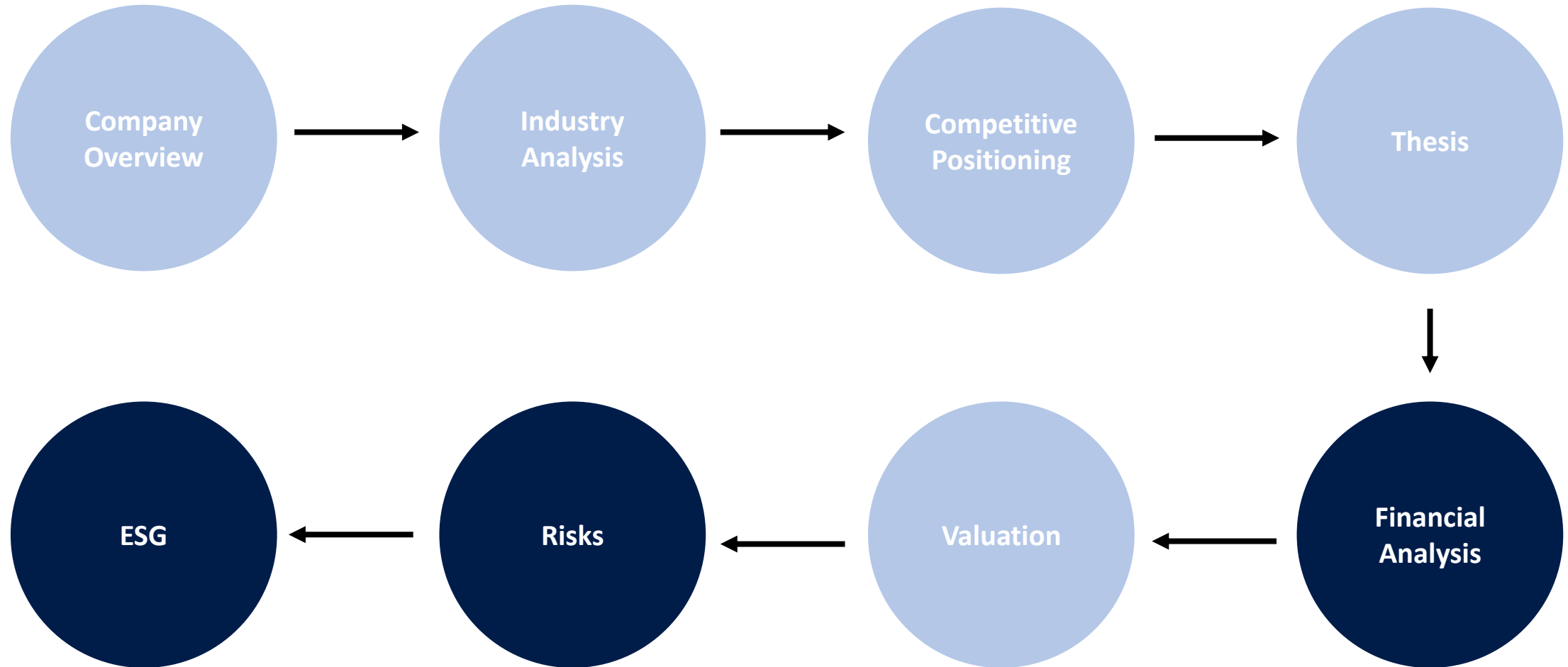


Session 4

Analyzing Risks, Quantifying ESG, and Forecasting Profit & Loss

What will we be covering today?



Lesson Outline

- 1. Investment Risks**
- 2. ESG Overview & Components**
- 3. ESG & Valuation**
- 4. Creation of Value**
 - a) Drivers of Value
 - b) Analyses of Revenue, COGS, EBIT, EBITDA

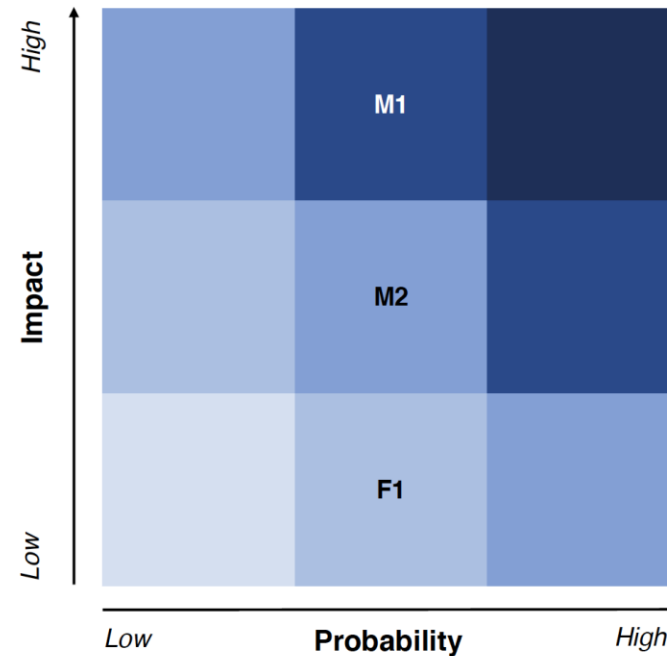
Analyzing Investment Risks

Regulatory Risk

Market Risk

Firm Risk

Valuation Risk



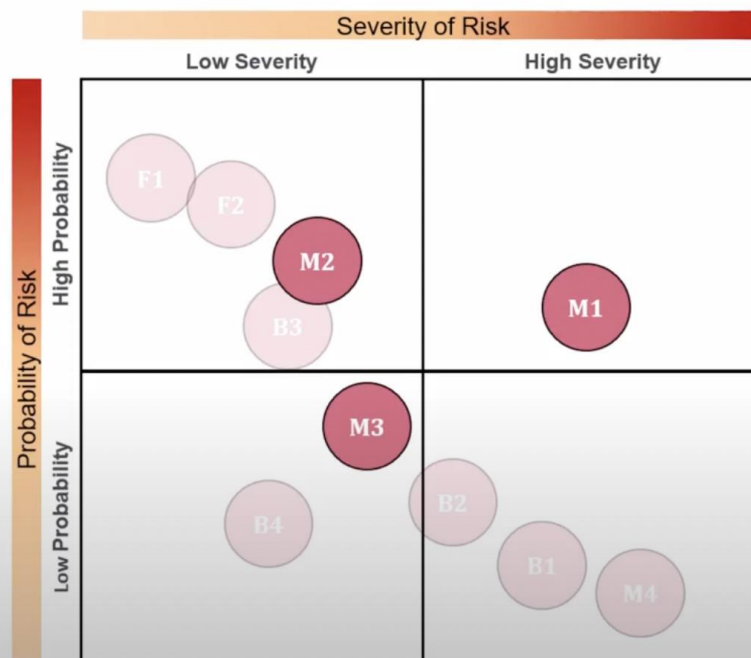
M1
Market Risk 1 – Presence of Giants: Market share of UC industry can be usurped by strong competitors such as Microsoft and Google. Since these companies have strong balance sheet, they can grow rapidly to meet the demand of consumers.
Mitigation Factors: Cisco has been constantly investing and acquiring companies to expand on their business offerings and providing a full stack solution for their consumers ahead of its competitors. Their balance sheet has demonstrated strong growth in its cash holdings – allowing the company to further invest in new companies

M2
Market Risk 2 – Covid-19 Variants : Emergence of new COVID-19 variants may disrupt revenue sources with the decline in global business activity. The decline may result in headwind for infrastructure platform’s growth
Mitigation Factor: Cisco has started to shift its investments into SaaS products that will be less affected by Covid-19 restrictions. Their SaaS product will provide stronger recurring revenue in the long term.

F1
Firm Risk 1 – Loss of revenue from Infrastructure Platforms: As the TMT industry is constantly evolving, Cisco product offerings may no longer meet the need of consumers resulting in a decline in their revenue.
Mitigation Factors: Cisco are constantly developing new product offerings, evident from their inclining research and development expense. They have historically successfully developed new products that meet the needs and demands of their consumers such as their unified communication.

Analyzing Investment Risks — Example

With proper risk mitigation, there is low investment risks in SATS



M1 Slower-than-expected recovery in aviation traffic

- ✓ Singapore's edge of a highly vaccinated population has placed it at the forefront of resuming cross-border travel

M2 Emergence of a new COVID variant of concern

- ✓ Scientific evidence has shown the limited impact of travel restrictions on controlling the spread of Omicron
- ✓ SATS recent growth in non-travel segments allows company to do well if travel recovery is prolonged

M3 Effects of inflation on consumption and raw material

- ✓ SATS has been exploring the use of technologies to enhance process efficiencies, coupled with the scale effects from entering new geographies, can work in tandem to mitigate the cost increase

Source: CFA Singapore Champion, NUS Team

ESG in the Industry

Asset Management Perspective

Climate Resolutions

Follow
this

Shareholders support the company set Paris-aligned targets for all emission (scope 1,2, and 3*)

scope 3 = product emissions

	Scope 3* targets	Paris-aligned targets		Paris-aligned investment
	✓	✗		✗
	✓	✗		✗
	✓	Produced energy ✓	Traded energy ✗	✗
	✗	✗		✗
	✗	✗		✗

Proxy voting to influence decisions in investee companies

Capital Raising Perspectives

Investing in Blue Finance:

diversifies and grows **economies**

boosts **marine-health**

improves **livelihood** and provides **jobs**

preserves **oceans**

creates ocean-tourism **sustainable**

increases sources of **clean-water**

helps curb **carbon emissions**

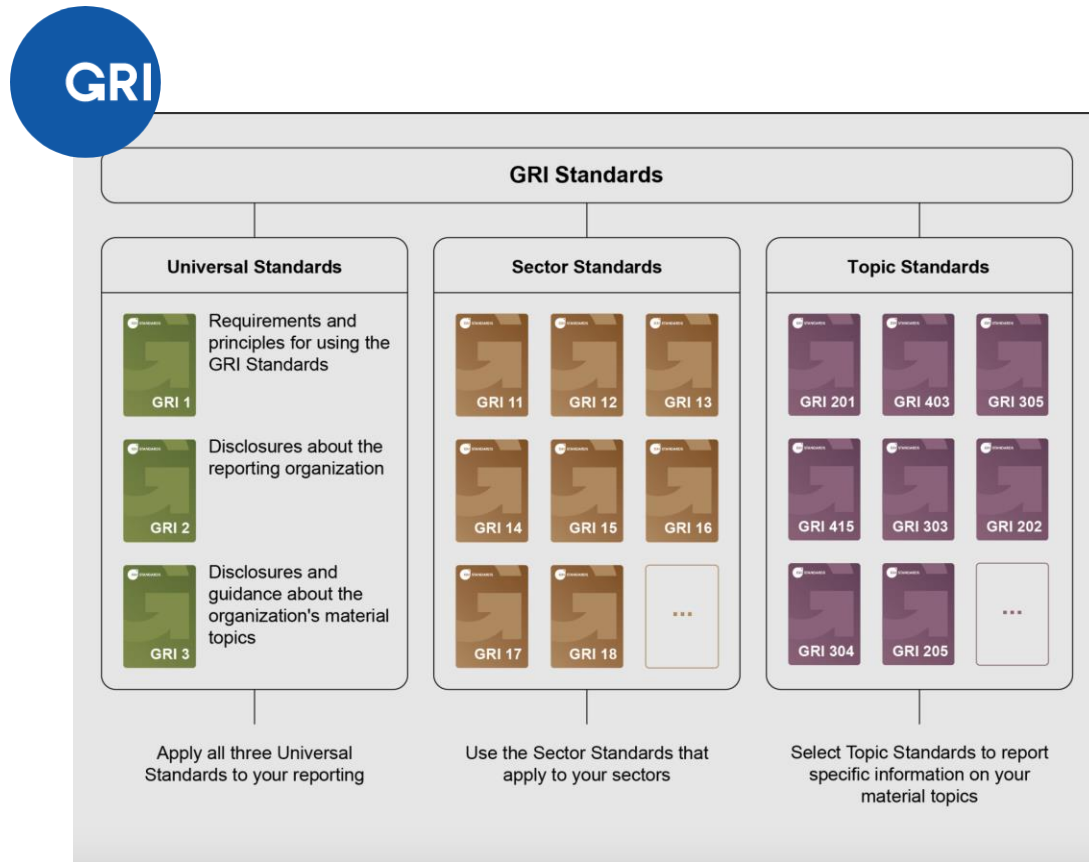
protects communities from **climate change**

Sustainable financing to drive responsible growth

Environmental, Social and Governance

Reporting Standards

Sustainability Guideline



SUSTAINABLE DEVELOPMENT GOALS



How to approach ESG?

Risks & Opportunities

Reputational risks

New revenue
stream / lowered
costs

Think about the nature of business

ESG Framework

Strategic Goal

E

S

G

Impact of ESG on Valuation

Reverse Causality

Adding a premium to discount rate

ESG raises a firm's value OR only good firms have the means for ESG initiatives?

Capex, Costs & Revenue

Use of different growth rates

Acquisition of new PPE for sustainability efforts

Higher OpEx for sustainable practices

Creation of a new revenue stream

Quantifying ESG

Scoring

Sustainalytics
Refinitiv
MSCI
S&P Global

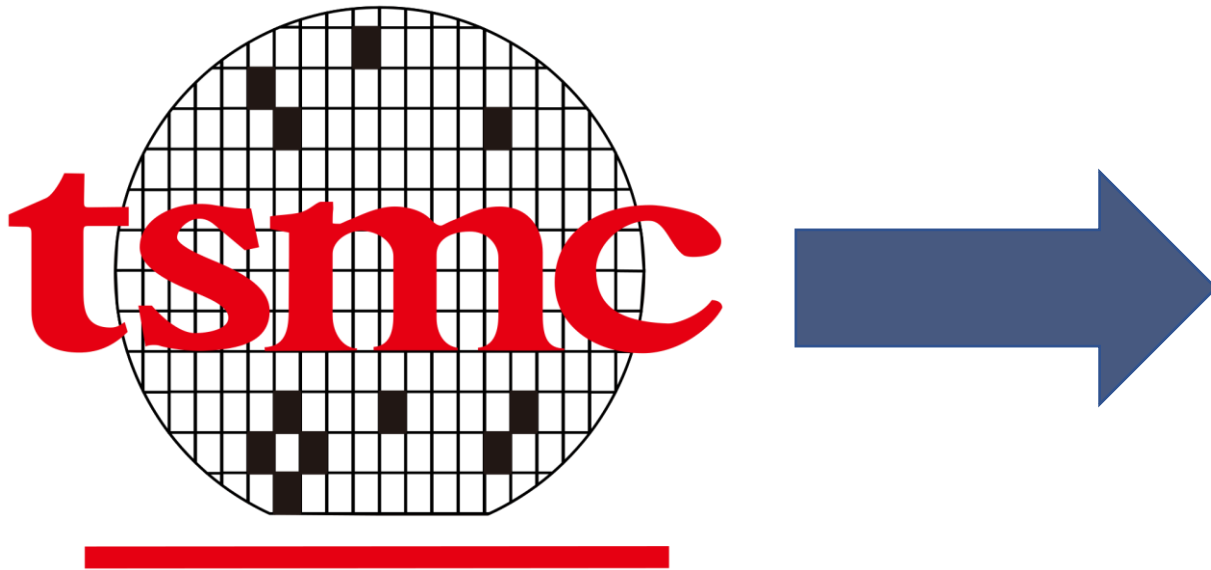
Weighted Average Scorecard

Based on the importance of E, S or
G component in the company

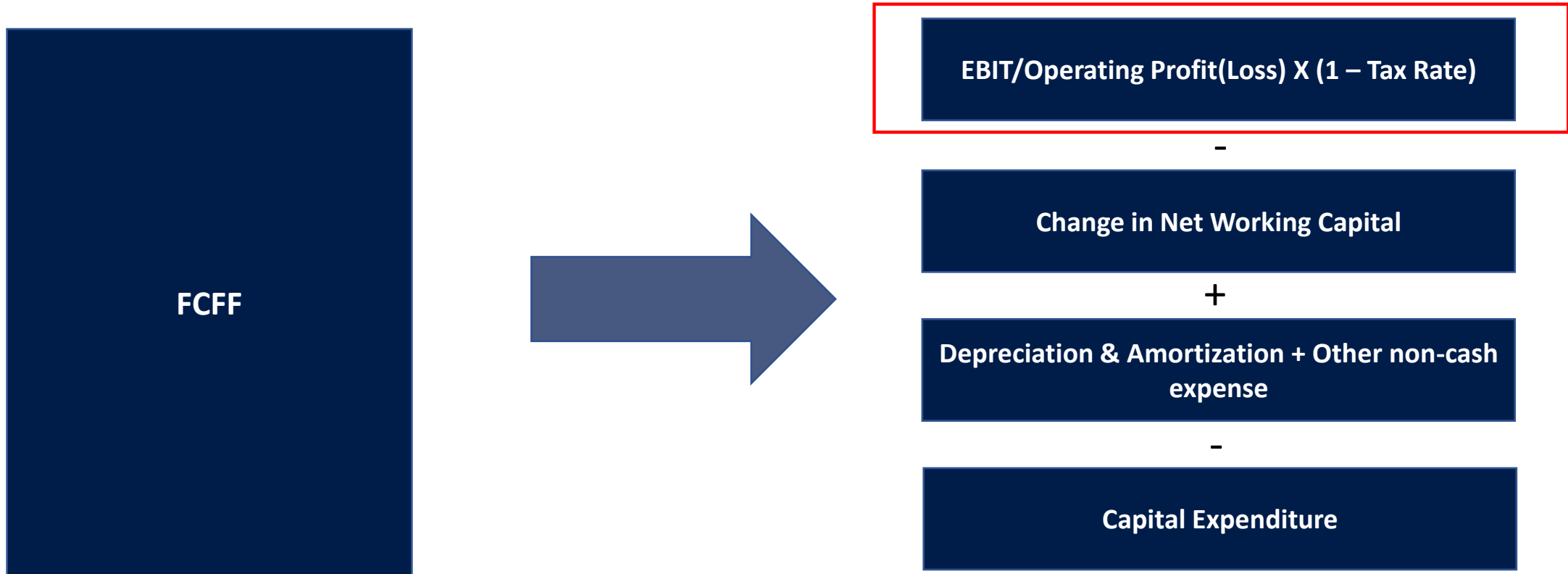
Why do these companies give different
scores?

What drives the value of the firm?

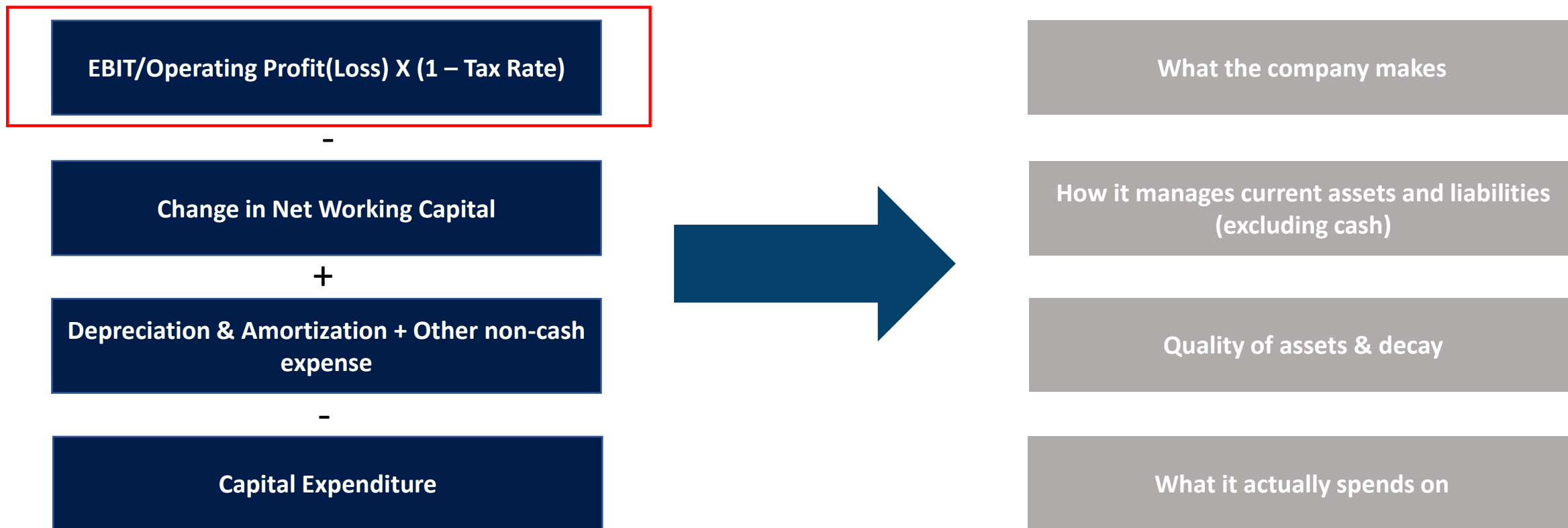
How does it translate into numbers - growth potential/redundancy?



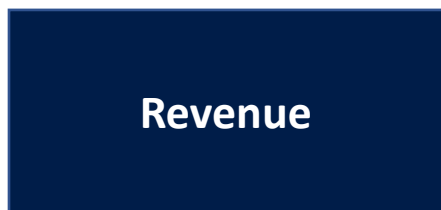
Value of Firm – Free Cash Flow to Firm (FCFF)



Value of Firm – FCFF



Value drivers – EBIT

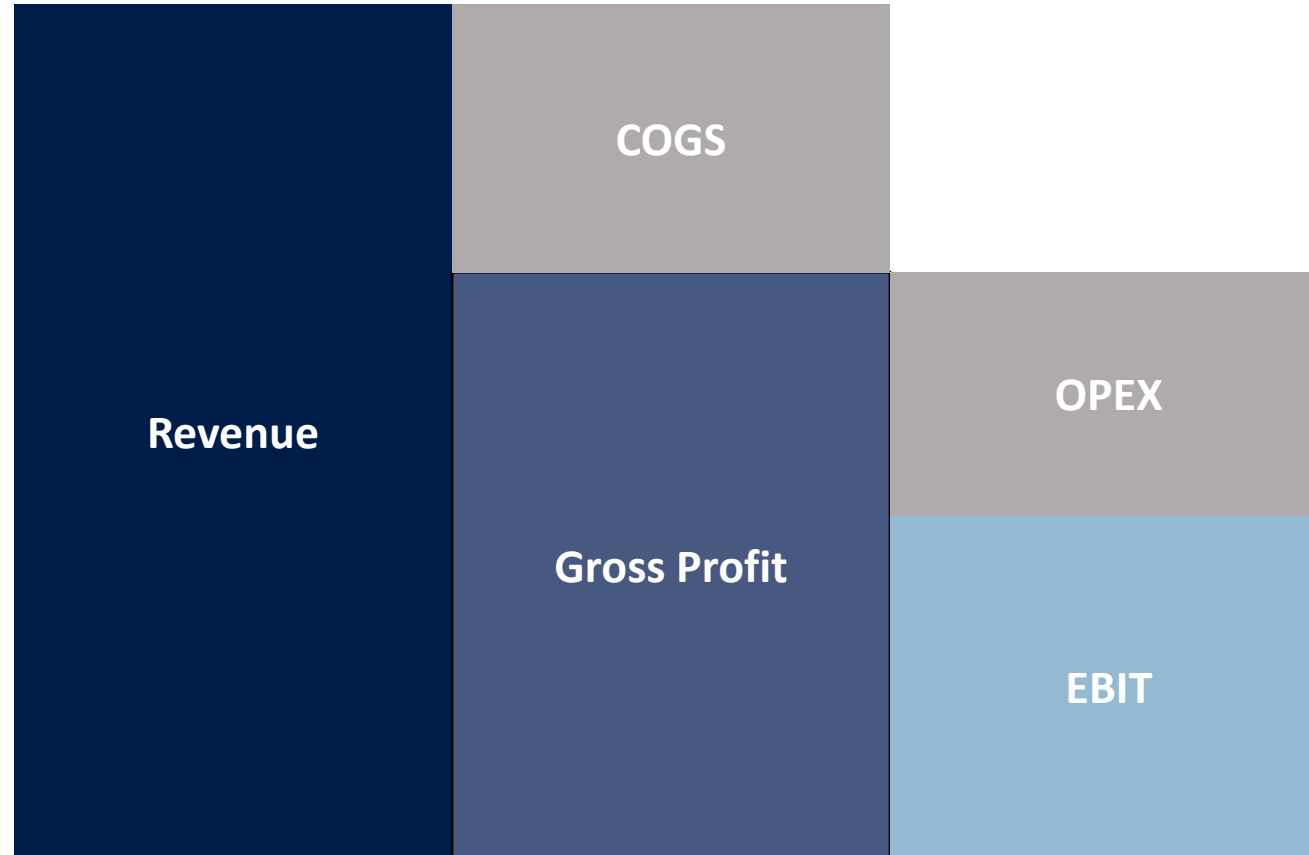


1. Bottom-up
2. Top-down
3. Y-o-Y growth
4. Regression Analysis



1. Selling, General and Administrative
2. Research and Development
3. Sales and Marketing
4. Other Operating Expenses

Understanding EBIT



From a **shareholder, production and operation perspective.**

Forecasting Starts with Revenue: Bottom Up



Forecasting Starts with Revenue: Bottom Up

Product & Services

- Growth prospects for existing products?
- No. of Customers * recurring revenue (sticky) for customer?
- What new products will roll-out?

Selling Process

- Bottlenecks in sales process
- Scalability of revenue

Delivery

- Is the company developing faster ways to deliver products?

After Sales Service

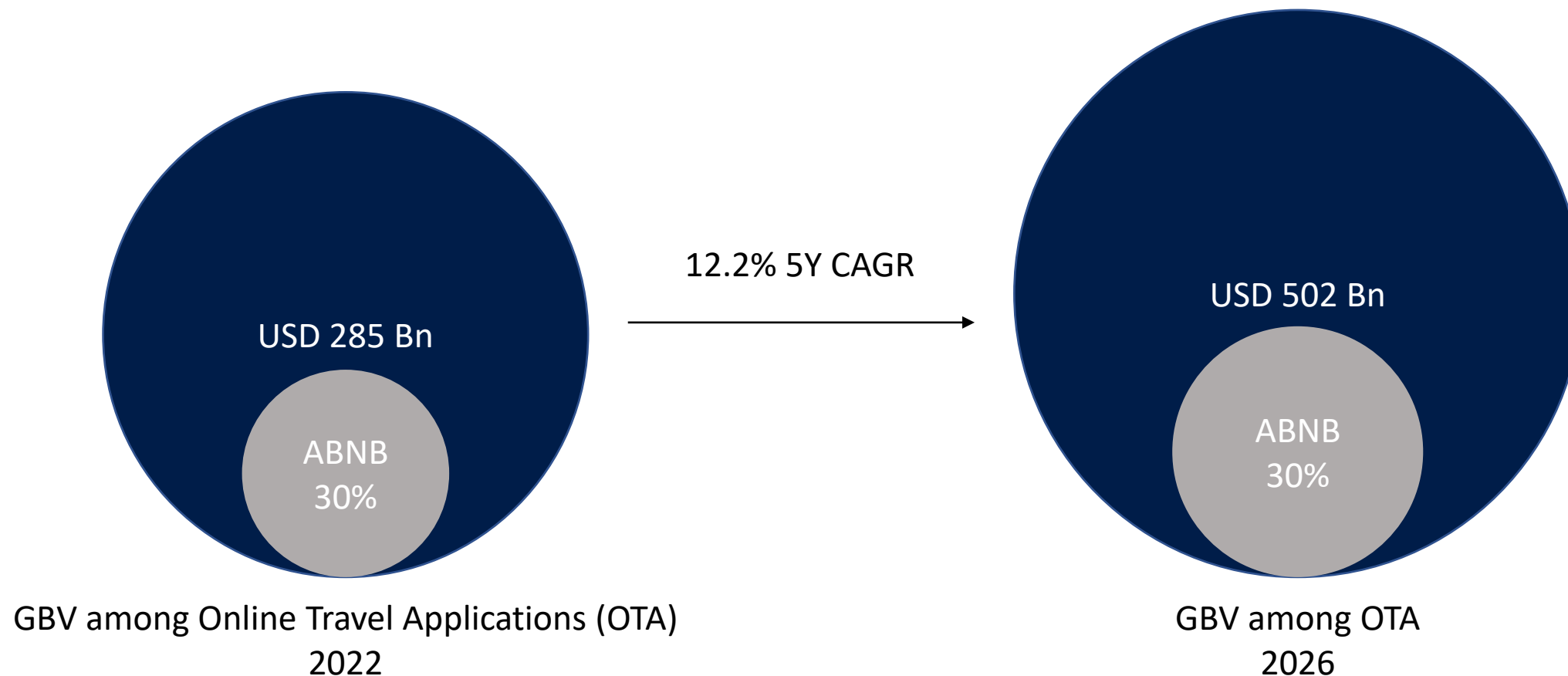
- Good follow-up with existing customers?
- Customer feedback/ Net Promoter Score?

Branding

- What do customers think about the company?
- Do they clearly communicate the value like master brand communicators?

Forecasting Starts with Revenue: Top-down

Market share can help you derive future revenue, based on industry CAGR to get sensing of potential top-line sales. It can also serve as a useful tool to validate bottom-up approaches.



Checking: Not making the “new” analyst mistakes

Yearly Perspective													
Base Case													
Forecast	2015A	2016A	2017A	2018A	2019A	2020A	2021A	2022E	2023E	2024E	2025E	2026E	Growth Rate
GBV (Bn)	8	14	21	29	38	24	47	57	70	85	104	126	22%
NEB	72	126	186	250	327	193	301	355	419	495	584	689	18%
ADR	\$ 111	\$ 111	\$ 113	\$ 116	\$ 116	\$ 124	\$ 156	\$ 160	\$ 166	\$ 172	\$ 177	\$ 183	3.27%
			1.61%	2.74%	0.18%	7.01%							

ABNB

Q2 22 Earnings (Aug 22)

Nights and Experiences Booked

In Q2 2022, Nights and Experiences Booked remained strong, showing strong growth over pre-pandemic levels, driven by North America, EMEA and Latin America.

Gross Booking Value (GBV)

Strong growth in Nights and Experiences Booked combined with continued higher Average Daily Rates (“ADR”) drove \$17 billion of GBV in Q2 2022.

Q2 2022

103.7M

25% Y/Y
24% Y/3Y

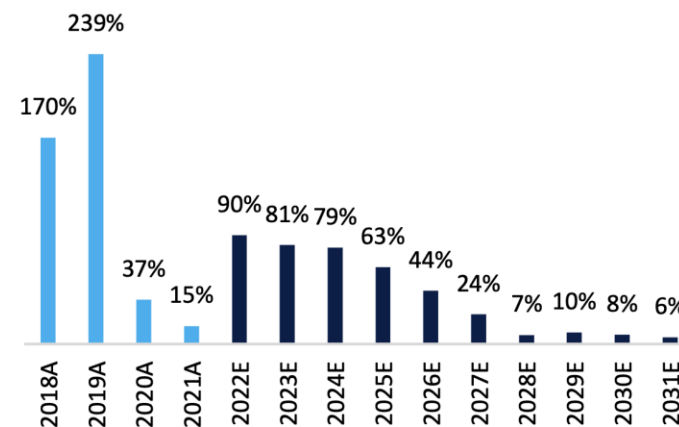
\$17.0B

27% Y/Y
34% Y/Y (ex-FX)
73% Y/3Y

BYND

Student Report, AY 07/21

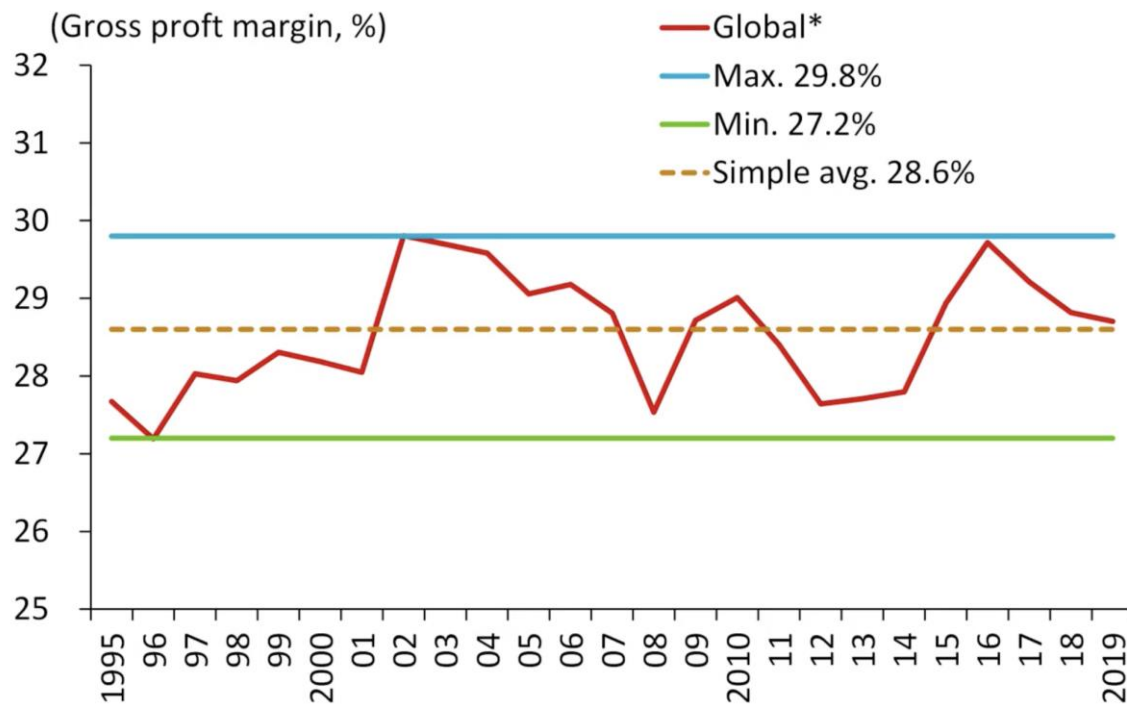
Fig 4.1: Beyond Meat’s YoY Revenue Growth



Source: SUSS Invest Estimates

2nd Top-line that matters: Gross Profit

Global Top ~3000 companies
GPM as % of Revenue

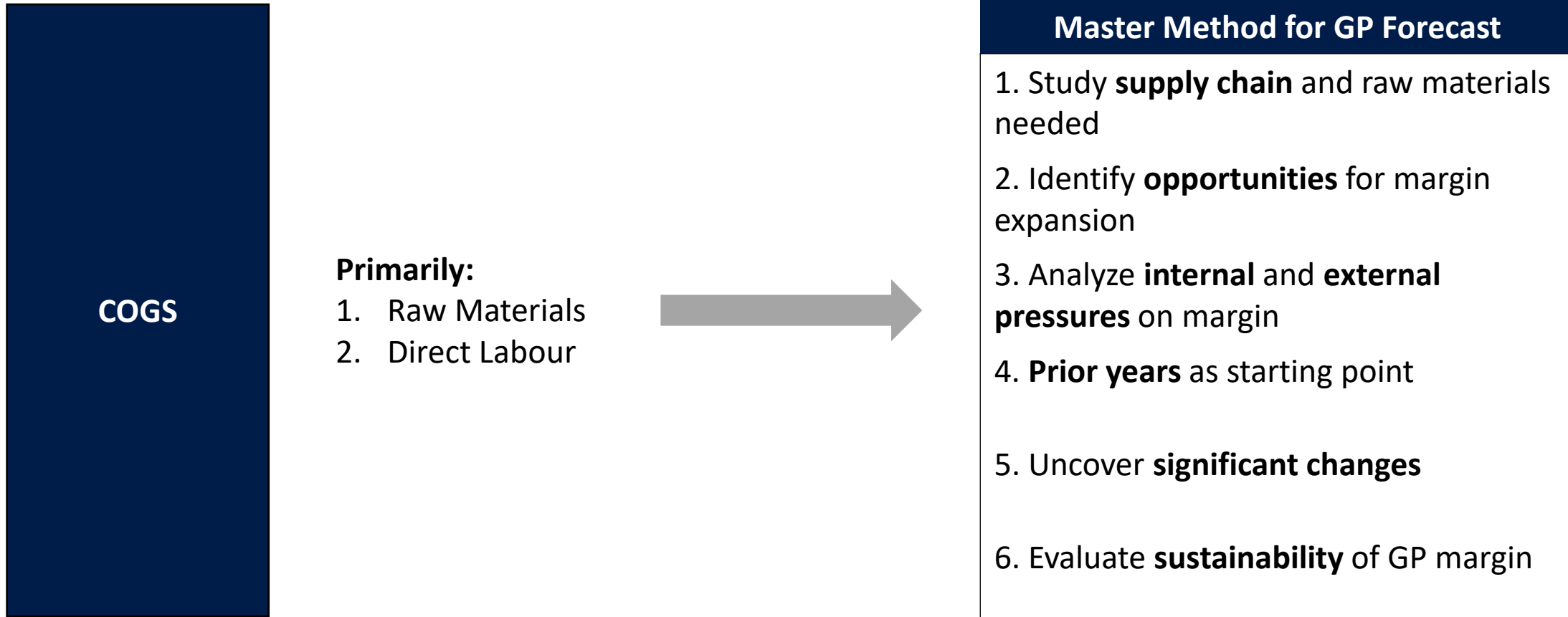


Source: Andrew Stotz Investment Research

Questions to consider:

1. What has been driving GP historically?
2. Any material changes in direction?
3. Analysis of COGS
 - a) Major COGS drivers
 - b) Which are regular/one-time?

2nd Top-line that matters: Gross Profit (COGS Analysis)



COGS Analysis

Step 2. Identify Opportunities for Margin Expansion

Economies of Scale

- Fixed Cost spread over more units

Learning curve

- Business getting better at production

New products or business line

- Higher margin products can push overall COGS down

A February 2014 report by **Deutsche Bank** noted Nike's transformation in manufacturing its "Flyknit" footwear, going from labor intensive methods to highly automated technology. The analysts said this change could allow Nike to reduce labor costs by 50% per unit and decrease material usage by 20% (not by any specified time, but clearly the company is moving fast on these developments). The company continues to experiment with new technologies like 3D printing that are likely to help margins continue to grow by further reducing both labor and waste.



COGS Analysis

Step 3. Analyze Internal and External Pressures on Margin

Competition

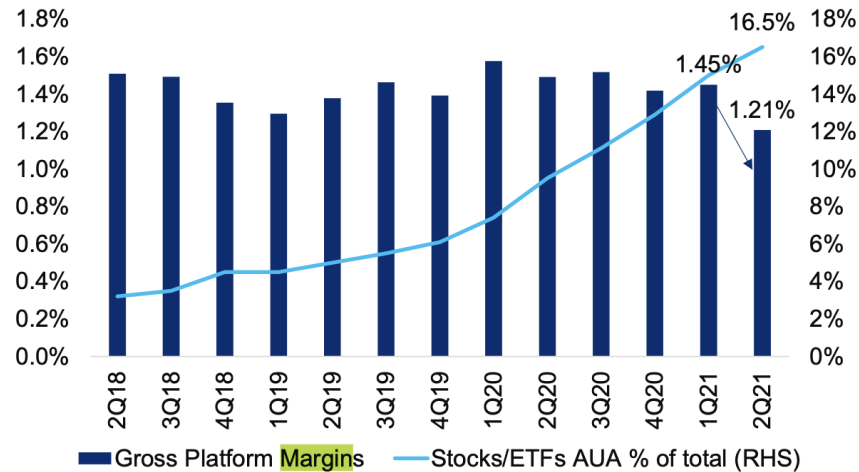


Macroeconomic Factors



Higher production costs due to inflation and higher tariffs because of trade disputes
 However, Fastenal has the ability to slightly increase prices to offset contrary effects

Figure 4. ...but maintaining platform margins a challenge



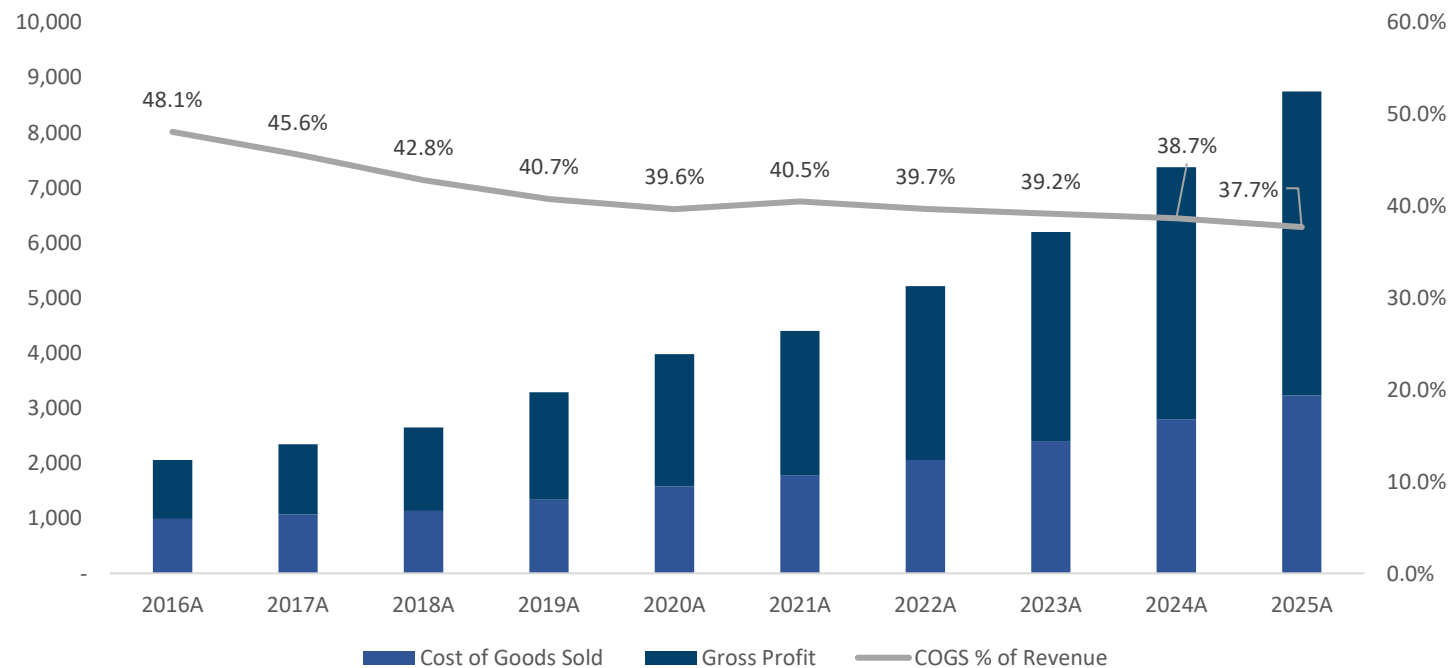
Source: Citi Research, Company Reports

COGS Analysis

Step 4, 5 and 6, Use prior, uncover changes and evaluate sustainability

LULU COGS vs. OPEX

In USD Mn and % of Total Revenue



Changes?

1. Company strategy to push shoes in 2020 (Note: Shoes cost only 22% of Revenue)
2. In tandem with strategy to expand and improve production bases and Vietnam
3. Too optimistic? (No as past margins have already seen great improvement and retained pricing power)

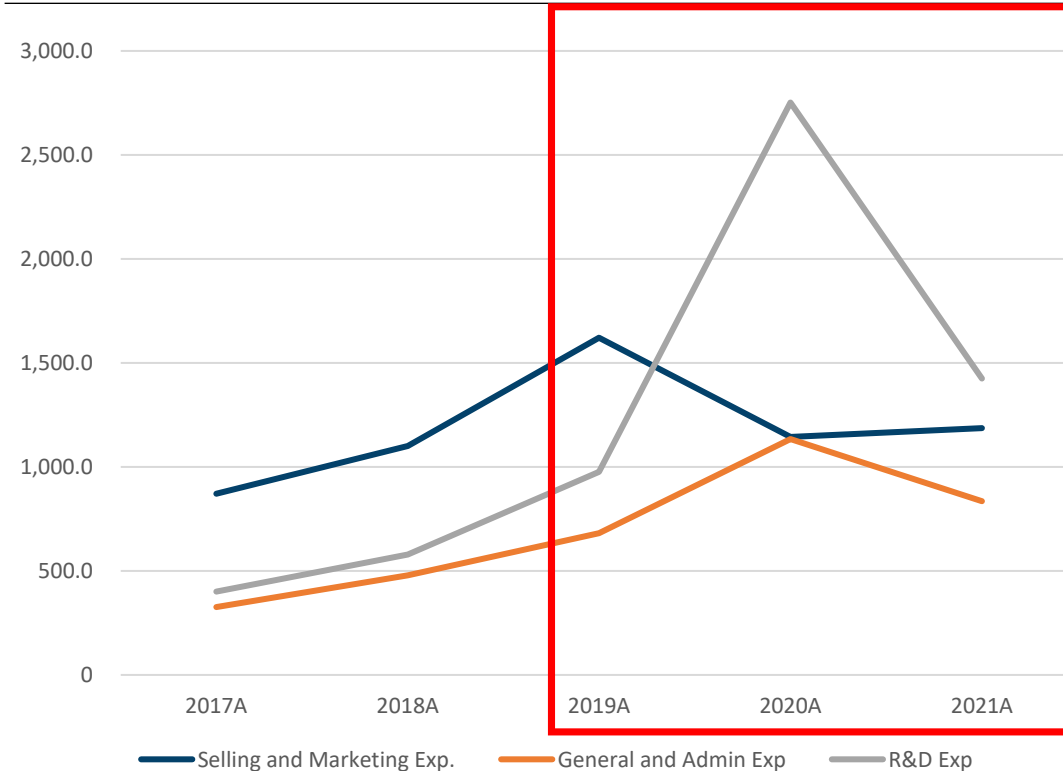
3rd Top-line that matters: EBIT

1. Selling, General and Administrative
2. Research and Development
3. Sales and Marketing
4. Other Operating Expenses

	For the Year Ended December 31,				
	2016	2017	2018	2019	2020
	(US\$ thousands, except for number of shares and per share data)				
Selected Consolidated Statements of Operations Data:					
Revenue:					
Service revenue					
Digital Entertainment	327,985	365,167	462,464	1,136,017	2,015,972
E-commerce and other services	17,675	47,444	270,049	822,659	1,777,330
Sales of goods	10	1,579	94,455	216,702	582,362
Total revenue	345,670	414,190	826,968	2,175,378	4,375,664
Cost of revenue:					
Cost of service					
Digital Entertainment	(185,314)	(217,986)	(267,359)	(435,905)	(702,329)
E-commerce and other services	(47,284)	(107,260)	(446,281)	(907,518)	(1,743,773)
Cost of goods sold	—	(1,632)	(98,570)	(227,035)	(580,657)
Total cost of revenue	(232,598)	(326,878)	(812,210)	(1,570,458)	(3,026,759)
Gross profit	113,072	87,312	14,758	604,920	1,348,905
Operating income (expenses):					
Other operating income	2,103	3,497	9,799	15,890	189,645
Sales and marketing expenses	(187,372)	(425,974)	(705,015)	(969,543)	(1,830,875)
General and administrative expenses	(112,383)	(137,868)	(240,781)	(385,865)	(657,215)
Research and development expenses	(20,809)	(29,323)	(67,529)	(156,634)	(353,785)
Total operating expenses	(318,461)	(589,668)	(1,003,526)	(1,496,152)	(2,652,230)
Operating loss	(205,389)	(502,356)	(988,768)	(891,232)	(1,303,325)

Deriving EBIT: Expenses Forecast

ABNB OPEX
In USD Mn



Questions to consider:

1. Direction of company in the coming years (Taper or increase)?
2. What goes into SG&A?

**Thank You
&
See You Next Week!**