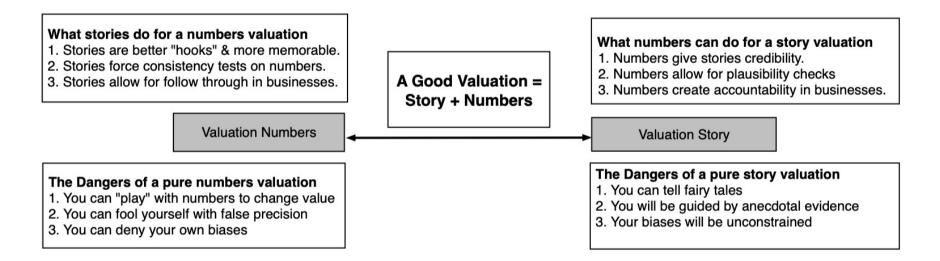
# NARRATIVE AND NUMBERS: VALUATION AS A BRIDGE

Tell me a story..

## VALUATION AS A BRIDGE

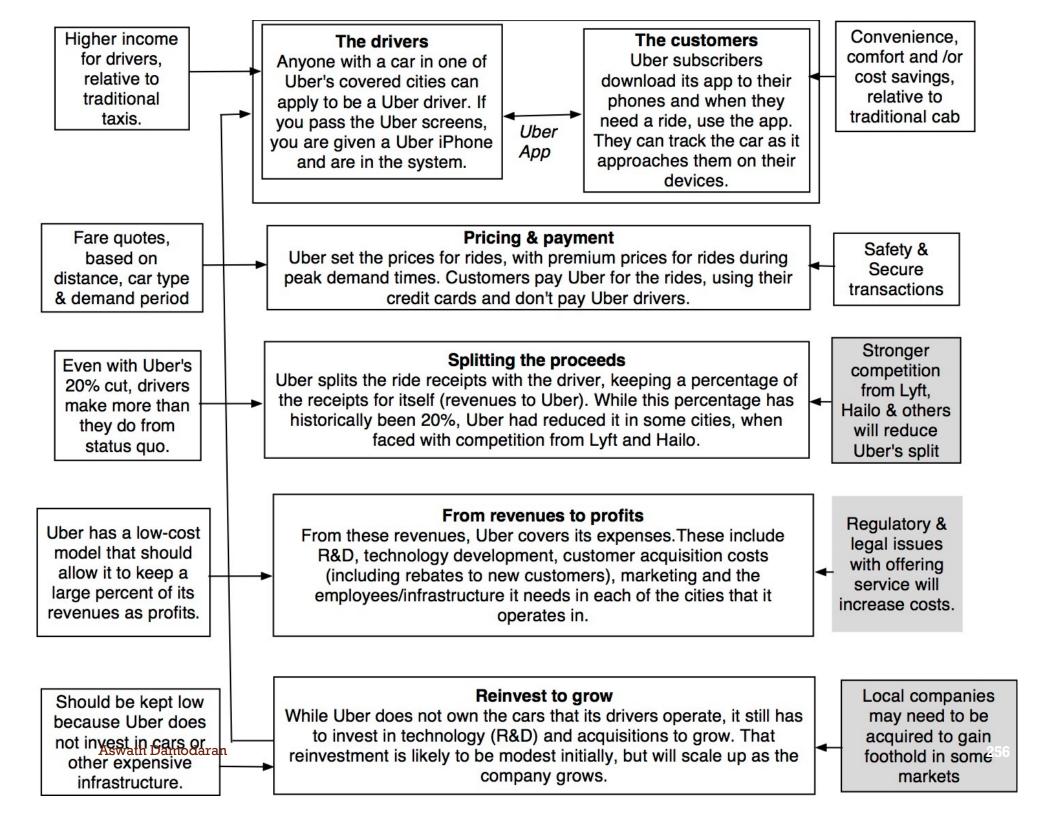
## Number Crunchers

## Story Tellers



## STEP 1: 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.
- If understanding the products and services that a business sells makes it easier to construct a story, it follows that B2C (sell to final consumer) businesses will be easier to value than B2B businesses.



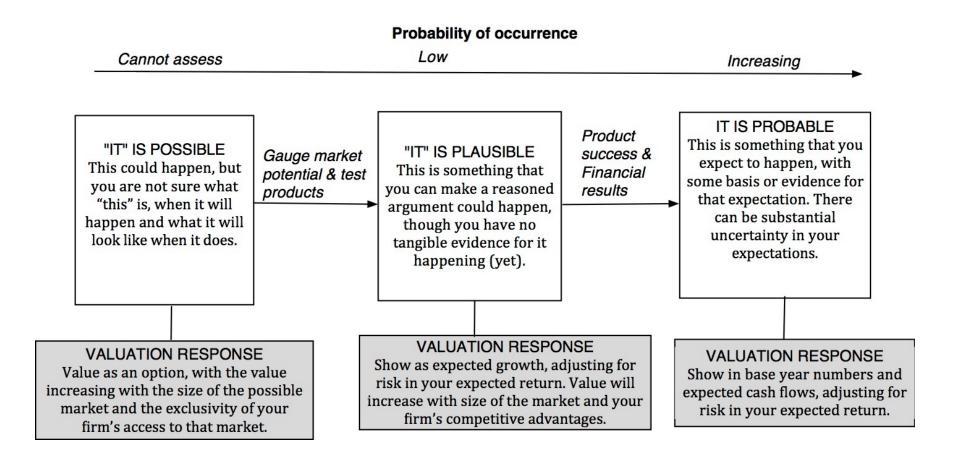
## STEP 2: CREATE A NARRATIVE FOR THE FUTURE

- 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.
  - Rule 3: Stay grounded in reality.

## THE UBER NARRATIVE

- In June 2014, my initial narrative for Uber was that it would be
- An urban car service business: I saw Uber primarily as a force in urban areas and only in the car service business.
- Which would expand the business moderately (about 40% over ten years) by bringing in new users.
- 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.
- Maintain its revenue sharing (20%) system due to strong competitive advantages (from being a first mover).
- And its existing low-capital business model, with drivers as contractors and very little investment in infrastructure.

# STEP 3: 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**

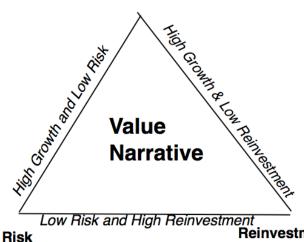
Assuming that your company will grow and earn higher profits, with no competition.

#### Returns without risk

Assuming that you can generate high returns in a business with no risk.

### The Improbable

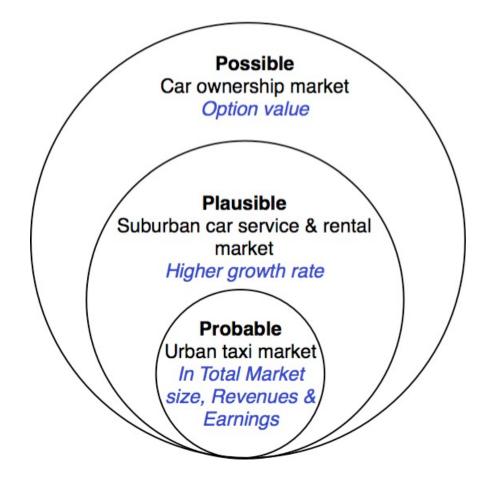
#### Growth



Reinvestment

## UBER: POSSIBLE, PLAUSIBLE AND PROBABLE

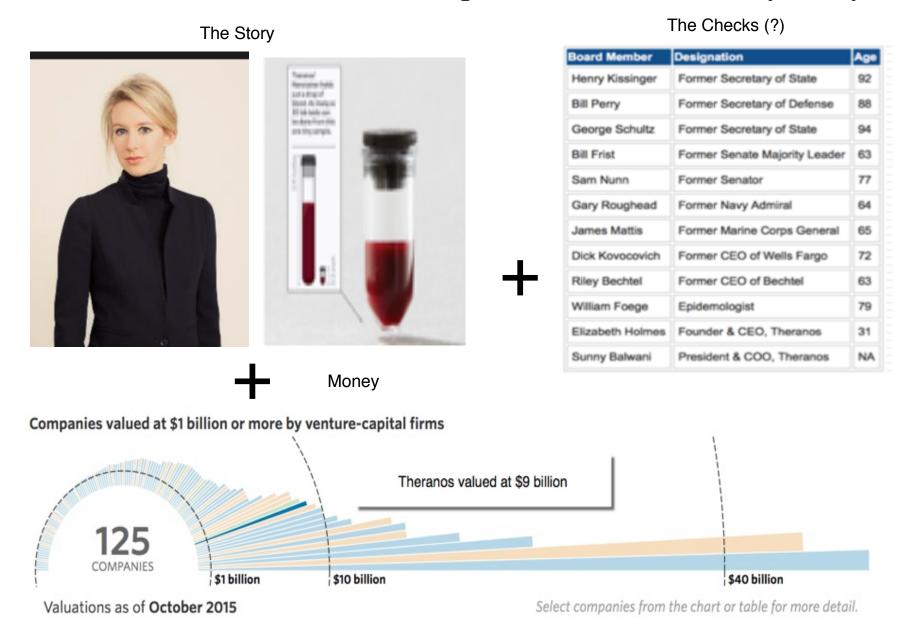
**Uber (My narrative))** 



# THE RUNAWAY STORY: WHEN YOU WANT A STORY TO BE TRUE...

- With a runaway business story, you usually have three ingredients:
  - Charismatic, likeable Narrator: The narrator of the business story is someone that you want to see succeed, either because you like the narrator or because he/she will be a good role model.
  - Telling a story about disrupting a much business, where you dislike the status quo: The status quo in the business that the story is disrupting is dissatisfying (to everyone involved)>
  - With a societal benefit as bonus: And if the story holds, society and humanity will benefit.
- Since you want this story to work out, you stop asking questions, because the answers may put the story at risk.

## The Impossible: The Runaway Story



## WHEN RUNAWAY STORIES MELT DOWN.

## **The Meltdown Story**

### **Untrustworthy Storyteller**

A narrator, who through his/her words or actions has become untrustworthy.

### Story at war with numbers

The company's narrative conflicts with its own actions and/or with the actual results/numbers reported by the company.

### Bad Business Model

The business model has a fundamental flaw that can affect either future profitability or survival, but the management is either in denial about the flaw or opaque in how it plans to deal with it.

### **Meltdown Story**

Investors, lenders and observers question story, unwilling to accept the company's spin on number, pushing pricing down.

#### VC 1.1 Market Supply Capital Product VC 1.2 Big Value business based on big market potential VC 1.3 Supply Capital Product Entrepreneur 1 VCs 1 Value business based on big market potential Supply Capital Product Entrepreneur 2 VCs 2 Value business based on big market potential Supply Capital Entrepreneur 3 Product VCs 3 Value business based on big market potential Entrepreneur 4 Product VCs 4 Big Market Value business based on big market potential Supply Capital Entrepreneur 5 Product VCs 5 Value business based on big market potential Supply Capital Entrepreneur 6 Product VCs 6 Value business based on big market potential Supply Capital Entrepreneur 7 Product VCs 7 Value business based on big market potential

## The Implausible: The Big Market Delusion

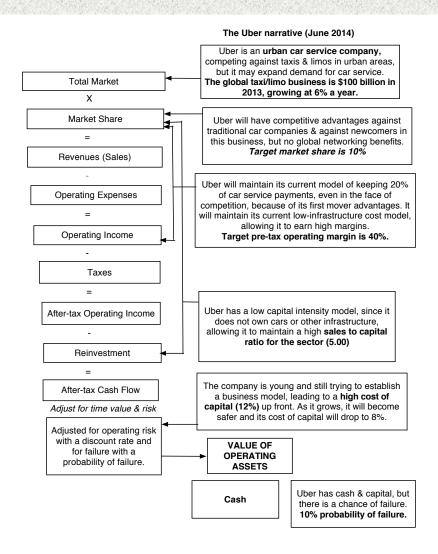
				Breakeven	% from Online	Imputed Online Ad
Company	Market Cap	Enterprise Value	Current Revenues	Revenues (2025)	Advertising	Revenue (2025)
Google	\$441,572.00	\$386,954.00	\$69,611.00	\$224,923.20	89.50%	\$201,306.26
Facebook	\$245,662.00	\$234,696.00	\$14,640.00	\$129,375.54	92.20%	\$119,284.25
Yahoo!	\$30,614.00	\$23,836.10	\$4,871.00	\$25,413.13	100.00%	\$25,413.13
LinkedIn	\$23,265.00	\$20,904.00	\$2,561.00	\$22,371.44	80.30%	\$17,964.26
Twitter	\$16,927.90	\$14,912.90	\$1,779.00	\$23,128.68	89.50%	\$20,700.17
Pandora	\$3,643.00	\$3,271.00	\$1,024.00	\$2,915.67	79.50%	\$2,317.96
Yelp	\$1,765.00	\$0.00	\$465.00	\$1,144.26	93.60%	\$1,071.02
Zillow	\$4,496.00	\$4,101.00	\$480.00	\$4,156.21	18.00%	\$748.12
Zynga	\$2,241.00	\$1,142.00	\$752.00	\$757.86	22.10%	\$167.49
Total US	\$770,185.90	\$689,817.00	\$96,183.00	\$434,185.98		\$388,972.66
Alibaba	\$184,362.00	\$173,871.00	\$12,598.00	\$111,414.06	60.00%	\$66,848.43
Tencent	\$154,366.00	\$151,554.00	\$13,969.00	\$63,730.36	10.50%	\$6,691.69
Baidu	\$49,991.00	\$44,864.00	\$9,172.00	\$30,999.49	98.90%	\$30,658.50
Sohu.com	\$18,240.00	\$17,411.00	\$1,857.00	\$16,973.01	53.70%	\$9,114.51
Naver	\$13,699.00	\$12,686.00	\$2,755.00	\$12,139.34	76.60%	\$9,298.74
Yandex	\$3,454.00	\$3,449.00	\$972.00	\$2,082.52	98.80%	\$2,057.52
Yahoo! Japan	\$23,188.00	\$18,988.00	\$3,591.00	\$5,707.61	69.40%	\$3,961.08
Sina	\$2,113.00	\$746.00	\$808.00	\$505.09	48.90%	\$246.99
Netease	\$14,566.00	\$11,257.00	\$2,388.00	\$840.00	11.90%	\$3,013.71
Mail.ru	\$3,492.00	\$3,768.00	\$636.00	\$1,676.47	35.00%	\$586.76
Mixi	\$3,095.00	\$2,661.00	\$1,229.00	\$777.02	96.00%	\$745.94
Kakaku	\$3,565.00	\$3,358.00	\$404.00	\$1,650.49	11.60%	\$191.46
Total non-US	\$474,131.00	\$444,613.00	\$50,379.00	\$248,495.46		\$133,415.32
<b>Global Total</b>	\$1,244,316.90	\$1,134,430.00	\$146,562.00	\$682,681.44		\$522,387.98

## The Improbable: Willy Wonkitis

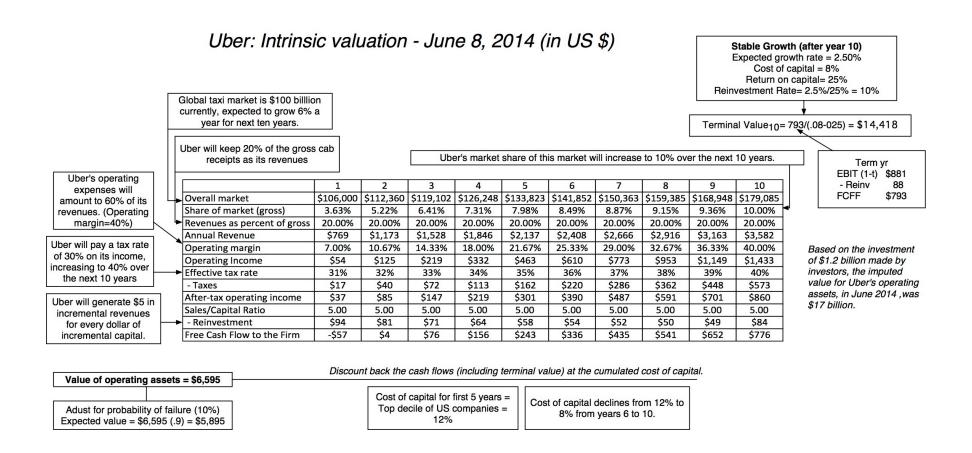
## Tesla: Summary 15-year DCF Analysis (DCF valuation as of mid-year 2013)

	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 202
Unit Volume	24,298	36,883	64,684	86,713	149,869	214,841	291,861	384,747	466,559	550,398	643,850	726,655	820,645	922,481	1,034,215	1,137,78
% Growth	24,290	52%	75%	34%	73%	43%	291,861	384,141	21%	18%	17%		13%	12%		1,137,76
	02.402			78,932	65,465	58,258		55,553	55,991	56,586	56,969	13% E7 E40			12% E0 000	59,55
Automotive Revenue Per Unit (\$)	93,403	85,342	83,432				56,407					57,540	58,138	58,603	59,002	
% Growth		-9%	-2%	-5%	-17%	-11%	-3%	-2%	1%	1%	1%	1%	1%	1%	1%	19
Automotive Sales	2,462	3,321	5,613	7,051	10,025	12,720	16,685	21,595	26,347	31,357	36,897	42,022	47,949	54,283	61,221	67,980
Development Service Sales	16	40	42	44	46	49	51	54	56	59	62	65	68	72	75	79
Total Sales	2,478	3,361	5,655	7,095	10,072	12,768	16,736	21,648	26,403	31,416	36,959	42,087	48,017	54,355	61,296	68,059
% Growth		36%	68%	25%	42%	27%	31%	29%	22%	19%	18%	14%	14%	13%	13%	11%
EBITDA	148	417	920	1,042	1,586	2,150	3,138	4,066	4,857	5,723	6,328	7,182	8,144	9,688	10,874	12,099
% Margin	6.0%	12.4%	16.3%	14.7%	15.7%	16.8%	18.7%	18.8%	18.4%	18.2%	17.1%	17.1%	17.0%	17.8%	17.7%	17.8%
D&A	103	158	172	203	301	353	389	537	606	696	811	938	1,088	1,260	1,451	1,661
% of Capex	41%	79%	55%	65%	62%	69%	78%	86%	79%	77%	75%	76%	76%	76%	76%	77%
EBIT	45	259	748	839	1,285	1,796	2,749	3,529	4,252	5,027	5,517	6,244	7,056	8,429	9,423	10,439
% Margin	1.8%	7.7%	13.2%	11.8%	12.8%	14,1%	16.4%	16.3%	16.1%	16.0%	14.9%	14.8%	14.7%	15.5%	15.4%	15.3%
Net Interest Income (Expense)	(27)	(1)	9	33	47	90	108	155	199	278	358	445	542	651	784	934
Other Income	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pretax Income	46	258	758	872	1,332	1,886	2,857	3,684	4,451	5,305	5,875	6,688	7,598	9,080	10,207	11,373
Income Taxes	3	2	14	34	86	262	462	641	807	1,003	1,134	1,317	1,470	1,761	2,028	2,323
% Effective Rate	6%	1%	2%	4%	6%	14%	16%	17%	18%	19%	19%	20%	1996	1996	20%	20%
Net Income	44	256	744	839	1,246	1,624	2,395	3,043	3,644	4,303	4,741	5,372	6,128	7,319	8,179	9,050
Plus																
After-tax Interest Expense (Income)	27	1	(9)	(33)	(47)	(90)	(108)	(154)	(199)	(278)	(357)	(444)	(541)	(650)	(782)	(932)
Depreciation of PP&E	103	158	172	203	301	353	389	537	606	696	811	938	1,088	1,260	1,451	1,661
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Less Change in Working Capital	(155)	(14)	(157)	(167)	(172)	(325)	(163)	(81)	(28)	(299)	(356)	(328)	(219)	(329)	(365)	(376)
	(130)	-								-			-			
% of Change in Sales		-2%	-7%	-12%	-6%	-12%	-4%	-2%	-1%	-6%	-6%	-6%	-4%	-5%	-5%	-6%
Capital Expenditures	250	200	312	312	486	510	497	623	765	906	1,078	1,236	1,437	1,660	1,898	2,149
% of Sales	10%	6%	6%	4%	5%	4%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unlevered Free Cash Flow	78	229	750	863	1,186	1,702	2,343	2,884	3,314	4,113	4,472	4,959	5,456	6,597	7,315	8,005
													EBITDA Sales			12,099
													Net Debt (Cas	ret.		(260
													Tesla Diluted			142
													resia Diiuleu	onares		192
Exit EBITDA High							12.0	,	Exit PPG High		5.0%		Exit P/Sales H	diah	180%	
Exit EBITDA Low							8.0		Exit PPG Low		3.0%		Exit P/Sales I		130%	
EMI CONTON COM							0.0 1		LALFF G LOW		3.0%		LAN FIGURES L	.om	13076	
							Discount Rat		13.0%		FY Month of			Beginning of		
							Discount Rag	e Low	9.0%		Month of FY	End	12.0 (8	End of this M	onth)	

# STEP 4: CONNECT YOUR NARRATIVE TO KEY DRIVERS OF VALUE



## STEP 4: VALUE THE COMPANY (UBER)



## STEP 5: KEEP THE FEEDBACK LOOP OPEN...

- 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.
- Not just urban: Uber can create new demands for car service in parts of the country where taxis are not used (suburbia, small towns).
- 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	Uber will expand the car service	Uber will expand the car service
	market substantially, bringing in	market substantially, bringing in	market moderately, primarily in
	mass transit users & non-users	mass transit users & non-users from	urban environments, and use its
	from the suburbs into the market,	the suburbs into the market, and use	competitive advantages to get a
	and use its <u>networking</u> advantage	its <u>networking advantage</u> to gain a	significant but not dominant
	to gain a dominant market share,	dominant market share, while	market share and maintain its
	while maintaining its revenue slice	cutting prices and margins (to 10%).	revenue slice at 20%.
	at 20%.		
Total	\$300 billion, growing at 3% a year	\$300 billion, growing at 3% a year	\$100 billion, growing at 6% a year
Market			
Market	40%	40%	10%
Share			
Uber's	20%	10%	20%
revenue			
slice			
Value for	\$53.4 billion + Option value of	\$28.7 billion + Option value of	\$5.9 billion + Option value of
Uber	entering car ownership market	entering car ownership market (\$6	entering car ownership market (\$2-
	(\$10 billion+)	billion+)	3 billion)

## DIFFERENT NARRATIVES, DIFFERENT NUMBERS

Total Market	Growth Effect	Network Effect	Competitive Advantages	Value of Uber
A4. Mobility Services	B4. Double market size	C5. Strong global network effects	D4. Strong & Sustainable	\$90,457
A3. Logistics	B4. Double market size	C5. Strong global network effects	D4. Strong & Sustainable	\$65,158
A4. Mobility Services	B3. Increase market by 50%	C3. Strong local network effects	D3. Semi-strong	\$52,346
A2. All car service	B4. Double market size	C5. Strong global network effects	D4. Strong & Sustainable	\$47,764
A1. Urban car service	B4. Double market size	C5. Strong global network effects	D4. Strong & Sustainable	\$31,952
A3. Logistics	B3. Increase market by 50%	C3. Strong local network effects	D3. Semi-strong	\$14,321
A1. Urban car service	B3. Increase market by 50%	C3. Strong local network effects	D3. Semi-strong	\$7,127
A2. All car service	B3. Increase market by 50%	C3. Strong local network effects	D3. Semi-strong	\$4,764
A4. Mobility Services	B1. None	C1. No network effects	D1. None	\$1,888
A3. Logistics	B1. None	C1. No network effects	D1. None	\$1,417
A2. All car service	B1. None	C1. No network effects	D1. None	\$1,094
A1. Urban car service	B1. None	C1. No network effects	D1. None	\$799

# STEP 6: BE READY TO MODIFY NARRATIVE AS EVENTS UNFOLD

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			