THE DARK SIDE OF VALUATION:
BIAS, UNCERTAINTY AND COMPLEXITY

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Accounting ≠ Valuation

Assets are recorded at original cost, adjusted for depreciation.

An Accounting Balance Sheet

Assets		Liabilities	
Long Lived Real Assets	Fixed Assets	Current Liabilties	Short-term liabilities of the firm
Short-lived Assets	Current Assets	Debt	Debt obligations of firm
Investments in securities & assets of other firms	Financial Investments	Other Liabilities	Other long-term obligations
Range the spectrum from customer lists to patents to the most common, goodwill	Intangible Assets	Equity	Equity investment in firm

Equity reflects original capital invested and historical retained earnings.

Recorded at intrinsic value (based upon cash flows and risk), not at original cost

A Financial Balance Sheet

Assets			Liabilities	
Existing Investments Generate cashflows today	Investments already made	*Mature companies get most of their value from existing assets.*	Debt	*Intrinsic value of equity, reflecting intrinsic value of assets, net of true value of debt outstanding.*
Expected Value that will be created by future investments	Investments yet to be made	*Growth companies derive a significant proportion of their value from growth assets.*	Equity	

Value will depend upon magnitude of growth investments and excess returns on these investments

Value ≠ 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

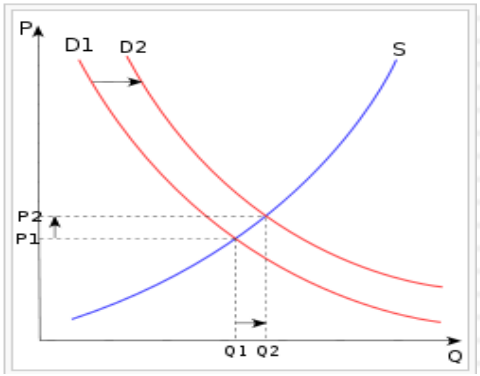
INTRINSIC VALUE

Value

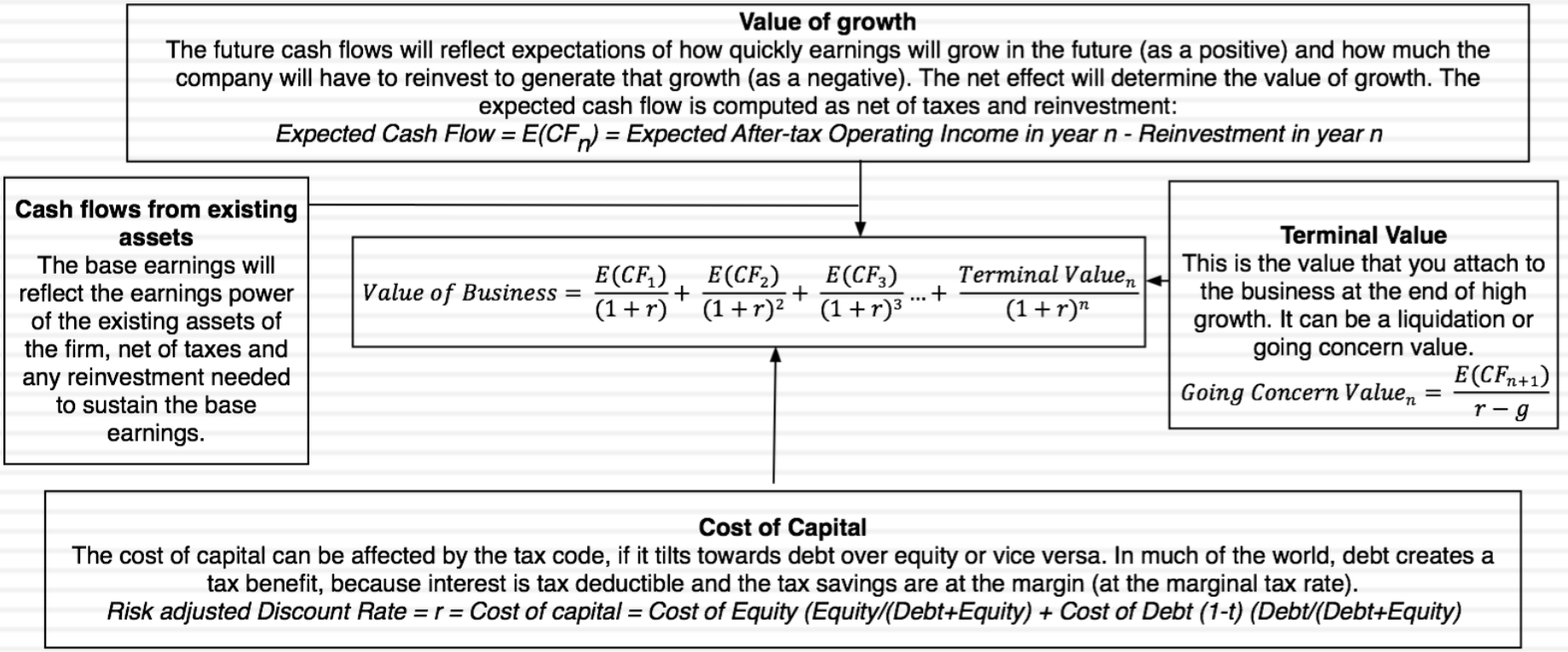
THE GAP
Is there one?
If so, will it close?
If it will close, what will cause it to close?

Price

PRICE

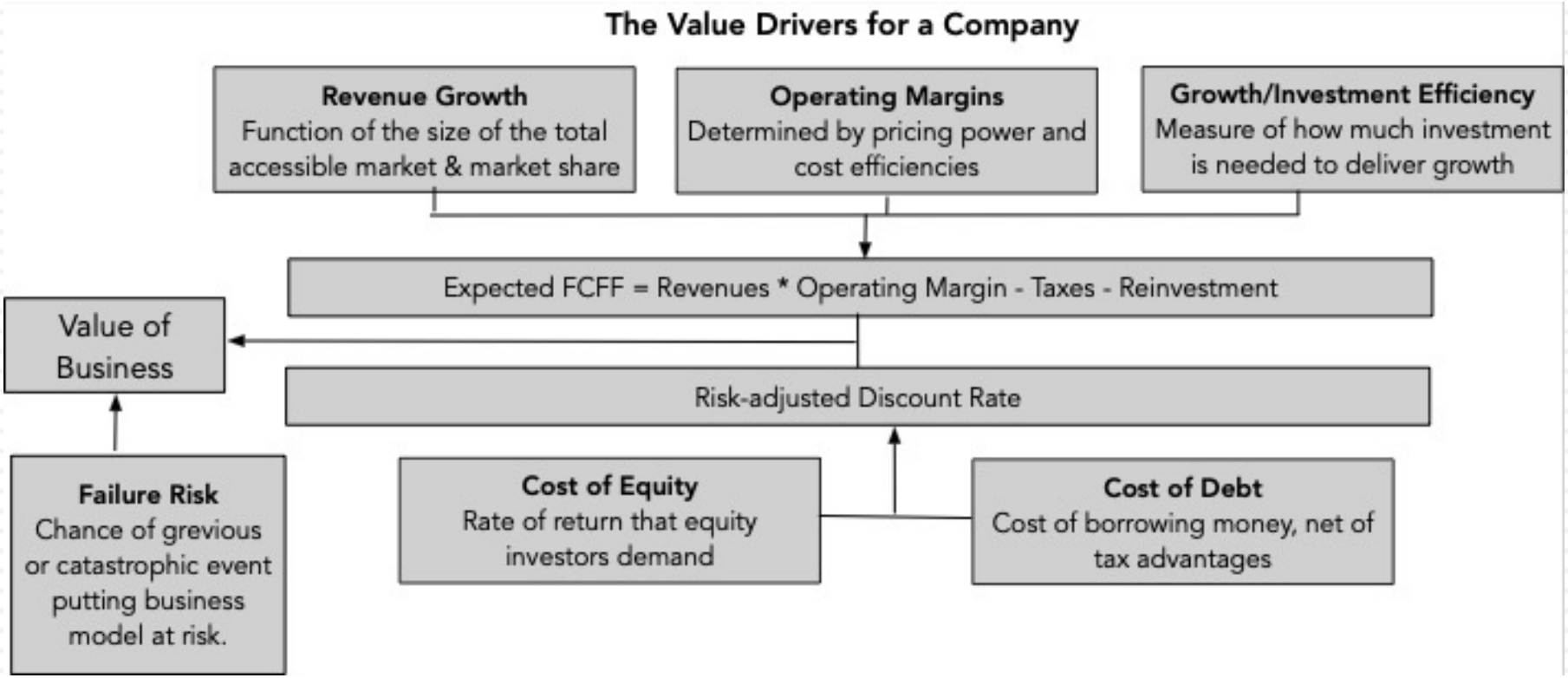


Valuation is simple. We choose to make it complex!

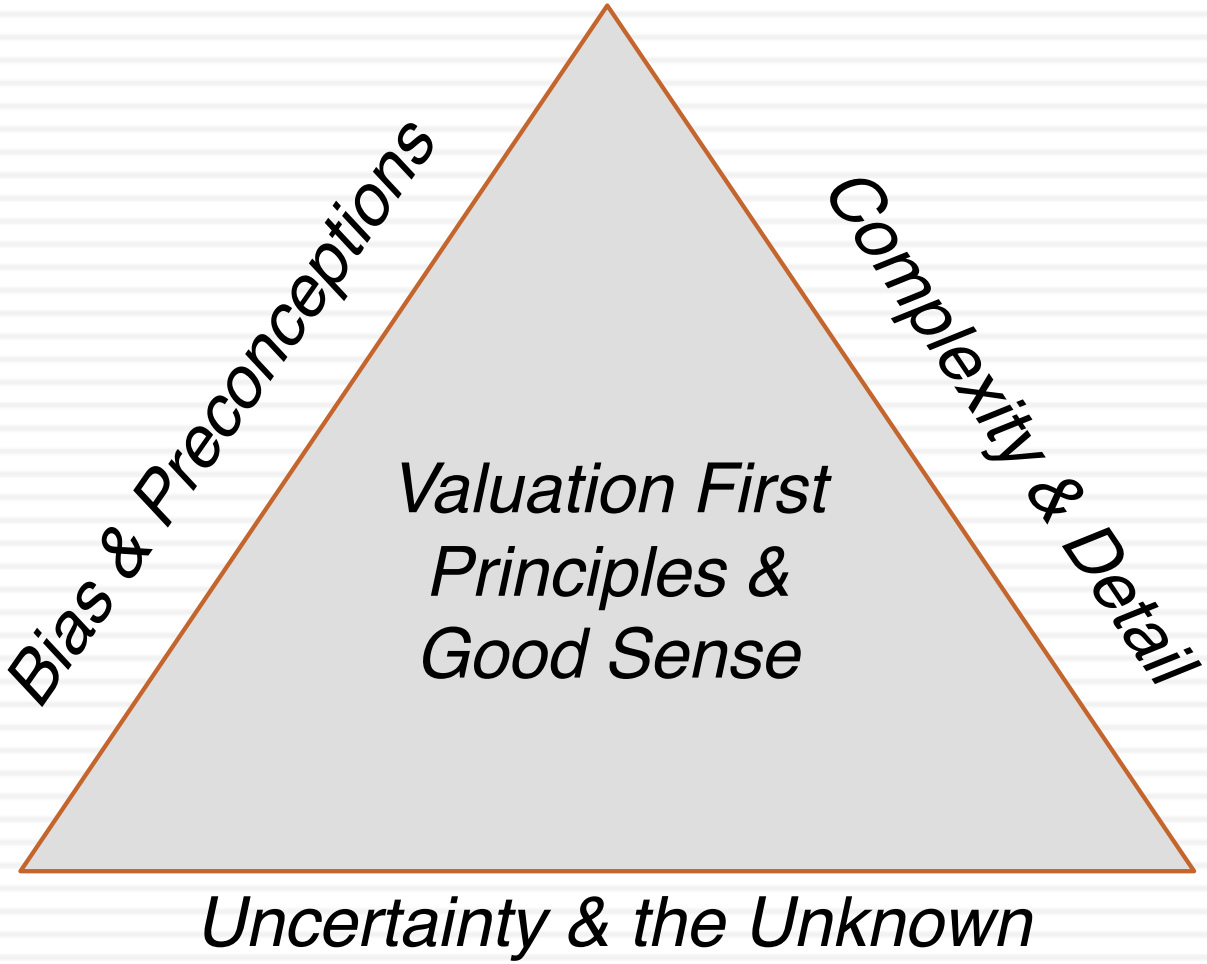


Going Concern Va

And Business Drivers that determine value…



But here's why valuation fails – The Bermuda Triangle of Valuation



I. Valuation Bias

- Preconceptions and priors: When you start on the valuation of a company, you almost never start with a blank slate. Instead, your valuation is shaped by your prior views of the company in question.
  - Corollary 1: The more you know about a company, the more likely it is that you will be biased, when valuing the company.
  - Corollary 2: The "closer" you get to the management/owners of a company, the more biased your valuation of the company will become.
- Value first, valuation to follow: In principle, you should do your valuation first before you decide how much to pay for an asset. In practice, people often decide what to pay and do the valuation afterwards.

Sources of bias

- The power of the subconscious: We are human, after all, and as a consequence are susceptible to
  - Herd behavior: For instance, there is the "market price" magnet in valuation, where estimates of intrinsic value move towards the market price with each iteration.
  - Hindsight bias: If you know the outcome of a sequence of events, it will affect your valuation. (That is why teaching valuation with cases is an exercise in futility)
- The power of suggestion: Hearing what others think a company is worth will color your thinking, and if you view those others as more informed/smarter than you are, you will be influenced even more.
- The power of money: If you have an economic stake in the outcome of a valuation, bias will almost always follow.
  - Corollary 1: Your bias in a valuation will be directly proportional to who pays you to do the valuation and how much you get paid.
  - Corollary 2: You will be more biased when valuing a company where you already have a position (long or short) in the company.

Biasing a DCF valuation: A template of "tricks"

If you want higher (lower) value, you can
1. Augment (haircut) earnings
2. Reduce(increase) effective tax rate
3. Ignore (Count in) unconventional cap ex
4. Narrow (Broaden) definition of working capital

If you want to increase (decrease) value, you can
1. Use higher (lower) growth rates
2. Assume less (more) reinvestment with the same growth rate, thus raising (lowering) the quality and value of growth.

Free Cashflow to Firm
EBIT (1- tax rate)
- (Cap Ex - Depreciation)
- Change in non-cash WC
= Free Cashflow to firm

Expected Growth in FCFF during high growth

If you want to increase (decrease) value, you can
1. Assume a longer (shorter) growth period
2. Assume more (less) excess returns over the growth period

Length of high growth period: PV of FCFF during high

Value of Operating Assets today
+ Cash & non-operating assets
- Debt
Value of equity

If you want to increase (decrease) value, you can add (subtract) premiums (discounts) for things you like (dislike) about the company.
Premiums: Control, Synergy, liquidity
Discounts: Illiquidity, private company

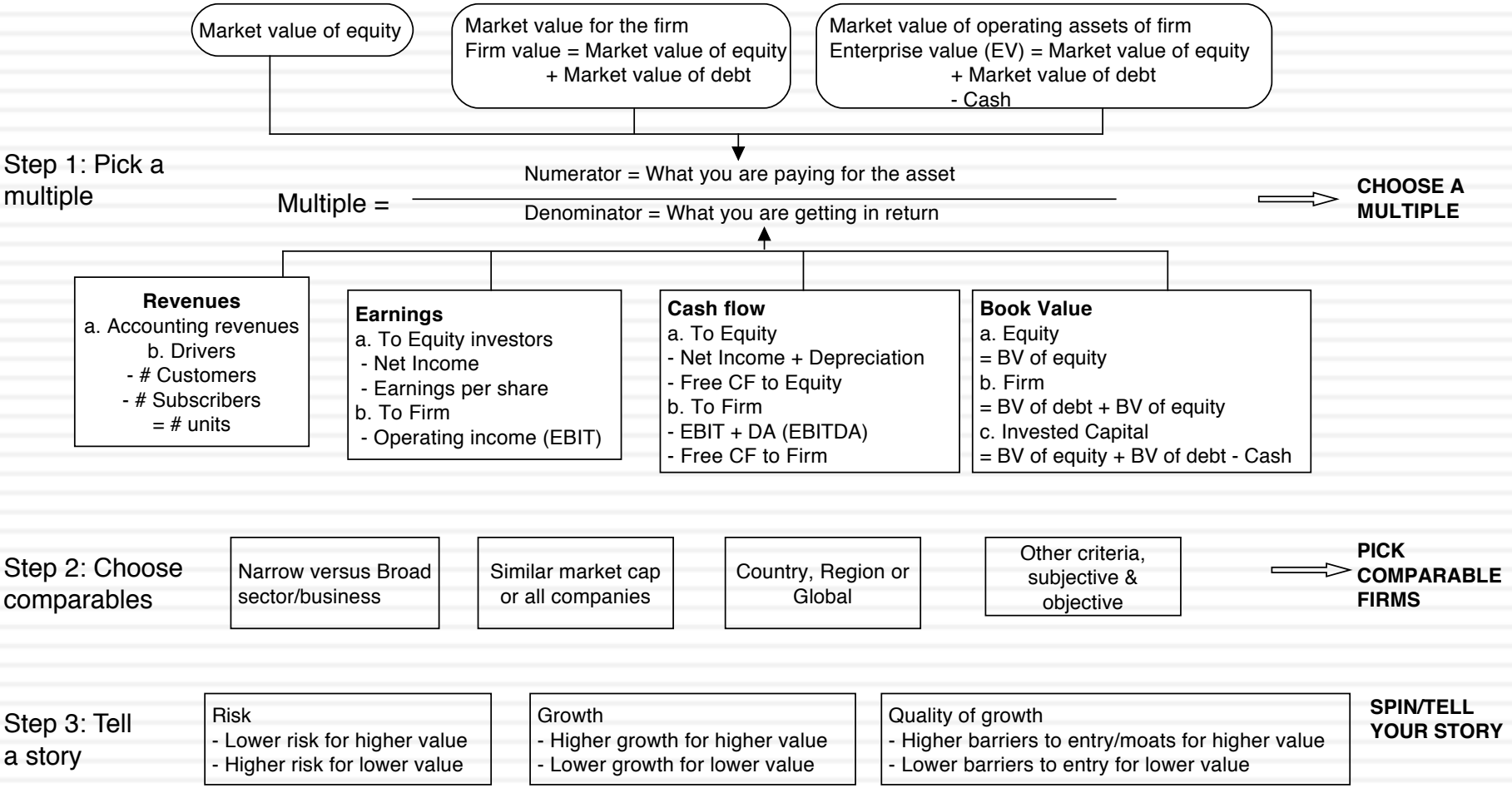
Cost of Capital
Weighted average of cost of equity & cost of debt

If you want to increase (decrease) value, you can
1. Assume a higher (lower) debt ratio, with the same costs of debt & equity. You may be able to accomplish this by using book (market) value debt ratios.
2. Use a lower (higher) equity risk premium for equity and a lower (higher) default spread for debt.
3. Find a "lower" ("higher") beta for your stock.
4. Don't add (add) other premiums to the cost of equity (small cap?)

Stable Growth
When operating income and FCFF grow at constant rate forever.

If you want to increase value, you can
1. Use stable growth rates that are economically impossible (higher than the growth rate of the economy)
2. Allow this growth to be accompanied by high positive excess returns (low reinvestment)
If you want to decrease value, you can
1. Use lower growth rates in perpetuity
2. Accompany this growth with high negative excess returns

Manifestations of Bias: Relative Valuation



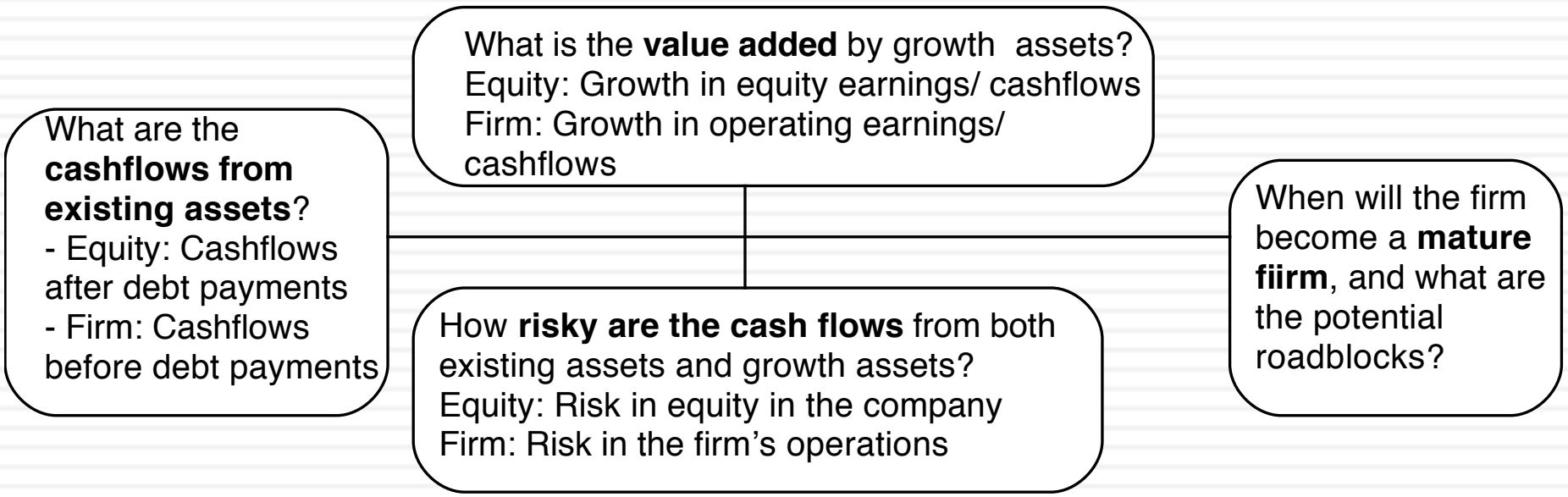
Dealing with bias: The "bad" ways

- I use only numbers: The easiest defense is to argue that you are only using numbers and that bias requires subjective judgments.
- I am a "professional": Valuation professionals point to the requirements of their professional groups (CPA, CFA, CVA etc.) that they be unbiased.
- It is a "FAIR" value (with my lawyer/accountant's imprimatur): The most common response to bias is to add legal or accounting cover.
  - Legal fair value: In most countries, investment bankers have to sign a legal document that their value is a "fair" value.
  - Accounting fair value: Accountants have jumped into the mix and have set up standards for fair value.

Healthy responses to bias

- Build processes that minimize bias, not maximize it: To the degree that a significant portion of bias comes from reward/punishment mechanisms, we need to build processes that disassociate the valuation outcome from compensation.
- Be honest (at least with yourself): Even if you may not want to reveal your biases to your clients, you should at least be honest with yourself.
- Bayesian valuation: It may be a good idea to require anyone valuing a company to state what they believe that they will find in the valuation, before they actually do the valuation. Anyone using the valuation should then have access to both the analyst's priors and the valuation.
- Transparency about motives: All valuations should be accompanied with full details of who is paying for the valuation and how much, as well as any other stakes in the outcome of the valuation.

II. Valuation Uncertainty



The sources of uncertainty

- Estimation versus Economic uncertainty
  - Estimation uncertainty reflects the possibility that you could have the "wrong model" or estimated inputs incorrectly within this model.
  - Economic uncertainty comes the fact that markets and economies can change over time and that even the best medals will fail to capture these unexpected changes.
- Micro uncertainty versus Macro uncertainty
  - Micro uncertainty refers to uncertainty about the potential market for a firm's products, the competition it will face and the quality of its management team.
  - Macro uncertainty reflects the reality that your firm's fortunes can be affected by changes in the macro economic environment.
- Discrete versus continuous uncertainty
  - Discrete risk: Risks that lie dormant for periods but show up at points in time. (Examples: A drug working its way through the FDA pipeline may fail at some stage of the approval process or a company in Venezuela may be nationalized)
  - Continuous risk: Risks changes in interest rates or economic growth occur continuously and affect value as they happen.

Unhealthy ways of dealing with uncertainty

- Paralysis & Denial: When faced with uncertainty, some of us get paralyzed. Accompanying the paralysis is the hope that if you close your eyes to it, the uncertainty will go away
- Mental short cuts (rules of thumb): Behavioral economists note that investors faced with uncertainty adopt mental short cuts that have no basis in reality. And here is the clincher. More intelligent people are more likely to be prone to this.
- Herding: When in doubt, it is safest to go with the crowd.. The herding instinct is deeply engrained and very difficult to fight.
- Outsourcing: Assuming that there are experts out there who have the answers does take a weight off your shoulders, even if those experts have no idea of what they are talking about.
- Divine Intervention: The oldest risk management tool known to man..

Healthy responses to uncertainty

1. Less is more (the rule on detail….) (Revenue & margin forecasts)
2. Build in internal checks on reasonableness… (reinvestment and ROC)
3. Use the offsetting principle (risk free rates & inflation)
4. Draw on economic first principles (Terminal value at all the companies)
5. Use the "market" as a crutch (equity risk premiums, country risk premiums)
6. Use the law of large numbers (Regression beta vs Sector average)
7. Don't let the discount rate become the receptacle for all uncertainties.
8. Confront uncertainty, if you can
9. Don't look for precision

Zomato IPO: The Business Model

- 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.

The 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

Difference Drivers

- 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. Thus, it should come as no surprise that the number of restaurants increases with per capita GDP, and that one reason for the paucity of restaurants(and food delivery) in India is its low GDP, less than a fifth of per capital GDP in China and a fraction of per capital GDP in the US & EU.
- 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. Looking at the number of restaurants in China and the size of its food delivery market, it is quite clear that Chinese consumers are far more willing to eat out (either in person at or with delivery from restaurants) than people living in the US and EU, especially if you control for per capita income differences.

Indian Market Size, adjusted for income and digital reach…

	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

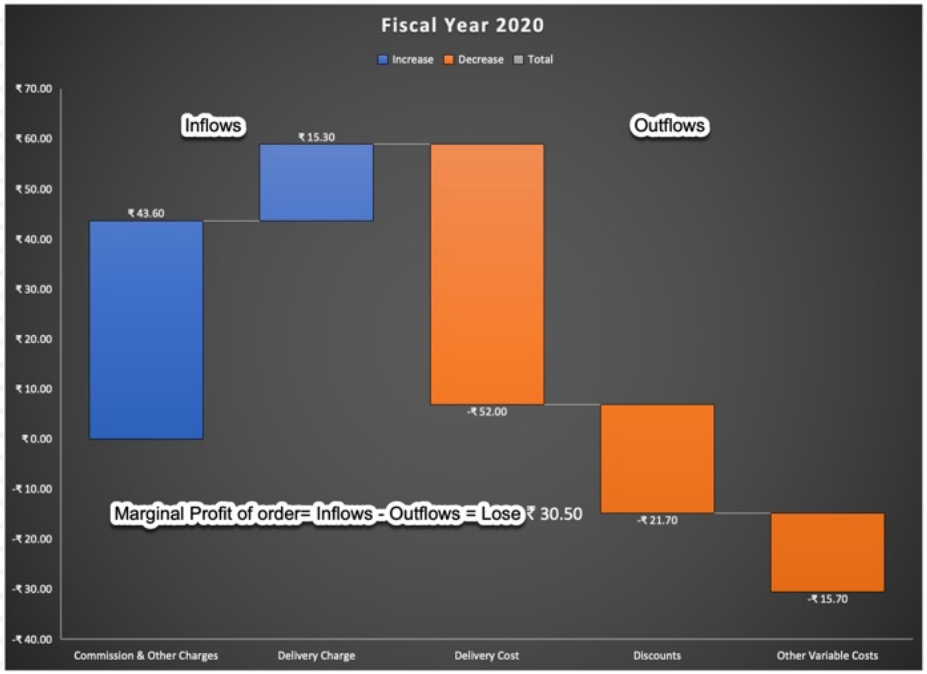
Zomato: The Prospectus

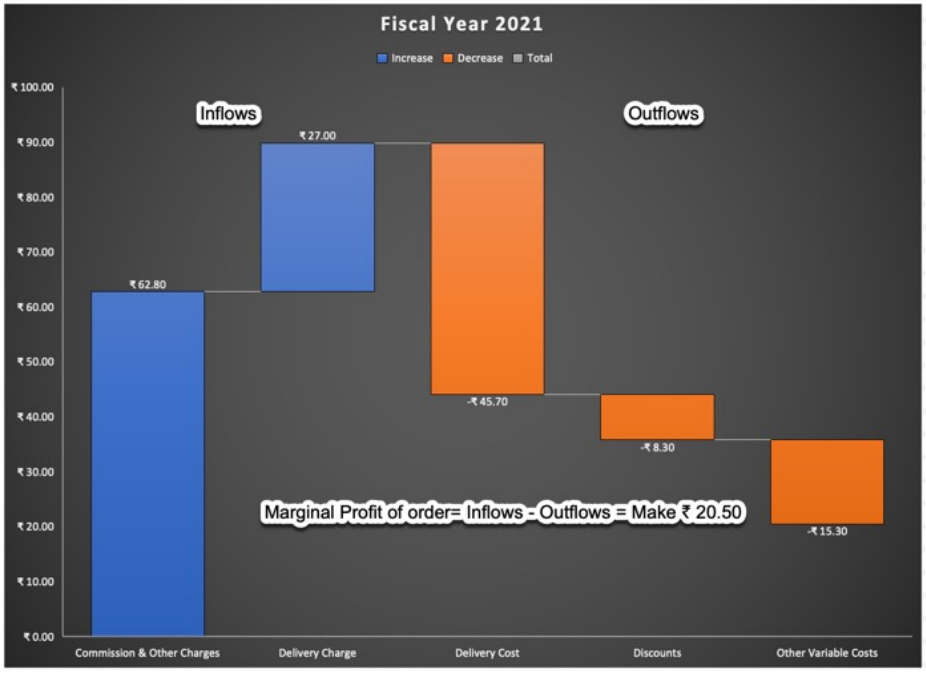
- Definitions and abbreviations: The prospectus starts, and I wonder whether this is by design, with 17 pages of abbreviations of terms, some of which are obvious and need no definition (board of directors, shareholders), some of which are meaningless even when expanded (19 classes of preferred shares, all of which will be replaced with common shares after the IPO) and some of which are just corporate names.
- Risk Profile: If you did not believe my assertions about the pointlessness of risk sections in IPOs, please do read all 30 pages of Zomato's risk profile (pages 39-68 of the prospectus). The company lists 69 different risks investors may face from investing in the company, and after you have read them all, I dare you to list three on that list that you would remember.
- Subsidiary/Holdings Mess: I find it mind boggling that a company that is only thirteen years old has managed to accumulate as many subsidiaries, both in India and overseas, as Zomato has done. Since Zomato owns 100% of most of these subsidiaries, there may be legal or tax reasons for this structure, but there is no denying that it adds complexity (and pages) to the prospectus, with no real information benefits.

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**

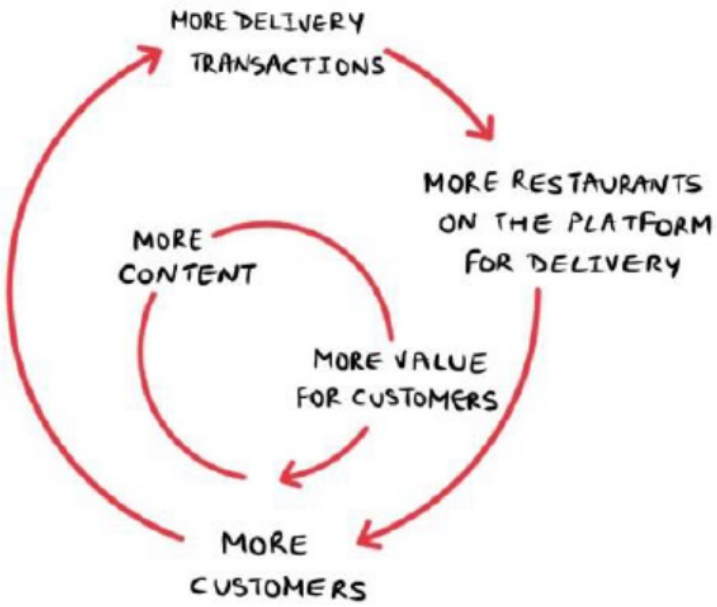
Unit Economics



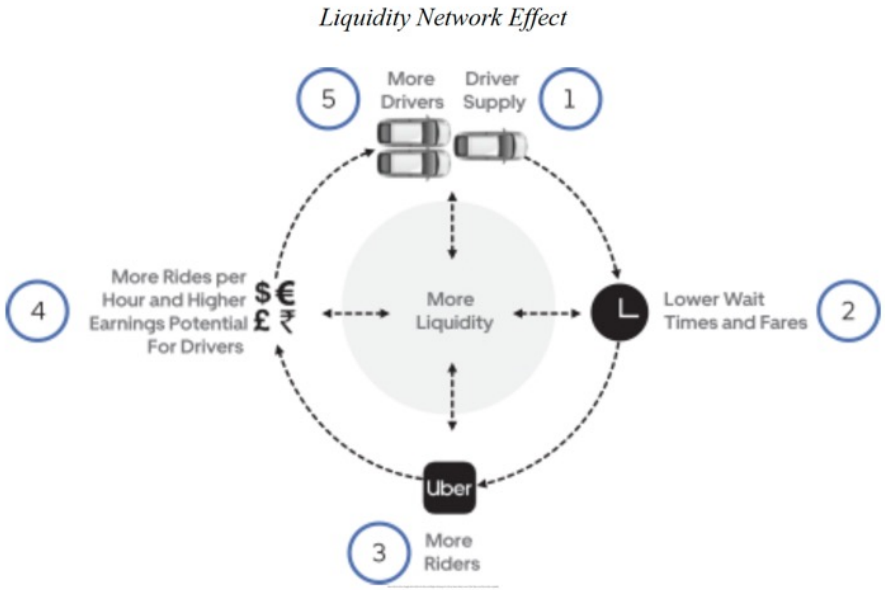


Competitive Advantages

The Zomato Network Effect (Zomato Prospectus 2021)



The Uber Network Effect (Uber Prospectus 2019)

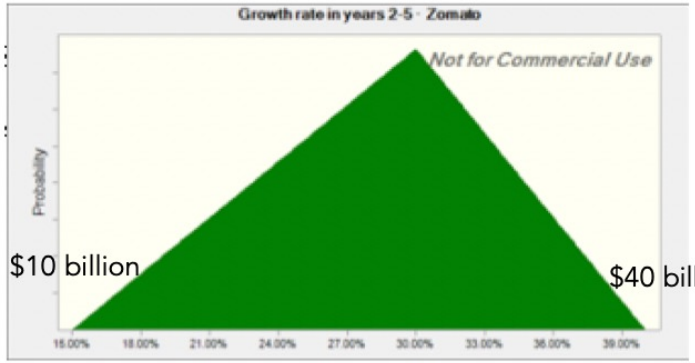


Zomato: Story Pieces

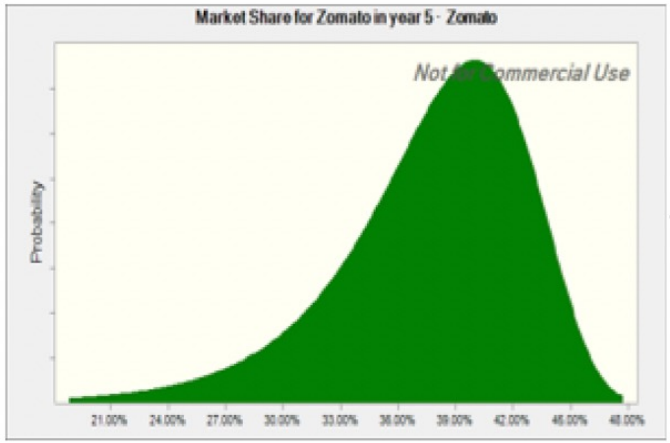
- Total Market:, I find it hard to see the *total market exceeding $40 billion, with US $20-$30 billion, in ten years,* being a more likely outcome. (In rupee terms, this will translate into a market that is roughly 1800-2000 billion INR.)
- Market Share: Expecting any company to have a *market share 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: Zomato is a money losing company, but it is no start-up, facing imminent failure. On the plus side, its size and access to capital, as well as its post-IPO augmented cash balance, push down the risk of failure. Overall, I will attach a likelihood of failure of 10%, reflecting this balance.

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

Growth in Indian Food Delivery Market

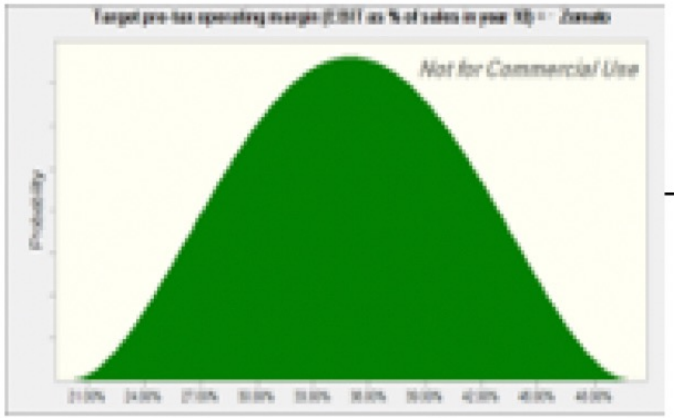


Zomato's Market Share

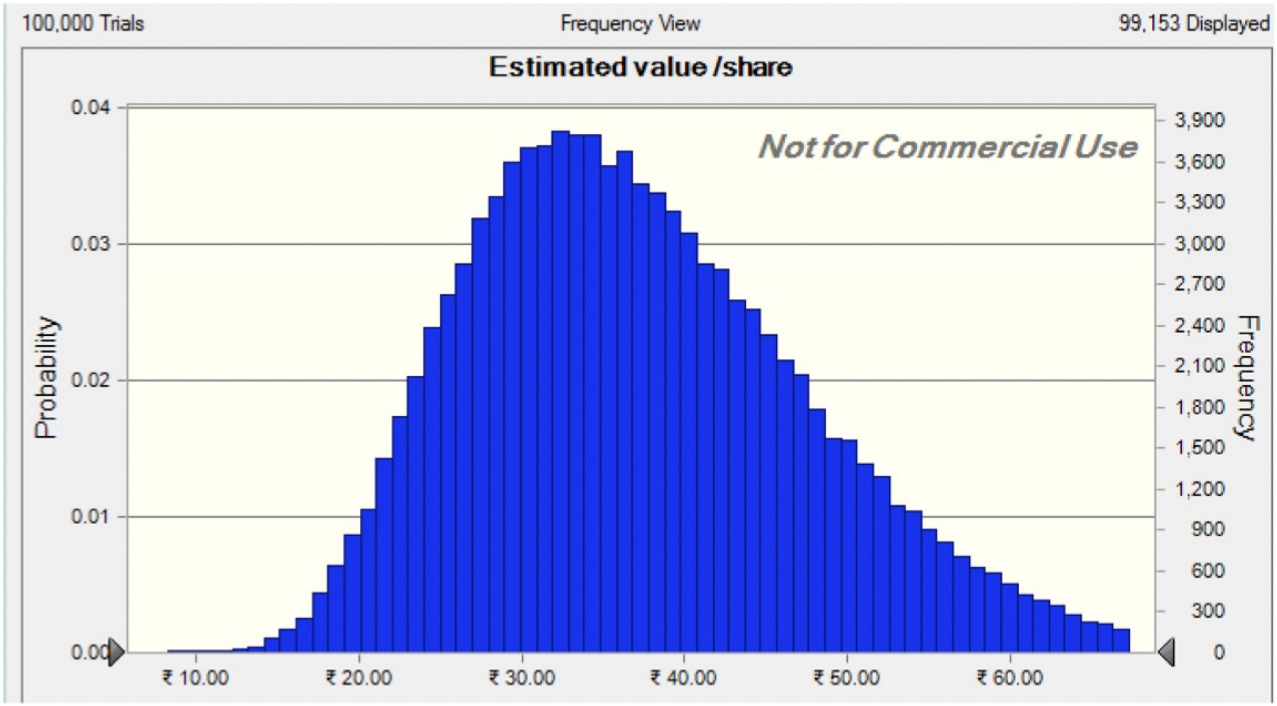


Correlation = 0.50

Zomato's Operating Margin (Pre-tax)



Zomato: Monte Carlo Simulation of Value/Share



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

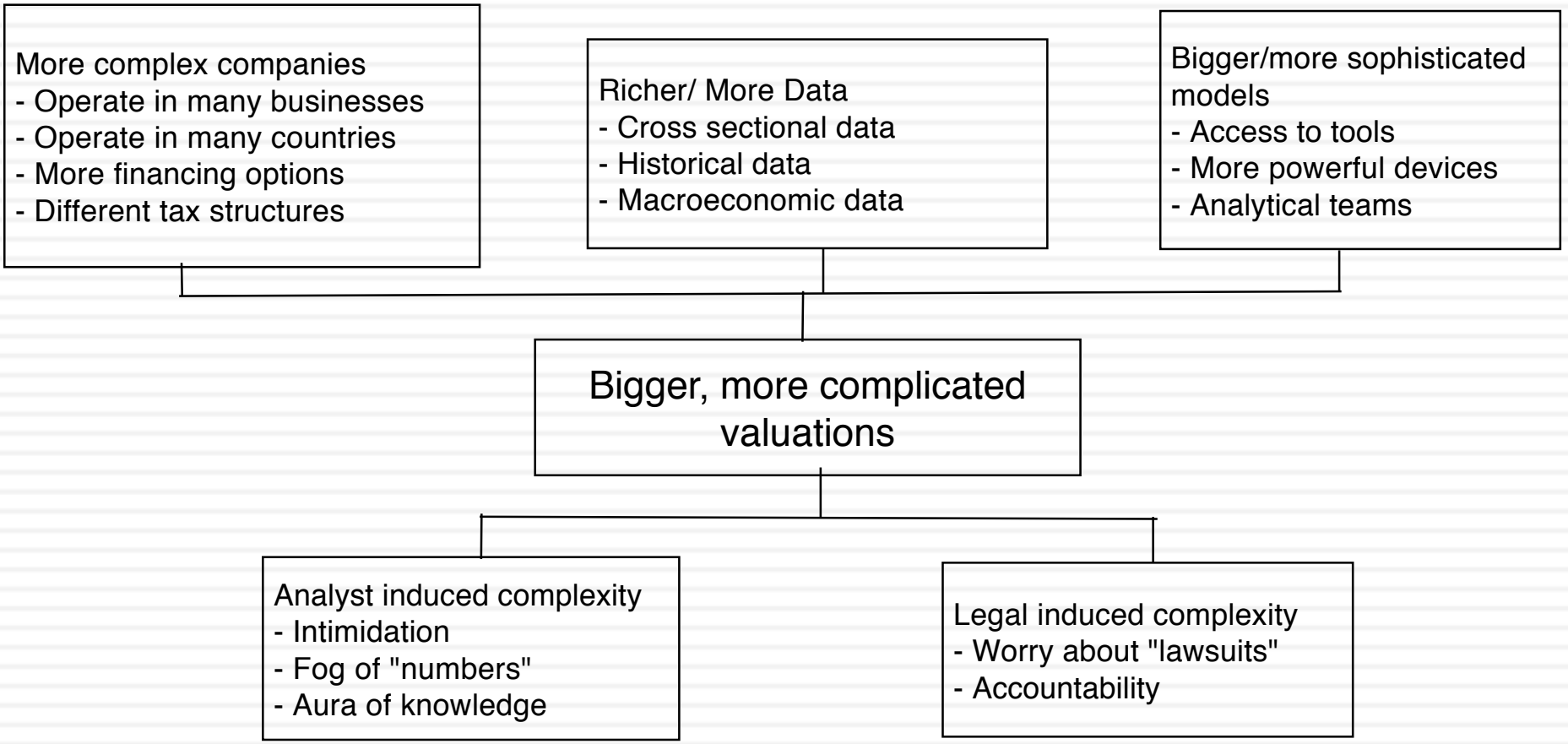
Add-ons and Distractions: Platform Optionality

- As a company with millions of users on its platform, if Zomato can deliver other products and services to the users of the platform, it can augment its earnings and value.
  - First, not all platforms are created equal, in terms of being adding value, with platforms with more intense users and proprietary data having more value than platforms where users are transitory and there is little exclusive data being collected.
  - Second, even if you believe that there is optionality, attach a numerical value to that option is one of the most difficult tasks in investment. While there are option pricing models that can be adapted to do the valuation, getting the inputs for these models, especially before the optionality takes form, is difficult to do.

A Big Market Premium?

- Indian and Chinese companies, especially in young and nascent businesses, have an advantage that they often play to, which is immense local markets. It is not surprising that companies play up this advantage, when marketing themselves to investors, with some analysts attaching premiums to value, just because of market size.
  - Double counting: I believe that this is a distraction, because that market size should already by incorporated into the intrinsic value, through growth and margin expectations. In my base case valuation of Zomato, I assume that revenues will increase more than twenty-fold over the next 10 years, because the Indian market is expected to grow so strongly.
  - The Big Market Delusion: In fact, the danger to investors, when faced with Indian and Chinese companies, is not that they will under value these companies, but that they will over value them, precisely because the markets are so big.

III. Complexity in valuation



Sources of complexity

- Globalization: As companies globalize, valuations are getting more complex for a number of reasons:
  - Risk assessment has to factor in where a company operates and not where it is incorporated.
  - Currency choices proliferate, since a company can be valued in any of a half a dozen currencies (often to value different listings)
- Shifting and volatile macro economic risks have created changing risk premiums and strange interest rate/exchange rate environments.
- More complex accounting standards have created longer, more complicated, more difficult to read financial statements.
- More complicated holding structures (cross holdings, shares with different voting rights), motivated by tax and control reasons, make valuations more difficult.

Manifestations of complexity

- Mysterious terms/acronyms: A feature of complex valuation is line items or terms that sound "sophisticated" but you do not know or are not sure what they mean or measure. (For an added layer of intimidation, make them Greek alphabets…)
- Longer, more detailed valuations: The level of detail that you see in valuations, with hundreds of line items and dozens of inputs, is staggering (and scary).
- What if and scenario analysis: While there is a place for asking what if questions and scenario analysis in valuation, the ease with which it can be done has opened the door to abuse, with the primary objective becoming cover, no matter what happens.

Unhealthy responses to complexity

- Input fatigue: Analysts who are called upon to estimate dozens and dozens of inputs, often with little information to do so, will give up at some point and input "numbers" just to get done. It is "garbage in, garbage out…
- Black box models: The models becomes so complicated that what happens inside the model becomes a mystery to those outside. Consequently, analysts essentially claim no ownership or responsibility for the output from the model. "The model did it" becomes the refrain.
- Suspension of common sense: The dependence on models becomes so complete that analysts lose sight of common sense and mangle the valuation of the simplest assets.

Healthy responses to complexity

- Parsimonious valuations: Never estimate more inputs than you absolutely have to. Less is more. When faced with the question of adding more detail/complexity, ask yourself whether it will make your valuation more precise (or just make it look more precise).
- Go back to first principles: The fundamentals of valuation don't change, just because you are faced with complexity. Always fall back on first principles.
- Focus on key levers: Even when there are dozens of inputs in a valuation, the valuation itself is a function of three or four key value drivers (which may be different for different companies). Keep your focus on those variables