NARRATIVE AND NUMBERS: EVERY VALUATION TELLS A STORY!

Stories and Numbers

Setting the Stage: Value is not Price

Drivers of intrinsic value
- Cashflows from existing assets
- Growth in cash flows
- Quality of Growth

Drivers of price
- Market moods & momentum
- Surface stories about fundamentals

Accounting Estimates

Valuation Estimates

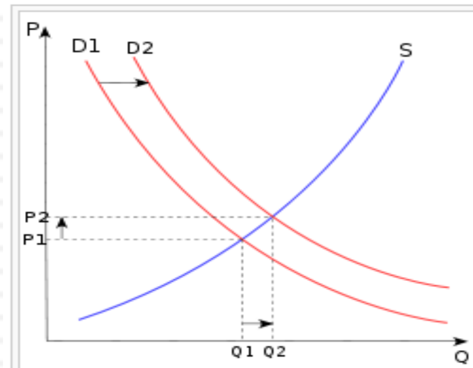
INTRINSIC VALUE

Value

THE GAP
Is there one?
If so, will it close?
If it will close, what will cause it to close?

Price

PRICE



And don't assume that D+CF = DCF

- The value of a risky asset can be estimated by discounting the expected cash flows on the asset over its life at a risk-adjusted discount rate:

$$\text{Value of asset} = \frac{E(CF_1)}{(1+r)} + \frac{E(CF_2)}{(1+r)^2} + \frac{E(CF_3)}{(1+r)^3} \ldots\ldots + \frac{E(CF_n)}{(1+r)^n}$$

1. *The IT Proposition*: If "it" does not affect the cash flows or alter risk (thus changing discount rates), "it" cannot affect value.
2. *The DUH Proposition*: For an asset to have value, the expected cash flows have to be positive some time over the life of the asset.
3. *The DON'T FREAK OUT Proposition*: Assets that generate cash flows early in their life will be worth more than assets that generate cash flows later; the latter may however have greater growth and higher cash flows to compensate.

The Key Questions in valuation…

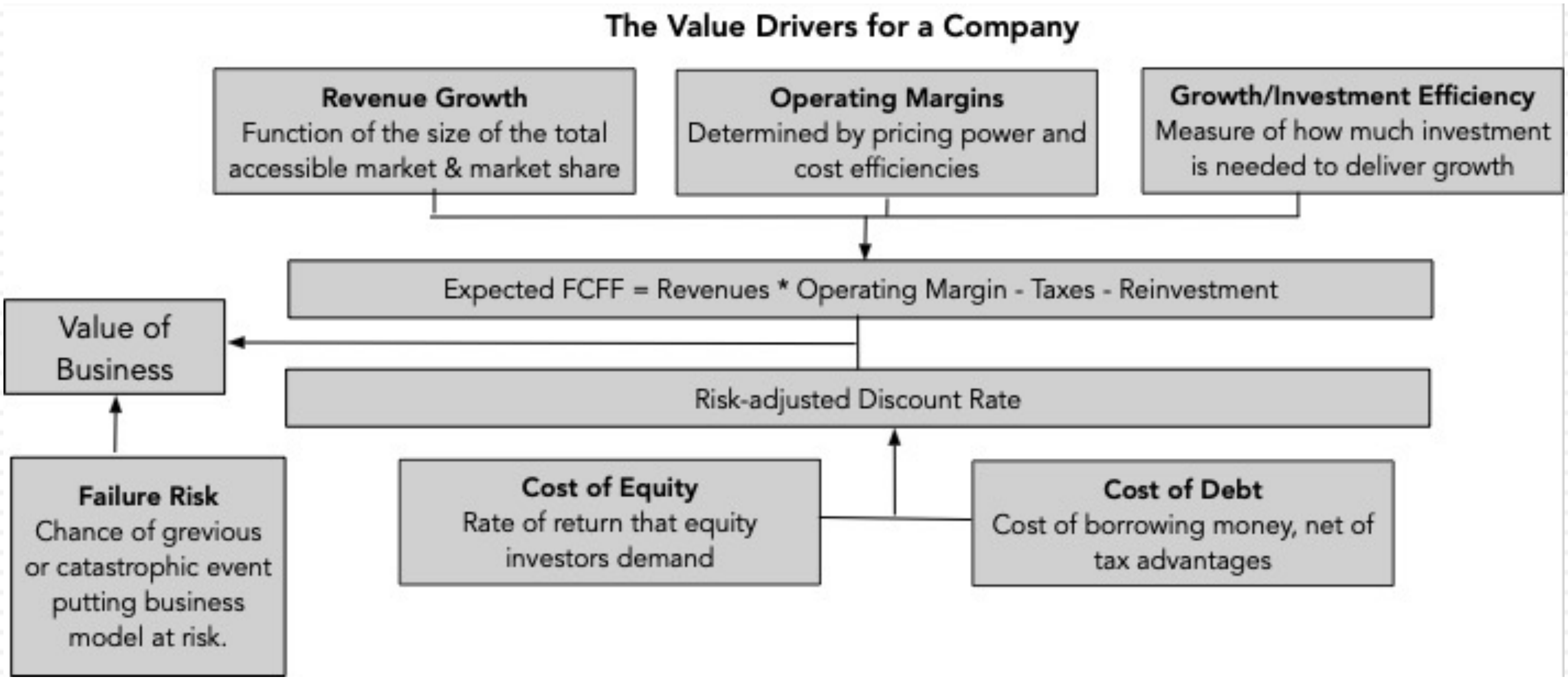
What is the **value added** by growth assets?
Equity: Growth in equity earnings/ cashflows
Firm: Growth in operating earnings/ cashflows

What are the **cashflows from existing assets**?
- Equity: Cashflows after debt payments
- Firm: Cashflows before debt payments

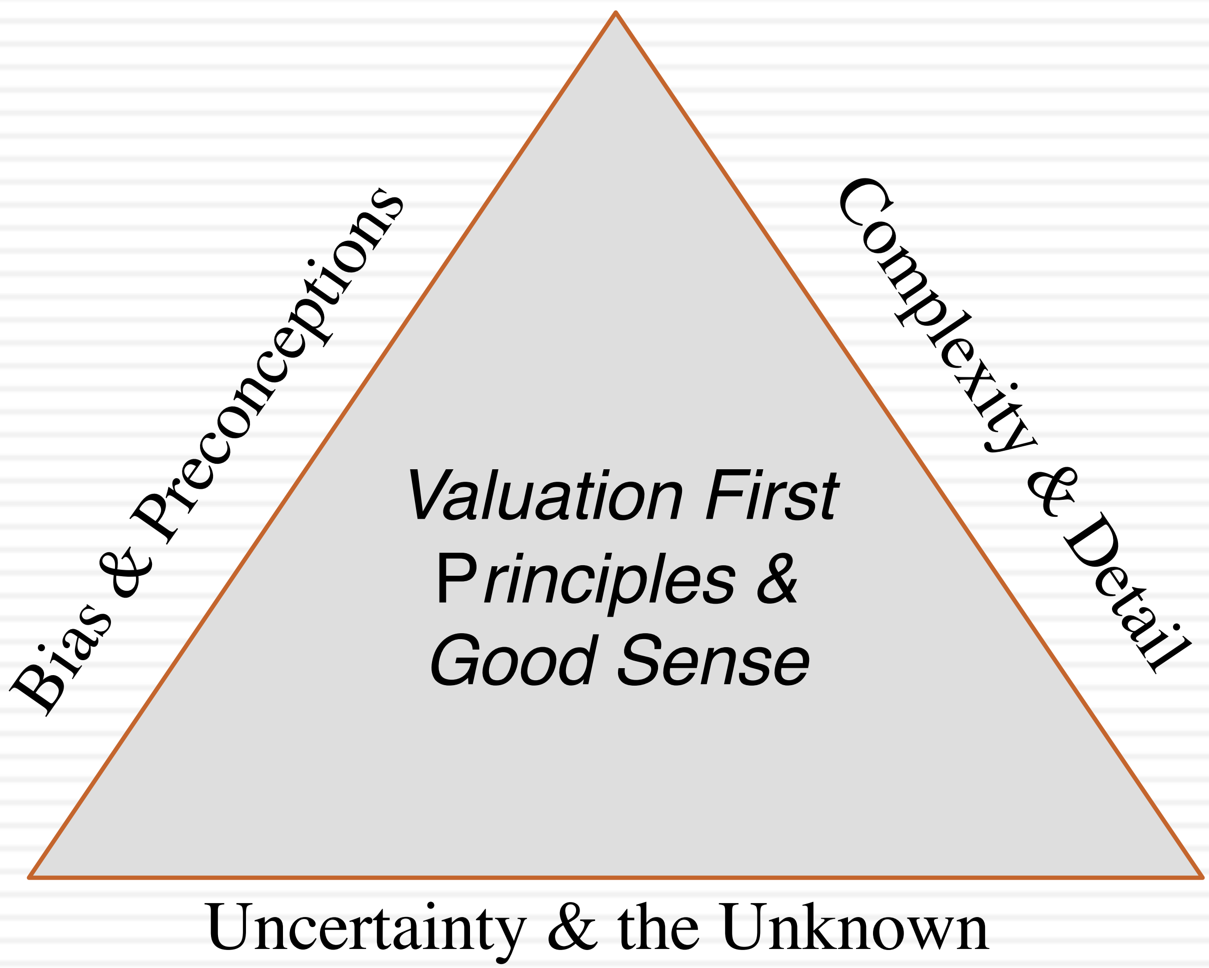
When will the firm become a **mature firm**, and what are the potential roadblocks?

How **risky are the cash flows** from both existing assets and growth assets?
Equity: Risk in equity in the company
Firm: Risk in the firm's operations

And Business Drivers that determine value…



The Bermuda Triangle of Valuation



Valuation = Stories + Numbers

Favored Tools
- Accounting statements
- Excel spreadsheets
- Statistical Measures
- Pricing Data

A Good Valuation

The Numbers People ⟷ The Narrative People

Favored Tools
- Anecdotes
- Experience (own or others)
- Behavioral evidence

Illusions/Delusions
1. Precision: Data is precise
2. Objectivity: Data has no bias
3. Control: Data can control reality

Illusions/Delusions
1. Creativity cannot be quantified
2. If the story is good, the investment will be.
3. Experience is the best teacher

From Story to Numbers: The Steps

Step 1: Develop a narrative for the business that you are valuing
In the narrative, you tell your story about how you see the business evolving over time.

Step 2: Test the narrative to see if it is possible, plausible and probable
There are lots of possible narratives, not all of them are plausible and only a few of them are probable.

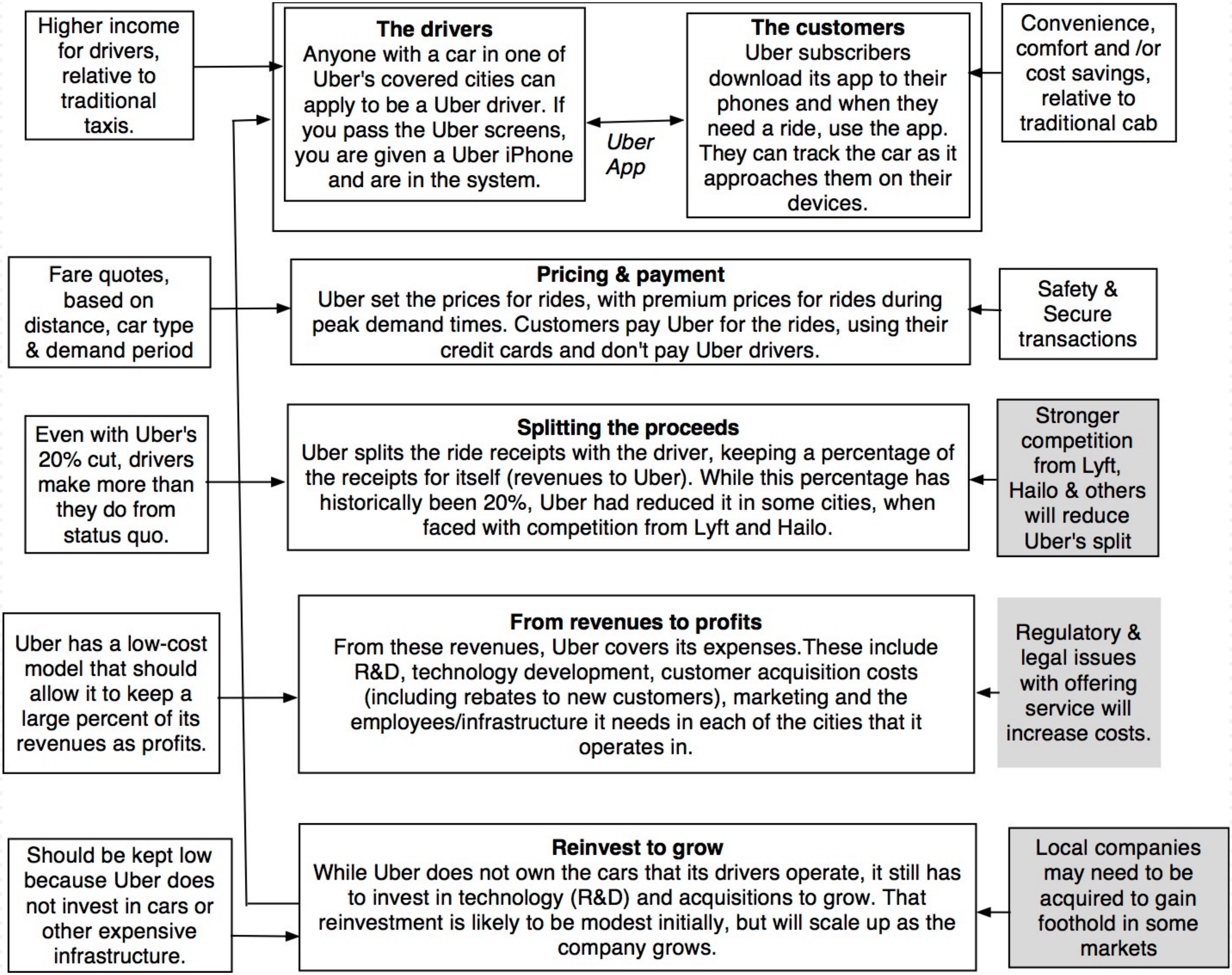
Step 3: Convert the narrative into drivers of value
Take the narrative apart and look at how you will bring it into valuaton inputs starting with potential market size down to cash flows and risk. By the time you are done, each part of the narrative should have a place in your numbers and each number should be backed up a portion of your story.

Step 4: Connect the drivers of value to a valuation
Create an intrinsic valuation model that connects the inputs to an end-value the business.

Step 5: Keep the feedback loop open
Listen to people who know the business better than you do and use their suggestions to fine tune your narrative and perhaps even alter it. Work out the effects on value of alternative narratives for the company.

Step 1a: Survey the landscape

- Every valuation starts with a narrative, a story that you see unfolding for your company in the future.
- In developing this narrative, you will be making assessments of
  - Your company (its products, its management and its history.
  - The market or markets that you see it growing in.
  - The competition it faces and will face.
  - The macro environment in which it operates.


Higher income for drivers, relative to traditional taxis.
The drivers
Anyone with a car in one of Uber's covered cities can apply to be a Uber driver. If you pass the Uber screens, you are given a Uber iPhone and are in the system.
Uber App
The customers
Uber subscribers download its app to their phones and when they need a ride, use the app. They can track the car as it approaches them on their devices.
Convenience, comfort and /or cost savings, relative to traditional cab
Fare quotes, based on distance, car type & demand period
Pricing & payment
Uber set the prices for rides, with premium prices for rides during peak demand times. Customers pay Uber for the rides, using their credit cards and don't pay Uber drivers.
Safety & Secure transactions
Even with Uber's 20% cut, drivers make more than they do from status quo.
Splitting the proceeds
Uber splits the ride receipts with the driver, keeping a percentage of the receipts for itself (revenues to Uber). While this percentage has historically been 20%, Uber had reduced it in some cities, when faced with competition from Lyft and Hailo.
Stronger competition from Lyft, Hailo & others will reduce Uber's split
Uber has a low-cost model that should allow it to keep a large percent of its revenues as profits.
From revenues to profits
From these revenues, Uber covers its expenses.These include R&D, technology development, customer acquisition costs (including rebates to new customers), marketing and the employees/infrastructure it needs in each of the cities that it operates in.
Regulatory & legal issues with offering service will increase costs.
Should be kept low because Uber does not invest in cars or other expensive infrastructure.
Reinvest to grow
While Uber does not own the cars that its drivers operate, it still has to invest in technology (R&D) and acquisitions to grow. That reinvestment is likely to be modest initially, but will scale up as the company grows.
Local companies may need to be acquired to gain foothold in some markets

Zomato: The Indian Online Food Delivery Business

- Transaction Fees: The bulk of Zomato's revenues come from the transactions on its platform, from food ordering and delivery, as the company keeps a percentage of the total order value for itself. While Zomato's revenue slice varies across restaurants, decreasing with restaurant profile and reach, it remains about 20-25% of gross order value.
- Advertising: Restaurants that list on Zomato have to pay a fixed fee to get listed, but they can also spend more on advertising, based upon customer visits and resetting revenues, to get additional visibility.
- Subscriptions to Zomato Gold (Pro): Zomato also offers a subscription service, and subscribers to Zomato Gold (now Zomato Pro) get discounts on food and faster deliveries. The service was initiated in 2017 and it had 1.5 million plus members in 2021, delivering subscription revenues of 600 million rupees (a little less than $ 10 million, and less than 5% of overall revenues) in 2021.
- Restaurant Raw Material: In 2018, Zomato introduced HyperPure, a service directed at restaurants, offering groceries and meats that are source-checked for quality.

Zomato's Prospectus: Growth & Profitability Trends

Fiscal Year ended	*3/31/18*	*3/31/19*	*3/31/20*	*3/31/21*
Gross Order Value	**₹ 19,154.25**	₹ 53,870.10	₹ 112,209.00	₹ 94,828.70
Total Revenue	₹ 4,660.23	₹ 13,125.86	₹ 26,047.37	₹ 19,937.89
Cost Of Goods Sold	₹ 2,963.53	₹ 6,269.94	₹ 9,229.39	₹ 9,455.04
Gross Profit	**₹ 1,696.70**	**₹ 6,855.92**	**₹ 16,817.98**	**₹ 10,482.85**
Selling General & Admin Exp.	₹ 944.06	₹ 12,629.44	₹ 13,771.49	₹ 5,823.91
Provision for Bad Debts	₹ 18.31	₹ 29.47	₹ 124.95	₹ 88.42
R & D Exp.	-	-	-	-
Depreciation & Amort.	₹ 291.47	₹ 431.15	₹ 842.36	₹ 431.99
Other Operating Expense/(Income)	₹ 1,641.21	₹ 16,630.87	₹ 25,966.51	₹ 8,941.29
Operating Income	**-₹ 1,198.40**	**-₹ 22,865.00**	**-₹ 23,887.30**	**-₹ 4,802.76**
Interest Expense	-₹ 52.80	-₹ 70.60	-₹ 110.20	-₹ 63.95
Interest and Invest. Income	₹ 73.10	₹ 133.46	₹ 264.90	₹ 223.75
Net Interest Exp.	₹ 20.32	₹ 62.84	₹ 154.66	-₹ 287.70
Currency Exchange Gains (Loss)	-₹ 16.90	-₹ 0.30	-₹ 0.90	₹ 24.83
Other Non-Operating Inc. (Exp.)	₹ 8.72	-₹ 10.70	₹ 266.44	₹ 289.94
EBT Excl. Unusual Items	**-₹ 1,186.30**	**-₹ 22,813.20**	**-₹ 23,467.10**	**-₹ 4,328.19**
Impairment of Goodwill	-	-	-₹ 962.70	₹ 0.00
Gain (Loss) On Sale Of Invest.	₹ 94.85	₹ 600.82	₹ 513.91	₹ 612.30
Gain (Loss) On Sale Of Assets	₹ 2.96	₹ 0.31	₹ 0.86	₹ 0.00
Asset Writedown	-₹ 0.10	-₹ 0.10	-₹ 155.20	₹ 0.00
Other Unusual Items	₹ 19.39	₹ 12,109.81	₹ 214.27	₹ 0.00
EBT Incl. Unusual Items	**-₹ 1,069.20**	**-₹ 10,102.30**	**-₹ 23,856.00**	**-₹ 8,164.28**
Income Tax Expense	-	-	-	-
Earnings from Cont. Ops.	-₹ 1,069.20	-₹ 10,102.30	-₹ 23,856.00	-₹ 8,164.28
Minority Int. in Earnings	₹ 32.39	₹ 452.86	₹ 184.43	₹ 36.12
Net Income	**-₹ 1,036.80**	**-₹ 9,649.50**	**-₹ 23,671.60**	**-₹ 8,128.16**

The Indian Food Delivery Market

	India	China	United States	EU
General				
GDP in 2020 (in trillions of US $)	$ 2.71	$ 14.70	$ 20.93	$ 15.17
Population (millions)	1360	1430	330	445
Per Capital GDP	$ 1,993	$ 10,280	$ 63,424	$ 34,090
Number of restaurants (in 000s)	1000	9000	660	890
Food Delivery				
Online Access (percent	43%	63%	88%	90%
Online Food Delivery Users (millions)	50.00	450.00	105.00	150.00
Online Food Delivery Market ($ million) in 2019	$ 4,200	$ 90,000	$ 21,000	$ 15,000
Online Food Delivery Market ($ million) in 2020	$ 2,900	$ 110,000	$ 49,000	$ 13,800

Indian Market Size, adjusted for income and digital reach…

Lower per-capita income: Eating out and prosperity don't always go hand in hand, but you are more likely to eat out, as your discretionary income rises..

Less digital reach: To use online restaurant services, you first need to be online, and digital reach in India, in spite of advances in recent years, lags digital reach in China, and is about half the reach in the US and the EU.

Eating habits: Looking across the regions, it seems clear that there is a third factor at play, a pre-disposition to eat out in the populace.

	Indian Per Capita GDP as % of China Per Capita GDP			
	25%	50%	75%	100%
Current Internet access	$5,417	$10,834	$16,250	$21,667
China-level Internet access	$7,936	$15,872	$23,809	$31,745
US-level Internet access	$11,085	$22,171	$33,256	$44,342

Step 1b: Create a narrative for the future

- Every valuation starts with a narrative, a story that you see unfolding for your company in the future.
- In developing this narrative, you will be making assessments of your company (its products, its management), the market or markets that you see it growing in, the competition it faces and will face and the macro environment in which it operates.
  - Rule 1: Keep it simple.
  - Rule 2: Keep it focused.

The Uber Narrative

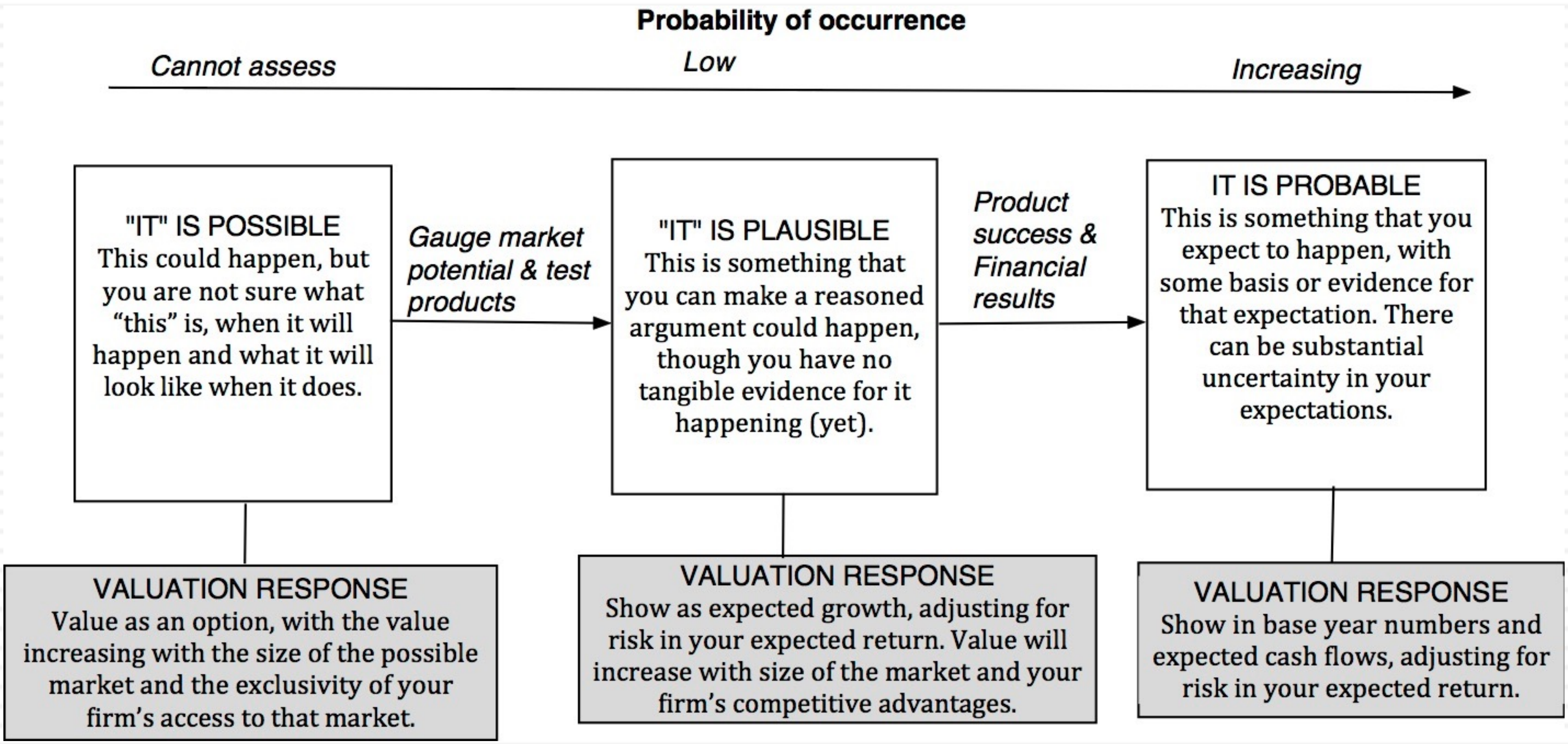
In June 2014, my initial narrative for Uber was that it would be

1. An urban car service business: I saw Uber primarily as a force in urban areas and only in the car service business.
2. Which would expand the business moderately (about 40% over ten years) by bringing in new users.
3. With local networking benefits: If Uber becomes large enough in any city, it will quickly become larger, but that will be of little help when it enters a new city.
4. Maintain its revenue sharing (20%) system due to strong competitive advantages (from being a first mover).
5. And its existing low-capital business model, with drivers as contractors and very little investment in infrastructure.

The Zomato Narrative

- Zomato will continue to maintain a dominant market share of the Indian food delivery market, as that market increases in size almost ten-fold over the next decade. Zomato's forays in foreign markets in the food delivery business will provide only supplemental revenues and will be less profitable than their Indian food delivery business.
- Zomato may be able to expand into the grocery delivery market, but the revenue take rate in that market will be significantly lower than in food delivery.
- As Zomato scales up, economies of scale will allow the company's margins to converge on the high levels earned by intermediary businesses.

Step 2: Check the narrative against history, economic first principles & common sense



The Impossible, The Implausible and the Improbable

The Impossible

Bigger than the economy
Assuming Growth rate for company in perpetuity> Growth rate for economy

Bigger than the total market
Allowing a company's revenues to grow so much that it has more than a 100% market share of whatever business it is in.

Profit margin > 100%
Assuming earnings growth will exceeds revenue growth for a long enough period, and pushing margins above 100%

Depreciation without cap ex
Assuming that depreciation will exceed cap ex in perpetuity.

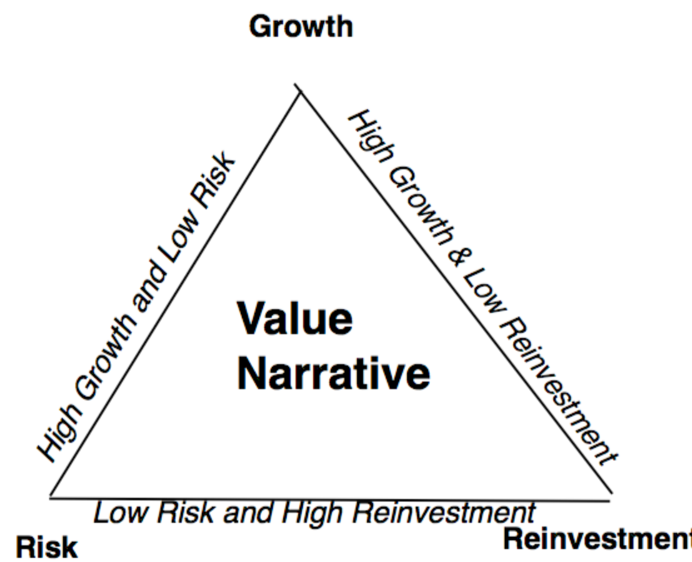
The Implausible

Growth without reinvestment
Assuming growth forever without reinvestment.

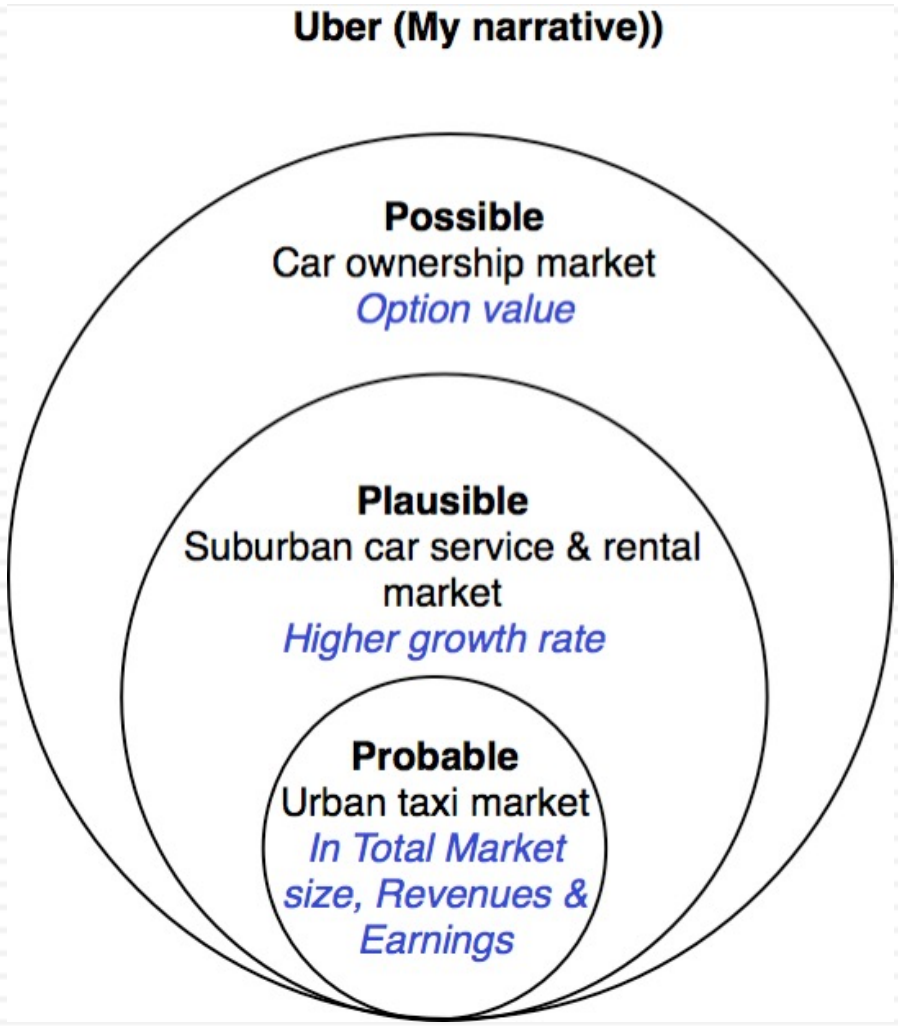
Profits without competition
Assuming that your company will grow and earn higher profits, with no competition.

Returns without risk
Assuming that you can generate high returns in a business with no risk.

The Improbable



Uber: Possible, Plausible and Probable



The Impossible: The Runaway Story

The Story

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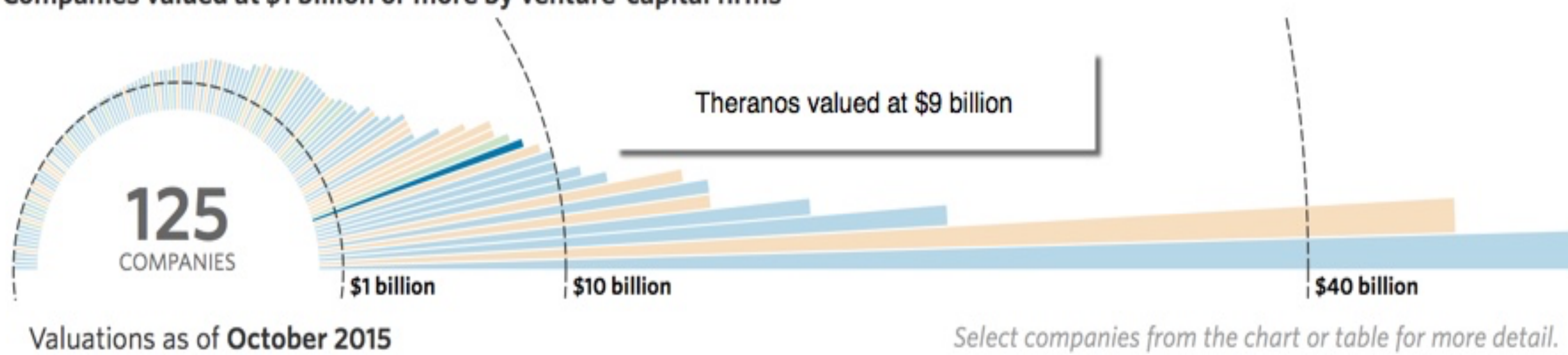
The Checks (?)

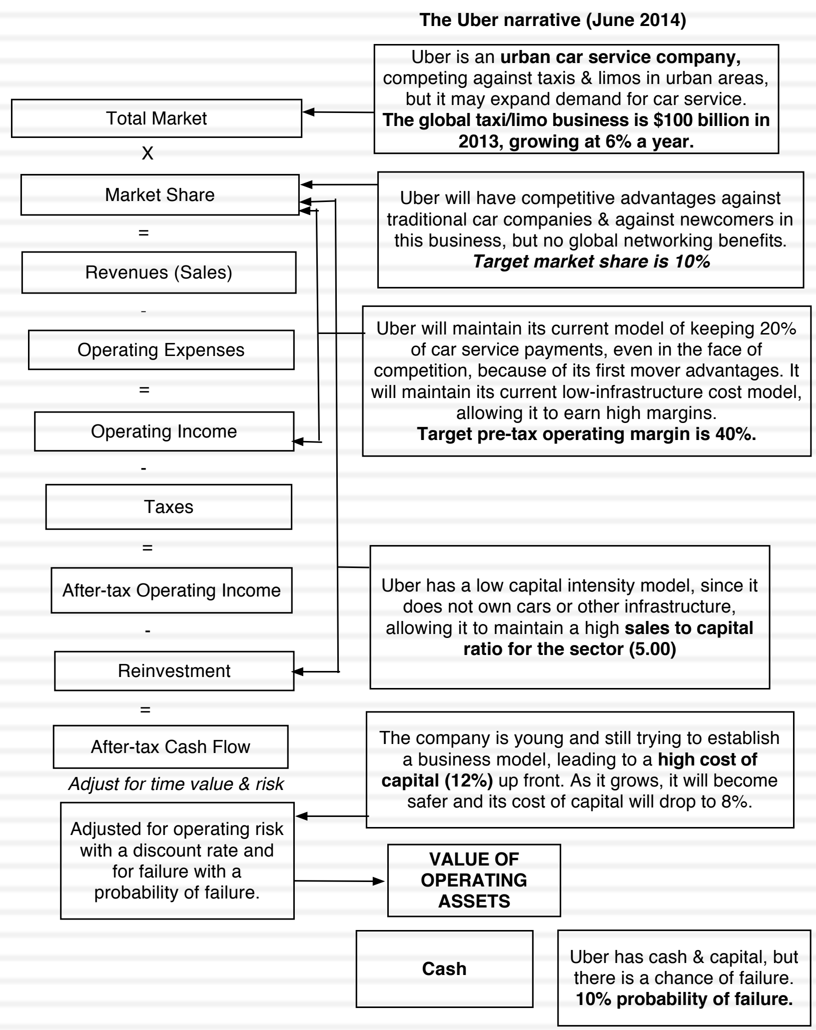
Board Member	Designation	Age
Henry Kissinger	Former Secretary of State	92
Bill Perry	Former Secretary of Defense	88
George Schultz	Former Secretary of State	94
Bill Frist	Former Senate Majority Leader	63
Sam Nunn	Former Senator	77
Gary Roughead	Former Navy Admiral	64
James Mattis	Former Marine Corps General	65
Dick Kovocovich	Former CEO of Wells Fargo	72
Riley Bechtel	Former CEO of Bechtel	63
William Foege	Epidemologist	79
Elizabeth Holmes	Founder & CEO, Theranos	31
Sunny Balwani	President & COO, Theranos	NA

\+ Money

Companies valued at $1 billion or more by venture-capital firms



Step 3: Connect your narrative to key drivers of value



Zomato: Narrative to Numbers

- Total Market:, I find it hard to see the *total market exceeding $40 billion, with US $20-$30 billion, in ten years,* being a more likely outcome. (In rupee terms, this will translate into a market that is roughly 1800-2000 billion INR.)
- Market Share: Expecting any company to have a *market share that exceeds 40%* of this market is a reach, and I will assume that Zomato will be one of the winners/survivors
- Revenue Share: That number was 23.13% in FY 2020, but dropped to 21.03% in FY 2021, as shut downs put a crimp on business. I will assume a *partial bounce back to 22% of GOV*, starting in 2022, but the presence of Amazon Food will prevent a return to higher values in the future.
- Profitability: I will assume that *pre-tax operating margins will trend towards 30%*, largely because I believe that the market will be dominated by a few big players, but with the very real possibility that one rogue player that is unwilling to play the game can upend profitability.
- Reinvestment: One of the advantages of being an intermediary business is that you can grow with relatively little capital investment, defined in conventional form (as plant, equipment or manufacturing facilities). That said, reinvestment takes a different form for online intermediaries, like Zomato, with investments in technology and in acquisitions, driving future growth.
- Risk: In terms of operating risk, the company, in spite of its global ambitions, is still primarily an Indian company, dependent on Indian macroeconomic growth to succeed, and my rupee cost of capital will incorporate the country risk. Zomato is a money losing company, but it is no start-up, facing imminent failure. Overall, I will attach a likelihood of failure of 10%, reflecting this balance.

Step 4: Value the company (Uber)

Uber: Intrinsic valuation - June 8, 2014 (in US $)

Stable Growth (after year 10)
Expected growth rate = 2.50%
Cost of capital = 8%
Return on capital= 25%
Reinvestment Rate= 2.5%/25% = 10%

Terminal Value$_{10}$= 793/(.08-025) = $14,418

Term yr
EBIT (1-t) $881
- Reinv 88
FCFF $793

Global taxi market is $100 billlion currently, expected to grow 6% a year for next ten years.

Uber will keep 20% of the gross cab receipts as its revenues

Uber's market share of this market will increase to 10% over the next 10 years.

Uber's operating expenses will amount to 60% of its revenues. (Operating margin=40%)

Uber will pay a tax rate of 30% on its income, increasing to 40% over the next 10 years

Uber will generate $5 in incremental revenues for every dollar of incremental capital.

	1	2	3	4	5	6	7	8	9	10
Overall market	$106,000	$112,360	$119,102	$126,248	$133,823	$141,852	$150,363	$159,385	$168,948	$179,085
Share of market (gross)	3.63%	5.22%	6.41%	7.31%	7.98%	8.49%	8.87%	9.15%	9.36%	10.00%
Revenues as percent of gross	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%	20.00%
Annual Revenue	$769	$1,173	$1,528	$1,846	$2,137	$2,408	$2,666	$2,916	$3,163	$3,582
Operating margin	7.00%	10.67%	14.33%	18.00%	21.67%	25.33%	29.00%	32.67%	36.33%	40.00%
Operating Income	$54	$125	$219	$332	$463	$610	$773	$953	$1,149	$1,433
Effective tax rate	31%	32%	33%	34%	35%	36%	37%	38%	39%	40%
- Taxes	$17	$40	$72	$113	$162	$220	$286	$362	$448	$573
After-tax operating income	$37	$85	$147	$219	$301	$390	$487	$591	$701	$860
Sales/Capital Ratio	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
- Reinvestment	$94	$81	$71	$64	$58	$54	$52	$50	$49	$84
Free Cash Flow to the Firm	-$57	$4	$76	$156	$243	$336	$435	$541	$652	$776

Based on the investment of $1.2 billion made by investors, the imputed value for Uber's operating assets, in June 2014 ,was $17 billion.

Discount back the cash flows (including terminal value) at the cumulated cost of capital.

Value of operating assets = $6,595

Adust for probability of failure (10%)
Expected value = $6,595 (.9) = $5,895

Cost of capital for first 5 years = Top decile of US companies = 12%

Cost of capital declines from 12% to 8% from years 6 to 10.

Zomato	Jul-21

The Story

Zomato will benefit as the Indian food delivery market grows, driven by overall economic growth and more digital access, and it will be one of a few (two or three) players who will dominate the market; there will be a near term COVID bouncecback effect. While Amazon Food remains the wild card, economies of scales will allow the company to generate high operating margins, and the company will continue to reinvest (acquisitions and technology) as it grows. The risk of failure is low, given the company's post-IPO cash balance and access to capital and its operating risk reflects its exposure to Indian country risk.

The Assumptions

	Base year	*Next year*	*Years 2-5*	*Years 6-10*	*After year 10*	*Link to story*
Indian Food Delivery	₹225,000	₹337,500	30.00%	15.27%	₹1,961,979	*Indian food market rebounds in 2021 and growsto about $25 billion in year 10*
Market Share	42.15%	41.72%		40.00%	40.00%	*Zomato is one of two or three lead players in Indian food delivery market*
Revenues as % of GOV	21.03%	22.00%			22.00%	
Revenues (a)	₹19,937.89	₹30,975	Total Market * Market Share* Revenue as % of GOV		₹172,654	COVID rebound in 2021 + Growth in food delivery market in India long term
Operating margin (b)	-24.10%	-10.0%	-10.00%	35.00%	35.00%	Margins improve as growth wanes
Tax rate	30.00%		30.00%	30.00%	30.00%	Indian corporate tax rate over time
Reinvestment (c)		5.00	2.50	3.00	35.42%	Acquisitions & technology investments needed to sustain growth
Return on capital	-7.15%	Marginal ROIC =	127.01%		12.00%	Newworking benefits allow for high ROIC, near and long term.
Cost of capital (d)			10.25%	8.97%	8.97%	Cost of capital reflects Indian country risk

The Cash Flows

	Total Market	*Market Share*	*Revenues*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	₹337,500	41.72%	₹30,974.78	-₹3,097.48	₹2,207.38	-₹5,304.86
2	₹438,750	41.29%	₹39,852.91	₹498.16	₹3,551.25	-₹3,053.09
3	₹570,375	40.86%	₹51,270.19	₹3,247.17	₹4,566.91	-₹1,319.74
4	₹741,488	40.43%	₹65,951.07	₹5,770.72	₹5,872.35	-₹101.64
5	₹963,934	40.00%	₹84,826.17	₹10,762.32	₹6,291.70	₹4,470.62
6	₹1,203,471	40.00%	₹105,905.47	₹14,994.01	₹7,026.43	₹7,967.57
7	₹1,440,555	40.00%	₹126,768.85	₹24,503.10	₹6,954.46	₹17,548.64
8	₹1,650,156	40.00%	₹145,213.72	₹35,577.36	₹6,148.29	₹29,429.07
9	₹1,805,271	40.00%	₹158,863.81	₹38,921.63	₹4,550.03	₹34,371.60
10	₹1,881,995	40.00%	₹165,615.52	₹40,575.80	₹2,250.57	₹38,325.23
Terminal year	₹1,961,979	40.00%	₹172,654.18	₹42,300.27	₹14,981.35	₹27,318.93

The Value

Terminal value	₹578,790.83		
PV(Terminal value)	₹225,869.40		
PV (CF over next 10 years)	₹50,979.90		
Value of operating assets =	₹276,849.30		
Adjustment for distress	₹13,842.46	Probability of failure =	10.00%
- Debt & Minority Interests	₹1,591.72		
+ Cash & Other Non-operating assets	₹135,959.70	Includes cash proceeds from IPO of	₹90,000
Value of equity	₹397,374.81		
- Value of equity options	₹73,244.53		
Number of shares	7,946.68		
Value per share	₹40.79	Stock was offered at =	₹70.00

Step 5: Keep the feedback loop open

- When you tell a story about a company (either explicitly or implicitly), it is natural to feel attached to that story and to defend it against all attacks. Nothing can destroy an investor more than hubris.
- Being open to other views about a company is not easy, but here are some suggestions that may help:
  - Talk to a diverse audience: We have created workplaces, where these single-subject specialists often interact entirely with each other, making their isolation almost complete.
  - Transparency over opacity: I would rather be transparently wrong than opaquely right. When I value companies, I try to be open about process, data and mechanics, so that anyone can not just replicate what I did and find their own points of disagreement and reflect those changes in value.
  - Listen to those who disagree with you: There are people out there who know more than I do about some aspect of the company, and I can learn from them.
  - Be willing to change: The three most freeing words in investing and valuation are “I was wrong”, and they are not easy to say.

The Uber Feedback Loop: Bill Gurley

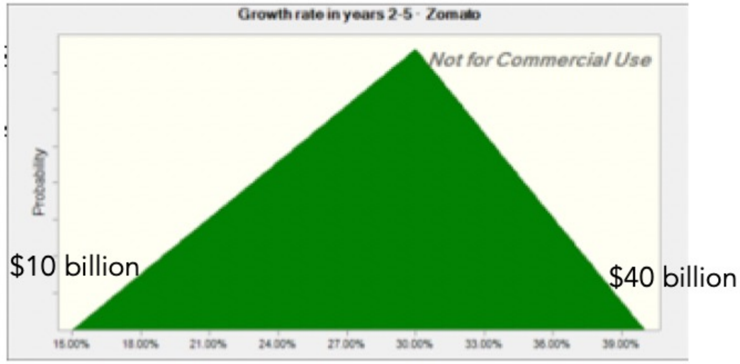
1. Not just car service company.: Uber is a car company, not just a car service company, and there may be a day when consumers will subscribe to a Uber service, rather than own their own cars. It could also expand into logistics, i.e., moving and transportation businesses.
2. Not just urban: Uber can create new demands for car service in parts of the country where taxis are not used (suburbia, small towns).
3. Global networking benefits: By linking with technology and credit card companies, Uber can have global networking benefits.

Valuing Bill Gurley's Uber narrative

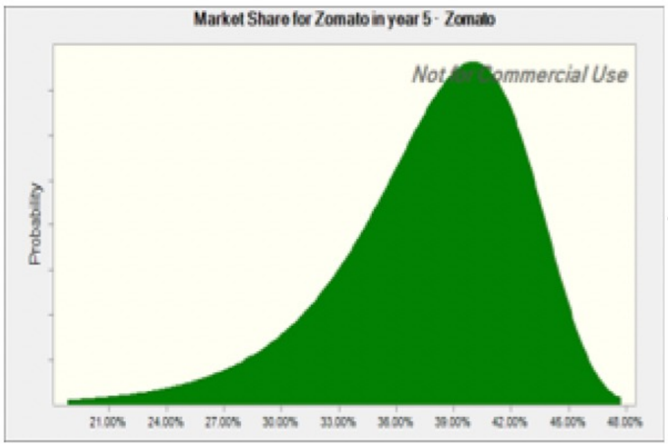
	Uber (Gurley)	*Uber (Gurley Mod)*	*Uber (Damodaran)*
Narrative	Uber will expand the car service market substantially, bringing in mass transit users & non-users from the suburbs into the market, and use its networking advantage to gain a dominant market share, while maintaining its revenue slice at 20%.	Uber will expand the car service market substantially, bringing in mass transit users & non-users from the suburbs into the market, and use its networking advantage to gain a dominant market share, while cutting prices and margins (to 10%).	Uber will expand the car service market moderately, primarily in urban environments, and use its competitive advantages to get a significant but not dominant market share and maintain its revenue slice at 20%.
Total Market	\$300 billion, growing at 3% a year	\$300 billion, growing at 3% a year	\$100 billion, growing at 6% a year
Market Share	40%	40%	10%
Uber's revenue slice	20%	10%	20%
Value for Uber	\$53.4 billion + Option value of entering car ownership market (\$10 billion+)	\$28.7 billion + Option value of entering car ownership market (\$6 billion+)	\$5.9 billion + Option value of entering car ownership market (\$2-3 billion)

Zomato: Monte Carlo Simulation of Value/Share

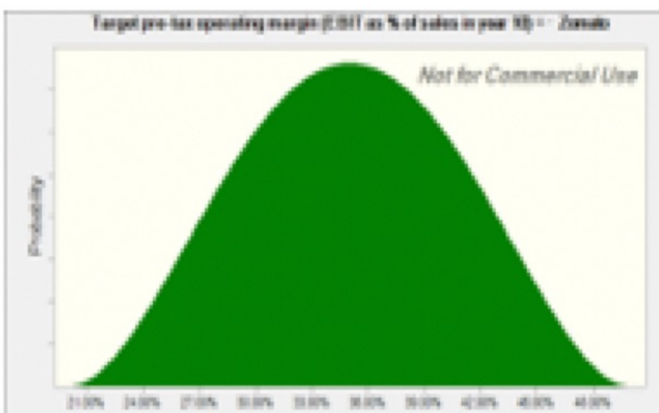
Growth in Indian Food Delivery Market



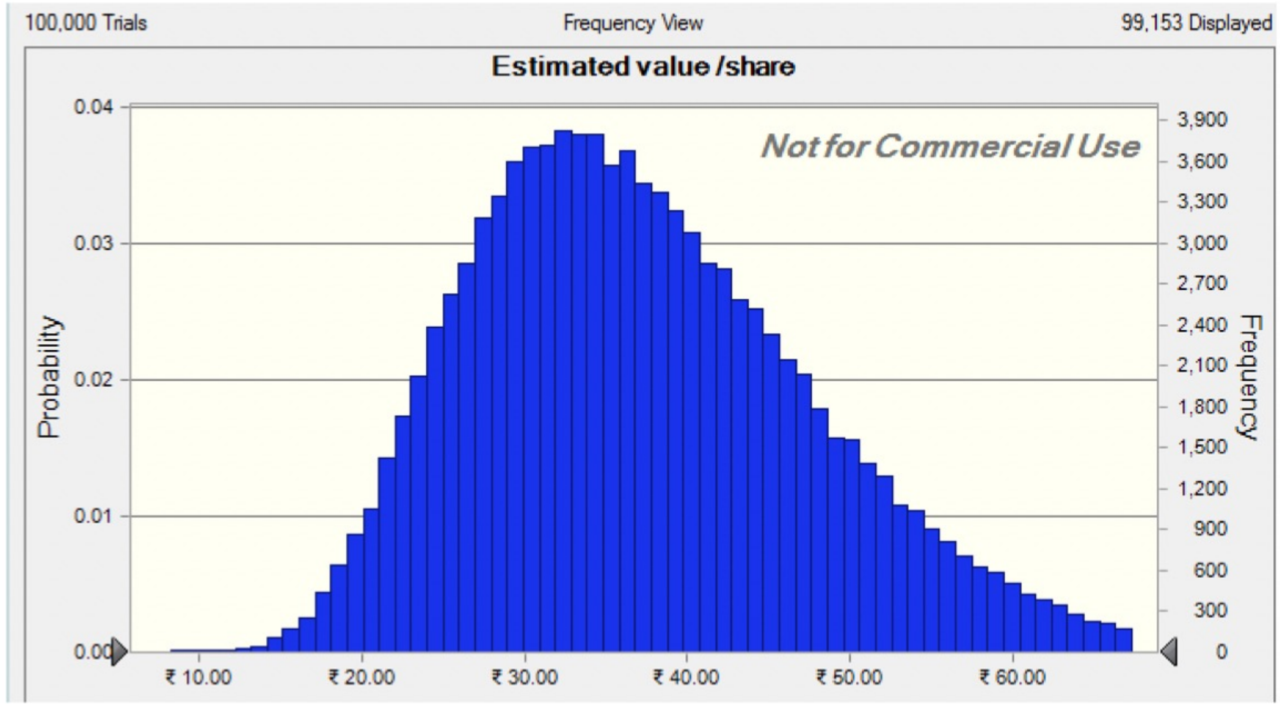
Zomato's Market Share



Zomato's Operating Margin (Pre-tax)



Correlation = 0.50



Percentile	*Value per share*
0%	-₹ 0.22
10%	₹ 24.49
20%	₹ 27.96
30%	₹ 30.74
40%	₹ 33.35
50%	₹ 36.02
60%	₹ 28.86
70%	₹ 42.11
80%	₹ 46.07
90%	₹ 51.92
100%	₹ 91.69

Feedback on Zomato

- Indian food delivery: I have learned more about online food delivery and restaurants in India in the two weeks since I posted my Zomato valuation. I have learned why Zomato Pro has not caught on as quickly as the company thought it would, why some of you prefer Swiggy and even what you like to order from restaurants.
- Tax rate: Some of you noted that the corporate tax rate in India is 25%, not 30%, and while the Indian tax code with its predilection to add in surcharges that seem to last forever, and exceptions, does still leave me confused, I will concede on this point (pushing up my value per share marginally from 41 INR/share to about 43 INR/share.
- Market size: I have had pushback on my story's focus on Indian food delivery, with some pointing to the potential for Zomato to expand its market globally and others to the expansion possibilities in Indian grocery deliveries and from cloud kitchens. While I believe that the networking advantage that works to Zomato's benefits will stymie them if they try to expand to large foreign markets and that the grocery delivery market, at least for the moment, offers too small a slice of revenues to be a game changer for the company, those are legitimate points.

1a. TAM

Total Addressable Market	Expected Market Size (in ₹ millions)	Description
A1. Indian food delivery, anemic growth	₹ 1,125,000	Food delivery ($15 billion approximately)
A2. Indian food delivery, solid growth	₹ 2,000,000	Food delivery ($25 billion approximately)
A3. Indian food delivery, high growth	₹ 3,000,000	Food delivery ($37.5 billion approximately)
A4. Indian food & grocery delivery market	₹ 5,000,000	Food + Grocery ($60 billion approximately)
A5: Direct input	₹ 4,000,000	Enter your number

1b. Growth Acceleration

Growth Scaling (over time)	Growth Rate factor (yrs 1-5)	
B1. Constant Growth Rate	1.00	Same CAGR every year
B2. Moderately higher growth rate in first 5 years	1.50	1.5 times CAGR for years 1-5
B3. Strongly higher growth rate in first 5 years	2.00	2 times CAGR for years 1-5
B4. Exponentially higher growth rate in first 5 years	4.00	3 times CAGR for years 1-5
B5. Direct input	2.50	Enter your number

2. Market Share

Network Effects	Market share of potential market	
C1. No network effects	10%	Open competition in every market
C2. Weak network effects	20%	Four to five winners in the market
C3. Moderate network effects	30%	Three winners in the market
C4. Strong network effects	40%	Two winners in the market
C5. Dominant network effects	60%	Market dominance
C6: Direct input	50%	Enter your number

3. Revenue Slice

Revenue Slice	Slice of Gross Receipts	
D1. Cut-throat competition	10.00%	Unrestricted entry + No pricing power
D2. Strong competition	15.00%	Unrestricted entry+ Some Pricing Power
D3. Status Quo	21.03%	Unrestricted entry + Pricing Power
D4. Duopoly/Monopoly Power	25.00%	Restricted entry + Pricing Power
D5: Direct input	22.00%	Enter your number

4a. Operating Margin

Operating Margins	Operating Margin	
E1: Strong economies of scale, no or limited competition	45%	Strong pricing power + scaling benefits
E2: Strong economies of scale, serious competition	35%	Weak pricing power + scaling benefits
E3: Weak economies of scale, no or limited competition	25%	Strong pricing power + no scaling benefits
E4: Weak economies of scale, serious competition	15%	Weak pricing power + no scaling benefits
E4: Direct input	20%	Enter your number

4b. Pathway to Profitability

Margin Improvement	Year target margin reached	
F1. Fast convergence	3	Target margin reached in year 4
F2. Moderate convergence	5	Target margin reached in year 7
F3. Slow convergence	10	Target margin reached in year 10
F4. Direct Input	7	Enter your number

5. Reinvestment

Reinvestment	Sales to Capital Ratio	
G1. Minimal capital needs, no acquisitions (10.00)	10.00	Effortless, capital-less growth
G2. Minimal capital needs, small acquisitions (5.00)	5.00	Very efficient growth
G3. Small investment in technology, small acquisitions (4.00)	4.00	Efficient growth
G4. Big investment in technology, Large acquisitions (2.50)	2.50	Status quo
G5. Tech company median (2.00)	2.00	Tech company median
G6. Capital intensive company median (1.50)	1.50	Capital intensive business median
G7. Direct input	2.25	Enter your number

6. Your cost of capital & failure risk

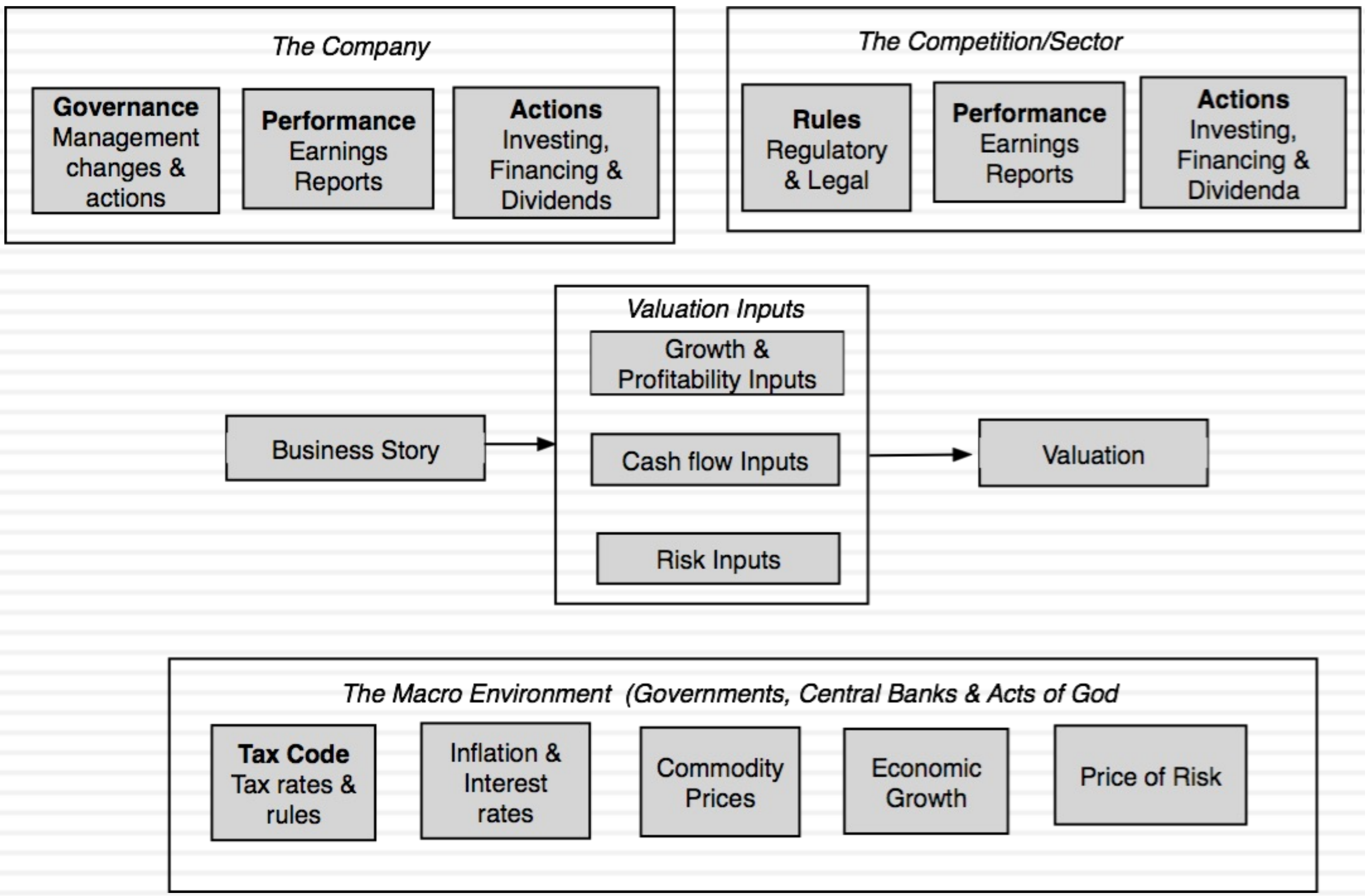
Cost of Capital	Cost of Capital (in ₹)	
H1. Lowest decile of Indian companies	8.01%	Very low risk (with 4.25% riskfree rate)
H2. 25th Percentile of Indian companies	9.50%	Low risk (with 4.25% riskfree rate)
H3. Median for Indian companies	10.99%	Average risk (with 4.25% riskfree rate)
H4. 75th Percentile of Indian companies	12.06%	High risk (with 4.25% riskfree rate)
H5. 90th Percentile of Indian companies	13.16%	Very high risk (with 4.25% riskfree rate)
H6. Direct Input	8.97%	Enter your number

The cost of capital captures operating risk, but it is not a good device to reflect failure risk, i.e., the chance that your company will not make it. In my base case, I assumed a 10% chance of failure, which you can change.

Plausible Stories

Story	*TAM (in ₹ millions)*	*Market Share*	*Revenue Slice*	*Target Margin*	*Cost of Capital*	*Value/share*	
Delivery Juggernaut	₹ 5,000,000.00	40%	25%	45%	9.50%	₹ 150.02	
Delivery Star	₹ 5,000,000.00	40%	22%	35%	9.50%	₹ 93.00	Plausible
Delivery Leader + Competition	₹ 5,000,000.00	40%	15%	35%	10.99%	₹ 61.55	
Restaurant Delivery Juggernaut + High Growth India	₹ 3,000,000.00	40%	25%	45%	9.50%	₹ 94.31	
Restaurant Delivery Star + High Growth India	₹ 3,000,000.00	40%	22%	35%	9.50%	₹ 59.02	
Restaurant Delivery + Competition + High Growth India	₹ 3,000,000.00	40%	20%	25%	10.99%	₹ 35.52	Probable
Base Case, Positive	₹ 2,000,000.00	40%	25%	45%	10.25%	₹ 56.66	
Base Case	₹ 2,000,000.00	40%	22%	35%	10.25%	₹ 39.48	
Base Case, Negative	₹ 2,000,000.00	40%	20%	25%	10.25%	₹ 26.16	
Restaurant Delivery Juggernaut + Low Growth India	₹ 1,125,000.00	40%	25%	45%	9.50%	₹ 36.48	
Restaurant Delivery Star + Low Growth India	₹ 1,125,000.00	40%	22%	35%	9.50%	₹ 24.02	Plausible
Restaurant Delivery + Competition + low Growth India	₹ 1,125,000.00	40%	20%	25%	10.99%	₹ 16.58	

Why narratives change: Because the world changes around you…



How narratives change

Narrative Break/End	Narrative Shift	Narrative Change (Expansion or Contraction)
Events, external (legal, political or economic) or internal (management, competitive, default), that can cause the narrative to break or end.	Improvement or deterioration in initial business model, changing market size, market share and/or profitability.	Unexpected entry/success in a new market or unexpected exit/failure in an existing market.
Your valuation estimates (cash flows, risk, growth & value) are no longer operative	Your valuation estimates will have to be modified to reflect the new data about the company.	Valuation estimates have to be redone with new overall market potential and characteristics.
Estimate a probability that it will occur & consequences	Monte Carlo simulations or scenario analysis	Real Options

Uber

Uber: Personal Mobility Player?

Uber is primarily a ride sharing company, with ambtions of being a global logistics player. Its revenue growth has been astonishing, though it is starting to slow, but it remains a big money loser, as it searches for a business model that delivers more stickiness. In this story, Uber uses a combination of economies of scale and a more capital intensive business model to create a pathway to profitability. Along the way, it will become a less risky company, though its losses leave it exposed to a 5% chance of failure.

The Assumptions

	Base year	*Years 1-5*	*Years 6-10*	*After year 10*	*Story link*
Total Market	$400,000	Grow 10.39% a year		Grows 2.75% a year	Global logistics
Gross Market Share	12.45%	6.71%>30%		30%	Global Network benefits
Revenue Share	20.13%	Unchanged		20.13%	Market dominance keeps billing share high.
Operating Margin	-24.39%	-24.39% ->20%		15.00%	Full employee & more regulations
Reinvestment	NA	Sales to capital ratio of 4.00		Reinvestment rate = 7.5%	Low capital investment model
Cost of capital	NA	9.97%	9,97%->8.24%	8.24%	At 75th percentile of US firms
Risk of failure	5% chance of failure, if pricing meltdown leads to capital being cut off				Cash on hand + Capital access

The Cash Flows

	Total Market	*Market Share*	*Revenues*	*EBIT (1-t)*	*Reinvestment*	*FCFF*
1	$ 441,560	14.20%	$ 12,627	$ (2,369)	$ 650	$ (3,019)
2	$ 487,438	15.96%	$ 15,661	$ (2,057)	$ 759	$ (2,816)
3	$ 538,083	17.71%	$ 19,189	$ (1,441)	$ 882	$ (2,323)
4	$ 593,990	19.47%	$ 23,281	$ (438)	$ 1,023	$ (1,461)
5	$ 655,705	21.22%	$ 28,017	$ 1,050	$ 1,184	$ (134)
6	$ 723,833	22.98%	$ 33,485	$ 3,139	$ 1,367	$ 1,771
7	$ 799,039	24.73%	$ 39,787	$ 5,292	$ 1,576	$ 3,716
8	$ 882,059	26.49%	$ 47,037	$ 5,292	$ 1,813	$ 3,479
9	$ 973,705	28.24%	$ 55,365	$ 6,229	$ 2,082	$ 4,147
10	$1,074,873	30.00%	$ 64,915	$ 7,303	$ 2,387	$ 4,915
Terminal year	$1,101,745	30.00%	$ 66,537	$ 7,485	$ 936	$ 6,550

The Value

Terminal value	$ 114,108
PV(Terminal value)	$ 46,258
PV (CF over next 10 years)	$ 501
Value of operating assets =	$ 46,759
Probability of failure	5%
Value in case of failure	$ -
Adjusted Value for operating assets	$ 44,421
+ Cash on hand	$ 6,406
+ Cross holdings	$ 8,700
+ IPO Proceeds	$ 9,000
- Debt	$ 6,869
Value of equity	$ 61,658
Value per share	$ 32.91