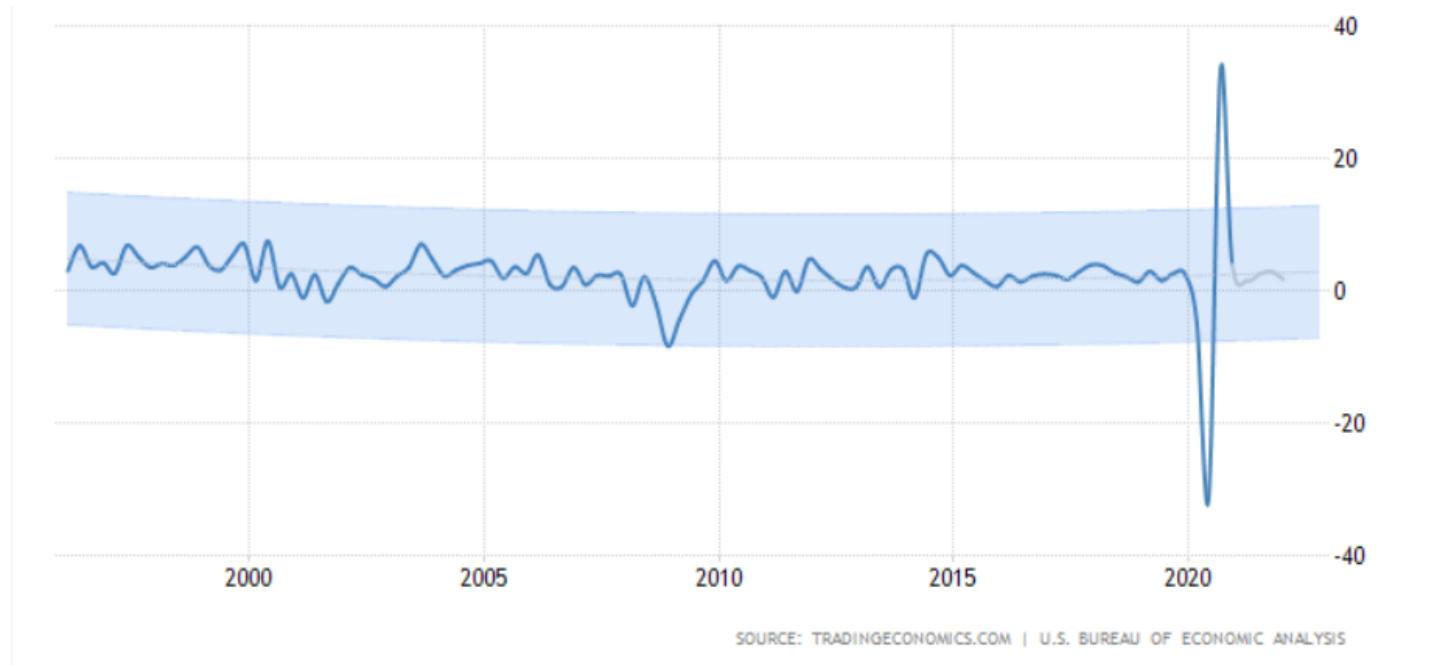
During the pandemic, **UberEATS** takeover the ride business and became number 1 revenue stream in Uber. It continues to expand its market shares, even into different sectors. Now, UberEATS is available to deliver not only food takeout, and also the groceries. It built the partnership with those grocery stores with consumer inelastic demand. In Canada, people are able to buy grocery from Costco, Walmart, and many other stores through the platform. Uber makes the profit by taking the percentage of the order's total amount and the delivery fee. Even though, many stores like Walmart provide its own delivery services, it usually takes 5-7 days for customers to get their order. Uber significantly promoted the efficiency of the whole process, it has also take the market share of the grocery delivery services.



Environment

Economic Analysis

Economic Indicator in the US (GDP growth)



Source: Trading Economics

Key Takeaways:

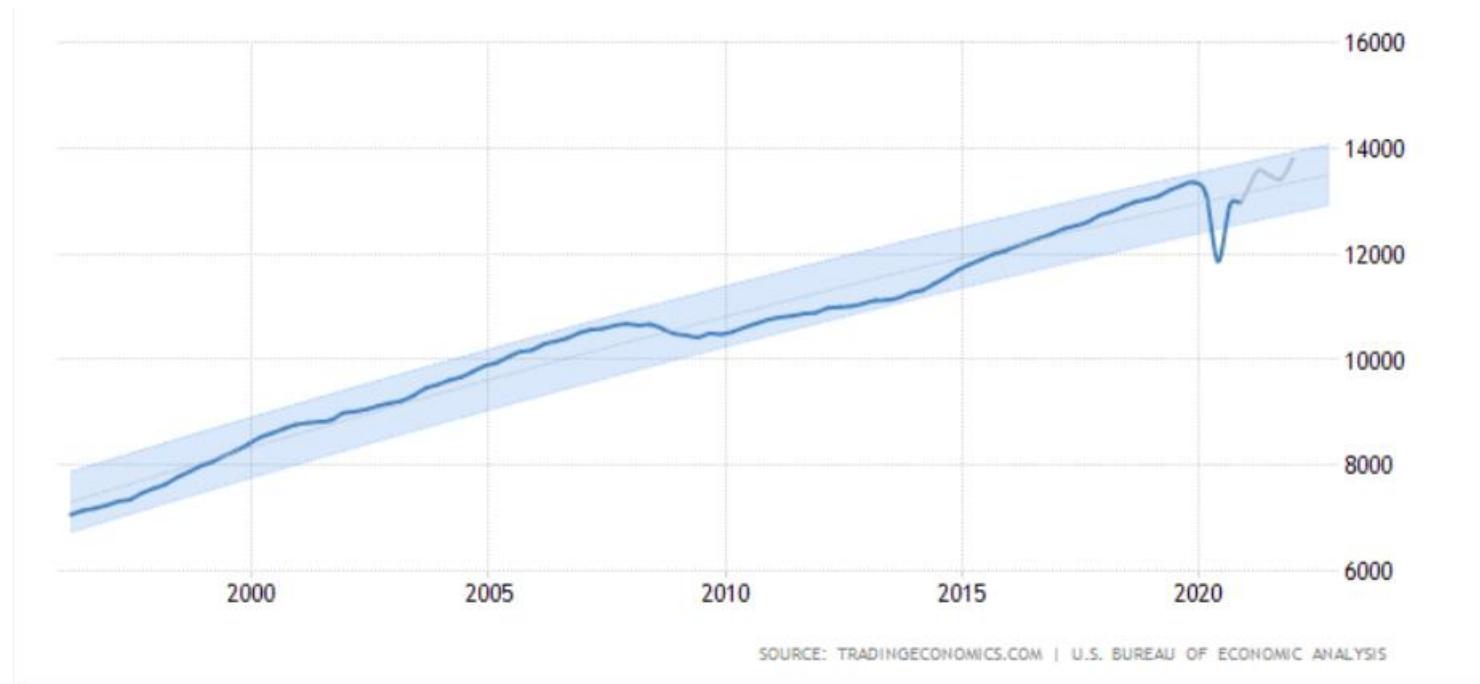
The US economy impacted strongly by the COVID-19. Real GDP growth rate reach the lowest rate in nearly 20 years period

There is a very quick and strong recovery in the late 2020. This may resulted from the monetary policies (long term) and government administrations (short term)

Real GDP growth also reflected in the financial statement of Uber. As there was a 53% drop in their trips revenue. As the discretionary service (non-essential) provider, it highly correlated with the economic environment

Economic Analysis

Economic indicator in the US (Consumer Spending)



Source: Trading Economics

Key Takeaways:

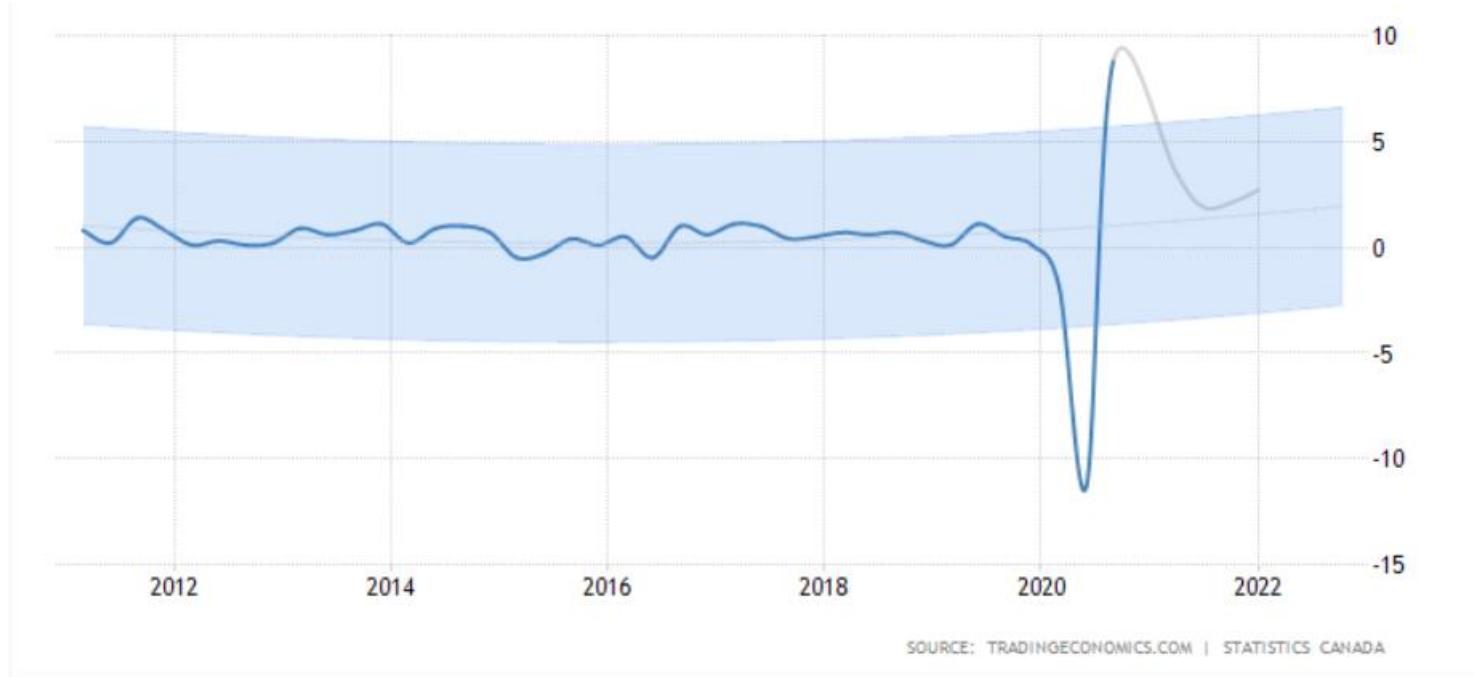
Consumer spending decreases due to the outbreak of covid-19. This may caused by the increasing unemployment rate, consumer sentiment, and cut the non-essential expenditure

Uber's business is affected by the city's lockdown, international travel restrictions, and lower demand for trips. As result of stay-home order, the gross booking for trips drop by 40 % annually.

The economic recovery is much quicker than the previous recessions. The market expectation regarding economic activity will resume to its pre-crisis level in 2021.

Economic Analysis

Economic Indicator in Canada (GDP Growth)



Key Takeaways:

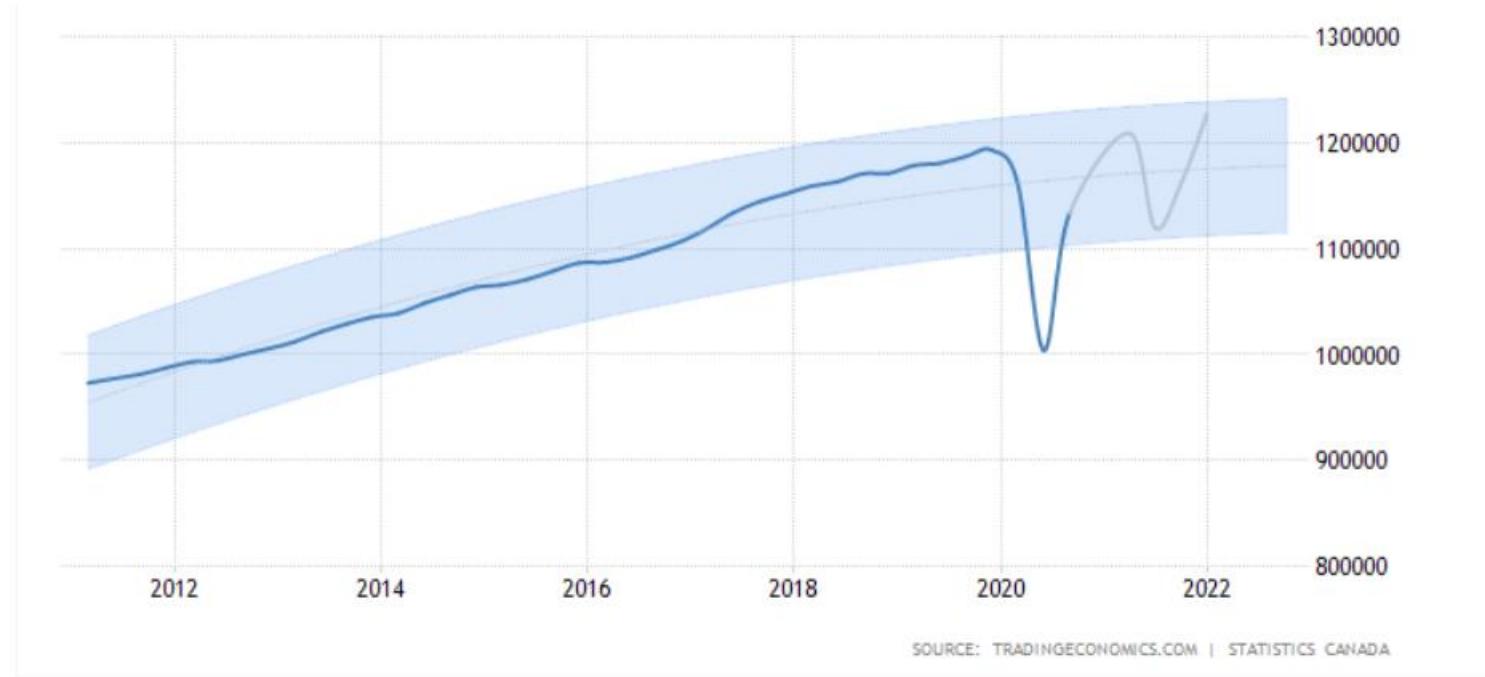
Since US is the largest trade partner to Canada. The two economy has the highly correlated trend.

Canadian economy also has significant bounce back in 2020 and 2021. It is expected to remain a pre-pandemic growth rate in 2022.

As Canada count for over 25% of Uber revenue. The strong economic recovery would benefits Uber's future cash flow in North America, where is the major market for the company.

Economic Analysis

Economic Indicator in Canada (Consumer Spending)



Source: Trading Economics

Key Takeaways:

Canadian consumers are more responsive compared to the US. Consumer spending trend has a higher volatility.

Similarly, the trend recovery is very quick. The consumer spending is expected to resume at its pre-pandemic level, and with a higher rate than the average.

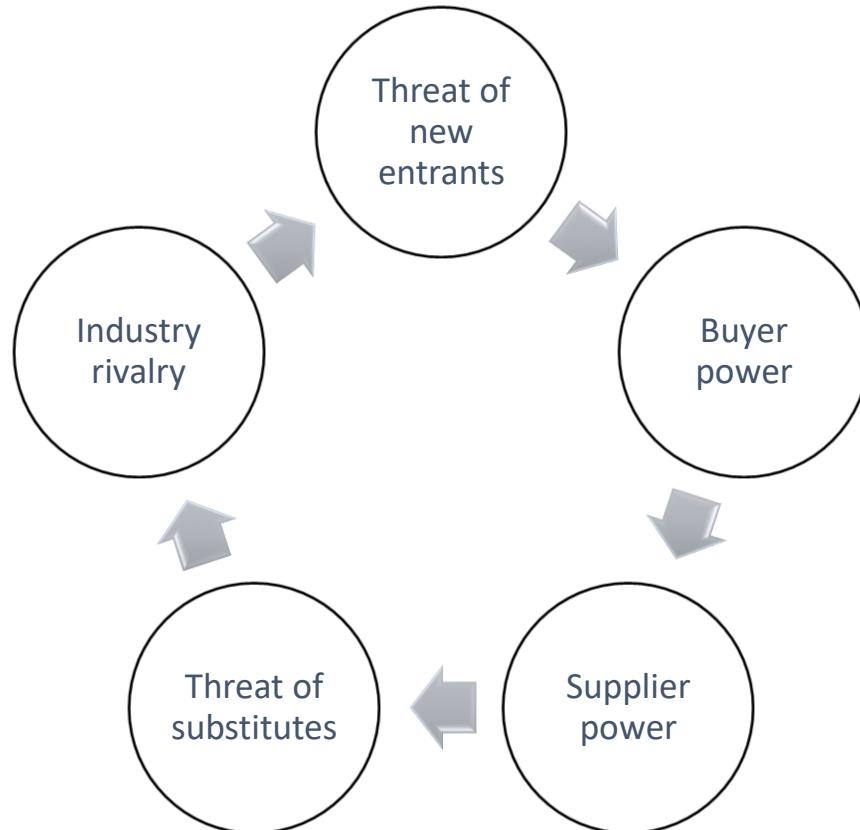
Industry Analysis: Porter's 5

Industry rivalry (Medium)

Even though Uber dominates the ride and delivery services in its main market. However, there are many global competitors where Uber had to exit the market (e.g. Didi in China) Uber has many competitors to compete, for example Lyft in ride services, and Door dash in Delivery services.

Threat of substitutes (low)

Uber offers diverse discretionary services, and it remains to be industrial leaders at its operating sectors. It is relatively hard for the consumers to chose the alternatives.



Threat of new entrants (low)

Considering the barrier of entrants is low, however, it is very hard to attract and retain the customers. It is expensive for new firms to operating their platform, and spend much more in branding to compete with a firm like Uber

Buyer Power (High)

Customers have many choices for either rides and delivery services. Uber often manage to offer better pricing to retain and attract clients.

Supplier Power (low)

Suppliers have relatively low power for Uber, since most of their income are highly related on the customers. And there is no union to ensure drivers' benefits.

Key Takeaways:

Buyer power is high for Uber's business since it offers non-discretionary services with many rivalry even though Uber is the leading firm in the industry. Due to the high competitive market, Uber needs to be innovative to keep the advantage. Uber did the great job in adopting new environment during the pandemic (e.g., new groceries delivery services, PPE and cleaning products for drivers)

Industry Analysis: PEST

Political	Economic	Sociological	Technological
There are many political topics regarding Uber, including passengers safety, government regulation (special license for some foreign countries), benefits for the drivers. It is a challenge for the management of Uber to consider its position and the political environment when operating in different countries.	Even though Uber suffered much from the pandemic, it is still a affordable choice for the trips. Uber is expected to have a strong recovery after the COVID-19. Uber's delivery service, UberEATS, seems to be one of the economic recovery stimulators to help small business (especially restaurants) to offset the part of their losses due to the lockdown order.	Uber managed to offer a easy-use platform for customers. Because its high-quality and high-efficiency service, Uber retains its consumers and continue to absorb the rest of market share. There are serval reports regarding "Uber addiction", saying some users were addicted to this new and convenient way to have the services.	As a technological company, Uber strategically manage its platform to get customers. Uber's manages its social media to give the updates regarding the firm's news and innovations. It continuously working to develop their platform in order to adapt the new environment. In the pandemic, UberEATS managed to delivery grocery; Uber rides managed to partner with healthcare institution to transfer patients (only in US).

Main Competitors



Lyft is a mobile app that offers rideshare services, it operates in the US and Canada. It is the second largest rideshare firm in the US. Recognized as the biggest competitor to Uber

DiDi is a mobile app that offers rideshare services, it operates mainly in the mainland China. It acquired Uber China in 2016, and Uber exited the Chinese market in the same year

Traditional taxi industry is still a competitor to Uber. Uber offers more affordable services than taxi, it took a large share of the traditional taxi market. Nowadays, taxi usually are chosen by those who do not familiar with technologies

DoorDash offers the online food delivery services mainly operating in the US and Canada. Recognized as the number 1 competitor to UberEATS in the US

GrubHub offers the online food delivery services globally. Mainly operating in the US, Canada, and UK.

SkipTheDishes is a Canadian online food delivery services. Recognized as a strong competitor to UberEATS in Canadian Market

Key Takeaways:

Uber has two major businesses: Ride and Delivery. Here are the main competitors for both sectors. The competition analysis will be explained in two aspects

Competition Analysis (Ride)

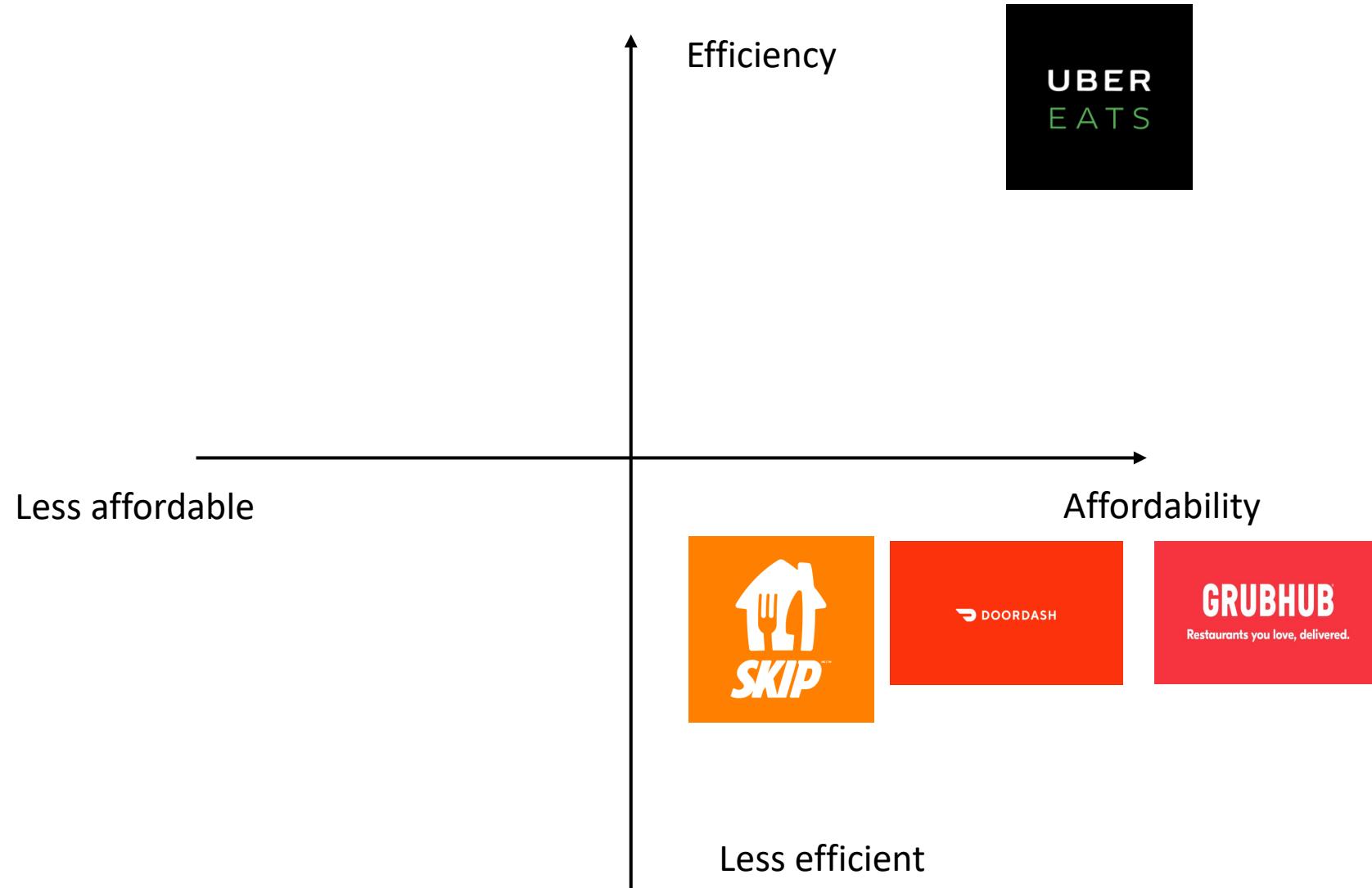


Key Takeaways:

Compare to traditional Taxi Industry, the rideshare companies have huge advantages in their affordability.

Excluding China, Uber dominated in its main market, such as the US, and Canada. As Uber has the most drivers available, it provides the best business efficiency among its competitors

Competition Analysis (Delivery)



Key Takeaways:

Uber has a natural advantage when it participating in the food delivery industry. It has a relatively mature platform, and more drivers available for delivery. This advantage makes Uber a competitive pricing firm with a higher efficiency.

SWOT Analysis

Strength <ul style="list-style-type: none">- A dominant firm: Uber is recognized as the number 1 market share firm in its main markets, both in rideshare and delivery.- Branding awareness: as a first player in the industry, Uber became a descriptive word for the rideshare services, it has the leading advantage.	Weakness <ul style="list-style-type: none">- Profitability: Uber keep losing money for many years. It spent much money to explore the market by providing coupons and discount. If Uber still have problem to be profitable in the next few year, it may undermine investors confidence.- Workforce: Uber's business income is inseparable from the drivers. However, many drivers claimed they are not satisfied to their current earnings.
Opportunities <ul style="list-style-type: none">- Autonomous Car: Uber is developing their autonomous car, it could possibly reduce the future cost of operating.- Freight: the new area to be developed to diversify the revenue stream.- Electrical Car: as the environment concerns raising recently, Uber could potentially receives subsidies from government if it encourage the drivers to use electrical vehicle by providing them the extra benefits.	Threats <ul style="list-style-type: none">- Government regulation and Laws: Uber exited many countries due to the restricted regulation and laws.- Safety concerns: it is relatively easier for people to become a Uber driver than a licensed taxi driver. Some people have concerns regarding the insurance if there is a road accident involves

How the firm competes

- **Brand Awareness:** Uber is a global brand that operating in many countries. Due to its quality service, Uber became a word for efficient and affordable. Uber values the customer service, and provide the accurate and real-time feedback, and it implicitly promotes the branding.
- **Diversified revenue:** Uber has a diversified revenue stream. It is a leading firm in many sectors. Most of the sectors are highly correlated, for example drivers and delivery, Uber could potentially build a large network with valuable data to analysis the future business direction.
- **Pricing Strategy:** Uber has a relative advantage in supply and demand to its competitor due to its large network. Uber is capable to offer lower price with less cost.

Valuation Drivers

- **Global Network:** Uber operates in over 69 countries over the world, and it is the largest network in the Ride and Delivery Industry. Uber benefited from its global network which provides more work opportunities and receive more profits. It also hedge some operating risk, if the business in a specific country was banned, there are many other places to operate. It ensures that the company has stable cash flow during the operating
- **Leading Technology:** Uber has the big advantage in the technologies. As the leading firm in the industry, Uber deliver the better services through a sophisticated and user-friendly platform. Beside that, Uber planned to launch the autonomous car in the near future which would help to reduce the cost of revenue in the future.
- **Solid User base:** Uber has established a rating system that helps improve customer services and services support for the demand side. Also for the supply side, there is tipping function for the drivers. Uber try to establish a sophisticated system that could maximize the satisfaction for both customers and drivers, and it is also cost in research and development. As more regulations and employee benefits in the future, this would cost Uber in short term. In the long run, it helps Uber to operate more efficiently and generates more stable cash flow.

Intrinsic Valuation (DCF)

WACC: Beta

Comparable Firms	Total Equity	Total Debt	5-Year Beta	Unlevered Beta
Booking Holdings	\$ 4,893.00	\$ 12,539.00	1.25	0.413293366
Grub Hub	\$ 1,416.80	\$ 615.42	0.86	0.64028358
Expedia	\$ 4,026.00	\$ 8,855.00	1.75	0.639253456
Netflix	\$ 11,065.24	\$ 18,510.83	0.83	0.357515755
Average			1.1725	0.512586539

Uber is a new IPO (2019 May) company with trading limited historical data for analysis. The trading data less than five years would be considered statistically less meaningful in beta calculation.

Therefore, apply relative risk measures of comparable firm to get the average Beta, as well as the unlevered beta for each firm by using formula: **unlevered beta= Beta/(1+(1-t)(D/E))** where tax rate 21% (U.S. Corporate tax rate).

Uber	Total Equity	Total Debt	Unlevered Beta	Estimated Levered Beta	Average Beta
	13,754.00	10,374.00	0.51	0.82	1.00

Use the averaged unlevered Beta as the assumed Uber's unlevered Beta. Then apply **unlevered Beta*(1+(1-t)(D/E)) to get Levered Beta**. To ensure the statistical correctness, take the average of comparable firms' Levered Beta, and Uber's levered Beta. The expected average Beta = $(1.1725+0.82)/2=1$

Key Takeaway: The Beta will be assumed as 1

WACC: Total Value of Firm

Debt (USD millions) 2020	
Bank Debt	\$2,564.00
Current Long-term Debt	\$330.00
Current Long-term Lease	\$352.00
Long-term Debt	\$7680.00
Non-Current Lease	\$1664.00
Total Debt	\$12,590.00

	Firm Value (USD millions)	Weight
Equity	\$99,133.20	88.73%
Debt	\$12,590.00	11.27%
Total Value		\$111,723.2

Equity (USD millions) 2020	
Share Price (2021-March 30)	\$53.27
Shares Outstanding	1860.9
Total Equity	\$99,133.20

WACC: Cost of Debt

Variable	Rationale	Value (USD millions)
Credit Spread– B	The interest expense is negative for Uber. Use the Corporate yield + Risk Free Rate as cost of debt	3.02%
Risk-free Rate	10-Year U.S. Treasury Note Mar-29-21	1.714%
Cost of Debt (after-tax)	Corporate yield + Risk Free Rate	4.73%

WACC: Cost of Equity

Variable	Rationale	Value
Rf: risk-free rate	10-year U.S. Treasury Note Mar-29-2021	1.714%
Beta	Comparable risk measures. See “WACC: Beta” for more details	1.00
Risk Premium	Damodarian Implied Equity Risk Premium Jan-2021	4.72%
Cost of Equity	$Rf + Beta * Risk\ Premium$	6.41%

WACC

Estimate	Rationale	Value
Weight of Debt - Wd	Debt/Firm Value	11.27%
Cost of Debt (Before Tax) - Kd	(Interest Expense)*(1-tax)/Debt	4.73%
Tax Rate	U.S. Corporate Tax Rate	21%
Weight of Equity - We	Equity/Firm Value	88.73%
Cost of Equity - Ke	Rf + Beta * Risk Premium	6.41%
WACC	$\text{WACC} = \text{Wd} * \text{Kd} * (1-T) + \text{We} * \text{Ke}$	6.11%

Analysis of Historical Data

	Historical Data						
(USD millions)	2016	2017	2018	2019	2020	Average	Average without COVID
Total Revenue	\$ 3,845.00	\$ 7,932.00	\$ 10,433.00	\$ 13,000.00	\$ 11,139.00	Trimmed Average: 28.07%	
Growth Rate		106.29%	31.53%	24.60%	-14.32%	37.03%	54.14%
Cost of Goods Sold	\$ 3,109.00	\$ 5,514.00	\$ 6,302.00	\$ 8,363.00	\$ 6,783.00		
% Revenue	80.86%	69.52%	60.40%	64.33%	60.89%	67.20%	68.78%
Operating Expense	\$ 2,575.00	\$ 4,564.00	\$ 5,036.00	\$ 7,925.00	\$ 5,899.00		
% Revenue	66.97%	57.54%	48.27%	60.96%	52.96%	57.34%	58.44%
Research & Development	\$ 864.00	\$ 1,201.00	\$ 1,505.00	\$ 4,836.00	\$ 2,096.00		
% Revenue	22.47%	15.14%	14.43%	37.20%	18.82%	21.61%	22.31%
Depreciation & Amortization	\$ 320.00	\$ 510.00	\$ 426.00	\$ 472.00	\$ 575.00		
% Revenue	8.32%	6.43%	4.08%	3.63%	5.16%	5.53%	5.62%
EBIT	-\$ 3,023.00	-\$ 3,857.00	-\$ 2,836.00	-\$ 8,596.00	-\$ 4,214.00		
Taxes	\$ 28.00	-\$ 542.00	\$ 283.00	\$ 45.00	\$ 192.00		
% EBIT	-0.93%	14.05%	-9.98%	-0.52%	-4.56%	-0.39%	0.66%
EBIT (1-T) or NOPAT	-\$ 3,051.00	-\$ 3,315.00	-\$ 3,119.00	-\$ 8,641.00	-\$ 4,406.00		
Depreciation & Amortization	\$ 320.00	\$ 510.00	\$ 426.00	\$ 472.00	\$ 575.00		
CAPEX	-\$ 1,629.00	-\$ 821.00	-\$ 558.00	-\$ 588.00	-\$ 616.00	Trimmed Average	
% Revenue	-42.37%	-10.35%	-5.35%	-4.52%	-5.53%	-13.62%	-7.08%

Key Takeaway:

- Revenue has impacted by the covid significantly. The data set has large variation from 2017 to 2020. It is important to consider the covid impact on the revenue projection.
- Operating expense, Research & Development, and Depreciation & Amortization were less volatile, the data moves around the sample mean. Therefore, the sample mean is meaningful for the data projection. However, as firm expand its Business, the changes would be applied in adjusting the growth rate and % revenue.
- Cost of Revenue is affected by COVID factor, more information in following slides.

Analysis of Historical Data

USD millions	2016	2017	2018	2019	2020	Average	Trimmed Average
Depreciation & Amortization	\$ 320.00	\$ 510.00	\$ 426.00	\$ 472.00	\$ 575.00		
% Revenue	8.32%	6.43%	4.08%	3.63%	5.16%	5.53%	
CAPEX	-\$ 1,629.00	-\$ 821.00	-\$ 558.00	-\$ 588.00	-\$ 616.00		
% Revenue	-42.37%	-10.35%	-5.35%	-4.52%	-5.53%	-13.62%	-7.08%

Key Takeaways:

- Depreciation & Amortization section is relatively stable since 2017, the data variate around the sample mean value of 5.53%. Since the company does not have much inventory (e.g., cars) that were counted in the depreciation.
- For Capex, the data exhibited a large variation from 2016 to 2020, however, it is worth to mention that the capital expenditure starts act stabilized since 2018. To ensure the effectiveness of data interpretation. Use Trimmed average as the projection % revenue in assumption, which is exclude the maximum value and minimum value from the data set to limit the influence of extreme values

Analysis of Historical Data (COVID factor): Part 1

Historical Data (Revenue)						
YR	Pre-COVID		COVID-19			Total
	Q1	Q2	Q3	Q4		
2020 \$	3,543.00	\$ 2,241.00	\$ 3,129.00	\$ 2,226.00	\$ 11,139.00	
2019 \$	3,099.00	\$ 3,166.00	\$ 3,813.00	\$ 2,922.00	\$ 13,000.00	
Change %	14.33%	-29.22%	-17.94%	-23.82%	-14.32%	
Deviation (COVID Factor)		43.60%	47.46%	22.07%	37.71%	
YR	Q1		Q2	Q3	Q4	Total
	2019	\$3,099.00	\$3,166.00	\$3,813.00	\$2,922.00	\$ 13,000.00
2018 \$	2,584.00	\$ 2,768.00	\$ 2,944.00	\$ 2,974.00	\$ 11,270.00	
Change %	19.93%	14.38%	29.52%	-1.75%	15.35%	

Quarterly Revenue Distribution Estimation					
	Q1	Q2	Q3	Q4	Total
2018	24.77%	26.53%	28.22%	28.51%	100.00%
2019	23.84%	24.35%	29.33%	22.48%	100.00%
2020	31.81%	20.12%	28.09%	19.98%	100.00%
Average exclude 2020	24.30%	25.44%	28.77%	25.49%	
Average Include 2020	26.80%	23.67%	28.55%	23.66%	

Key Takeaways:

- By analysing the quarterly growth rate of 2018 to 2019 and 2019 to 2020 (First Graph). It is noticed that how COVID affected Uber's revenue by percentage. Use the deviation of data from two selected periods, $15.35\% - (-14.32\%) = 37.71\%$. This is the quantitative interpretation of the annual COVID factor with assumption of held all other variable constant, it is also be used as the assumption of valuation.
- By analysing quarterly revenue distribution, it shows that Q3 usually contributes most of the annual revenue. It also gives an estimate that how COVID factor will influence each quarterly revenue. The "Average include 2020" is more meaningful since the COVID factor has already been included.

Analysis of Historical Data (COVID factor): Part 2

Quarterly Revenue Growth Rate						
YR	Q1	Q2	Q3	Q4	Average (All quarterly)	
Growth Rate	2020 \$	3,543.00	2241	3129	2226	-1.18%
		21.25%	-36.75%	39.63%	-28.86%	
Growth Rate	2019	\$3,099.00	3166	3813	2922	0.86%
		4.20%	2.16%	20.44%	-23.37%	
Growth Rate	2018 \$	2,584.00	2768	2944	2974	4.83%
		7.12%	6.36%	1.02%		
Average (Quarterly)		12.73%	-9.16%	22.14%	-17.07%	
Average (without COVID)		12.73%	4.64%	13.40%	-11.17%	
Expected Growth Rate 2021		12.73%	-2.26%	17.77%	-14.12%	

Key Takeaways:

- By calculating the quarterly growth rate for last 3 years. It could get the average quarterly growth rate for with/without COVID factor.
- Since 2021 is still a challenging year for COVID control, and with the assumption of people will get vaccinated by the early Q4, 2021. The expected growth rate 2021 should be the quarterly average of the with COVID and without COVID. See the highlighted area of the table. This would be used as the quarter revenue growth rate for each quarter in assumption.

Analysis of Historical Data (COVID factor): Part 3 - 1

YR	2020-Q4	Q1	Projection Periods							
			Post COVID (COVID effect)				New Normal (COVID Recovery)			
			2021		2022					
Total Revenue	\$ 2,226.00	\$ 2,284.33	\$ 2,028.91	\$ 2,171.02	\$ 2,027.60	\$ 2,413.99	\$ 2,707.34	\$ 3,223.59	\$ 3,635.47	
COVID factor	22.07%	10.11%	8.92%	10.76%	-7.52%	-6.33%	-7.51%	-5.67%	-23.95%	
Estimate Growth Rate		12.73%	-2.26%	17.77%	-14.12%	12.73%	4.64%	13.40%	-11.17%	
Adjusted Growth Rate		2.62%	-11.18%	7.00%	-6.61%	19.06%	12.15%	19.07%	12.78%	
Annual Revenue	\$			8,511.87	\$				11,980.40	
Growth Rate			-23.58%				40.75%			
COVID Recovery Factor										
		16.44%								

Key Takeaways:

- To ensure the most precise revenue projection, expand the revenue matrix in quarterly, and have the weighted distribution for the COVID factor for each quarter.
- Projection calculation process:
 - 1. COVID factor: see “Analysis of Historical Data part 1” for COVID factor =37.71%.
 - 2. Estimate Growth Rate: multiply total COVID factor by quarterly revenue distribution. Note in assumption, people will be vaccinated in Q4 2021, it is important to add COVID Recovery Factor of 16.44% which is Average Growth Rate – COVID factor.
 - 3. Adjusted Growth Rate is the difference between Estimate Growth Rate and COVID factor.
- The projected growth rate assumption for 2021 and 2022 are -23.58% and 40.75% respectively.

Analysis of Historical Data (COVID factor): Part 3 - 2

	Cost of Revenue					2020	Average
	2016	2017	2018	2019			
Revenue	\$ 3,845.00	\$ 7,932.00	\$ 10,433.00	\$ 13,000.00	\$ 11,139.00		
Cost of Revenue	\$ 3,109.00	\$ 5,514.00	\$ 6,302.00	\$ 8,363.00	\$ 6,783.00		
% of Revenue	80.86%	69.52%	60.40%	64.33%		60.89%	67.20%
Variation		-14.03%	-13.11%	6.50%		-5.34%	-6.49%
Expected % Revenue						60.71%	

Key Takeaways:

- In developing the projected cost of revenue for 2021. Find the historical average of cost of revenue, and then adjust it by adding the variation to ensure that it is a good estimator.
- For the following projection year, the cost of revenue will decrease proportionally as the development of autonomous cars, full employees, and increasing market shares, network synergy, and proper regulations.

Last Twelve Months Revenue

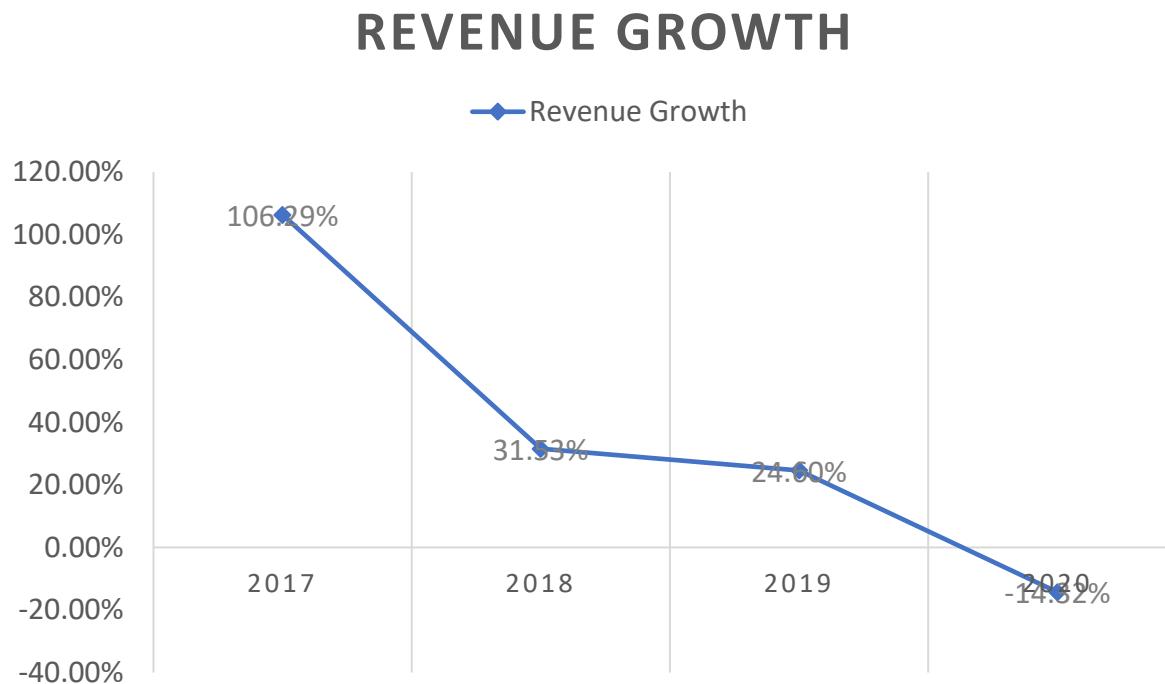
Quarter	Date Ended	Revenue (USD millions)
Q1	Mar-31-2020	\$3,543.0
Q2	Jun-30-2020	\$2,241.0
Q3	Sep-30-2020	\$3,129.0
Q4	Dec-31-2020	\$2,226.0
Last 12 Months Revenue		\$11,142.0

Forecast Assumptions

Financial Statement Line Item	Historical Average	Forecast Assumption	Rationale
Revenue	37.03%	Varies	Uber's revenue was impacted by the COVID in 2020. In considering the continuous impact in early 2021, the COVID recovery period in late 2021, with the diminishing revenue growth for fast growth company. The revenue varies in the projection period.
Cost of Revenue	67.20%	Varies	The cost of revenue was significantly high for Uber since it spent lot of money to expand the market and attract the customers. As the growth of the company, the cost of revenue is expected to decline in the projection years in different percentage.
Operating Expense	57.34%	Varies	The operating expense also counts a large part of Uber's revenue. It could be seen that the operating expense will decline as full employee, regulation, and completing a mature operating system.
Depreciation & Amortization	5.53%	5.53%	The depreciation & Amortization is relatively stable for Uber, since Uber does not own business inventory. Therefore, the historical average is reason for the projection.
Research & Development	21.61%	Varies	For a technology company, the research & development count large percentage of the revenue. As the present COVID and autonomous technology in 2023, 2021 and 2023 spend would slightly higher than other years. Other years remain stable for the firm development.
Tax	0%	0%	Uber had experienced negative earnings for years and has a lot of unused tax loss carry forward. The "Tax" page in excel shows that Uber will be eligible to pay 0 tax in the projection periods.
Capex	-13.62%	-7.8%	The historical capital expenditure has large volatility with the decline trend. Since the extreme value in 2016 does not mean much in analysis of the capex. Take the trimmed average for the capex in the projection period.

Historical Revenue Growth Analysis

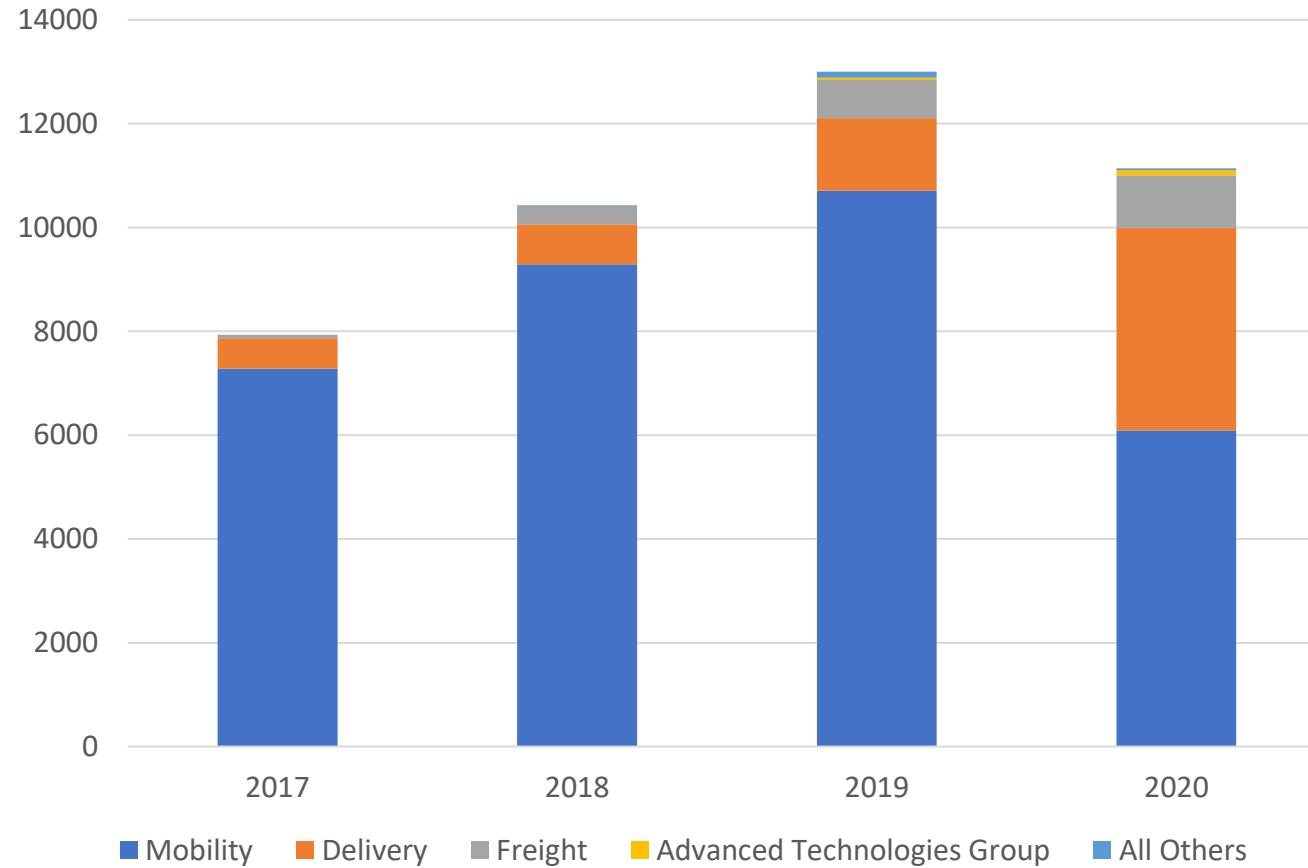
(USD millions)	2016	2017	2018	2019	2020	Average without COVID	Trimmed average
Total Revenue	\$ 3,845.00	\$ 7,932.00	\$ 10,433.00	\$ 13,000.00	\$ 11,139.00		
Growth Rate		106.29%	31.53%	24.60%	-14.32%	37.03%	54.14%



Key Takeaways:

- The revenue growth declines as the growth of the business, it is difficult to remain a high growth over time. It is worth to mention that the 20% annual growth rate is still considered a high growth rate.
- The Uber's revenue significantly impacted by COVID, the growth rate is negative in 2020.

Historical Revenue Growth Analysis



Key Takeaways:

- Revenue keeps growing before the pandemic.
- The revenue generated by Delivery has the highest growth rate. In 2020, as the impact of COVID, the revenue increased significantly. It has the similar total similar percentage to the Ride business.

Historical Revenue Growth Analysis

(USD millions)	2016	2017	2018	2019	2020	Average	Average without COVID
Mobility	\$7,278.00	\$9,288.00	\$10,707.00	\$6,089.00			
Growth Rate		27.62%	15.28%	-43.13%	-0.08%		21.45%
Delivery	\$587.00	\$772.00	\$1,401.00	\$3,904.00			
Growth Rate		31.52%	81.48%	178.66%	97.22%		56.50%
Freight	\$67.00	\$356.00	\$731.00	\$1,011.00			
Growth Rate		431.34%	105.34%	38.30%	191.66%		268.34%
Advanced Technologies Group			\$42.00	\$100.00			
Growth Rate				138.10%	138.10%		138.10%
All Others		\$17.00	\$119.00	\$35.00			
Growth Rate			600.00%	-70.59%	264.71%		600.00%

Key Takeaways:

- All revenue streams have been growing before 2020.
- The Mobility (main business) suffered most by the pandemic and lockdown.
- The Delivery and Freight were benefited by the pandemic and their growth had a impressive performance in 2020.
- And “Advanced technologies Group” and “All Others” counts less percentage of total revenue, and since the sample size is small, the growth rate is not very meaningful.

Abnormal Economic Activity

- The COVID-19 lead the ride business down over 50% in 2020, because of the lockdown order, less international tourists, and less social activities.
- The Delivery was significantly benefited from the COVID and people could only order online from the restaurants. As the largest firm in delivery market share, UberEATS had a growth rate of 170% in 2020. And therefore, the Delivery supported the revenue and cashflow for Uber in 2020 and 2021. However, as the ride business is continuous impacted by pandemic, the Uber will still have difficulty to have the high revenue growth rate in 2021.
- As the vaccination and economy recovery, and people will get vaccinated in late 2021. Uber is expected to have a huge growth in 2022.
- The new technology adoption (e.g., autonomous car) is expected to help Uber cut some percentage of its cost of revenue in the future.
- The high growth rate is expected to decline in 2023 to 2025 for higher growth company (e.g., Uber), which could be explained by economic theory: marginal returns and diminishing growth returns.

Revenue Growth Summary

Year	2021	2022	2023	2024	2025
Growth Rate	-23.58%	40.75%	28.07%	14.03%	10.53%
Rationale	The quantitative method to project the growth rate for 2021. Took the expected quarterly Revenue Growth Rate minus the quarterly distributed COVID factor to estimate the adjusted growth rate for each quarterly, then to get the estimated annual growth rate -23.58%. And as the COVID significantly affect Uber's major business. It is hard for Uber to expand its market today, and keep operating in a inefficient way.	Also according to quantitative method to project the growth rate in 2022. The assumption tells that people will get vaccinated in Q4, 2021. Therefore, in projection, it needs to consider the COVID recovery factor, which could use the difference between average growth rate and the COVID factor. In 2022, Uber is expected to expand its market as COVID recovery, and expected new IPO company high growth rate.	The growth rate is expected to slow down in 2023 as the business tend to be stabilized. Use the trimmed average in historical revenue analysis, take out the maximum and minimum growth rate which are the expanding year and COVID year. therefore to have a relative precise estimation on Uber's performance. The high growth rate is also supported by the expectation of autonomous Uber drive.	The high growth rate is expected to be diminishing in 2024 as the economic diminishing returns, large market share with no necessary expansion, and industrial rivals in emerging markets.	The high growth rate keeps diminishing in 2025 as the stabilized business structure, market, and customers. The traditional business model starts generates stable cash flow without extreme growth rate.

NCWC Analysis

	Actual					Assumption	Forecast				
	2016	2017	2018	2019	2020		2021	2022	2023	2024	2025
Sales	\$ 3,845.00	\$ 7,932.00	\$ 10,433.00	\$ 13,000.00	\$ 11,139.00		\$ 8,512.42	\$ 11,981.24	\$ 15,344.08	\$ 17,497.43	\$ 19,339.10
Account Receivable	387	739	919	1214	1073						
AR as % of sales	10.07%	9.32%	8.81%	9.34%	9.63%						
Inventory	\$ -	\$ -	\$ -	\$ -	\$ -						
Inventory as % of sales	0%	0%	0%	0%	0%						
Other Non-cash CA	\$ 1,159.00	\$ 585.00	\$ 300.00	\$ 861.00							
Other Non-cash CA as % of sales	14.61%	5.61%	2.31%	7.73%							
Non-cash Current Assets	\$ 387.00	\$ 1,898.00	\$ 1,504.00	\$ 1,514.00	\$ 1,934.00						
Non-cash Current Assets as % of sales	10.07%	23.93%	14.42%	11.65%	17.36%						
Account payable & accruals	\$ 1,507.00	\$ 2,511.00	\$ 3,720.00	\$ 4,786.00	\$ 5,260.00						
Account payable & accruals as % of sales	39.19%	31.66%	35.66%	36.82%	47.22%						
Other liabilities	\$ 677.00	\$ 904.00	\$ 180.00	\$ 271.00	\$ 372.00						
Other liabilities as % of sales	17.61%	11.40%	1.73%	2.08%	3.34%						
Current Liabilities	\$ 2,184.00	\$ 3,415.00	\$ 3,900.00	\$ 5,057.00	\$ 5,632.00						
CL as % of sales	56.80%	43.05%	37.38%	38.90%	50.56%						
Non-cash NWC	-\$ 1,797.00	-\$ 1,517.00	-\$ 2,396.00	-\$ 3,543.00	-\$ 3,698.00	-\$ 2,366.45	-\$ 3,330.78	-\$ 4,265.65	-\$ 4,864.29	-\$ 5,376.27	
Non-cash NWC as % of sales	-46.74%	-19.13%	-22.97%	-27.25%	-33.20%	-27.80%	-27.80%	-27.80%	-27.80%	-27.80%	
Change in Non-cash NWC	\$ 280.00	\$ 879.00	\$ 1,147.00	\$ 155.00		\$ 1,331.55	\$ 964.33	\$ 934.87	\$ 598.63	\$ 511.98	

DCF - NOPAT

		ASSUMPTION	FORECAST PERIOD				
			2021	2022	2023	2024	2025
REVENUE % REVENUE GROWTH	2020	\$ 11,139.00	\$ 8,512.42	\$ 11,981.24	\$ 15,344.08	\$ 17,497.43	\$ 19,339.10
			28.07%	-23.58%	40.75%	28.07%	14.03%
COSTS % OF REVENUE			\$ 5,167.60	\$ 6,075.28	\$ 6,246.05	\$ 6,597.68	\$ 6,711.94
			60.71%	60.71%	50.71%	40.71%	37.71%
Operating Expense % OF REVENUE			\$ 4,881.00	\$ 5,072.82	\$ 4,962.23	\$ 4,783.75	\$ 4,707.09
			57.34%	57.34%	42.34%	32.34%	27.34%
DEPRECIATION & AMORTIZATION % OF REVENUE			\$ 470.37	\$ 662.04	\$ 847.86	\$ 966.84	\$ 1,068.61
			5.53%	5.53%	5.53%	5.53%	5.53%
Research & Development % OF REVENUE			\$ 1,931.51	\$ 2,589.15	\$ 3,647.44	\$ 3,781.20	\$ 4,179.18
			21.61%	22.69%	21.61%	23.77%	21.61%
EBIT % OF EBT			-\$ 3,938.06	-\$ 2,418.05	-\$ 359.50	-\$ 1,367.96	-\$ 2,672.29
			0.00%	0.00%	0.00%	0.00%	0.00%
A) EBIT (1-TAX)or NOPAT			-\$ 3,938.06	-\$ 2,418.05	-\$ 359.50	-\$ 1,367.96	-\$ 2,672.29

DCF - Output

	ASSUMPTION		FORECAST PERIOD					
			2021	2022	2023	2024	2025	
A) EBIT (1-TAX)or NOPAT		-\$	3,938.06	-\$	2,418.05	-\$	359.50	\$
1) DEPRECIATION &AMORTIZATION		\$	470.37	\$	662.04	\$	847.86	\$
2) CAPEX	% OF REVENUE	-\$ -7.08%	602.68 -7.08%	-\$ -7.08%	848.27 -7.08%	-\$ -7.08%	1,086.36 -7.08%	-\$ -7.08%
3) NON-CASH WORKING CAPITAL		\$	1,331.55	-\$	964.33	-\$	934.87	-\$
B) ENTERPRISE CASH FLOW (FCFF)		-\$ 6.22%	4,196.56	\$	56.59	\$	2,509.58	\$
1) PV OF FCFF (YRS 1 TO 5)	\$	5,629.92	-\$	3,950.95	\$	50.16	\$	2,094.24
Terminal Growth Rate			2.08%					
Terminal Value							TV YR5 \$	138,888.81
2) PV of Terminal Value	\$	102,732.47					TV = (FCFF5 x 1.02)/(0.10-.02)	
3) Net Deferred Tax Assets	\$	-						
c) ENTERPRISE VALUE(VALUE OF FIRM)	\$	108,362.39						
FUNDED DEBT (INTEREST BARING)	\$	12,590.00						
CASH	\$	5,647.00						
D) VALUE OF EQUITY	\$	101,419.39						
Number of Shares Outstanding		1,860.900						
E) PRICE PER SHARE	\$	54.50						

Terminal Growth

Year	US Inflation Rate	US real GDP Growth Rate	
2000	3.40%	4.10%	
2001	2.80%	1.00%	
2002	1.60%	1.70%	
2003	2.30%	2.90%	
2004	2.70%	3.80%	
2005	3.40%	3.50%	
2006	3.20%	2.90%	
2007	2.80%	1.90%	
2008	3.80%	-1.00%	
2009	-0.40%	-2.50%	
2010	1.60%	2.60%	
2011	3.20%	1.60%	
2012	2.10%	2.20%	
2013	1.50%	1.80%	
2014	1.60%	2.50%	
2015	0.10%	3.10%	
2016	1.30%	1.70%	
2017	2.10%	2.30%	
2018	2.40%	3.00%	
2019	1.80%	2.20%	
2020	2.10%	-3.50%	Estimated Terminal Growth Rate
Trimmed mean	2.21%	1.96%	Average 2.08%

Source: US Inflation Calculator Source: Statista

Key Takeaways:

- The terminal Value is usually between 2% - 4%, the percentage could be referred as the GDP growth rate or inflation rate.
- Take the sample of U.S. Inflation rate and the Real GDP Growth rate, and take the trimmed average to have the estimated Terminal Growth Rate.

Terminal Value

Terminal Value

FCFF 2025	\$ 5,622.08
TV growth rate	2.08%
WACC	6.22%
Terminal Value	\$ 138,888.81
<u>PV of Terminal Value</u>	<u>\$ 102,732.47</u>

Lease

	2019	2020
Liabilities, mezzanine equity and equity		
Accounts payable	\$ 272	\$ 235
Short-term insurance reserves	1,121	1,243
Operating lease liabilities, current	196	175
Accrued and other current liabilities	4,050	5,112
Liabilities held for sale	—	100
Total current liabilities	5,639	6,865
Long-term insurance reserves	2,297	2,223
Long-term debt, net of current portion	5,707	7,560
Operating lease liabilities, non-current	1,523	1,544
Other long-term liabilities	1,412	1,306
Total liabilities	16,578	19,498

Key Takeaways:

Total current lease for 2020 is \$175, and non-current operating lease is \$1,544. It counts approximately 13% of total revenue for 2020.

Funded Debt

2020	USD millions
Bank Debt	\$2,564.00
Current Long-term Debt	\$330.00
Current Long-term Lease	\$352.00
Long-term Debt	\$7,680.00
Non-Current Lease	\$1,664.00
Funded Debt	\$12,590.00

Sensitivity Analysis

		TV Growth Rate				
		2.08%	2.50%	3.00%	3.50%	4.00%
Revenue Growth	11.69%	\$ 55.23	\$ 61.81	\$ 71.98	\$ 85.90	\$ 106.09
	12.69%	\$ 58.49	\$ 65.42	\$ 76.14	\$ 90.79	\$ 112.06
	13.69%	\$ 61.88	\$ 69.18	\$ 80.46	\$ 95.89	\$ 118.28
	14.69%	\$ 65.42	\$ 73.10	\$ 84.96	\$ 101.19	\$ 124.75
	15.69%	\$ 69.09	\$ 77.17	\$ 89.49	\$ 106.71	\$ 131.48
		WACC				
Revenue Growth		5.22%	6.22%	7.22%	8.22%	9.22%
	11.69%	\$ 75.81	\$ 54.37	\$ 41.25	\$ 32.49	\$ 26.22
	12.69%	\$ 80.18	\$ 57.53	\$ 43.77	\$ 34.54	\$ 27.94
	13.69%	\$ 84.74	\$ 60.89	\$ 46.40	\$ 36.68	\$ 29.73
	14.69%	\$ 89.47	\$ 64.38	\$ 49.13	\$ 38.91	\$ 31.59
WACC		2.08%	2.50%	3.00%	3.50%	4.00%
	5.22%	\$75.84	87.88744	108.3584	140.7556	199.7846
	6.22%	\$54.50	60.92646	70.85451	84.43731	104.1482
	7.22%	\$41.53	45.45714	51.20532	58.50016	68.06297
	8.22%	\$32.83	35.44652	39.14025	43.61712	49.15576
	9.22%	\$26.61	28.45466	30.99742	33.98499	37.54528

Key Takeaways:

- The share price is more sensitive to TV growth Rate and WACC than Revenue Growth Rate.
- If all factor remains constant, a lower WACC increase the DCF share price, and a higher terminal growth rate increase the DCF share price.
- In Uber's intrinsic valuation, a conservative WACC of 6.22% is being adopted due to the uncertainty during the pandemic.

Relative Valuation



RV metric

EV / Revenue	Price / Sales
<ul style="list-style-type: none">• EV / Revenue measures the value to purchase a firm's value in term of sales.• EV / Revenue is more accurate than the Price / Sales since it take account of debt and cash. Therefore, assigning higher weight allocation.	<ul style="list-style-type: none">• Price / Sales measures the cost of per sales that investors willing to pay.• Since it does not take account of cash and debt, there fore assigning less weight allocation.
Weight Distribution: 65%	Weight Distribution: 35%

Note:

For a new IPO company, Uber, has limited historical data to research the price multiple. The firm currently has negative earnings, EBIT, and EBITDA. Therefore, there are only two price multiples available for the relative valuation (exclude inappropriate ratios such as P/B ratio)

After consult with Professor Michael, two RV metric for Uber is approved.

Comparable Firms



NASDAQ: BKNG	NYSE: GRUB	NASDAQ: LYFT	NASDAQ: EXPE	NASDAQ: NFLX
The American Travel technology company that is known for online booking system. The same way to generate cash flow with Uber, the revenue mainly generated by gross booking.	The second largest competitor to UberEats in the United States. The company offers food delivery services. Similar business model to the UberEats.	The main competitor to Uber Ride business in North America. The Company offers ride services. It is recognized as the main competitor to Uber in ride services.	The American Travel shopping company. Same as the Booking Holdings, the company generates revenue by gross booking. Uber, Booking, and Expedia have the similar profit model.	The American over-the-top content platform that provide streaming services. Both Uber and Netflix provide a platform and information to consumers to enjoy the services.

RV Multiples Development

In Millions (USD) Dec 31, 2020	Market Cap	Price per share	Share Outstanding	Revenue	EV	EBITDA
Booking Holdings	\$ 97,589.80	\$ 2,382.46	\$ 41.00	\$ 6,796.00	\$ 95,961.80	\$ 1,038.00
Grub Hub	\$ 5,910.60	\$ 63.38	\$ 93.30	\$ 1,820.00	\$ 6,112.60	-\$ 26.80
Expedia	\$ 25,310.10	\$ 175.93	\$ 143.90	\$ 5,199.00	\$ 33,171.10	-\$ 1,227.00
Netflix	\$ 238,906.60	\$ 539.42	\$ 442.90	\$ 24,996.10	\$ 249,211.80	\$ 4,701.00
Lyft	\$ 21,262.10	\$ 64.64	\$ 328.90	\$ 2,364.70	\$ 20,033.50	\$ 1,600.90

Weights	Comparable Firms	EV/Revenue	Price/Sale	Weight Allocation Rationale
25%	Booking Holdings	14.12	14.36	Similar profits model and revenue generation 25%
10%	Grub Hub	3.36	3.25	Similar only in Delivery service, therefore, assign less weight 10%
25%	Expedia	6.38	4.87	Similar profits model and revenue generation 25%
10%	Netflix	9.97	9.56	Similar in business idea, not market capitalization and other aspects 10%
30%	Lyft	8.47	8.99	The major competitor and similar profits model, and business model 30%
100%	Average	9.00	8.79	

Key Takeaways:

- These are the financial data for the comparable firms
- In order to have the most accurate relative comparison, assign the appropriate weight for each company.

RV Price Reconciliation

EV/Revenue	9.00	Price/Sales	8.79
Revenue 2020	\$ 11,139.00	Revenue 2020	\$ 11,139.00
Estimated EV	\$ 100,246.37	Estimated Market Capitalization	\$ 97,856.21
Cash	\$ 5,647.00	Shares outstanding	1860.9
Debt	\$ 12,590.00	Share price	\$ 52.59
Market Cap	\$ 93,303.37		
Shares Outstanding	1860.9		
Share price	\$ 50.14		

RV Reconciliation	Estimated Share Price	Weight
EV / Revenue	\$50.14	65%
Price / Sales	\$52.59	35%
Reconciliation Price	\$51	

Reconciliation



Reconciliation

DCF valuation	
Price Per Share	\$54.50
Weight:	70%

Rationale:

The intrinsic valuation takes the consideration of company itself when designing the assumption and projection. The projection is more tailored for the specific firm with the unique characteristics, for example, the economy, policies, and internal affair. In general, the DCF method is based on cash flow, growth and risk. Therefore, assign more weight on the DCF valuation with 70%.

RV valuation	
Price Per Share:	\$51.00
Weight:	30%

Rationale:

The relative valuation takes the consideration of pricing, market expectation, and industrial comparable firms. The RV price must be considered when the market rewards the early-stage technology companies, while it does not take account of factors from the fundamental. The RV valuation focus more on current market price of comparable firms. Therefore, assign less weight on the RV with 30%.

Reconciliation Price: \$53.45

Recommendation

Implied Share Price: \$53.45

\$57.68

Market Price Per share
April 9, 2021

\$54.50

DCF Price per Share

\$51.00

RV Price per Share

Sell Recommendation

- The reconciliation share price indicates that the Uber stock is currently trading at a premium and generally overvalued with a downside of 7.3%
- The pandemic is still a challenge for Uber in 2021 as the continuous impact on its main business (ride)
- It has been a challenge for so long for Uber to be profitable. In the current financial analysis, the heavy cost of revenue and high operating expense are the issues that being await to be solved.
- Although Uber has a profitable profit model and adopting the technological innovation that could potentially improve the operating efficiency, it is relatively a riskier (volatile) equity to hold.
- Therefore, the sell recommendation for the Uber Technologies Inc.