

NARRATIVE AND NUMBERS: VALUATION AS A BRIDGE

Tell me a story..

VALUATION AS A BRIDGE

Number Crunchers

What stories do for a numbers valuation

1. Stories are better "hooks" & more memorable.
2. Stories force consistency tests on numbers.
3. Stories allow for follow through in businesses.

Valuation Numbers

The Dangers of a pure numbers valuation

1. You can "play" with numbers to change value
2. You can fool yourself with false precision
3. You can deny your own biases

Story Tellers

What numbers can do for a story valuation

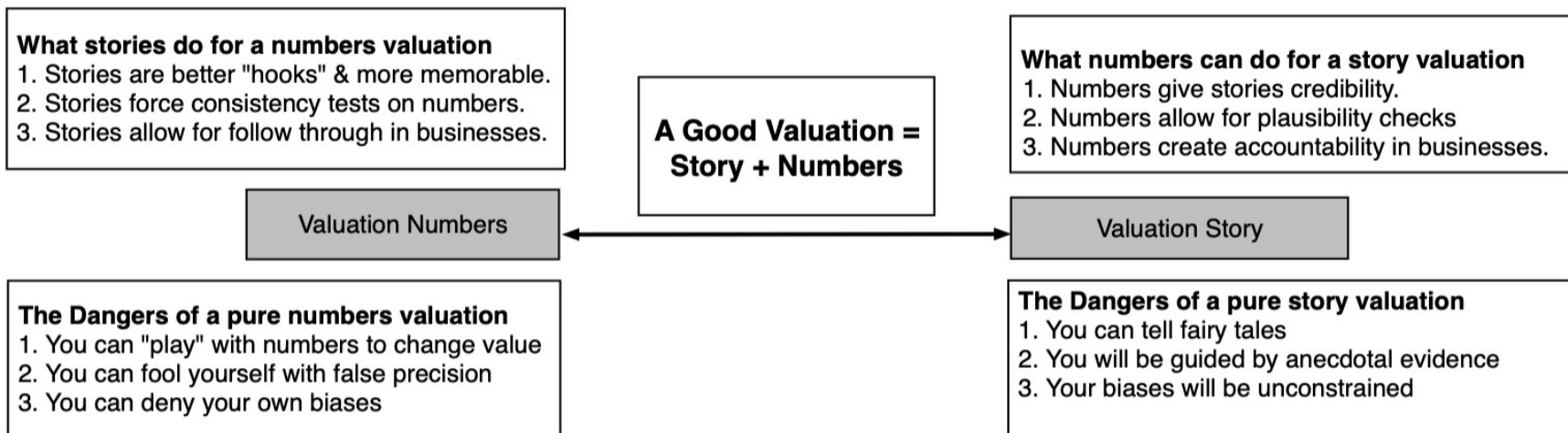
1. Numbers give stories credibility.
2. Numbers allow for plausibility checks
3. Numbers create accountability in businesses.

Valuation Story

The Dangers of a pure story valuation

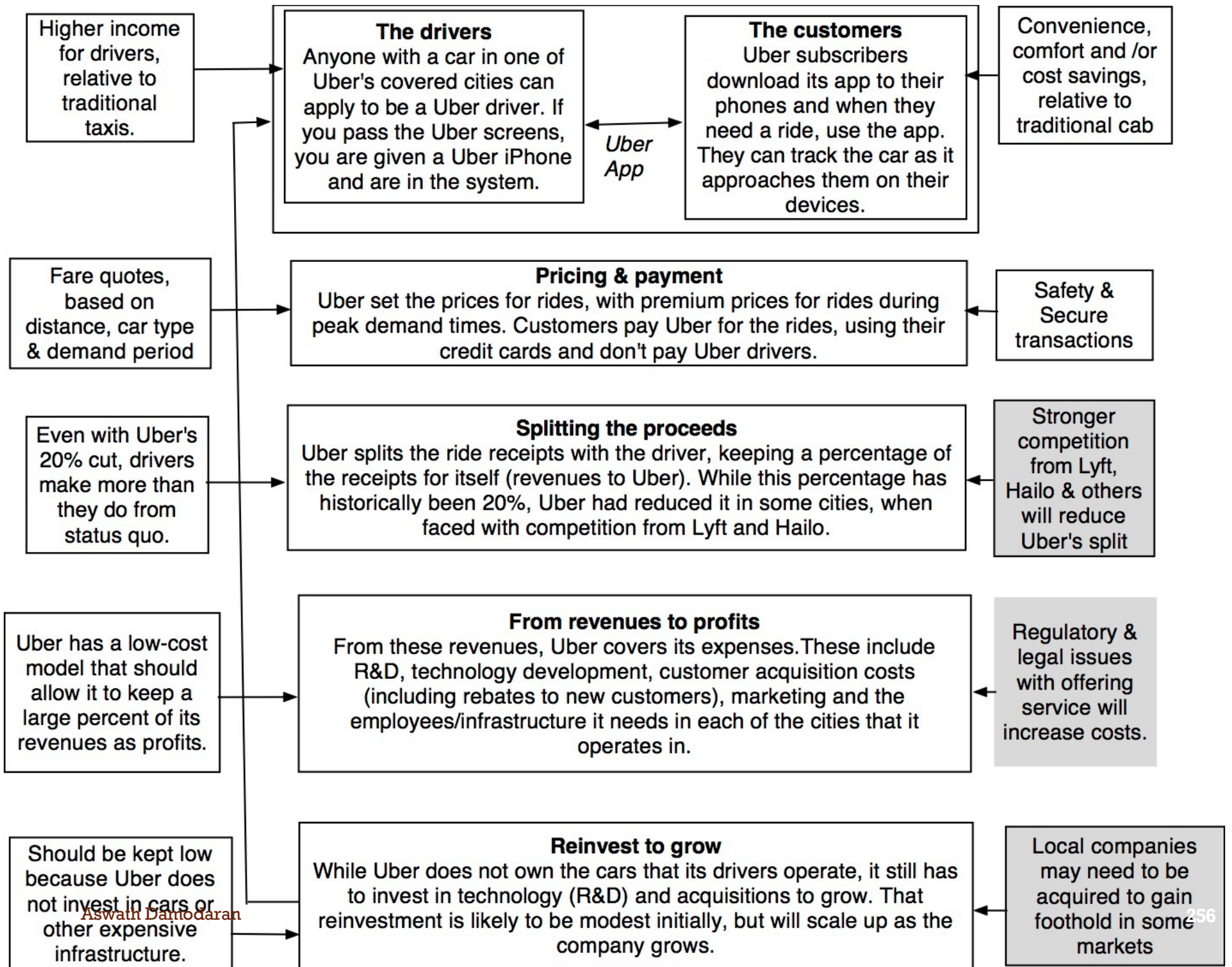
1. You can tell fairy tales
2. You will be guided by anecdotal evidence
3. Your biases will be unconstrained

**A Good Valuation =
Story + Numbers**



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.



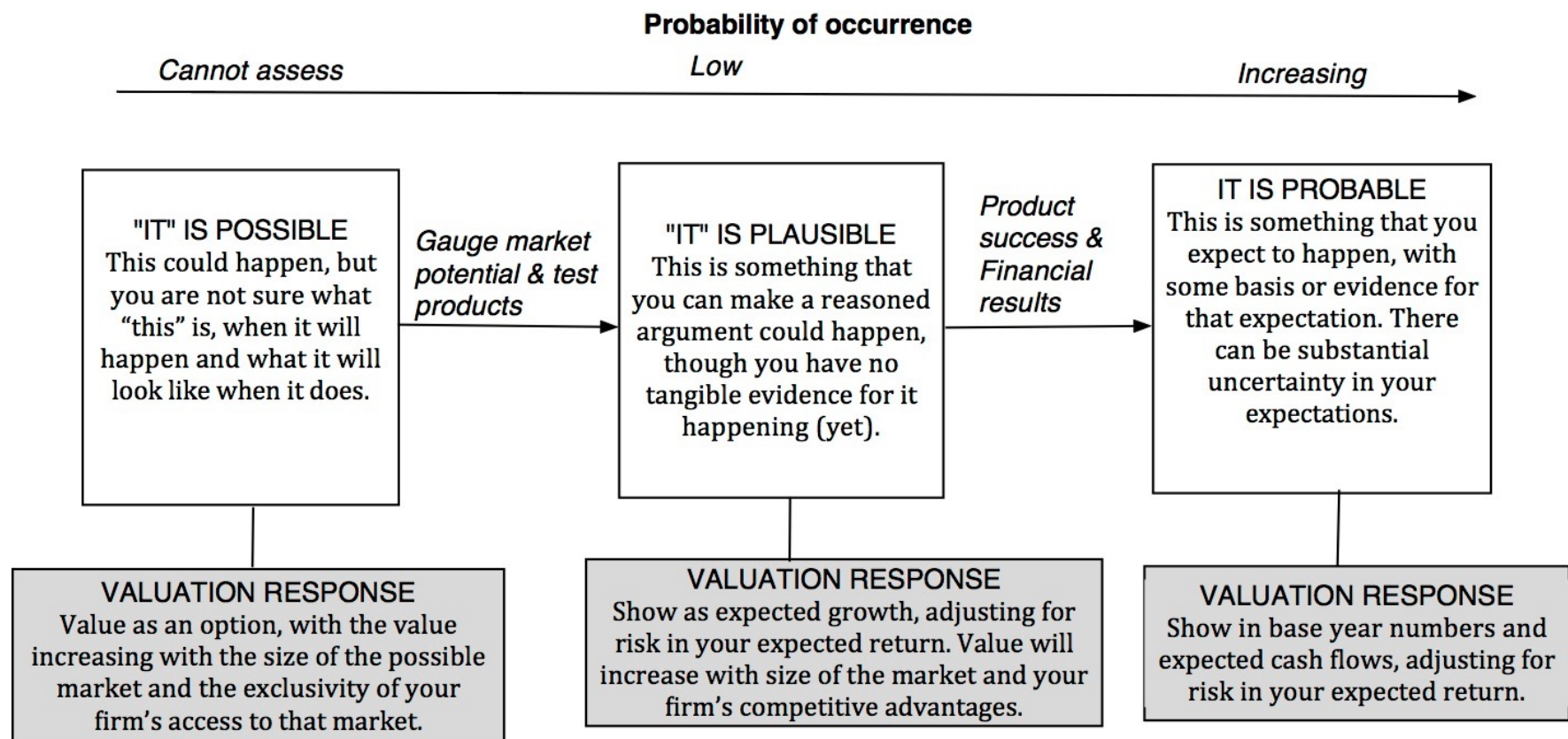
STEP 2: CREATE A NARRATIVE FOR THE FUTURE

- 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 exceed 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.

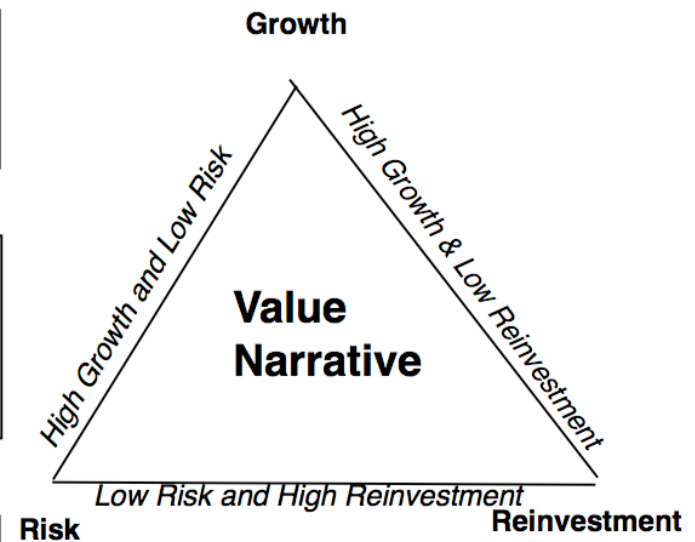
Profits without competition

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

Returns without risk

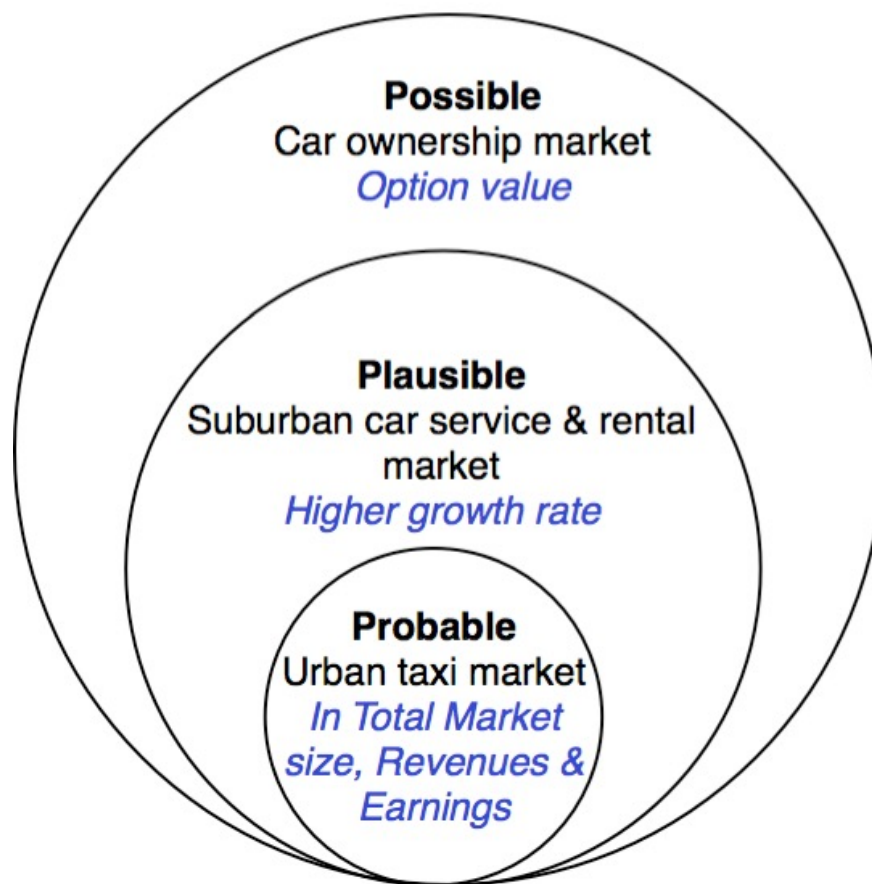
Assuming that you can generate high returns in a business with no risk.

The Improbable



UBER: POSSIBLE, PLAUSIBLE AND PROBABLE

Uber (My narrative))

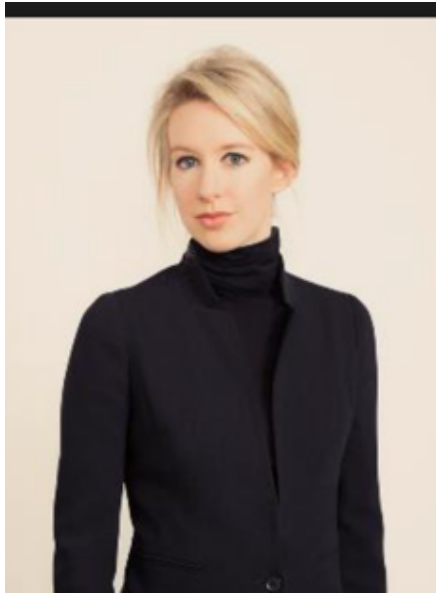


THE RUNAWAY STORY: WHEN YOU WANT A STORY TO BE TRUE...

- 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

The Story



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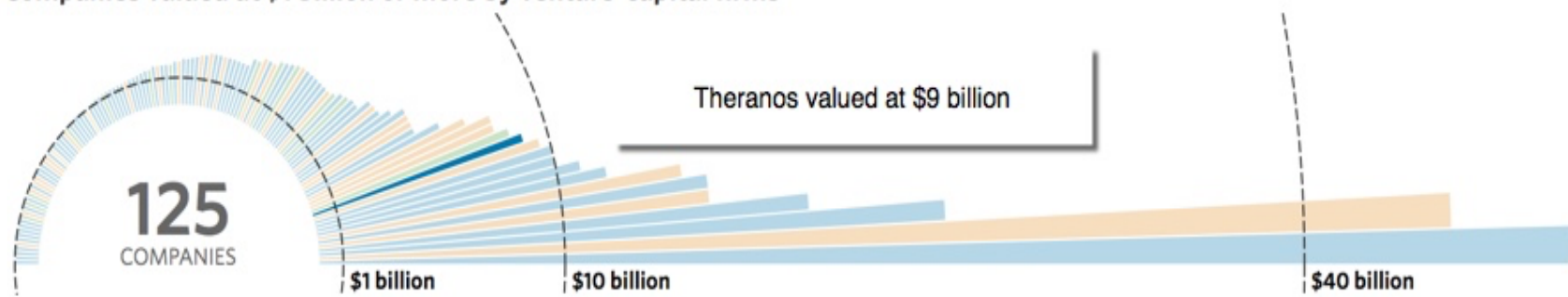
The Checks (?)

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	Epidemiologist	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

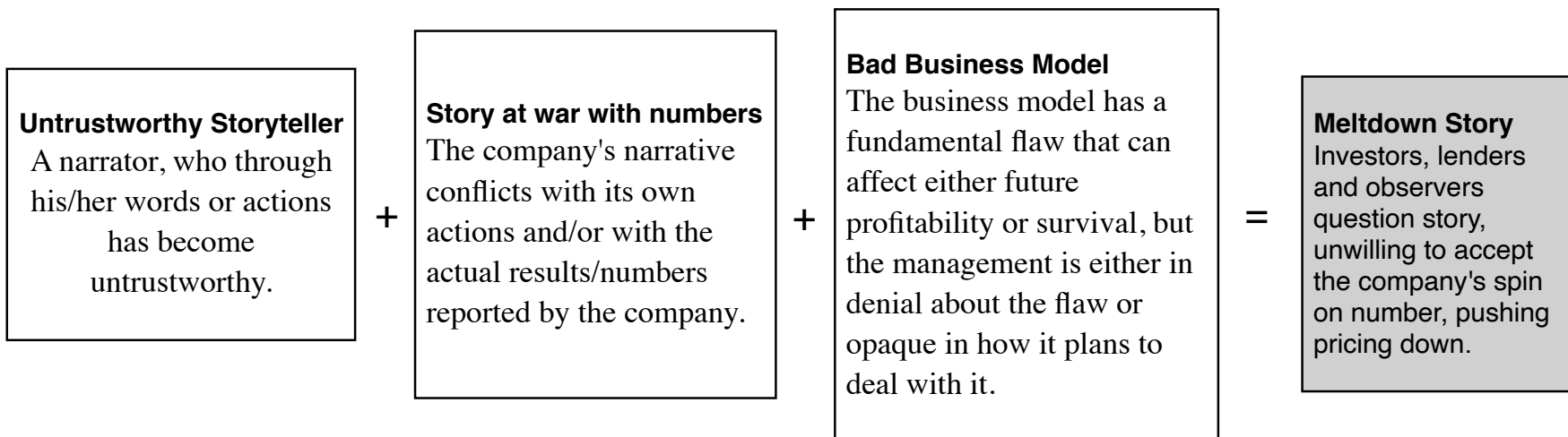


Valuations as of **October 2015**

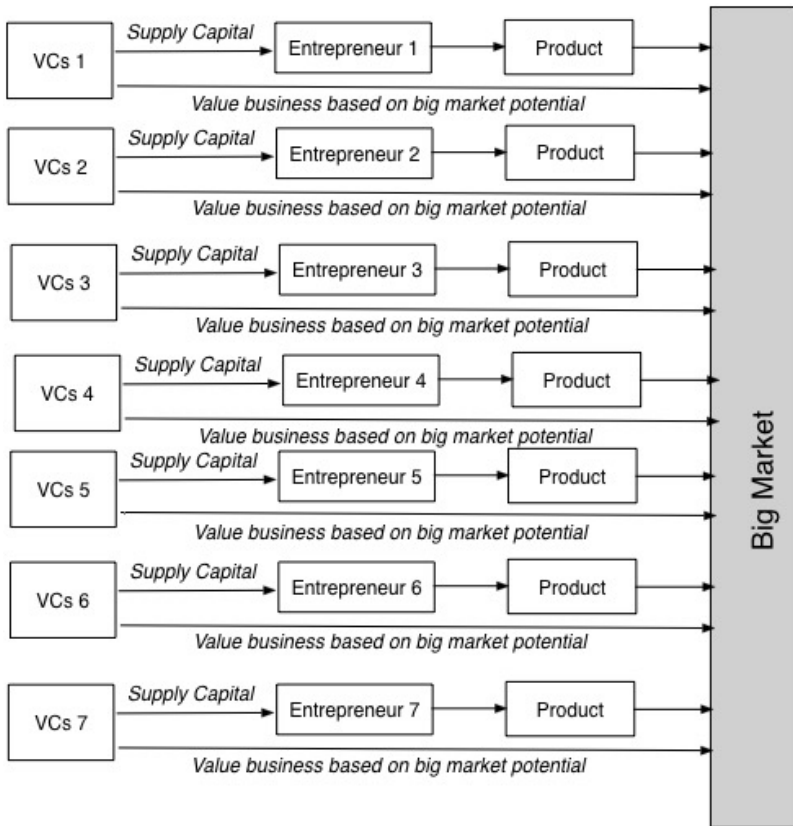
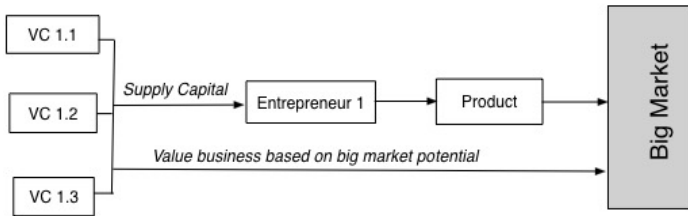
Select companies from the chart or table for more detail.

WHEN RUNAWAY STORIES MELT DOWN..

The Meltdown Story



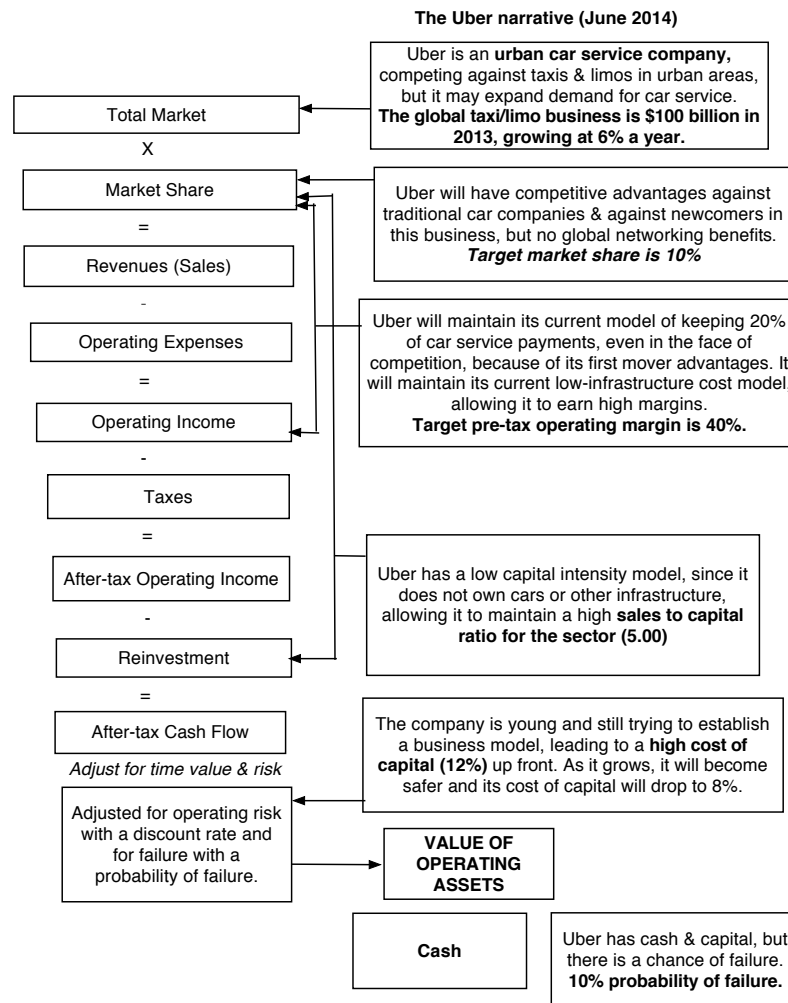
The Implausible: The Big Market Delusion



Company	Market Cap	Enterprise Value	Current Revenues	Breakeven Revenues (2025)	% from Online Advertising	Imputed Online Ad 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
Global Total	\$1,244,316.90	\$1,134,430.00	\$146,562.00	\$682,681.44		\$522,387.98

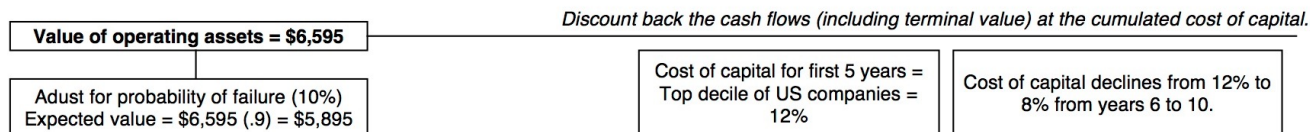
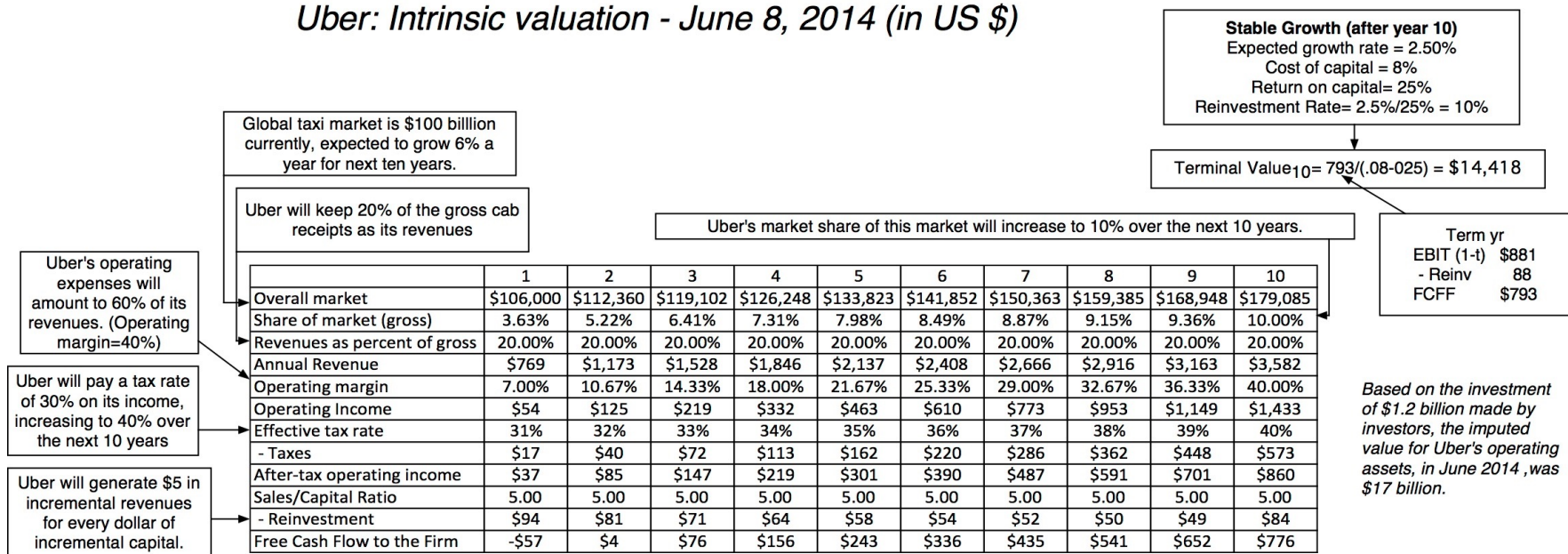


STEP 4: CONNECT YOUR NARRATIVE TO KEY DRIVERS OF VALUE



STEP 4: VALUE THE COMPANY (UBER)

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



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

	<i>Uber (Gurley)</i>	<i>Uber (Gurley Mod)</i>	<i>Uber (Damodaran)</i>
Narrative	Uber will <u>expand the car service market substantially</u> , bringing in mass transit users & non-users from the suburbs into the market, and use its <u>networking advantage</u> to gain a <u>dominant market share</u> , while maintaining its revenue slice at 20%.	Uber will <u>expand the car service market substantially</u> , bringing in mass transit users & non-users from the suburbs into the market, and use its <u>networking advantage</u> to gain a <u>dominant market share</u> , while cutting prices and margins (to 10%).	Uber will expand the car service market moderately, primarily in urban environments, and use its <u>competitive advantages</u> to get a <u>significant but not dominant market share</u> 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)

DIFFERENT NARRATIVES, DIFFERENT NUMBERS

<i>Total Market</i>	<i>Growth Effect</i>	<i>Network Effect</i>	<i>Competitive Advantages</i>	<i>Value of Uber</i>
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