



# DATA UPDATE 5 FOR 2022: RISK AND HURDLE RATES!

The Proverbial Bottom Line

# The End Game...

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- The proverbial bottom line for success in a business is its capacity to deliver profits. Even though we live in an age where trillion dollar total addressable markets and hyper revenue growth can drive company valuations, that adage remains true.
- Questions about profitability seem to have taken center place again, not only because a market pull back is a reminder that growth, by itself, cannot deliver value, but also that there are debates about how much damage the COVID crisis did to earnings power at companies, and whether this damage has been healed, as economies have opened up.
- In this session, I will look at corporate profitability, in all its different dimensions, and how companies across the globe, and across industries, measured up in the most recent years.

# Measuring Profitability

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- The question of whether a company is making or losing money should be a simple one to answer, especially in an age where accounting statements are governed by a myriad of rules, and a legion of number-crunchers follow these rules to report the profits generated by a firm during the most recent period.
- In practice, though, measuring profitability is anything but straightforward, as accountants have devised multiple measures of profitability, with discretion on how to compute each one, and many different ways of scaling profits, for comparisons.

# Accounting Profits

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	<i>Item</i>	<i>Explanation</i>
Start with	Revenues	Accountant's estimate of the revenues/sales generated by any transactions made the business during the period.
Net out	Cost of Goods Sold	Estimated costs that are directly associated with producing the product/service sold by the company.
To get	<b>Gross Profit</b>	Unit profitability, before covering other indirect costs and financial expenses
Net out	Operating Expenses	Include all expenses associated with operations this year, with no benefits spilling over into future years.
To get	<b>Operating Profit</b>	Profitability of business/ operations
Net out	Financial Expenses	Expenses associated with non-equity financing (debt, for instance)
Add in	Financial Income	Income earned on cash balance and on financial investments (in companies and securities)
To get	<b>Pretax Profit</b>	Income to equity investors, prior to taxes
Net out	Taxes	Taxes, based upon taxable income. (May not equate to cash taxes paid)
To get	<b>Net Profit</b>	Income to equity investors, after taxes

# And the numbers in 2021...

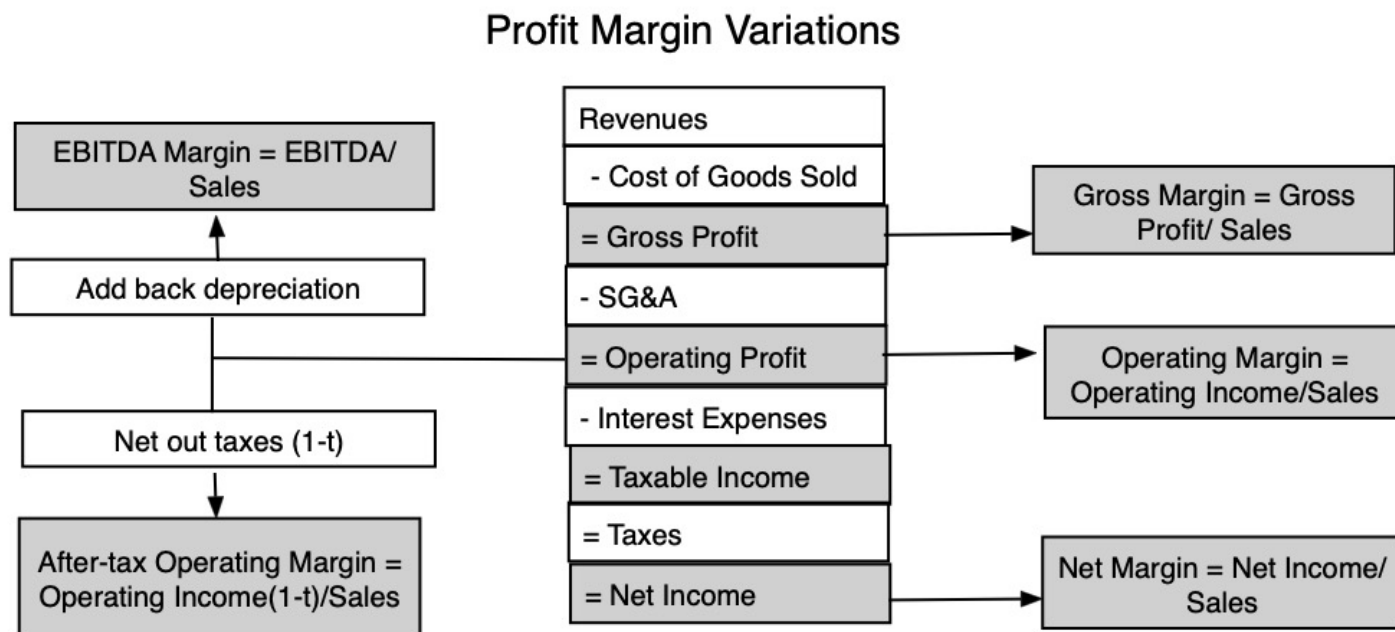
Primary Sector	# firms	\$ Values (in millions) in LTM 2021				
		Revenues	Gross Profits	Pre-tax Operating Profits	Taxable Profits	Net Profits
Communication Services	2,199	\$ 3,426,590	\$ 1,679,734	\$ 554,258	\$ 584,899	\$ 416,252
Consumer Discretionary	6,242	\$ 8,759,698	\$ 2,437,552	\$ 618,699	\$ 759,354	\$ 458,695
Consumer Staples	3,054	\$ 6,062,346	\$ 1,746,858	\$ 516,483	\$ 448,816	\$ 312,324
Energy	1,516	\$ 5,188,366	\$ 1,582,563	\$ 531,614	\$ 593,833	\$ 317,902
Financials	5,614	\$ 8,946,940	\$ 5,194,095	\$ 736,244	\$ 2,280,431	\$ 1,721,362
Health Care	4,569	\$ 4,572,865	\$ 1,634,539	\$ 513,233	\$ 501,036	\$ 284,074
Industrials	8,223	\$ 11,060,240	\$ 2,421,652	\$ 798,864	\$ 895,835	\$ 515,770
Information Technology	6,191	\$ 5,754,617	\$ 1,920,924	\$ 774,284	\$ 816,326	\$ 615,286
Materials	6,322	\$ 5,631,031	\$ 1,515,623	\$ 815,434	\$ 779,903	\$ 546,208
Real Estate	2,738	\$ 1,915,297	\$ 607,708	\$ 324,277	\$ 408,151	\$ 223,536
Utilities	938	\$ 2,521,189	\$ 699,184	\$ 311,247	\$ 241,839	\$ 160,438
All firms	47,606	\$ 63,839,177	\$ 21,440,432	\$ 6,494,638	\$ 8,310,422	\$ 5,571,847

# With time trends...

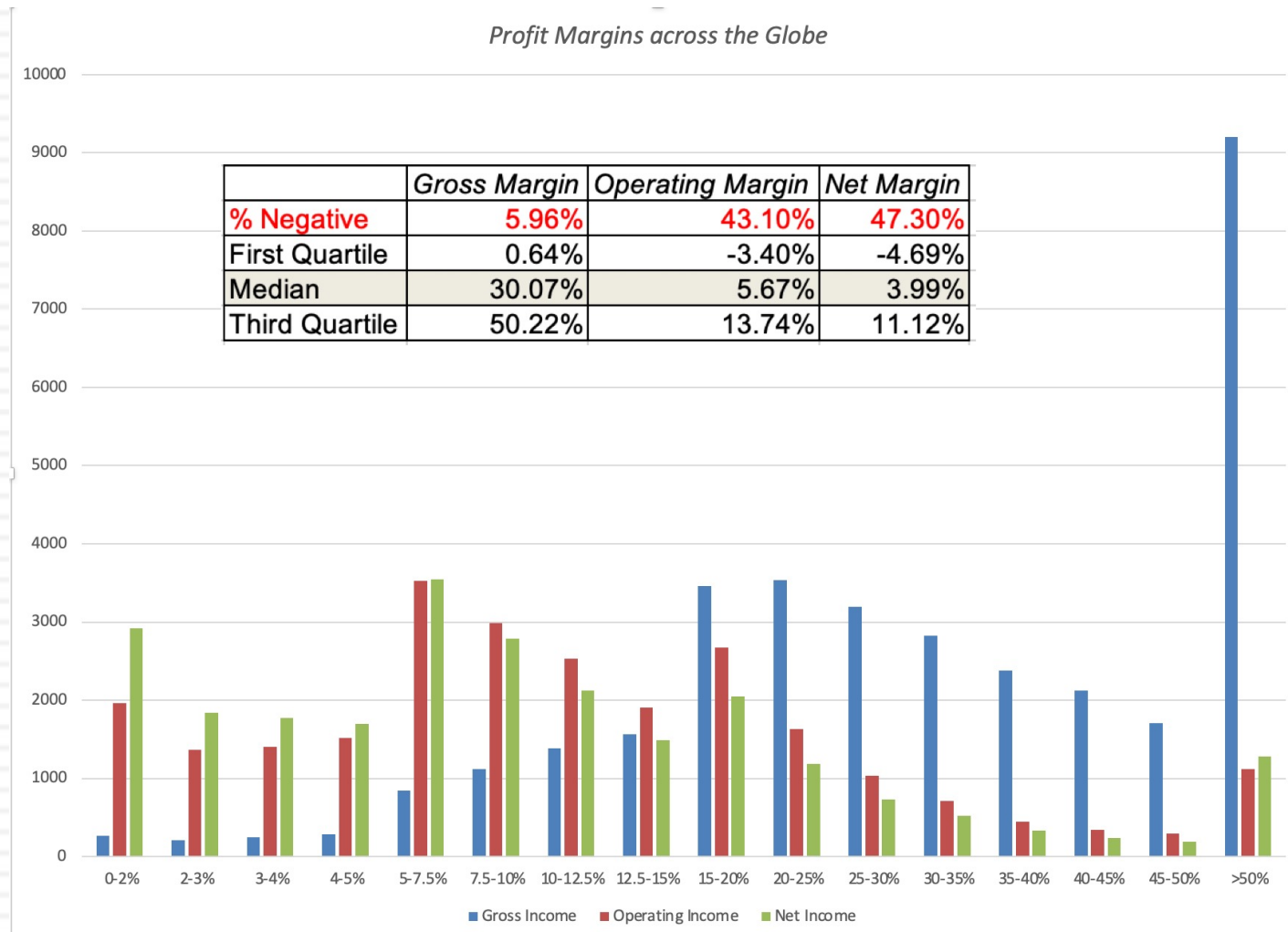
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Primary Sector	# firms	Time Trend in Net Income (in \$ millions)					% Change in Earnings		
		2017	2018	2019	2020	LTM (2021)	2020 vs 2019	2021 vs 2020	2021 vs 2019
Communication Services	2,199	\$ 296,080	\$ 254,246	\$ 255,198	\$ 220,280	\$ 416,252	-13.68%	88.96%	63.11%
Consumer Discretionary	6,242	\$ 394,149	\$ 364,613	\$ 341,127	\$ 105,976	\$ 458,695	-68.93%	332.83%	34.46%
Consumer Staples	3,054	\$ 320,821	\$ 251,488	\$ 251,732	\$ 280,561	\$ 312,324	11.45%	11.32%	24.07%
Energy	1,516	\$ 271,638	\$ 395,469	\$ 274,759	\$ (190,631)	\$ 317,902	-169.38%	-266.76%	15.70%
Financials	5,614	\$1,233,345	\$1,145,671	\$1,374,437	\$1,099,319	\$1,721,362	-20.02%	56.58%	25.24%
Health Care	4,569	\$ 197,214	\$ 200,404	\$ 223,075	\$ 200,309	\$ 284,074	-10.21%	41.82%	27.34%
Industrials	8,223	\$ 505,398	\$ 499,325	\$ 447,644	\$ 174,355	\$ 515,770	-61.05%	195.82%	15.22%
Information Technology	6,191	\$ 333,715	\$ 426,865	\$ 396,711	\$ 431,397	\$ 615,286	8.74%	42.63%	55.10%
Materials	6,322	\$ 307,889	\$ 317,524	\$ 209,414	\$ 213,265	\$ 546,208	1.84%	156.12%	160.83%
Real Estate	2,738	\$ 263,537	\$ 261,573	\$ 239,173	\$ 129,650	\$ 223,536	-45.79%	72.42%	-6.54%
Utilities	938	\$ 156,795	\$ 133,196	\$ 166,193	\$ 135,572	\$ 160,438	-18.42%	18.34%	-3.46%
All firms	47,606	\$5,000,218	\$5,358,990	\$5,414,663	\$4,600,887	\$5,571,847	-15.03%	21.10%	2.90%

# Profit Margins

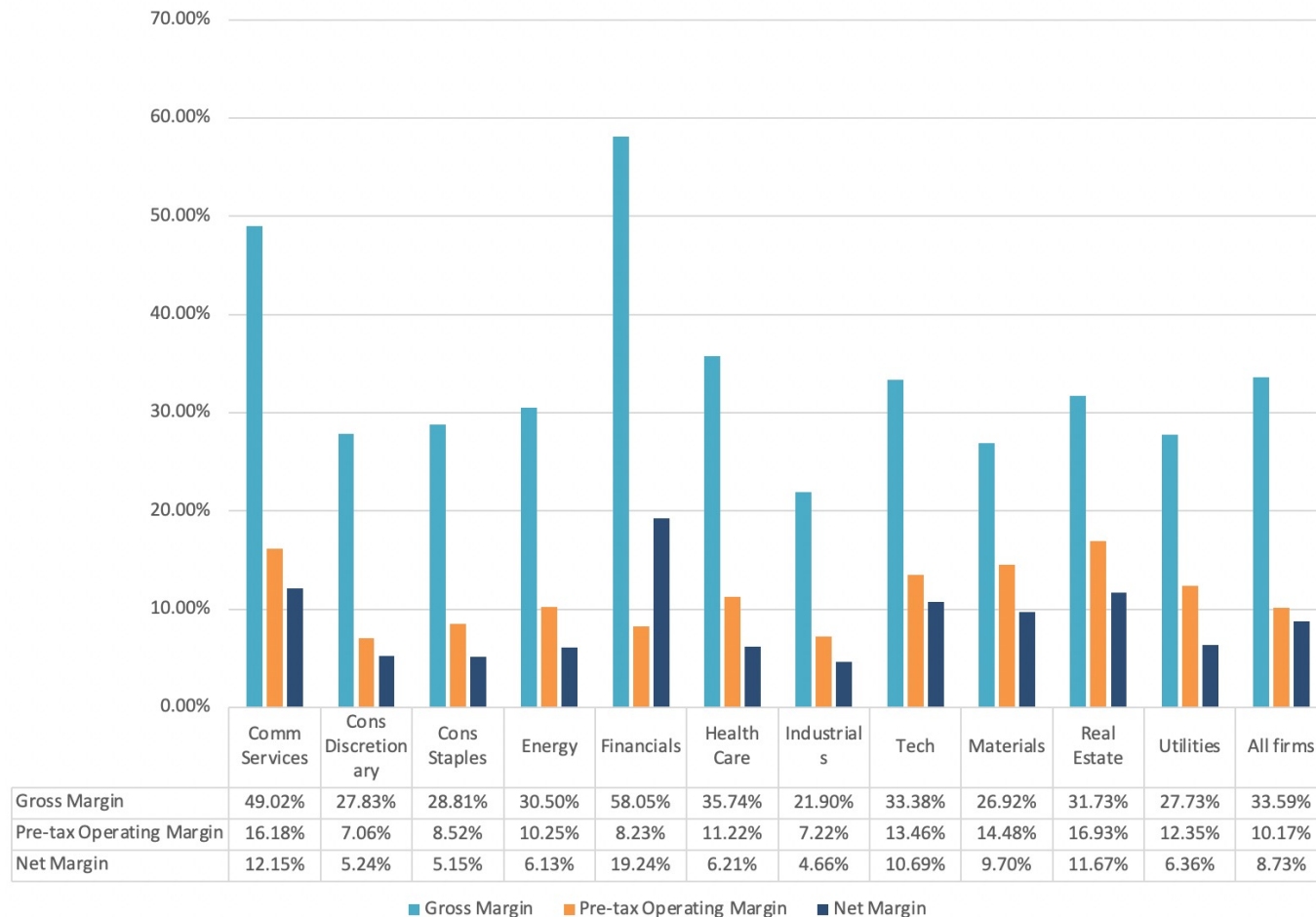


# Margin Distribution: Global



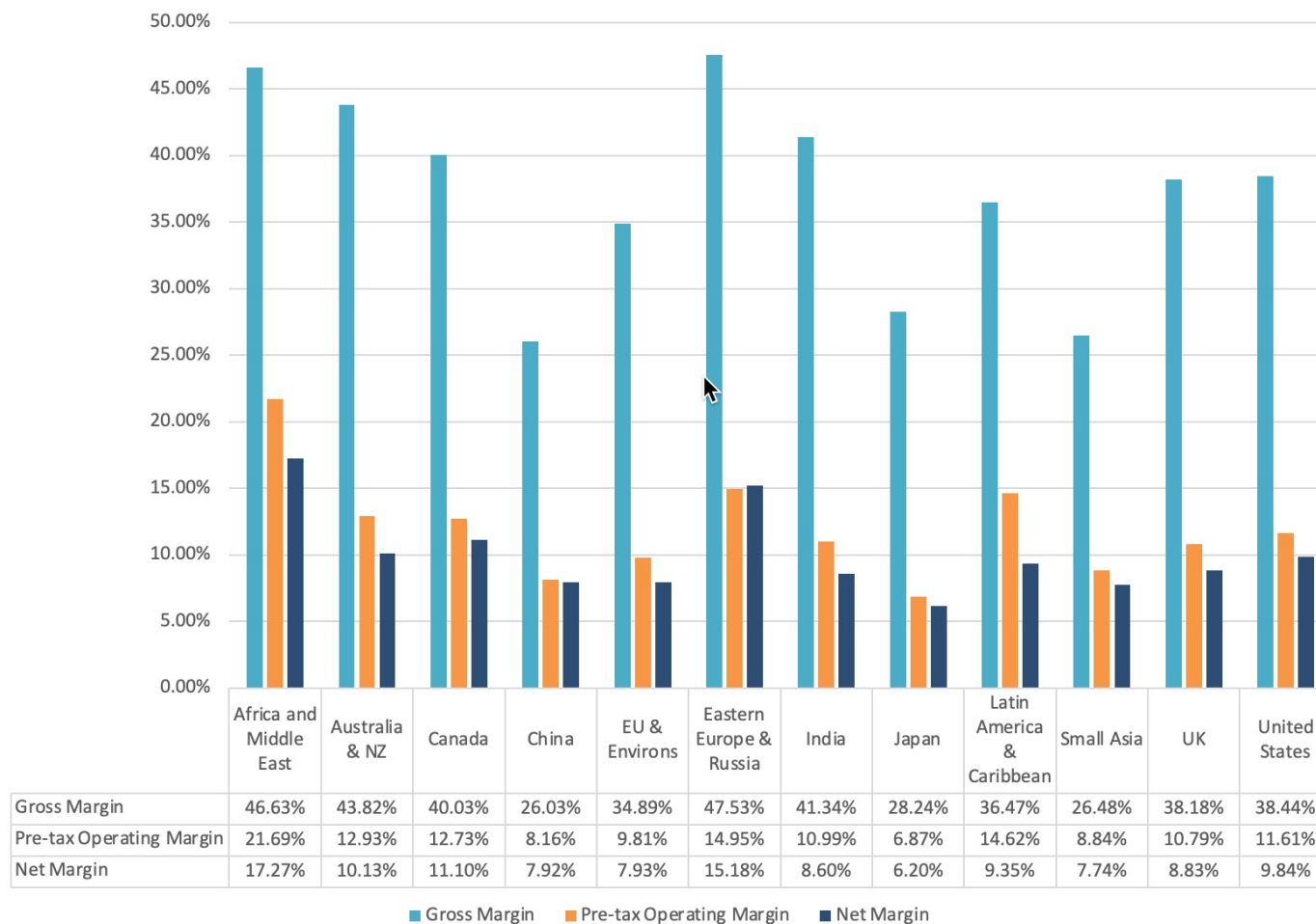
# Margins, across sectors

*Global Profit Margins in 2021: By Sector*



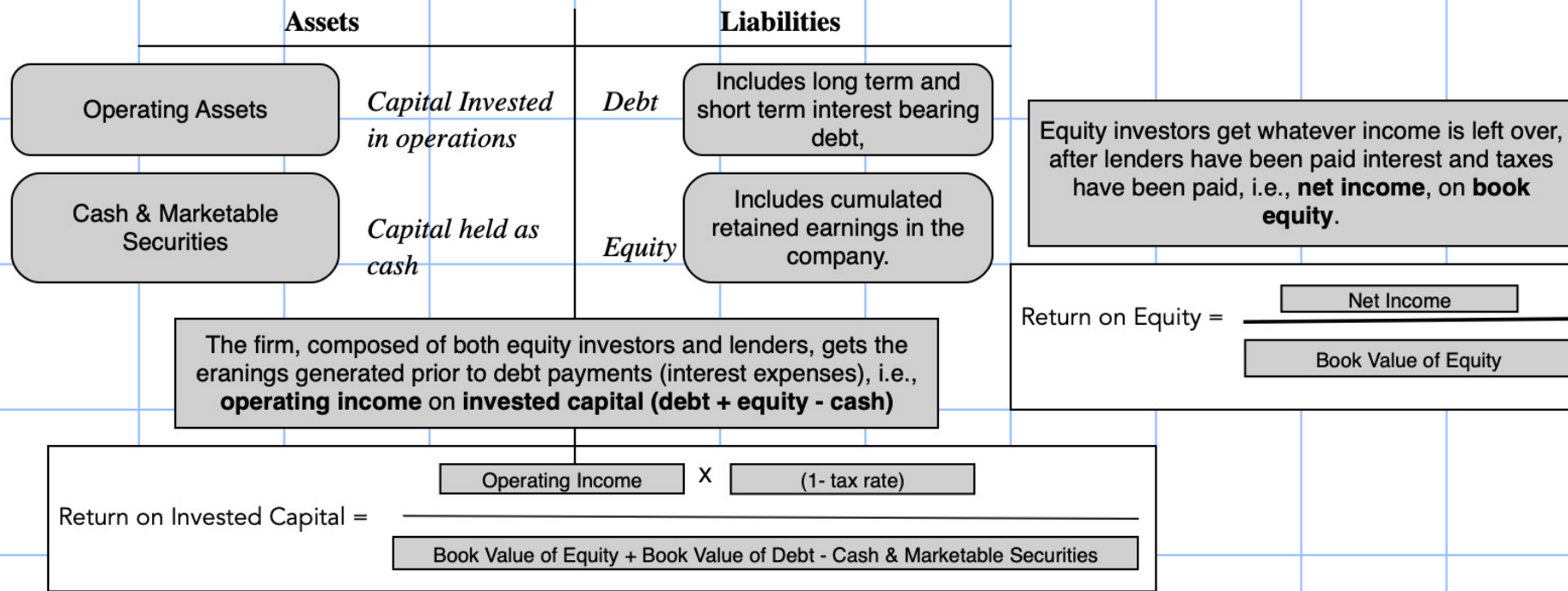
# Margins, by region

*Global Profit Margins in 2021: By Region*

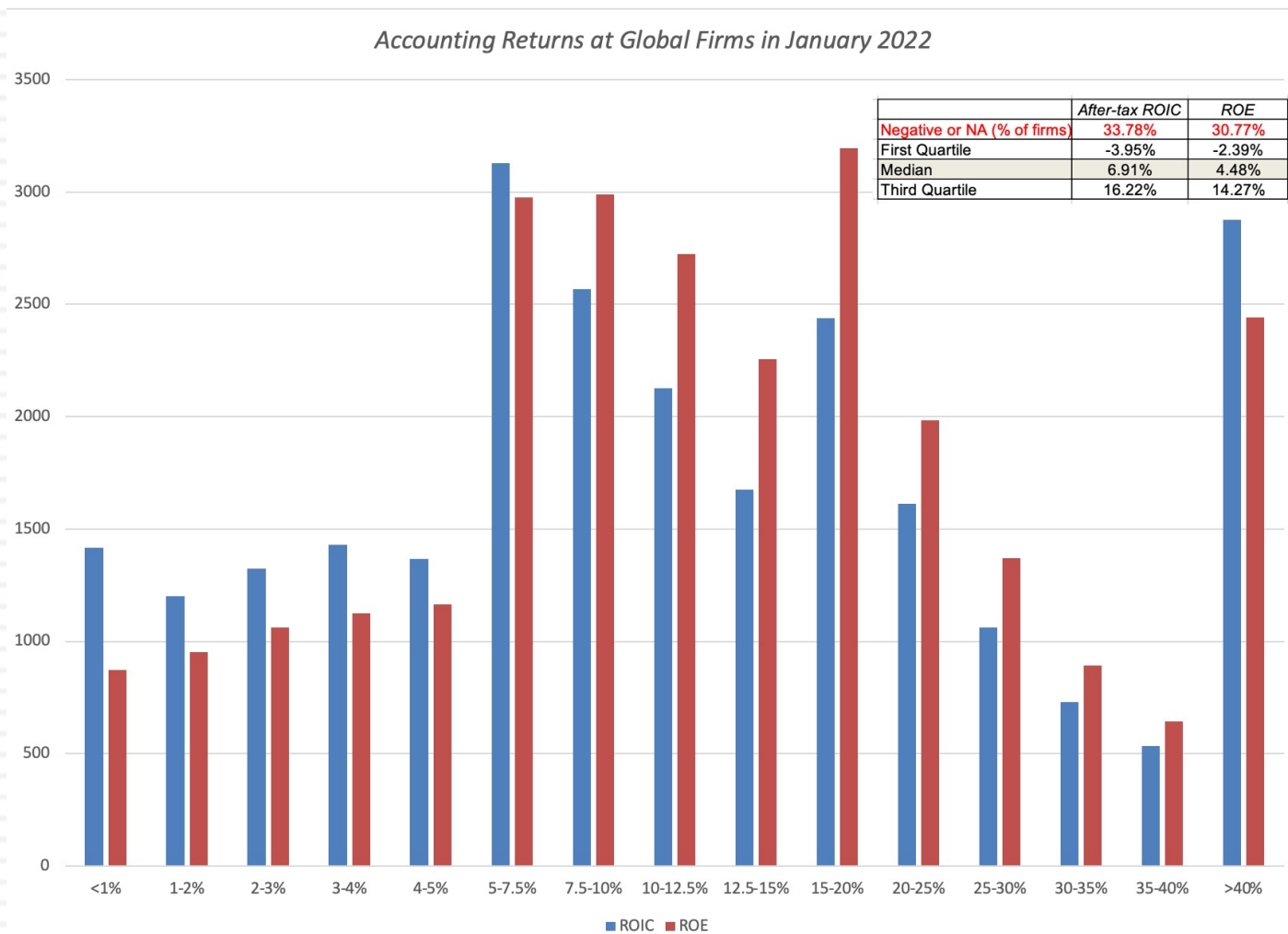


# Return on Investment, by Perspective...

## *Profitability and Returns: A Balance Sheet Perspective*



# Accounting Returns: Global Distribution



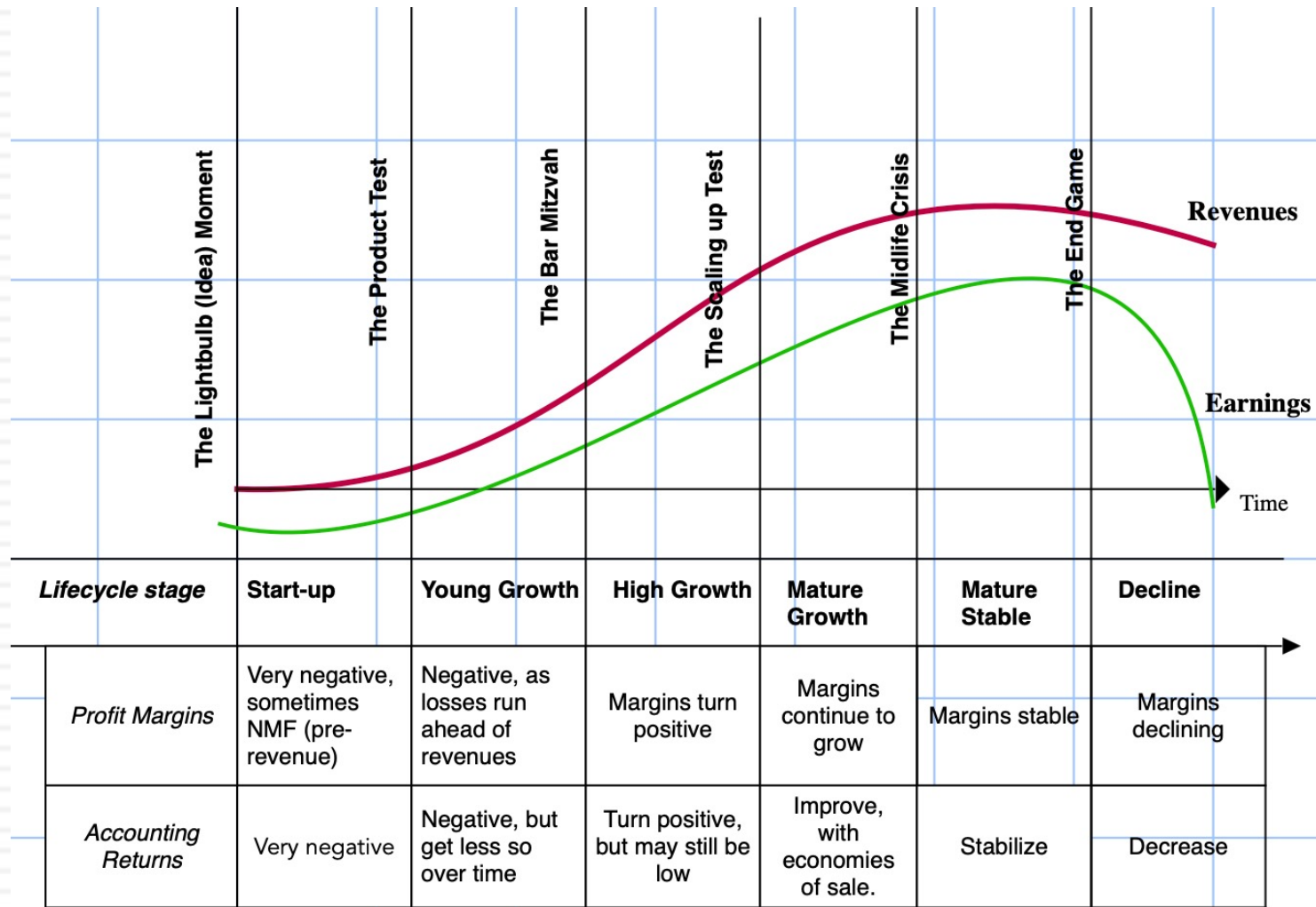
# Implications

- From buzzwords to numbers: Consultants and business experts love to invent buzzwords that they get businesses to pay immense amounts for, often with no accountability. For many buzzwords, profitability is the ultimate test.
- Corporate life cycle and profits: As companies move through the life cycle (from start up to decline), their margins move accordingly.
- The value of growth: Growth is not an unalloyed good. It can add, do nothing or detract from value and profitability gives us a way us to derive that value.

# 1. Buzzwords and Profitability

<i>Buzzword</i>	<i>Profitability Effect</i>	<i>Reasoning</i>
Powerful Brand Name	Higher operating profit margins, relative to peer group	Brand name allows you to charge higher price for the same products.
Economies of scale	Operating margin improves as revenues increase	Costs grow at a slower rate than revenues
Superior unit economics	High gross margins	Extra unit costs little to produce, relative to price.
Strong competitive advantages	High return on capital, relative to peer group	Barriers to entry earn and sustain high returns
Canny borrowing	High return on equity, relative to return on capital	Benefits from difference between return on capital and after-tax cost of debt.
Tax player	After-tax operating income is close to pre-tax operating income	Lower effective tax rate, across all income.

## 2. Corporate Life Cycle and Profitability



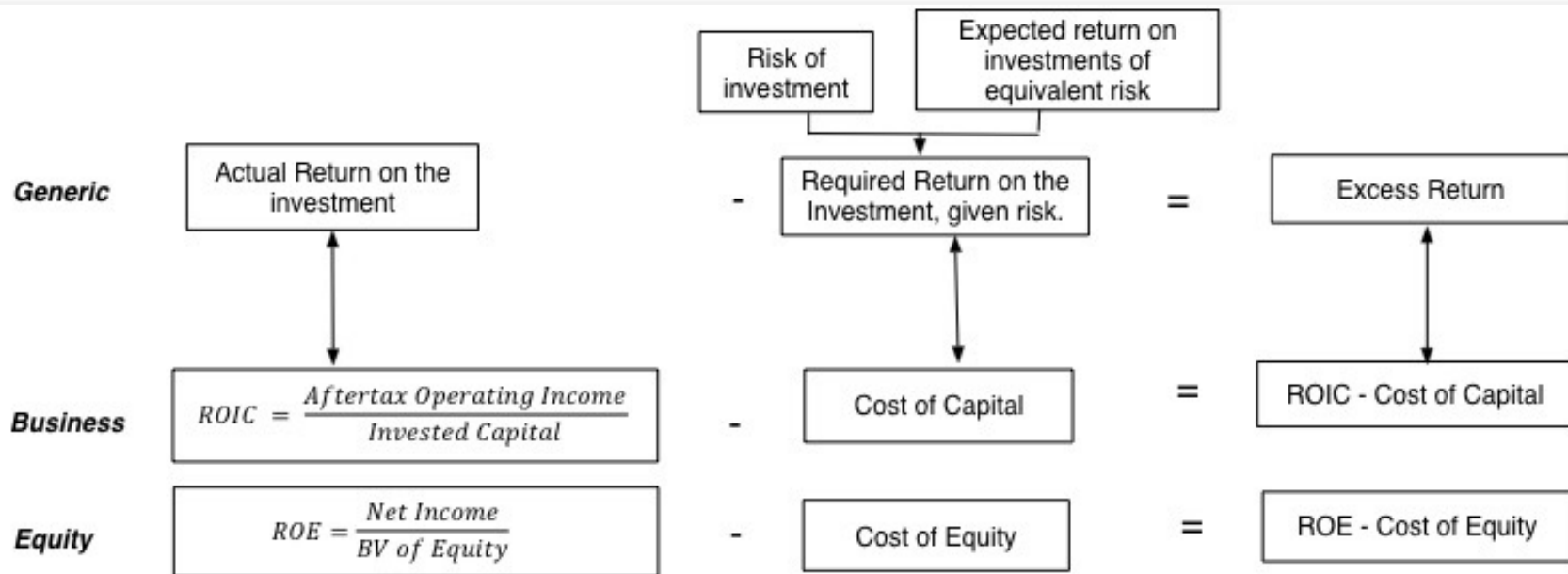
# Corporate Age and Profitability

<i>Company Age</i>	<i># Firms</i>	<i>Aggregate Margins</i>			<i>Aggregate Returns</i>	
		<i>Gross Margin</i>	<i>Pre-tax Operating Margin</i>	<i>Net Margin</i>	<i>Return on Invested Capital</i>	<i>Return on Equity</i>
Bottom decile	4,162	29.98%	5.97%	0.47%	5.13%	0.49%
2nd decile	4,379	32.17%	5.43%	2.60%	3.83%	2.79%
3rd decile	3,861	31.72%	10.63%	8.17%	9.07%	8.33%
4th decile	4,048	29.93%	8.00%	6.51%	7.99%	8.21%
5th decile	4,774	35.52%	12.57%	11.45%	8.00%	11.93%
6th decile	4,680	31.43%	10.47%	8.77%	6.39%	9.95%
7th decile	4,008	35.69%	12.11%	10.30%	8.75%	11.95%
8th decile	4,708	30.78%	11.80%	9.69%	7.90%	14.43%
9th decile	4,374	30.48%	9.57%	7.81%	8.03%	10.77%
Top decile	4,385	37.38%	10.09%	9.57%	5.17%	11.53%

# US Tech Companies: Aging in Dog Years

<i>Company Age</i>	<i># firms</i>	<i>Median Margins</i>			<i>Median Returns</i>	
		<i>Gross Margin</i>	<i>Pre-tax Operating Margin</i>	<i>Net Margin</i>	<i>Return on Invested Capital</i>	<i>Return on Equity</i>
Youngest	77	57.72%	-20.57%	-19.13%	-57.29%	-34.31%
2nd decile	76	60.32%	-36.00%	-35.10%	-93.54%	-19.57%
3rd decile	94	66.67%	-24.84%	-32.17%	-43.14%	-28.64%
4th decile	74	69.20%	-12.23%	-19.61%	-67.92%	-26.27%
5th decile	93	56.98%	-4.80%	-6.76%	-10.12%	-5.88%
6th decile	70	57.39%	4.25%	2.25%	3.34%	2.38%
7th decile	89	53.92%	3.56%	1.42%	15.75%	6.66%
8th decile	90	50.90%	5.67%	6.46%	12.09%	13.86%
9th decile	83	40.05%	5.98%	6.84%	15.07%	12.41%
Oldest	85	40.41%	12.05%	9.40%	22.70%	15.22%

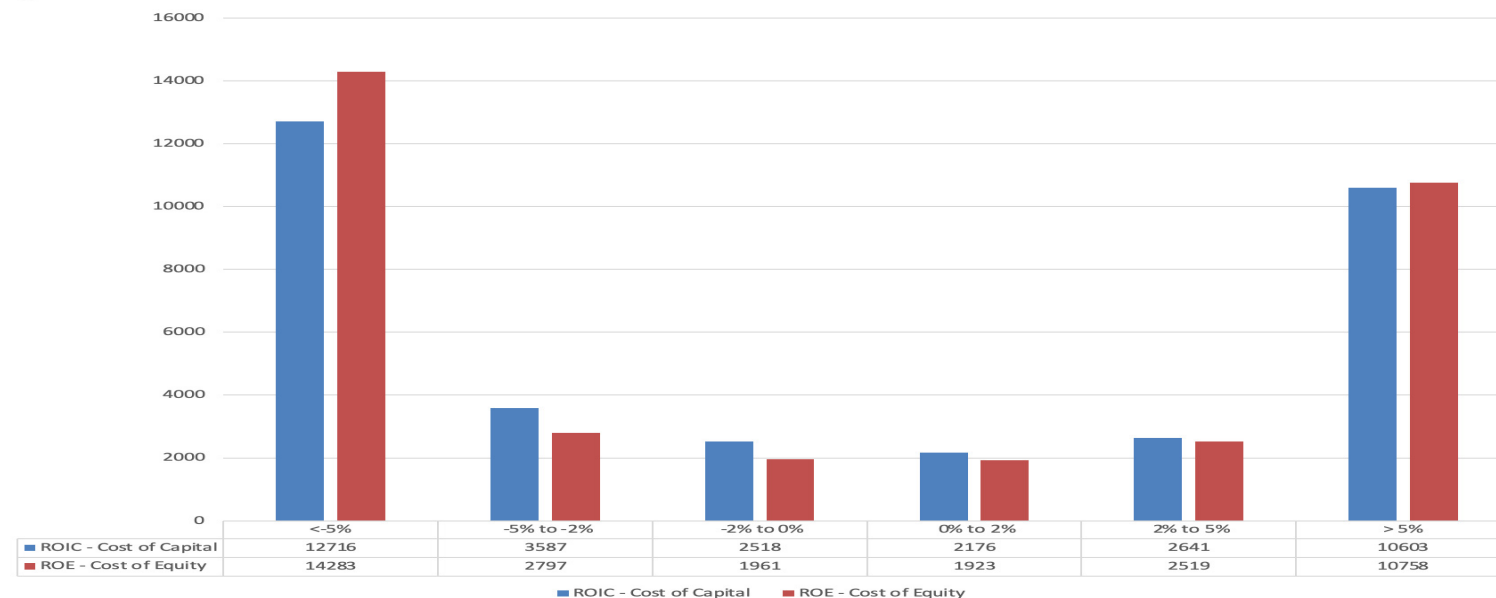
# The Value of Growth: Excess Returns



# Global Excess Returns in 2021



Excess Returns in 2021: Global Firms



Sub Group	Number of	Return on Capital - Cost of Capital					Positive/Negative %	
		<-5%	-5% to -2%	-2% to +2%	2% to 5%	>5%	Positive	Negative
Africa and Middle East	1,913	37.95%	14.69%	14.22%	7.16%	25.98%	39.52%	60.48%
Australia & NZ	1,510	60.66%	5.23%	7.48%	4.37%	22.25%	30.66%	69.34%
Canada	2,071	72.33%	4.01%	6.13%	2.95%	14.58%	21.05%	78.95%
China	6,377	27.16%	14.08%	13.88%	8.95%	35.93%	51.73%	48.27%
Eastern Europe & Russia	415	30.60%	12.77%	16.14%	9.88%	30.60%	47.95%	52.05%
EU & Environs	4,698	34.36%	11.56%	12.71%	6.85%	34.53%	47.40%	52.60%
India	3,526	33.35%	17.81%	12.62%	7.71%	28.50%	41.97%	58.03%
Japan	3,665	17.49%	16.13%	22.05%	10.89%	33.45%	53.70%	46.30%
Latin America & Caribbean	847	31.17%	11.57%	13.70%	8.50%	35.06%	49.23%	50.77%
Small Asia	8,346	35.85%	15.96%	15.37%	8.24%	24.57%	39.91%	60.09%
UK	1,037	37.51%	9.35%	10.22%	5.01%	37.90%	48.60%	51.40%
United States	4,593	39.95%	16.20%	6.88%	5.60%	31.37%	40.15%	59.85%
Global	38,998	35.67%	13.92%	13.17%	7.53%	29.71%	43.40%	56.60%

# 1. Low Hurdle Rate $\neq$ Positive Excess Returns

- ❑ Close to 57% of firms globally earn returns lower than their funding costs, and while this may be temporary for some, it has become a permanent feature for many businesses.
- ❑ The notion that lower interest rates, and the resulting lower hurdle rates that companies face, has made business easier is clearly not supported by the facts.
- ❑ If anything, as rates have decreased over the last decade, and costs of capital for companies hit historic lows, companies are finding it more difficult to create value, not less.

## 2. Good and Bad Businesses

Bad Businesses				
	# Firms	Median: ROIC - WACC	% of firms with excess returns	
			Positive	Negative
Drugs (Biotechnology)	1,223	-86.31%	42.27%	57.73%
Precious Metals	947	-24.25%	39.92%	60.08%
Metals & Mining	1,706	-21.95%	40.39%	59.61%
Air Transport	151	-12.28%	23.84%	76.16%
Hotel/Gaming	654	-10.83%	26.30%	73.70%
Oil/Gas (Production and Exploration)	642	-10.74%	46.42%	53.58%
Coal & Related Energy	206	-8.83%	46.60%	53.40%
Restaurant/Dining	385	-8.06%	37.14%	62.86%
Entertainment	734	-7.28%	46.46%	53.54%
Oilfield Svcs/Equip.	457	-5.42%	39.39%	60.61%
Good Businesses				
	# Firms	Median: ROC-WACC	Positive	Negative
Tobacco	55	13.31%	80.00%	20.00%
Retail (Building Supply)	98	7.12%	78.57%	21.43%
Information Services	266	6.98%	72.56%	27.44%
Computer Services	1,040	5.35%	69.71%	30.29%
Healthcare Support Services	445	4.34%	68.76%	31.24%
Furn/Home Furnishings	359	3.85%	64.35%	35.65%
Hospitals/Healthcare Facilities	223	3.40%	66.82%	33.18%
Chemical (Specialty)	898	3.28%	66.70%	33.30%
Building Materials	449	3.17%	63.25%	36.75%
Chemical (Diversified)	71	3.14%	71.83%	28.17%

### 3. Disruption's Dark Side

- There are businesses like entertainment, historically good businesses that have seen their business models disrupted, by new entrants into the business.
- While this is a phenomenon that has played out in business after business, over the last two decades, there are observations that I will make, based upon seeing the excess returns in disrupted businesses.
  - Disruption, almost invariably, leads to lower returns for the status quo, i.e., the disrupted companies in the business, but disruptors often don't end up with high returns either.
  - Put bluntly, disruption is easy, but making money on disruption is difficult, and disruption creates lots of losers, but does not necessarily replace them with winners.