# INVISIBLE, YET INVALUABLE: INTANGIBLE ASSETS!

Just because you cannot see it…

# The Accounting Obsession with Intangibles!

- Accounting has historically done a poor job dealing with intangible assets, and as the economy has transitioned away from a manufacturing-dominated twentieth century to the technology and services focused economy of the twenty first century, that failure has become more apparent.
- The resulting debate among accountants about how to bring intangibles on to the books has spilled over into valuation practice, and many appraisers and analysts are wrongly, in my view, letting the accounting debate affect how they value companies.

# Intangibles in Value: A Historical Perspective

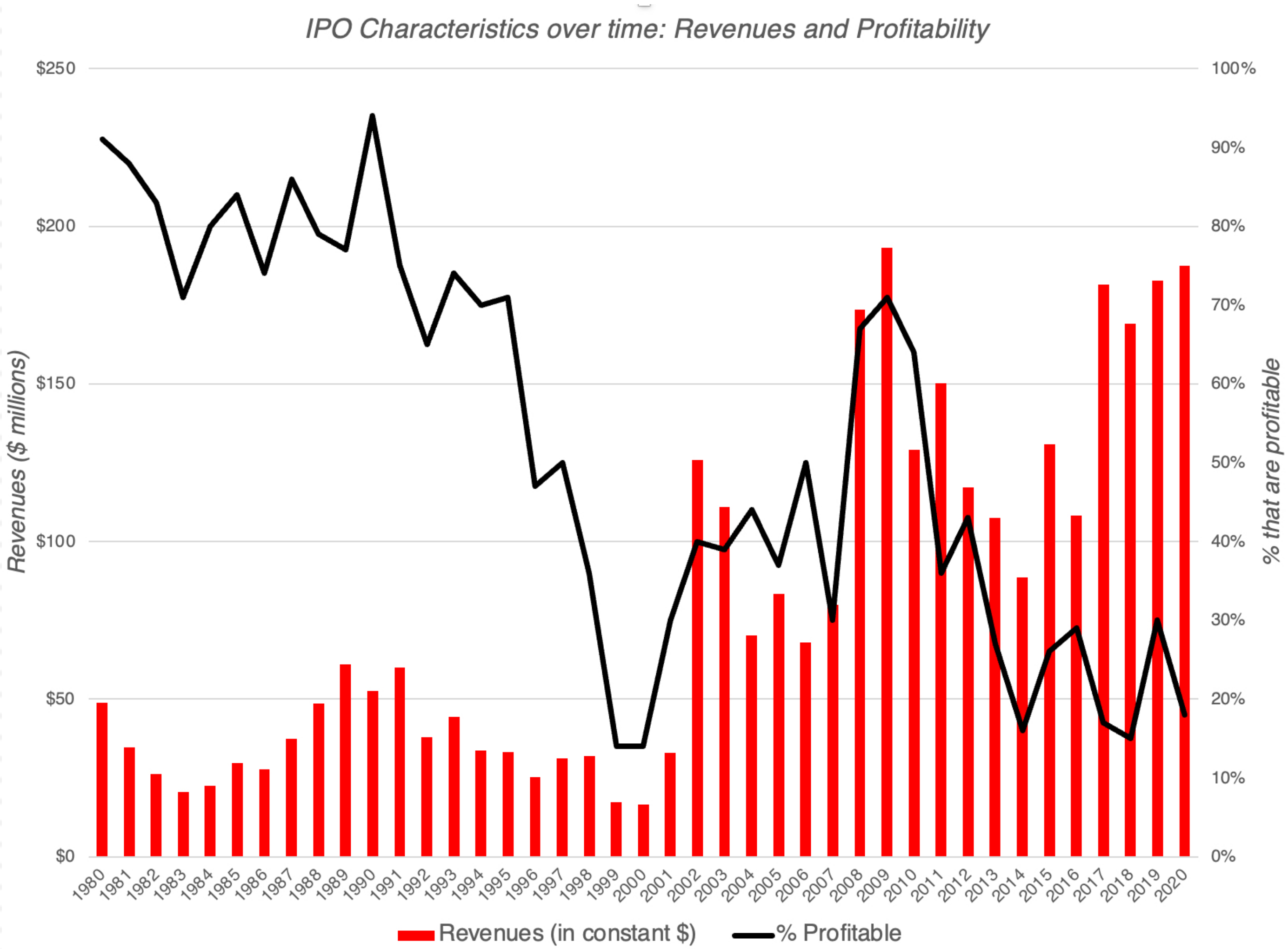
- While the debate about intangibles, and how best to value them, is relatively recent, it is unquestionable that intangibles have been a part of valuation, and the investment process, through history.
  - An analyst valuing General Motors in the 1920s was probably attaching a premium to the company, because it was headed by Alfred Sloan, viewed then a visionary leader, just as an investor pricing GE in the 1980s was arguing for a higher pricing, because Jack Welch was engineering a rebirth of the company.
  - Even a cursory examination of the the Nifty Fifty, the stocks that drove US equities upwards in the early 1970s, reveals companies with significant value from intangible assets.
- Among many old-time value investors, especially in the Warren Buffet camp, the importance of having "good management' and moats (competitive advantages, many of which are intangible) represented an acceptance of to how critical it is that we incorporate these intangible benefits into investment decisions.

# The Rise of Intangibles!

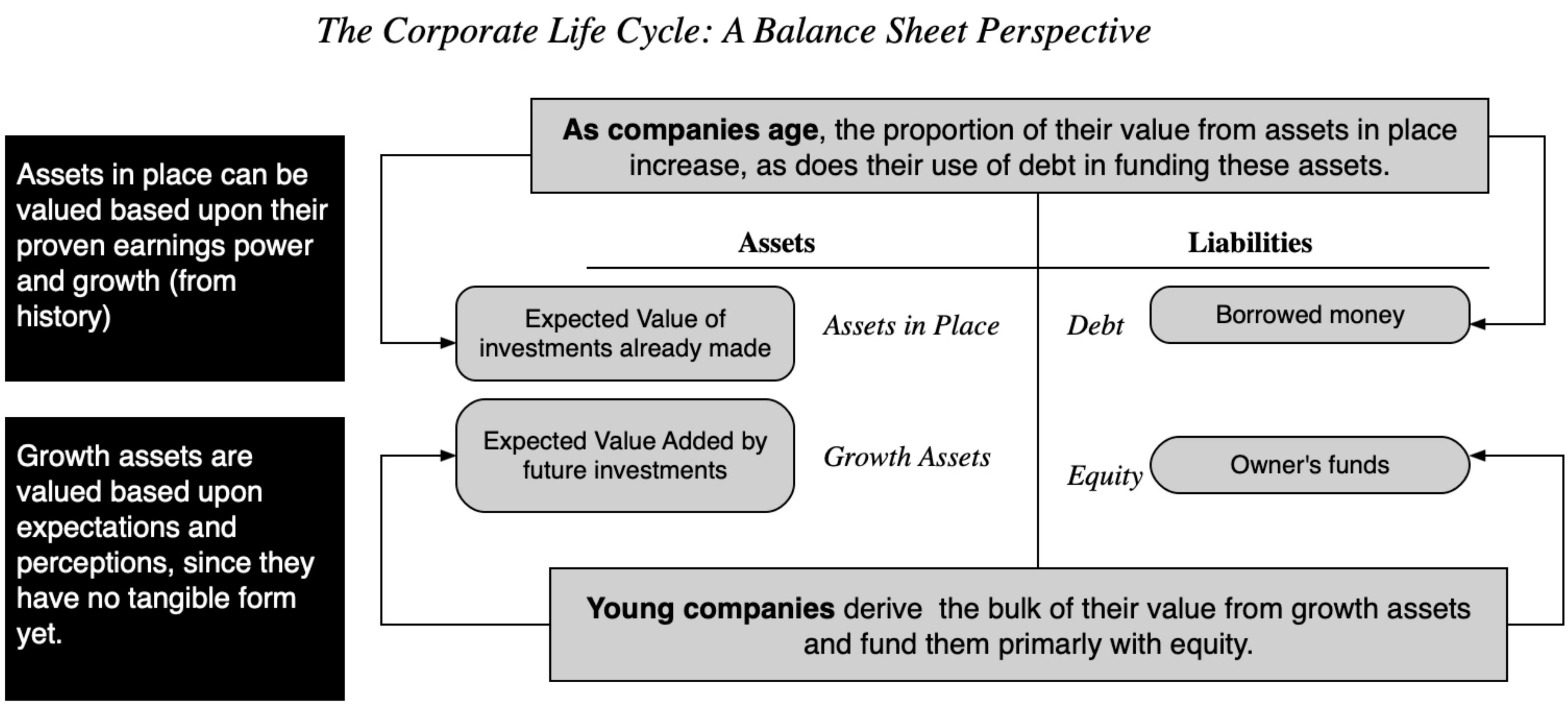
# The Rise of Intangibles: Largest Market Cap Firms

| 1980 | The Rise of Japan Inc. | 1990 | The Dot Com Boom | 2000 | The China Story | 2010 | The Big Tech Surge (FANGAM) | 2020 | The Post-COVID Years | Jul-23 |
|---|---|---|---|---|---|---|---|---|---|---|
| IBM | | Nippon Telegraph | | Microsoft | | Petrochina | | Aramco | | Apple |
| AT&T | | Bank of Tokyo | | GE | | Exxon Mobil | | Apple | | Microsoft |
| Exxon | | Industrial Bank (Japan) | | NTT DoCoMo | | Microsoft | | Mixcrosoft | | Alphabet |
| Standard Oil | | Sumitomo Mitsui | | Cisco | | ICBC | | Alphabet | | Aramco |
| Schlumberger | | Toyota Motors | | Walmart | | Walmart | | Amazon | | Amazon |
| Shell | | Fuji Bank | | Intel | | China Construction Bank | | Facebook | | Tesla |
| Mobil | | Dai-Ichi Bank | | Nippon Telegraph | | BHP Billiton | | Berkshire Hathaway | | Meta Platforms |
| Atlantic Richfield | | IBM | | Exxon Mobil | | HSBC | | Tencent | | NVIDIA |
| GE | | UFJ Bank | | Lucent | | Petrobras | | JPMorgan Chase | | Berkshire Hathaway |
| Eastman Kodak | | Exxon | | Deutsche Telekom | | Apple | | Visa | | TSMC |

# And in companies going public…

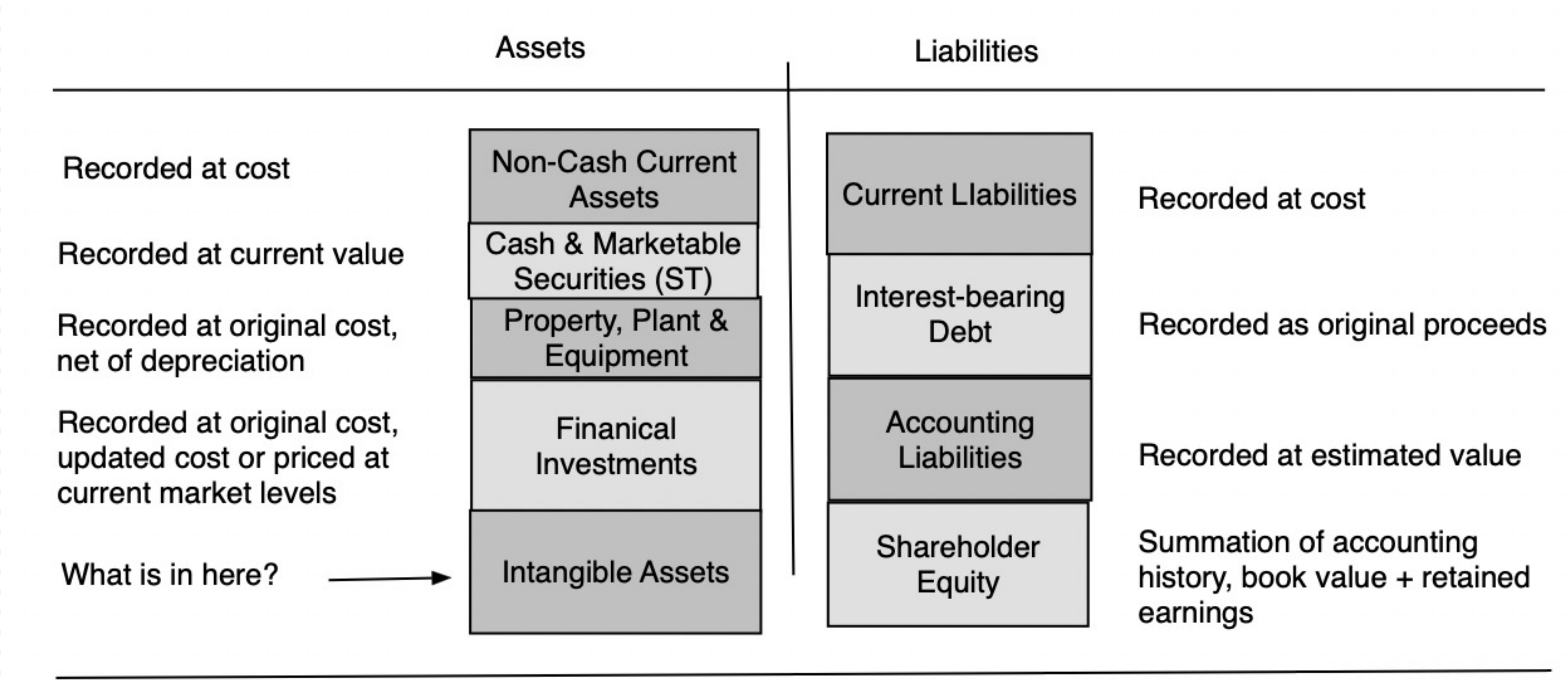


# With consequences for value and investors…

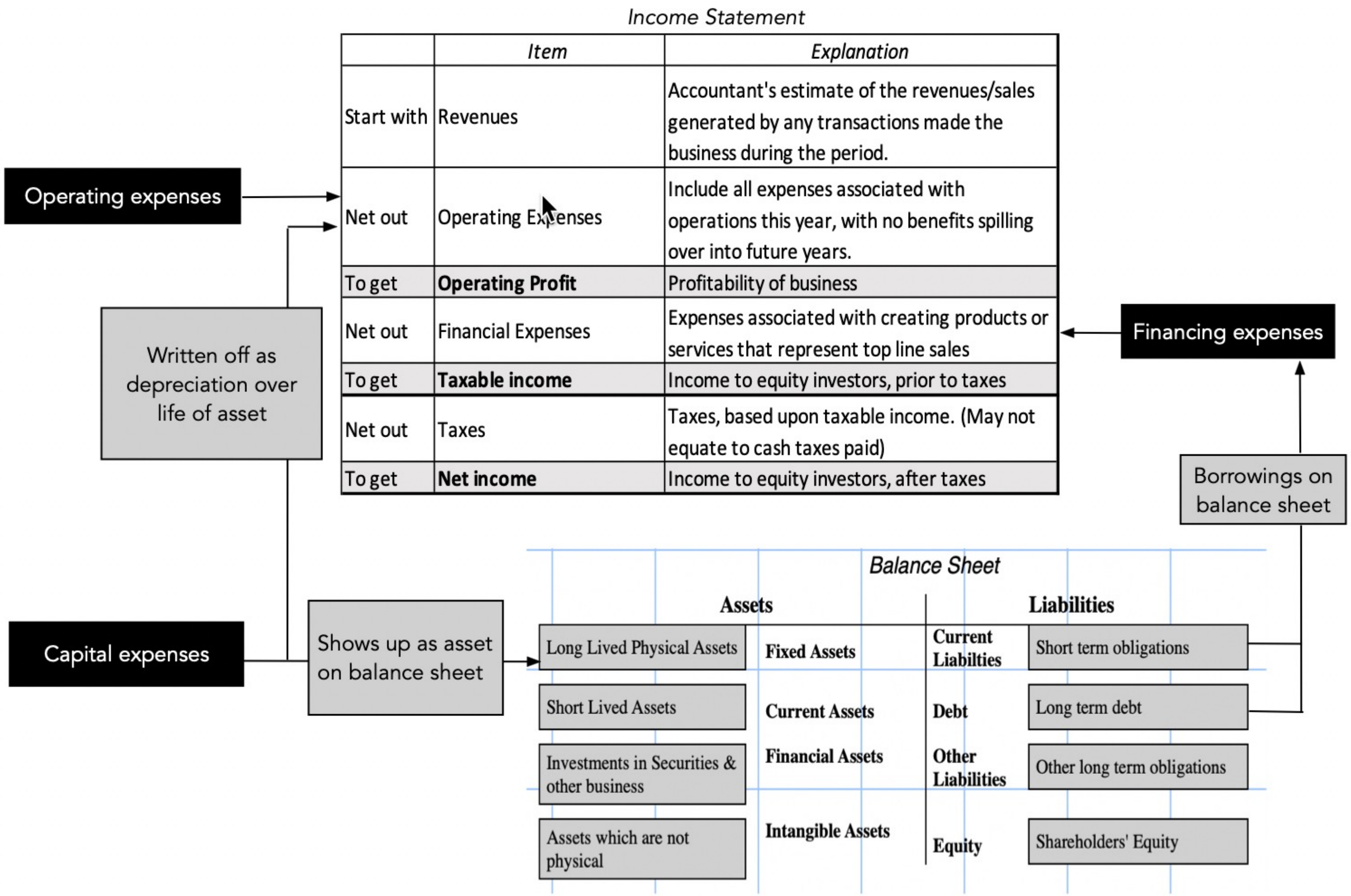


# The Accounting Stuggle!

# The Accounting Debate on Intangibles



# The Link to Expensing…




*Income Statement*

| | *Item* | *Explanation* |
|---|---|---|
| Start with | Revenues | Accountant's estimate of the revenues/sales generated by any transactions made the business during the period. |
| Net out | Operating Expenses | Include all expenses associated with operations this year, with no benefits spilling over into future years. |
| To get | **Operating Profit** | Profitability of business |
| Net out | Financial Expenses | Expenses associated with creating products or services that represent top line sales |
| To get | **Taxable income** | Income to equity investors, prior to taxes |
| Net out | Taxes | Taxes, based upon taxable income. (May not equate to cash taxes paid) |
| To get | **Net income** | Income to equity investors, after taxes |

# The Original Sin…

- If you follow accounting first principles, any expense that creates benefits over many years should be treated as a capital expense, whereas expenses that show up entirely (or almost entirely) as this year's income should be an operating expense.
- Accounting claims to be consistent in this treatment, but it is not and especially so with expenses associated with intangibles, including:
  - R&D expenses (Pharmaceutical & Technology firms)
  - Exploration costs (Commodity companies)
  - Advertising to build up brand (consumer product firms)
  - Recruiting & training expenses (consulting)
  - Acquiring new subscribers/users (platform)

## Miscategorized Capital Expenses as Operating Expenses

*To correct the accounting mistake*

**To correct operating (net) income:** Stated Operating (Net) income + Current year's R&D expense - Amortization of R&D Asset

Amortize the R&D asset over amortizable life.

**To correct debt & assets:** Capitalize past R&D expenses and incorporate that amount into assets (as an R&D asset) and increase book equity by an equal amount.

*Income Statement*

| | *Item* | *Explanation* |
|---|---|---|
| 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 | **Gross Profit** | 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 | **Operating Profit** | 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 securties) |
| To get | **Pretax Profit** | Income to equity investors, prior to taxes |
| Net out | Taxes | Taxes, based upon taxable income. (May not equate to cash taxes paid) |
| To get | **Net Profit** | Income to equity investors, after taxes |

***When accountants treat a capital expenditure (like R&D) as an operating expense.***

**Operating income and net income will be misstated** and will be too low (high) for companies with growing (declining) R&D expenses.

*Balance Sheet*

| Assets | | Liabilities | |
|---|---|---|---|
| Long Lived Physical Assets | Fixed Assets | Current Liabilities | Short term obligations |
| Short Lived Assets | Current Assets | Debt | Long term debt |
| Investments in Securities & other business | Financial Assets | Other Liabilities | Other long term obligations |
| Assets which are not physical | Intangible Assets | Equity | Shareholders' Equity |

**Book equity and assets will be understated,** as you miss the capitalized effects of past R&D expenses in both items.

### Effects on Ratios/Statistics

| *Ratio/Statistic* | *Before correction* | *After correction* | *Effect of correction* |
|---|---|---|---|
| Operating Margin | Operating income/Sales | Corrected Operating income/Sales | Increase (decrease) for companies with rising R&D expenses. |
| Net Margin | Net Income/Sales | Corrected Net Income/Sales | Increase (decrease) for companies with rising R&D expenses. |
| Return on invested capital | Operating income/ (Book value of equity + Book value of debt - cash) | Corrected Operating income/ (Book value of equity + R&D asset + Book value of debt - cash) | Decrease |
| Return on equity | Net Income/Book Equity | Corrected Net Income/ (Book Equity + R&D asset) | Decrease |
| Debt Ratio (Book) | Book Debt/(Book Debt + Book Equity) | Book Debt / (Book Debt + Equity + R&D assset) | Decrease |
| Debt Ratio (Market) | Mkt Debt/(Mkt Debt + Mkt Equity) | Mkt Debt/(Mkt Debt + Mkt Equity) | No change (The market value already incorporates R&D) |

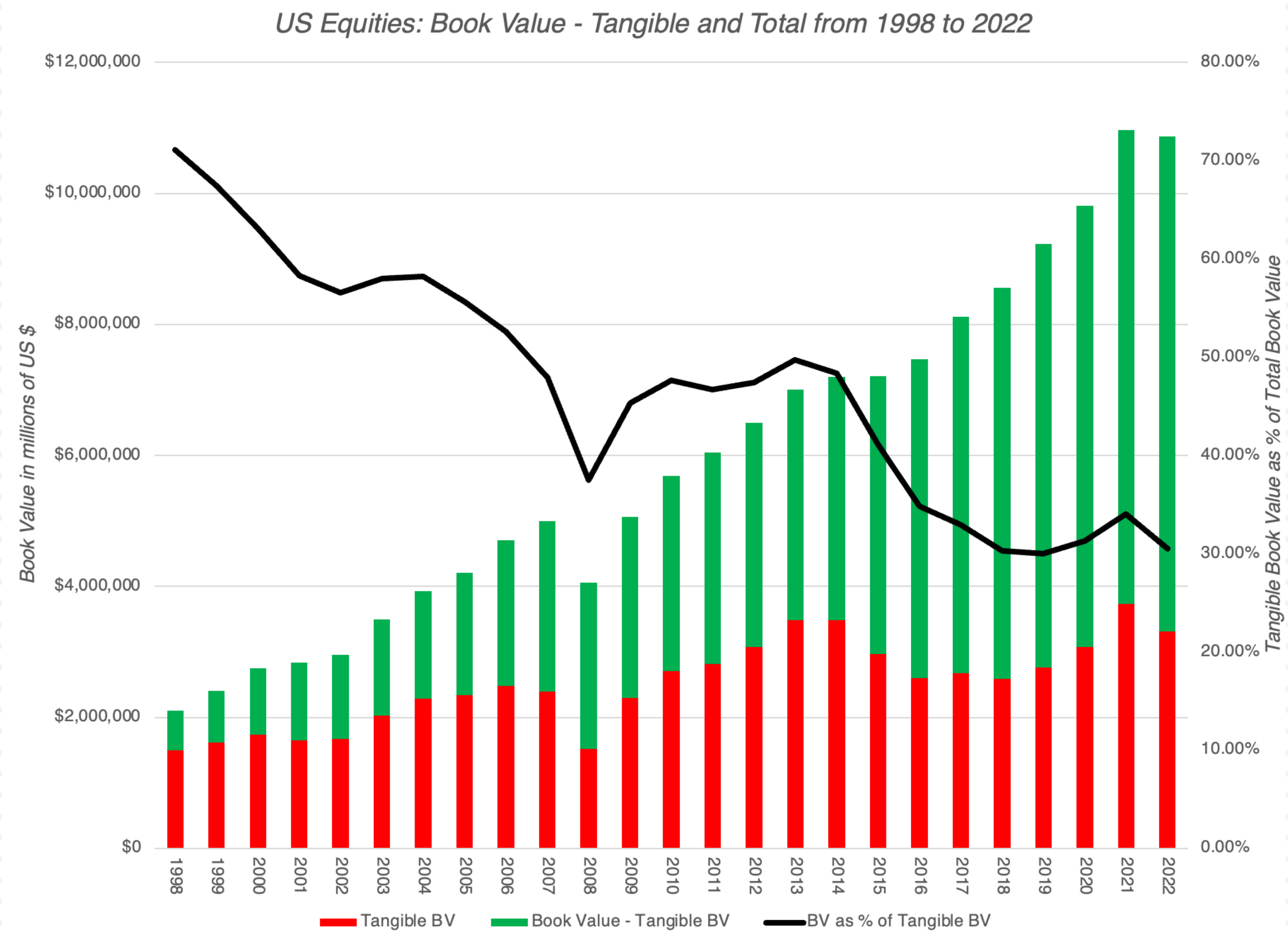
# Extending beyond R&D…

1. *Exploration costs* at natural resource companies, since even if successful, the reserves found will not add to revenues or income until years into the future.
2. *Advertising expenses to build brand name* at consumer product companies, and especially so at companies (like Coca Cola) that are dependent on brand name for both growth and pricing power. Note that not all business advertising is for building brand name, and capitalizing brand-name advertising will require separating advertising expenses into portions intended to sustain and increase current sales (operating expense) and for building brand name (capital expense).
3. *Use/Subscriber acquisition costs* at user or subscriber-based firms, at companies that have built their value propositions around user or subscriber numbers. Note that the capitalization effect will depend on how long an acquired subscriber or user will stay with the business, with longer customer lives creating a bigger impact, from correction.
4. *Employee recruiting and training expenses* at consulting and human-capital driven firms, since their growth depends, in large part, on their employee quality and retention. Here again, the effect of capitalizing employee-related expenses will depend on employee tenure, with longer tenure creating a bigger effect, when the correction is made.

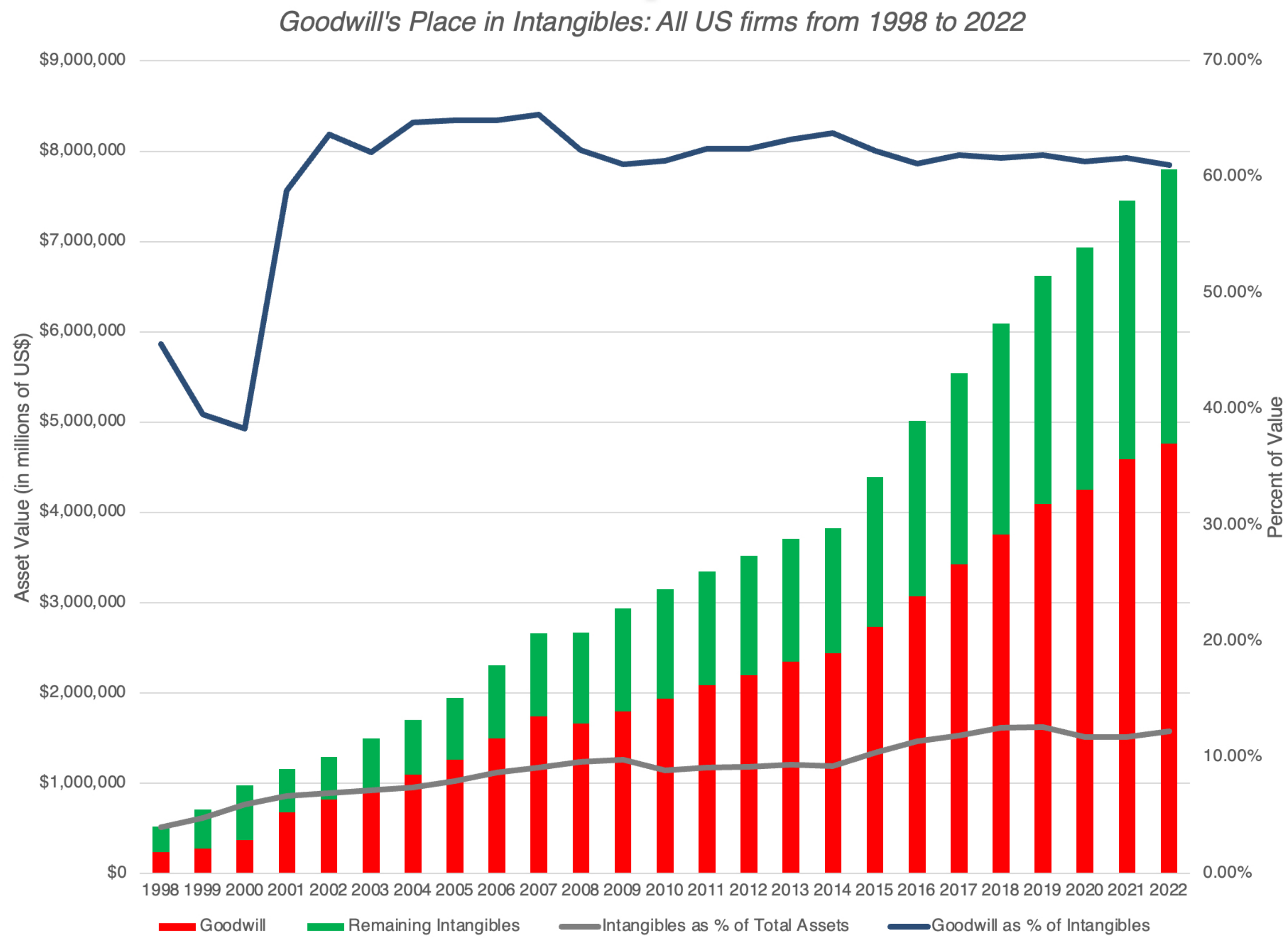
# Pricing and Investment Consequences

| | *Operating -> Financing (like leases)* | *Operating -> Capital (like R&D)* |
|---|---|---|
| Valuing Equity | Since free cash flows to equity are after both financing and operating expenses, they should thus be unaffected, but the cost of equity may have to change to incorporate the adjusted debt ratios. The overall effect on equity will depend on the cost of equity correction. | Base year free cash flows to equity and firm will be unaffected, since they are after both operating and capital expenses, but there will be shifts in profitability and reinvestment numbers, which will affect future growth and estimated value. At most firms, profitability and reinvestment measures will increase, but the net effect on value of these changes will depend on the return spread (ROIC minus Cost of Capital, ROE minus Cost of Equity) that you estimate for the firm, after correcting ROIC and ROE. |
| Valuing Firm or Business | Correction will affect free cash flows to the firm, since it is a pre-debt cash flow, increasing it, for most firms, and your estimate of how much financial leverage is being carried, with an increase sometimes lowering and sometimes raising your cost of capital. While these changes will generally push the business value up, you will be netting out a larger debt figure, leading to equity values going up, down or staying relatively unchanged. | |
| Pricing Equity | Net income and book equity are unaffected by this correction, which should imply that equity multiples based upon these scalars (PE, Price to Book) will be unaffected as well. When comparing across companies, though, the adjustment to debt ratios might play a role in risk comparisons across companies. | Changes to net income and book equity will ensue, with price earnings and price to book ratios declining at firms with growing R&D expenses. |
| Pricing Firm or Business | Enterprise value (EV) multiple will be changed, as enterprise value will rise with the addition of lease debt and EBITDA or Invested Capital, if used as a scalar, will also rise as the correction is made. | Changes to operating income, EBITDA and invested capital will ensue, generally pushing down EV multiples at firms with growing R&D expenses. |
| Story for business | The correction can sometimes change the story that you are telling for a company, as you restate return and cost of capital (shifting your excess returns) and risk, with leases treated as debt | When comparing companies using a pricing multiple, ranking and pricing judgments on firms will be altered by capitalization, pushing up the ranking of firms with growing R&D expenses. |

# Progress on Intangibles?

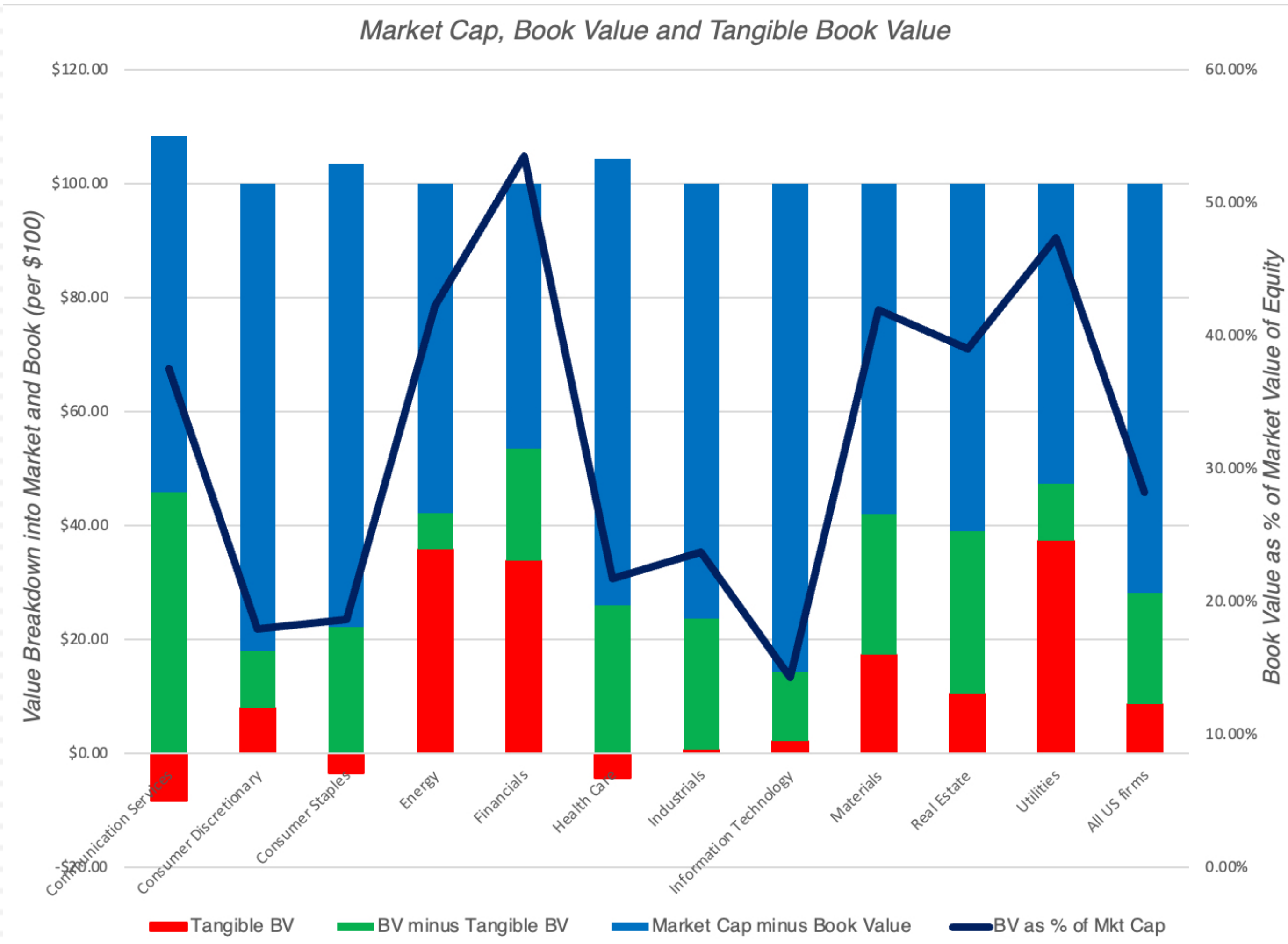


# Not really…



Goodwill's Place in Intangibles: All US firms from 1998 to 2022
$9,000,000
$8,000,000
$7,000,000
$6,000,000
$5,000,000
$4,000,000
$3,000,000
$2,000,000
$1,000,000
$0
Asset Value (in millions of US$)
70.00%
60.00%
50.00%
40.00%
30.00%
20.00%
10.00%
0.00%
Percent of Value
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022
Goodwill
Remaining Intangibles
Intangibles as % of Total Assets
Goodwill as % of Intangibles

# And the Market Cap gap persists…



# Accounting and Intangibles: A "Biased" Summation…

- The accounting obsession with intangibles, and how best to deal with them, has not translated into material changes on balance sheets, at least with GAAP in the United States.
- It is true that IFRS has moved faster in bringing intangible assets on to balance sheets, albeit not always in the most sensible ways, but even with those rules in place, progress on bringing intangible assets onto balance sheets has been slow.
- The problem for accounting is the fixation on showing intangibles on balance sheets, rather than dealing with them on the statements that matter – income and cash flow statements.

# An Intrinsic Value of Intangibles!

# An Intrinsic Value View of Intangibles

- I have often been accused of giving short shrift to intangible assets, because I don't have a session dedicated to valuing intangibles, in my valuation class, and I don't have entire books, or even chapters of my books, on the topic.
- While it may seem like I am in denial, given how much value companies derive from assets you cannot see, I have never felt the need to create new models, or even modify existing models, to bring in intangibles.
- If you do intrinsic valuation right, intangibles should be, with imagination and very little modification of existing models, already in your intrinsic value.

# Intrinsic Valuation 101

- To understand intrinsic value, it is worth starting with the simple equation that animates the estimation of value, for an asset with n years of cash flows:

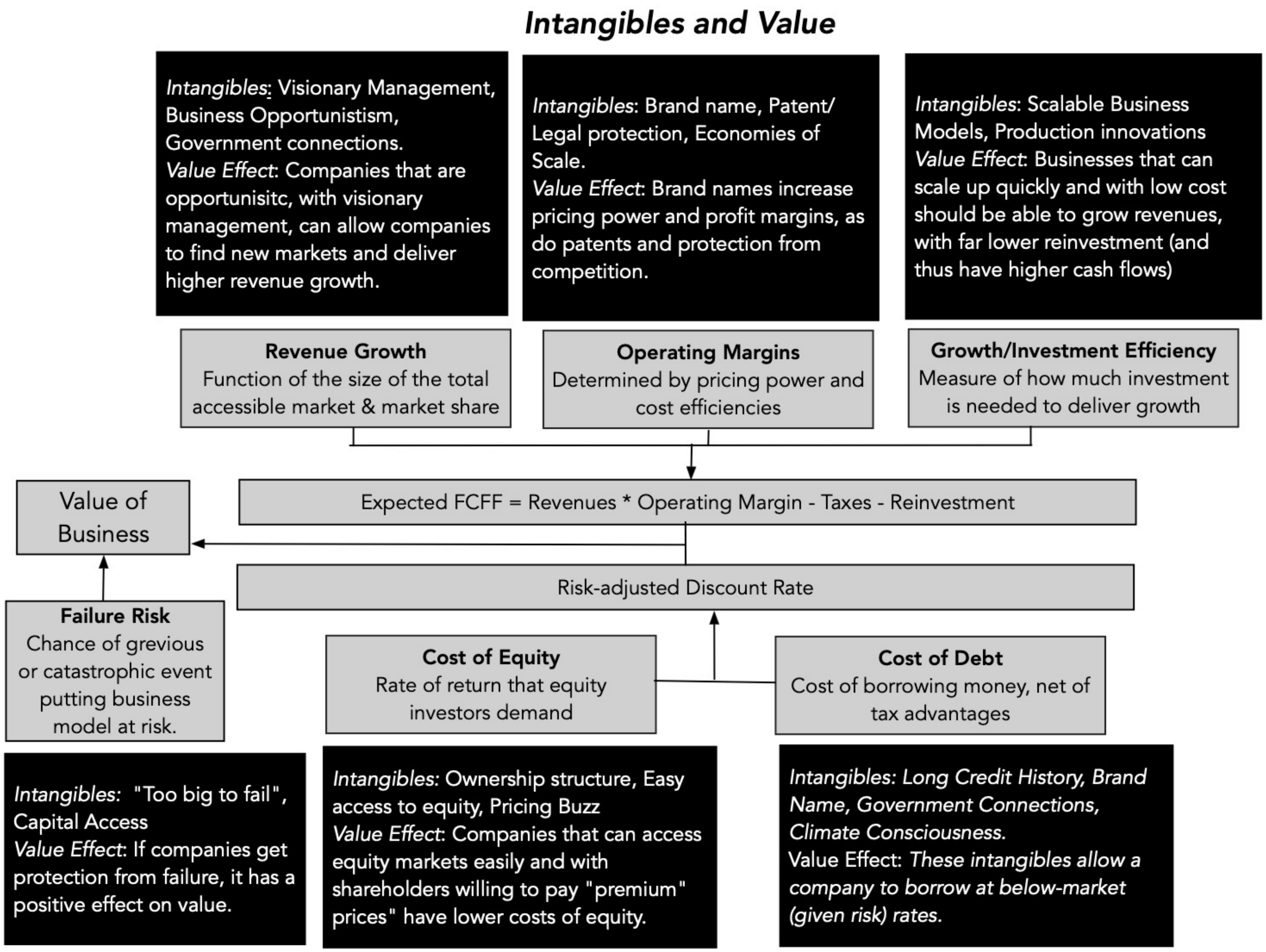
$$\text{Value of Asset} = \frac{\text{E(Cash Flow}_1)}{(1+r)^1} + \frac{\text{E(Cash Flow}_2)}{(1+r)^2} + \cdots + \frac{\text{E(Cash Flow}_n)}{(1+r)^n}$$

- When valuing a business, where cash flows could last for much longer (perhaps even forever), this equation can be adapted:

$$\text{Value of Business} = \frac{\text{E(Cash Flow}_1)}{(1+r)^1} + \frac{\text{E(Cash Flow}_2)}{(1+r)^2} + \cdots + \frac{\text{E(Cash Flow}_{n+1})}{(r-g_n)(1+r)^n}$$

- *In this equation, for anything, tangible or not, has to show up in either the expected cash flows or in the risk (and the resulting discount rate);* that is my "IT" proposition.

# Intangibles in Intrinsic Value



# Qualifiers and Complexities

- This approach to intangibles also allows you to separate valuable intangibles from wannabe intangibles, with the latter, no matter how widely sold, having little or no effect on value.
  - Thus, a company that claims that it has a valuable brand name, while delivering operating margins well below the industry average, really does not, and
  - the effect of ESG on value, no matter what its advocates claim, is non-existent.
- It is true that this approach to valuing intangibles works best for a company with a single intangible, whether it be brand name or customer loyalty, where the effect is isolated to one of the value drivers.
- It becomes more difficult to use for companies, like Apple, with multiple intangibles (brand name, styling, operating system, user platform).

# 1. The Value of a Brand Name

- While there are some who bunch together all of the competitive advantages possessed by a company into the "brand name" category, I think we are **better served isolating brand name from other competitive advantages**.
- Consequently, I have a narrow definition of the **power of a brand name**, which I am sure that some of you will take issue with. The power of a brand name is that it allows you **to charge a higher price than your competition**, for an identical or almost identical product.
- ***Bottom line: The test of whether a brand name has value lies in a company's pricing power, and its effect on profit margins.***

# Is there brand name value?

Price = $2.50


Price = $4.00

# How about here?

Space Gray

M3

**8-Core CPU**
**10-Core GPU**
**8GB Unified Memory**
**512GB SSD Storage[1]**

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# Valuing Brand Name at Coca Cola!

| | Coca Cola | With Cott Margins |
|---|---|---|
| Current Revenues = | $21,962.00 | $21,962.00 |
| Length of high-growth period | 10 | 10 |
| Reinvestment Rate = | 50% | 50% |
| Operating Margin (after-tax) | 15.57% | 5.28% |
| Sales/Capital (Turnover ratio) | 1.34 | 1.34 |
| Return on capital (after-tax) | 20.84% | 7.06% |
| Growth rate during period (g) = | 10.42% | 3.53% |
| Cost of Capital during period = | 7.65% | 7.65% |
| Growth rate in steady state = | 4.00% | 4.00% |
| Return on capital = | 7.65% | 7.65% |
| Reinvestment Rate = | 52.28% | 52.28% |
| Cost of Capital = | 7.65% | 7.65% |
| **Value of Firm =** | **$79,611.25** | **$15,371.24** |

# Do you agree with these rankings?

| Rank | Brand | Country | Brand value (US$ millions) |
|---|---|---|---|
| 1 | Apple Inc. | United States | 482,215 |
| 2 | Microsoft Corp | United States | 278,288 |
| 3 | Amazon.com | United States | 274,819 |
| 4 | Google | United States | 251,751 |
| 5 | Samsung | South Korea | 87,689 |
| 6 | Toyota | Japan | 59,757 |
| 7 | Coca-Cola | United States | 57,535 |
| 8 | Mercedes-Benz | Germany | 56,103 |
| 9 | The Walt Disney Company | United States | 50,325 |
| 10 | Nike, Inc. | United States | 50,289 |

# 2. The Value of a Franchise

- A franchise in sports or entertainment gives you exclusive rights to operate in that sport or make content based upon the entertainment franchise.
- The value of a franchise is a direct function of the revenues that you will receive from that franchise. With both sports and entertainment, change is in the air:
  - With sports, the business model has shifted away from filling stadiums to media contracts (TV -> Streaming)
  - With entertainment, the center of gravity is moving from making movies/TV shows to streaming.

# Valuing an Entertainment Franchise: Star Wars

| | Add-on $ per Box Office $ |
|---|---|
| Streaming/Video | $1.20 |
| Toys & Merchandise | $2.00 |
| Books/eBooks | $0.20 |
| Gaming | $0.50 |
| Other | $0.50 |

Add on $ per box office $

**Star Wars Franchise Valuation: December 2015**

*Main Movies*
World Box office of $1.5 billion, adjusted for 2% inflation.

*Spin Off Movies*
World Box office is 50% of main movies.

| | Main Star Wars Movies | | | Star Wars Spin offs | | |
|---|---|---|---|---|---|---|
| | Star Wars VII | Star Wars VIII | Star Wars IX | Rogue One | Hans Solo? | Boba Fett? |
| Years from now | 0.0 | 2.0 | 4.0 | 1.0 | 3.0 | 5.0 |
| Movies - Revenues | $2,000 | $2,081 | $2,165 | $1,020 | $1,061 | $1,104 |
| Streaming/Video - Revenues | $2,400 | $2,497 | $2,598 | $1,224 | $1,273 | $1,325 |
| Toys & Merchandise - Revenues | $4,000 | $4,162 | $4,330 | $2,040 | $2,122 | $2,208 |
| Books/eBooks - Revenues | $400 | $416 | $433 | $204 | $212 | $221 |
| Gaming - Revenues | $1,000 | $1,040 | $1,082 | $510 | $531 | $552 |
| Other - Revenues | $1,000 | $1,040 | $1,082 | $510 | $531 | $552 |
| Total - Revenues | $10,800 | $11,236 | $11,690 | $5,508 | $5,731 | $5,962 |
| After-tax Operating Income (movies) | $ 282 | $ 293 | $ 305 | $ 144 | $ 150 | $ 156 |
| After-tax Operating Income (non-movies) | $ 924 | $ 961 | $ 1,000 | $ 471 | $ 490 | $ 510 |
| Present Value | $ 1,206 | $ 1,083 | $ 973 | $ 572 | $ 514 | $ 461 |
| Value of new Star Wars movies = | $4,809 | | | | | |
| Value of continuing income = | $5,163 | | | | | |
| Value of Star Wars = | $9,972 | | | | | |

Operating Margin
20.14% for movies
15% for non-movies
30% tax rate

Discounted back @ 7.61% cost of capital of entertainment companies

Assumes that revenues from add ons continue after 2020, growing at 2% a year, with 15% operating margin

# The Movie Business: Status Quo

The movie-makers (studios) make and often distribute their own movies, negotiating with theater owners for a share of the box office receipts at theaters. The typical studio share is 50-60%, though studios with potential blockbusters can claim a higher share, especially in early weeks after release.

Movies made by the five big studios (see list below) accounted for between 75% and 85% of all box office receipts at movies between 2013 and 2022.

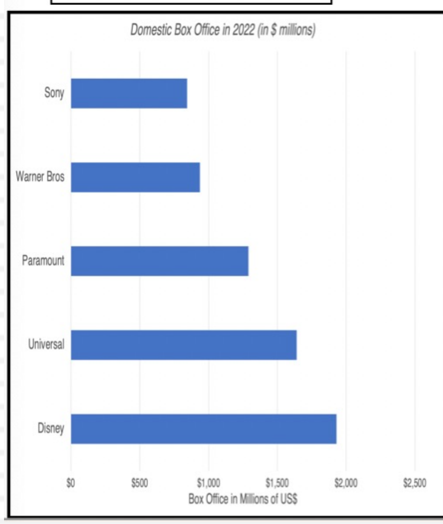
The bigger studios distribute their own movies and thus dominate this segment of the movie business as well.

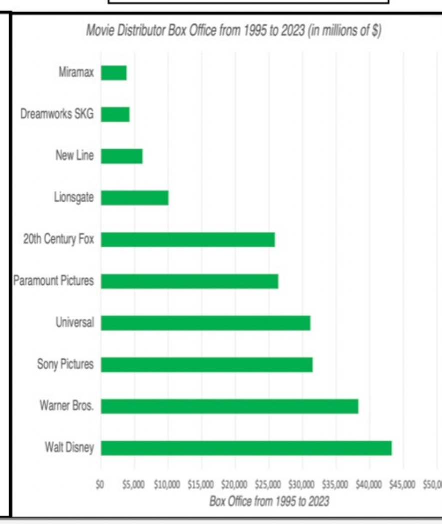
Studios were not allowed to own theaters from 1948 to 2020. The theater business is also concentrated, with most screens controlled by Cinemark, Regal and AMC.

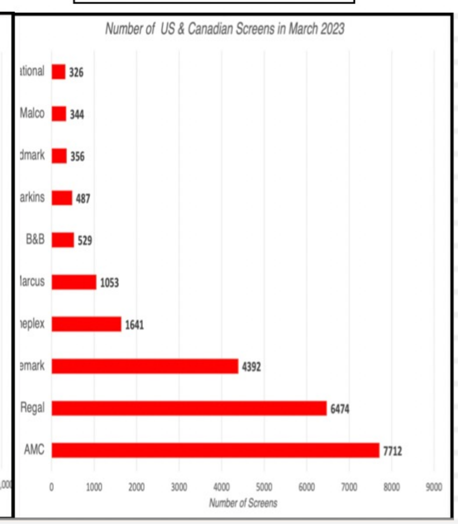
Content

Distribution

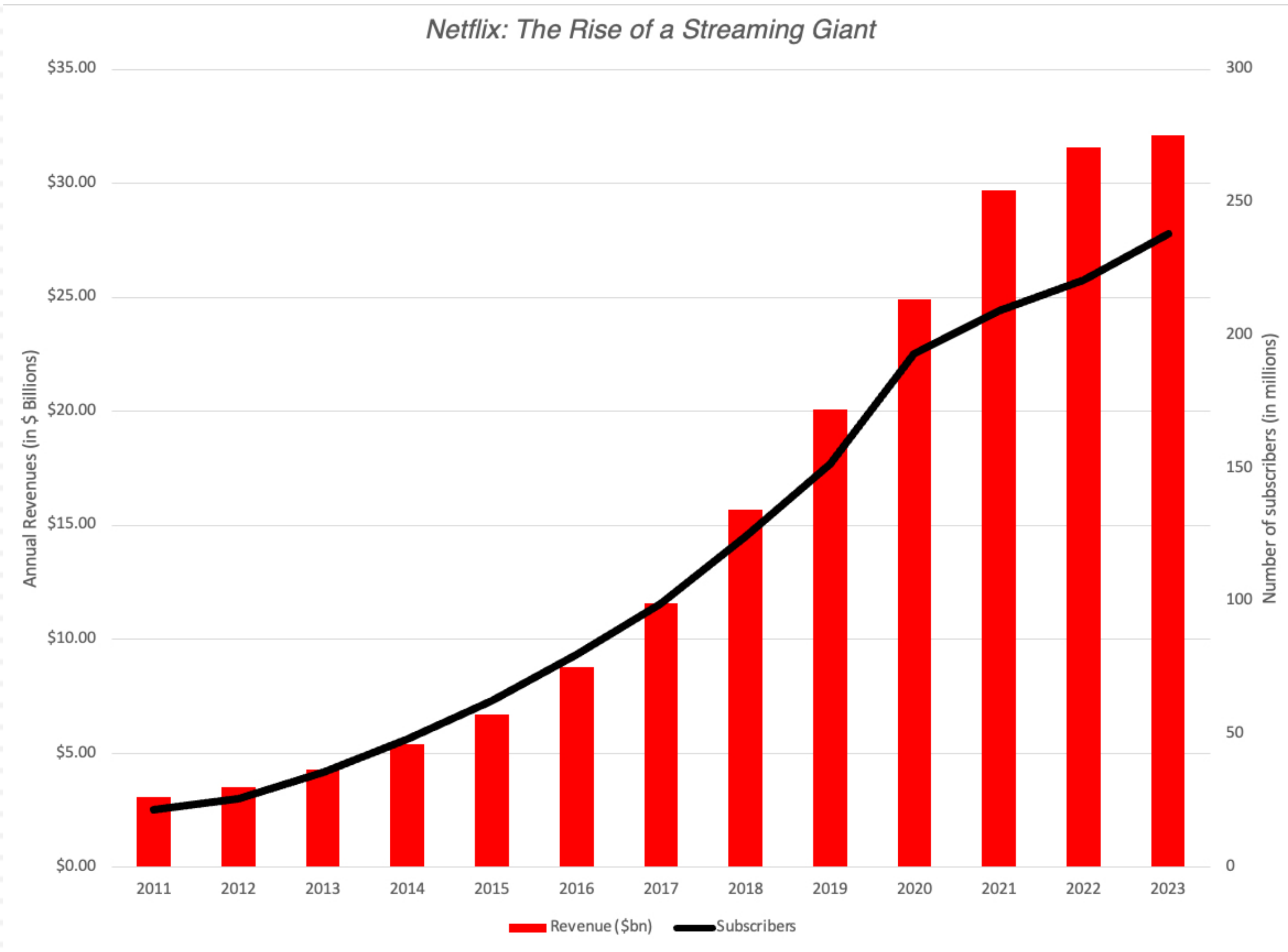
Exhibition



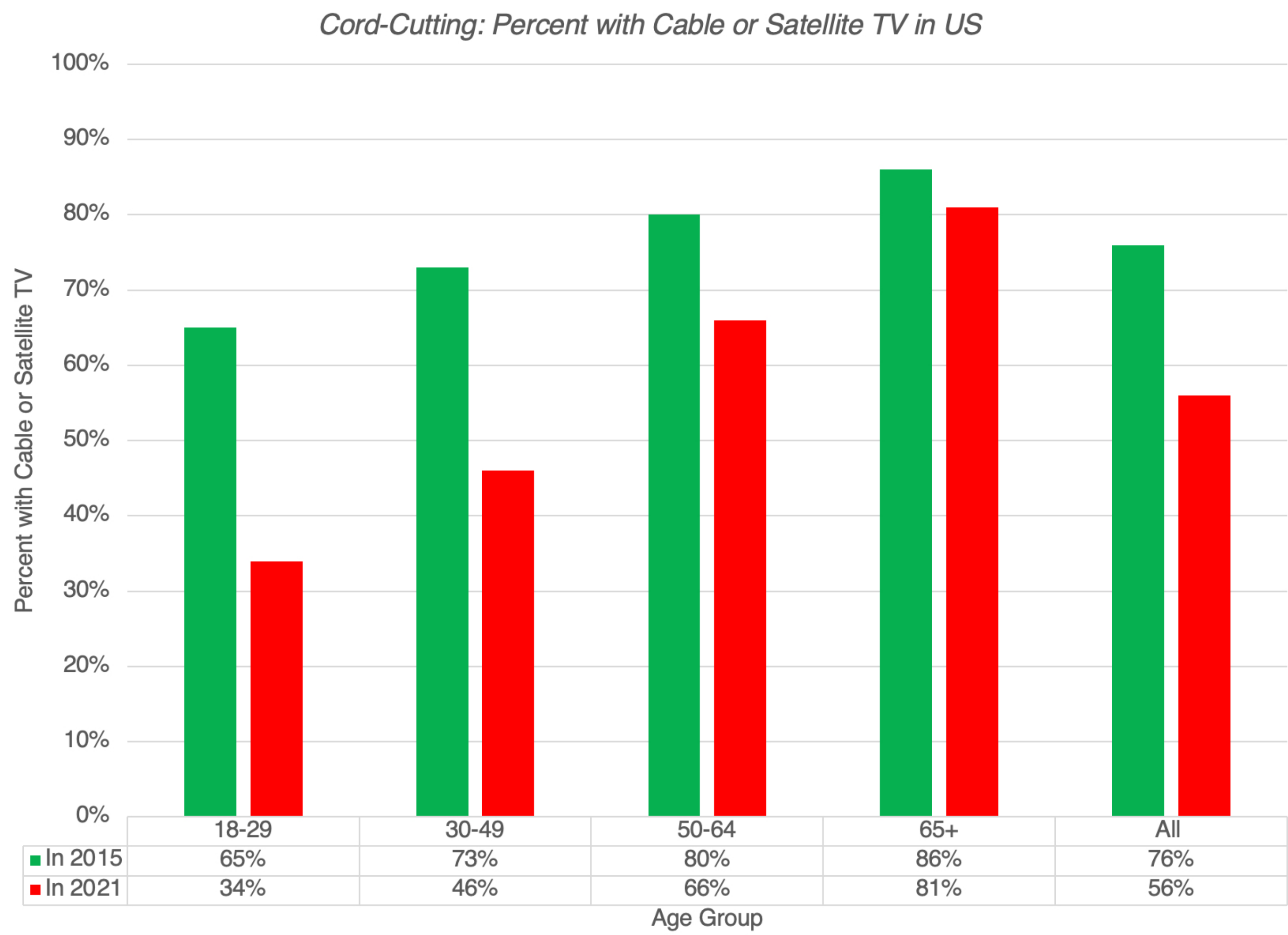



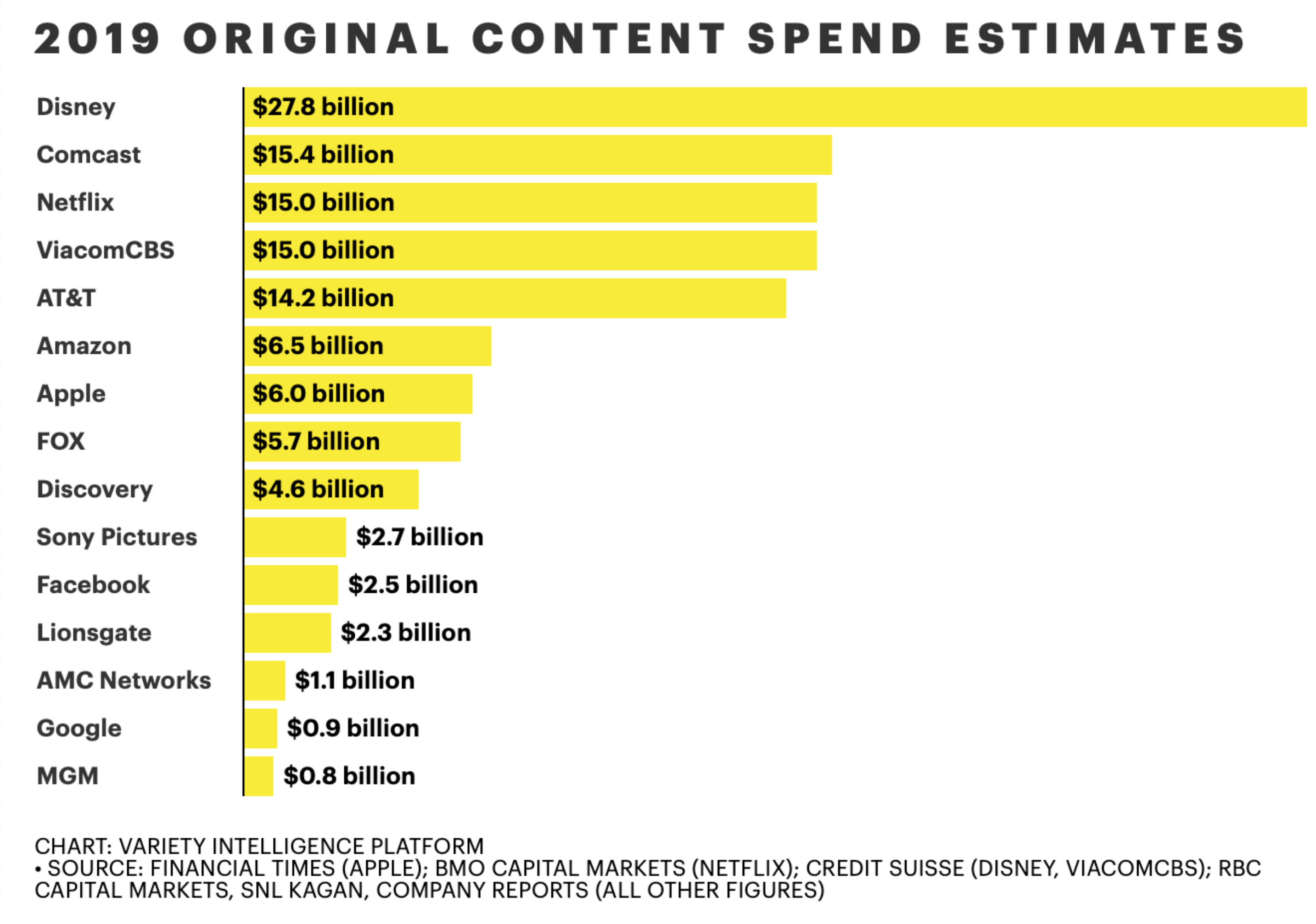
# The Rise of Netflix



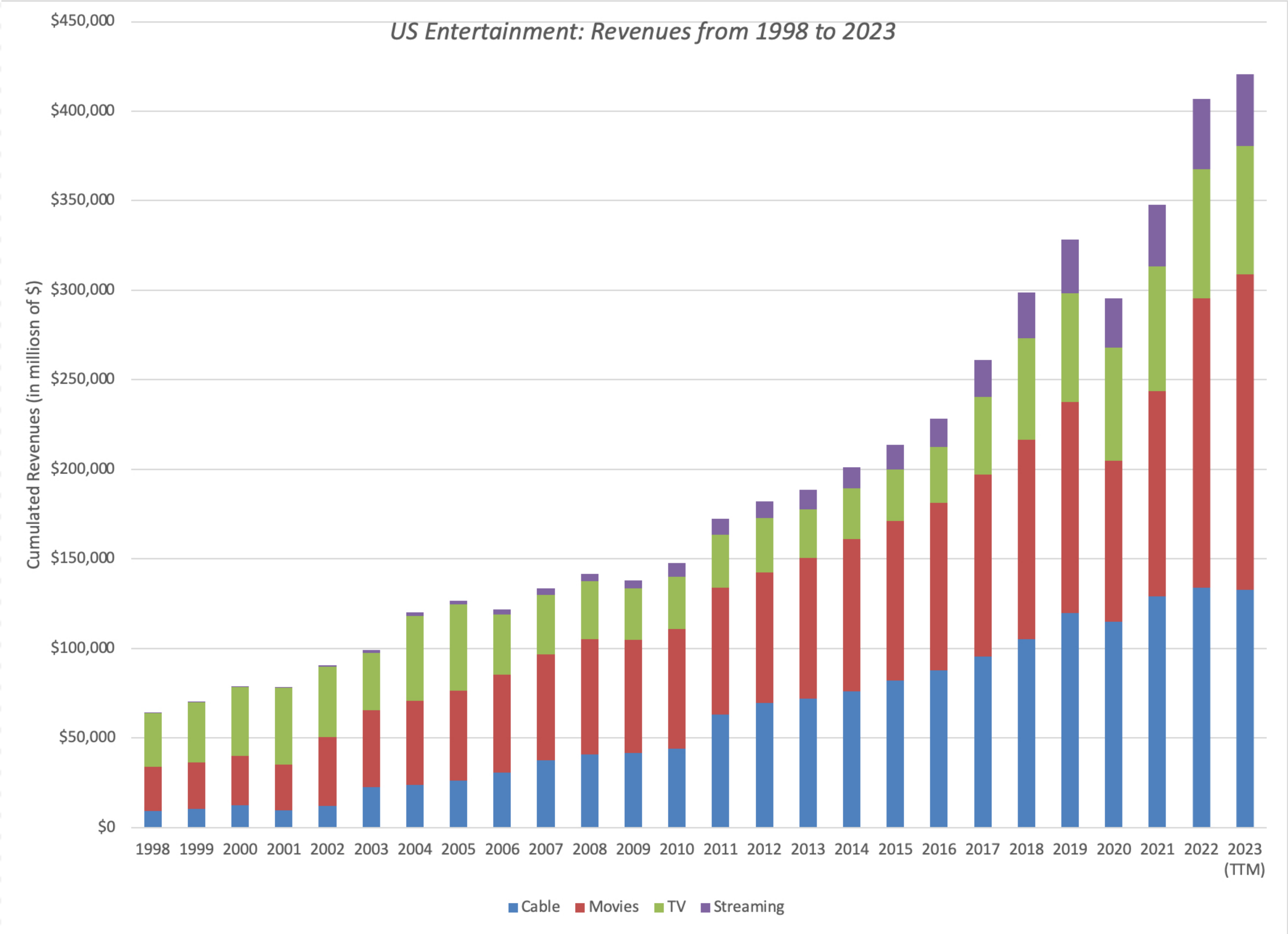
# Cord Cutting…



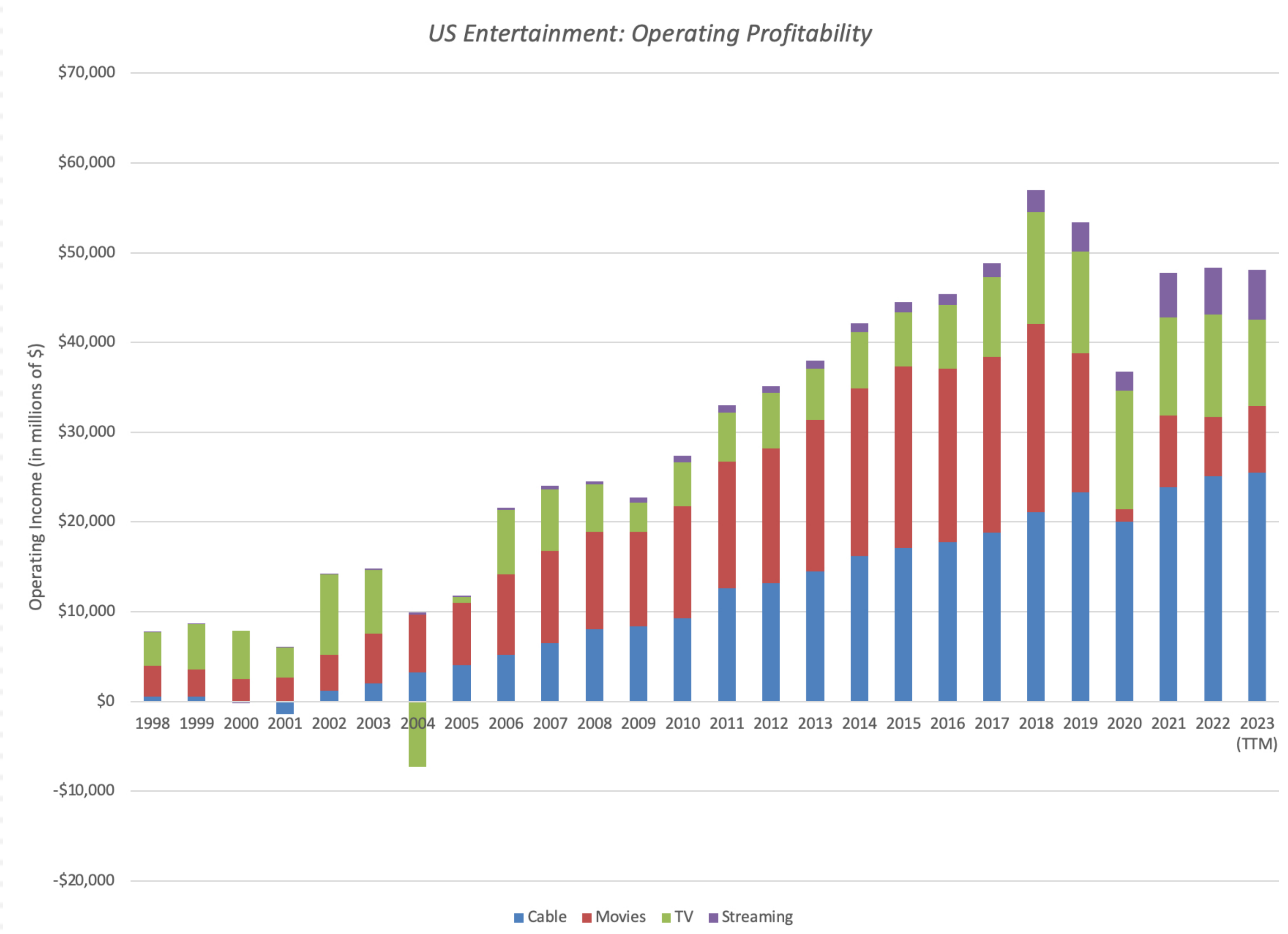
# And streaming content…



# The Streaming Effect on Revenues



# On Profits…


US Entertainment: Operating Profitability
$70,000
$60,000
$50,000
$40,000
$30,000
$20,000
$10,000
$0
-$10,000
-$20,000
Operating Income (in millions of $)
1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 (TTM)
Cable
Movies
TV
Streaming

# What the future holds…

### The Disruption Spectrum

| Seismic Shift | | Tremor |
|---|---|---|
| **Complete Disruption** As in the music business, streaming devastates the status quo, and changes the movie and broadcasting businessses to the core. | **Partial Adaptation** Streaming changes the business, but success requires a combination of the status quo and new technologies. | **Adaptation & Co-option** Content makers and exhibitors adapt to streaming and new technologies, and leverage existing strengths to generate profits. |
| The status quo in movie business will be devastated, with consolidation of content makers, change in content-making and movie theater companies disappearing as stand-alone entities. | Adaptable companies in the status quo will absorb weaker players and co-exist with new entrants that find most workable ways of blending old and new technologies. | While new players enter the business, the status quo uses its control and knowledge of content production and distribution to re-emerge on top of the heal. |
| *Bet on disruption* Sell short on status quo companies and invest in disruptors, preferably early in the game. | *Pick and Choose* Invest in strongest and most adaptable status quo companies & disruptors with most workable business models. | *Bet on status quo* Invest in status quo companies and bet against disruptors, for the long term. |

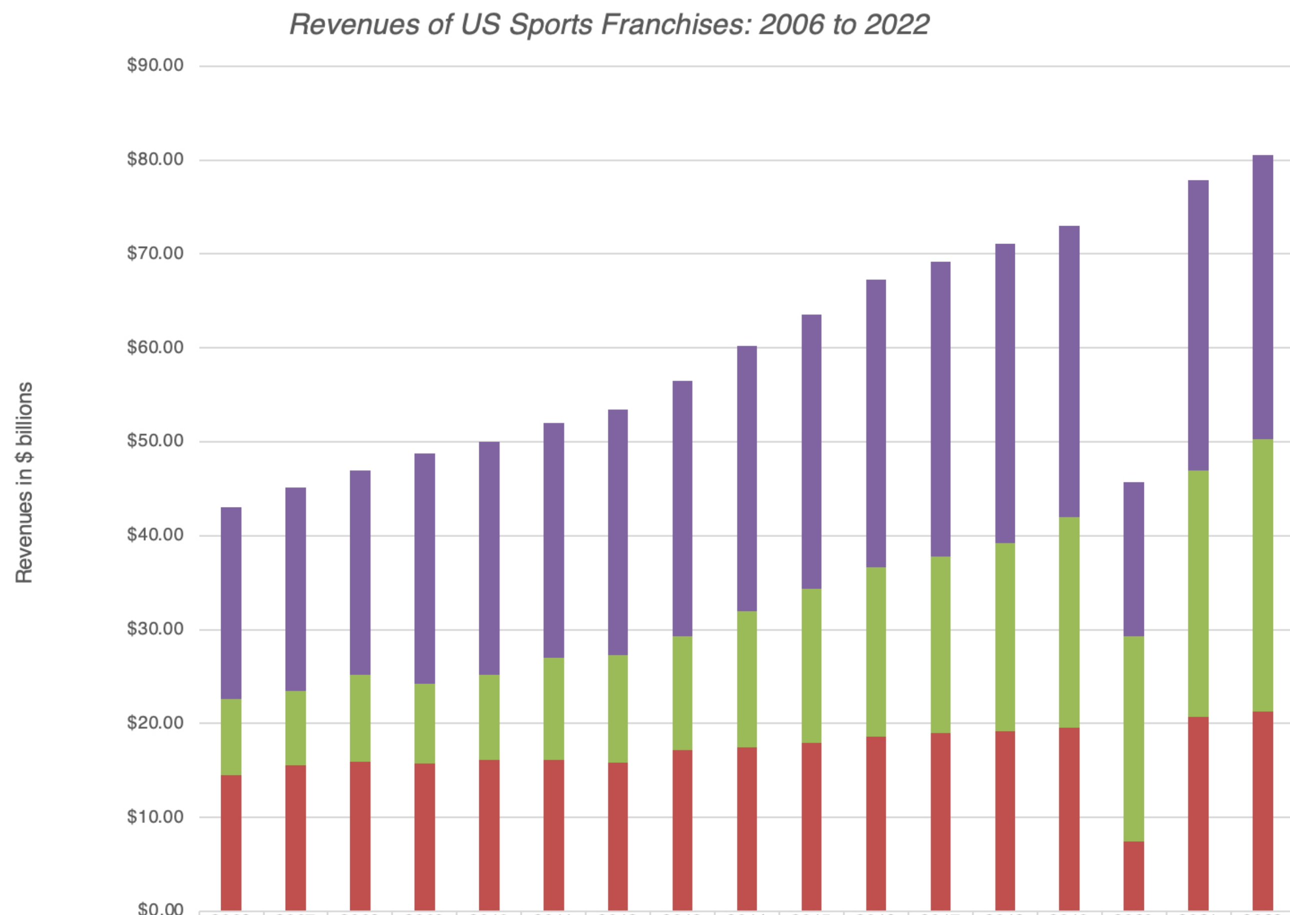
# Revaluing Star Wars!

- If you were valuing Star Wars as a franchise today, you would have to value it very differently, with streaming revenues taking the place of movie theater revenues.
- The difference is that unlike the old model, where theater revenues while volatile, were measurable and predictable, the revenues in a streaming model are much more difficult to isolate and estimate.

# Valuing a Sports Franchise: The Washington Commanders!

| | Washington: 2022 Numbers | With NFL Median Values | With Dallas-level Margins |
|---|---|---|---|
| Revenues | $544.00 | $544.00 | $544.00 |
| EBIT margin | 23.90% | 25.46% | 42.87% |
| EBIT | $130.00 | $138.51 | $233.21 |
| Taxes | $32.50 | $34.63 | $58.30 |
| EBIT (1-t) | $97.50 | $103.89 | $174.91 |
| Reinvestment | $14.63 | $15.58 | $26.24 |
| FCFF | $82.88 | $88.30 | $148.67 |
| | | | |
| ROIC | 40.00% | 40.00% | 40.00% |
| Risk free rate | 4.00% | 4.00% | 4.00% |
| Cost of capital | 8.00% | 8.00% | 8.00% |
| Expected growth rate next 10 years | 6.00% | 6.00% | 6.00% |
| Expected growth rate after year 10 | 4.00% | 4.00% | 4.00% |
| | | | |
| Value of team | $2,493.86 | $2,657.20 | $4,473.87 |

# Changing Business Models




| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sponsorship & Mechandising | $20.39 | $21.60 | $21.82 | $24.45 | $24.81 | $24.99 | $26.15 | $27.11 | $28.28 | $29.20 | $30.64 | $31.32 | $31.87 | $31.09 | $16.41 | $30.92 | $30.24 |
| Media | $8.10 | $7.90 | $9.20 | $8.50 | $9.00 | $10.90 | $11.50 | $12.20 | $14.50 | $16.40 | $18.00 | $18.80 | $20.00 | $22.40 | $21.80 | $26.20 | $29.00 |
| Gate Receipts | $14.51 | $15.60 | $15.98 | $15.78 | $16.18 | $16.12 | $15.82 | $17.14 | $17.45 | $17.96 | $18.65 | $19.02 | $19.19 | $19.55 | $7.50 | $20.76 | $21.26 |

# With media at its center…

| *Sports Franchise* | *Media Revenue Sharing* |
|---|---|
| NFL | Almost all media revenues are from national TV contract, and every team gets an equal share of those revenues |
| MLB | National revenues from media rights are equally shared, but teams keep 52% of revenues from local broadcasting, giving big-market teams more revenues. |
| MBA | National TV is equaly shared, but local TV accounts for a large portion of media revenues. Revenue sharing across teams does allow for some of these revenues to be transferred from richer to poorer teams. |
| NHL | Mostly local TV revenues, with revenue sharing; richer teams provide susbidies to poorer teams. |
| MLS | Teams do not have owners, with the investor-operators who run these teams invested in the MLS, which collects all televsion revenues. |
| Premier League | Every Premier League team splits base payments of the broadcasting rights each season. Additional revenue is then added to each club based on how often their matches are selected for live TV. |
| IPL | Share of media revenue based upon ranking of team at the end of the season,with higher ranked teams getting a higher percent. |

# And rising player costs keeping profitability in check…

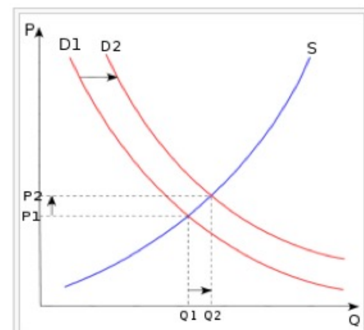
| Sports Franchise | Collective Pricing | Revenues | Operating Income | Operating Margin | EV/Revenues | EV/Operating Profit |
|---|---|---|---|---|---|---|
| NFL | $132,500 | $16,101 | $4,671 | 29.01% | 8.23 | 28.37 |
| MLB | $69,550 | $10,320 | $874 | 8.46% | 6.74 | 79.62 |
| NBA | $85,910 | $10,023 | $2,948 | 29.41% | 8.57 | 29.15 |
| NHL | $32,350 | $5,931 | $1,573 | 26.53% | 5.45 | 20.56 |
| MLS | $16,200 | $1,549 | $34 | 2.19% | 10.46 | 476.47 |
| Premier League | $30,255 | $6,442 | $520 | 8.07% | 4.70 | 58.23 |
| IPL | $10,430 | $1,087 | $150 | 13.80% | 9.60 | 69.53 |

# Price versus Value

*Tools for intrinsic analysis*
- Discounted Cashflow Valuation (DCF)
- Intrinsic multiples
- Book value based approaches
- Excess Return Models

*Tools for "the gap"*
- Behavioral finance
- Price catalysts

*Tools for pricing*
- Multiples and comparables
- Charting and technical indicators
- Pseudo DCF




INTRINSIC VALUE → Value → THE GAP
Is there one?
Will it close? ← Price ← PRICE

Drivers of intrinsic value
- Cashflows from existing assets
- Growth in cash flows
- Quality of Growth

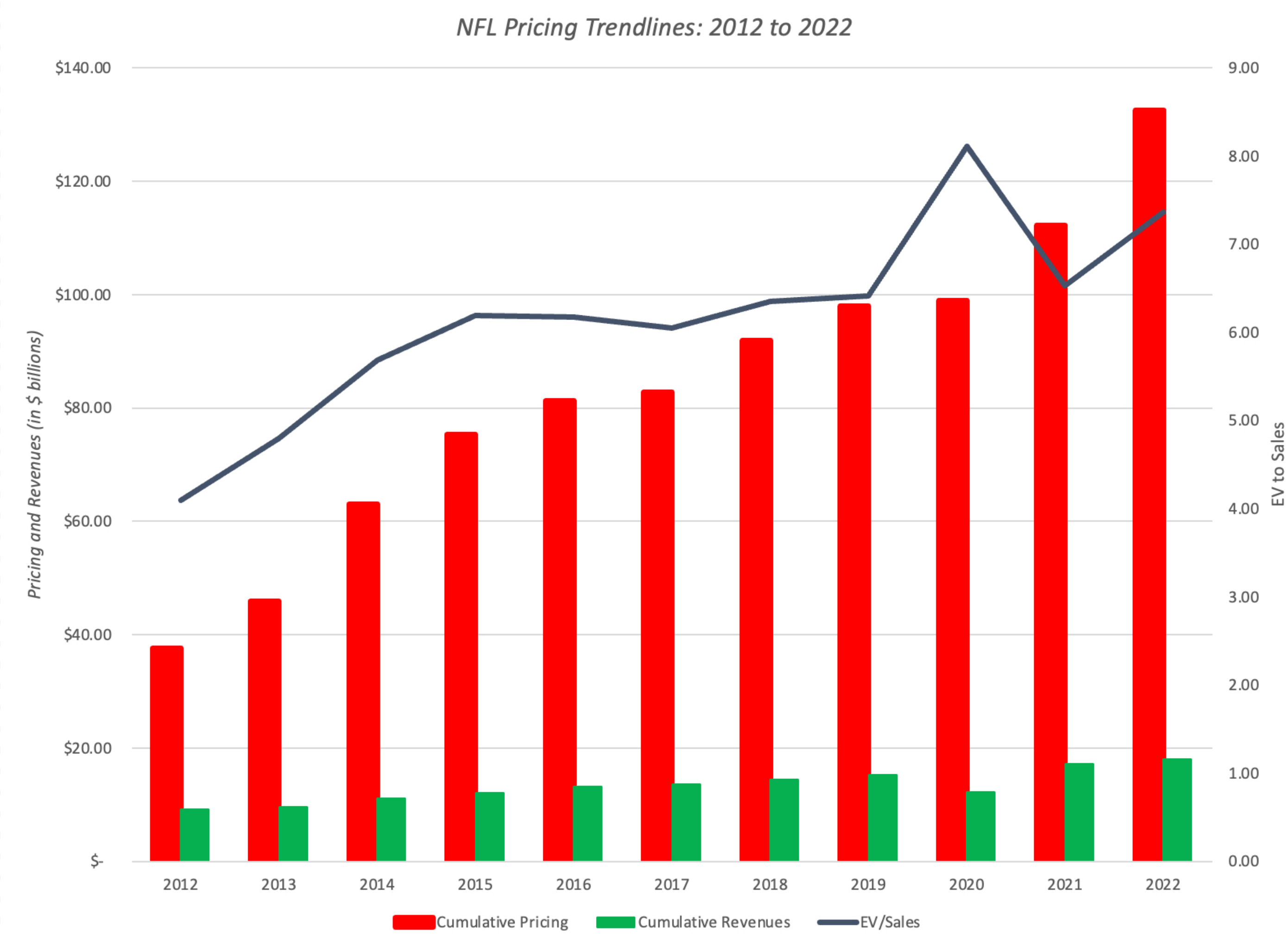
*Drivers of "the gap"*
- Information
- Liquidity
- Corporate governance

*Drivers of price*
- Market moods & momentum
- Surface stories about fundamentals

# An Example: Price versus Value- Ballmer buys Clippers for $ 2 billion (in 2014)

| | *Clipper: 2012 numbers* | *Median values* | *Laker-like (2012)* | *Best/best scenario* |
|---|---|---|---|---|
| Revenues | $128.00 | $139.00 | $295.00 | $295.00 |
| EBITDA margin | 11.72% | 11.29% | 22.51% | 49.31% |
| EBITDA | $15.00 | $15.70 | $66.40 | $145.45 |
| DA | $0.00 | $0.00 | $0.00 | $0.00 |
| EBIT | $15.00 | $15.70 | $66.40 | $145.45 |
| Taxes | $6.00 | $6.28 | $26.56 | $58.18 |
| EBIT (1-t) | $9.00 | $9.42 | $39.84 | $87.27 |
| Reinvestment | $1.80 | $1.88 | $3.98 | $8.73 |
| FCFF | $7.20 | $7.54 | $35.86 | $78.55 |
| | | | | |
| ROIC | 12.50% | 12.50% | 25.00% | 25.00% |
| Risk free rate | 2.50% | 2.50% | 2.50% | 2.50% |
| Cost of capital | 7.50% | 7.50% | 7.50% | 7.50% |
| Expected growth rate | 2.50% | 2.50% | 2.50% | 2.50% |
| | | | | |
| Value of team | $147.60 | $154.48 | $735.05 | $1,610.18 |

# Pricing disconnect rising over time…



# The Influx of Billionaire Owners

| Team | Owner | Wealth (billions) | Year Bought | Business Background |
|---|---|---|---|---|
| LA Clippers | Steve Ballmer | $75.60 | 2014 | Microsoft CEO (and employee #30) |
| Cleveland Cavaliers | Dan Gilbert | $44.80 | 2005 | Quicken founder |
| Portland Trailblazers | Paul Allen (family) | $20.30 | 1988 | Microsoft co-founder |
| Brooklyn Nets | Joseph Tsai | $14.20 | 2019 | Alibaba co-founder |
| Memphis Grizzliers | Robert Pera | $14.10 | 2012 | Ubiquiti founder |
| LA Lakers | Phillip Anschutz | $10.10 | 1998 | Oil, Railroad,Telecom, Entertainment |
| Denver Nuggets | Stanley Kroenke | $8.30 | 2000 | Real Estate |
| Miami Heat | Mickey Arison | $5.90 | 1995 | Carnival Corp (Founder's son) |
| Detroit Pistons | Tom Gores | $5.70 | 2011 | Private Equity (Platinum Equity) |
| Orlando Magic | Richard DeVos | $5.40 | 1991 | Amway co-founder |
| Philadelphia 76ers | Joshua Harris | $4.60 | 2011 | Private Equity (Apollo Global) |
| Dallas Mavericks | Mark Cuban | $4.20 | 2000 | Company founder and Venture Capital |
| Houston Rockets | Tilman Fertitta | $4.10 | 2017 | Restaurant & hotel owner |
| Atlanta Hawks | Tony Ressler | $3.90 | 2015 | Private Equity and Venture Capital |
| New Orleans Pelicans | Gayle Benson | $3.30 | 2018 | Car dealerships and banks |
| Indiana Pacers | Herb Simon | $2.80 | 1983 | Real estate |
| Minnesota Timberwolves | Glen Taylor | $2.50 | 1994 | Taylor Corporation owner |
| New York Knicks | James Dolan | $2.00 | 1994 | Cablevision (Founder's son) |
| Utah Jazz | Gail Miller | $1.90 | 2009 | Car dealerships |
| Milwaukee Bucks | Marc Lasry | $1.80 | 2014 | Private equity |
| Charlotte Hornets | Michael Jordan | $1.60 | 2010 | Basketball player (and legend) |
| Chicago Bulls | Jerry Reinsdorf | $1.50 | 1985 | Real estate |
| Toronto Raptors | Larry Tanenbaum | $1.50 | 1998 | Construction and Broadcasting |
| Washington Wizards | Theodore Leonsis | $1.40 | 2010 | Media and Entertainment |
| Golden State Warriors | Joe Lacob | $1.20 | 2010 | Venture Capital |
| Sacramento Kings | Vivek Ranadive | $0.70 | 2013 | Software |
| Phoenix Suns | Robert Sarver | $0.40 | 2014 | Banking and Real Estate |
| Oklahoma City Thunder | Clay Bennett | $0.40 | 2006 | Media (inheritance) |
| Boston Celtics | Wyc Grousbeck | $0.40 | 2002 | Venture capital |
| San Antoni Spurs | Peter Holt | $0.20 | 1993 | Tractor dealership |

# And here's why…

# Sports franchises are trophy assets

- Scarcity: Sports franchises are the ultimate trophy assets, since they are scarce and owning them not only allows you to live out your childhood dreams, but also gives you a chance to indulge your friends and family, with front-row seats and player introductions.
- Sovereign Trophies: It also explains the entry of sovereign wealth funds, especially from the Middle East, into the ownership ranks, especially in the Premier League.
- Winner-take-all Economics: If you couple this reality with the fact that winner-take-all economies of the twenty-first century deliver more billionaires in our midst, you can see why there is no imminent correction on the horizon for sports franchise pricing.

**As long as the number of billionaires exceeds the number of sports franchises on the face of the earth, you should expect to see fewer and fewer owners like the Rooneys and more and more like the Steves (Cohen and Ballmer).**

# 3. Valuing a business with many intangibles!

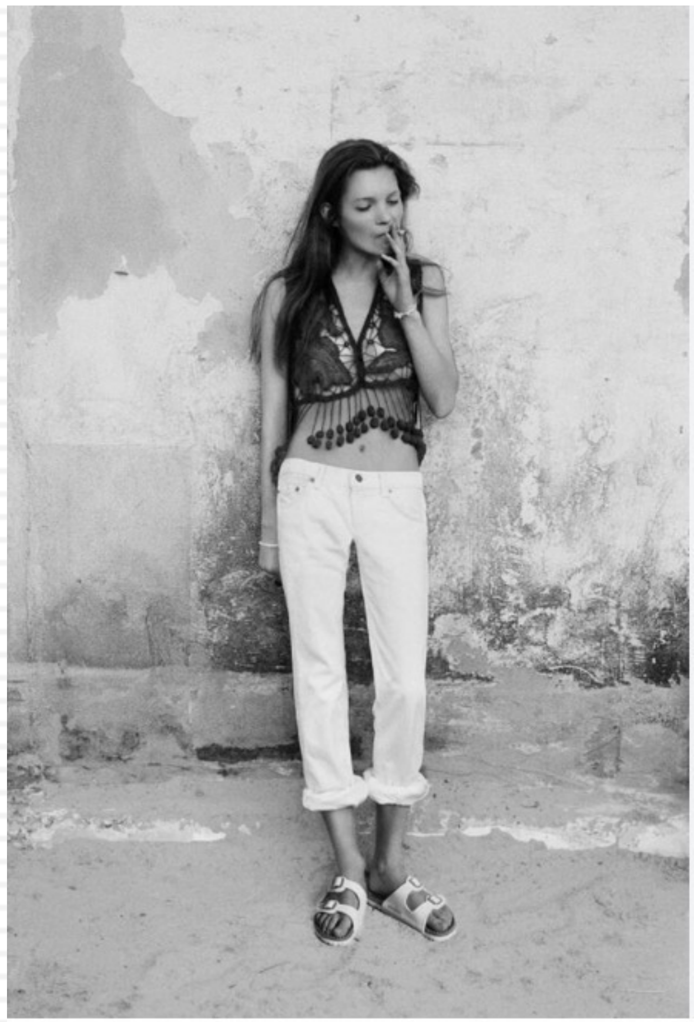
- An intangible asset is easier to value, if it stands alone in a business. When a business has multiple intangibles, it is easier to value all of the intangibles (as a bundle) but separating them into individual intangible valuations is more difficult.
- That said, you can try to separate out where an intangible is most likely to show up in a company's numbers and try to break it into individual components.

# Valuing intangibles in a company: Birkenstock for its IPO in 2023

- Birkenstock was founded in 1774 by Johann Adam Birkenstock, a Germany cobbler, and it stayed a family business for much of its life. In the decades following its founding, the company modified and adapted its footwear offerings, modifying its product line, adding flexible insoles in 1896 and pioneering arch supports in 1902.
  - In 1963, the company introduced its first fitness sandal, the Madrid, and sandals now represent the heart of Birkenstock's product line.
  - Along the way, serendipity played a role in the company's expansion. In 1966, a Californian named Margot Fraser, when visiting her native Germany, convinced Karl Birkenstock to try selling the company's sandals in California.
- That proved timely, since people protesting against the war and society's ills latched on to these sandals, making them them symbolic footwear for the rebellious.
- in the 1990s, the brand had a rebirth, when a very young Kate Moss wore it for a cover story, and it became a hot brand, especially on college campuses.

# The first lucky break: The Hippies wear Birkenstock!

# And another…

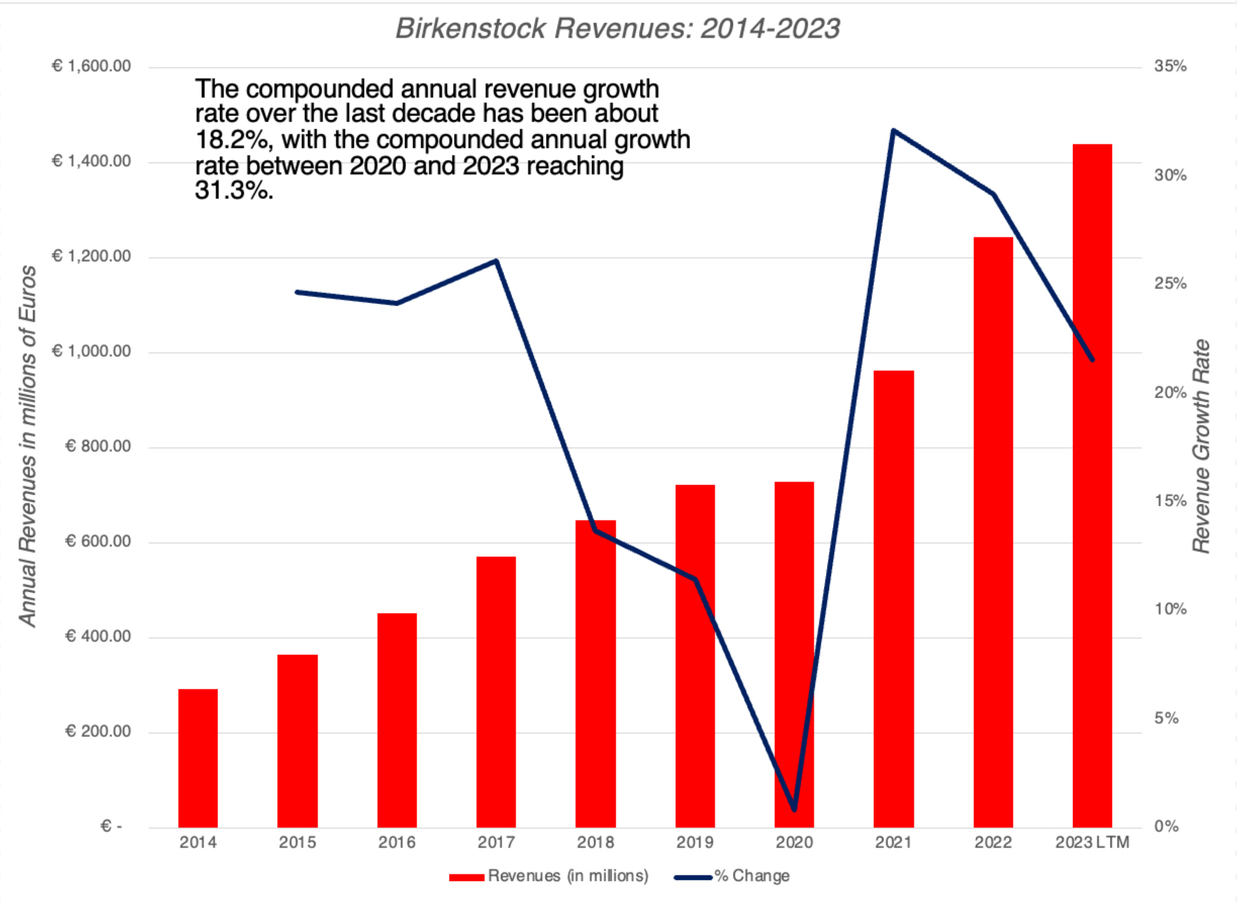


# Products and Customers

| *Products* | *Customers* |
|---|---|
| **Pricing**: Product pricing ranges from a low of $40 for beach sandals to more than $1,000 for Dior and other collaborative editions. Most widely sold models (Arizona and Madrid) are priced at about | **Gender**: *More female* (72%) than male (28%) **Geography**: *Concentrated in US and Europe*, with US (54%), Europe (36%), Rest of World (10%) |
| **Product concentration**: Bulk of revenues come from sandals, with three models (Arizona, Madrid and Gizeh) accounting for half of all revenues. | **Age**: *Tilts older*, with 61% millennials and baby boomers, but 39% are Gen X and Gen Z |
| **Collaborations**: Birkenstock works with high-end designers on collaborations, where designers apply their styling on traditional Birkenstock offerings, and attach premium prices. | **Income**: *Skews towards higher income, but not overwhelmingly so*, with 45% earning >$100,000/year, but 20% of revenues from those earning <$50,000 |

# New Management and Growth Rediscovered

- In 2012, when the family, facing internal strife, turned control of the company over to outside managers, choosing Markus Bensberg, a company veteran, and Oliver Reichert, a consultant, as co-CEOs of the company.



# The Payoff!

| | Year ending | | | |
|---|---|---|---|---|
| | *Sep-20* | *30-Sep-21* | *30-Sep-22* | *20-Jun-23* |
| Revenues | € 727,932 | € 962,011 | € 1,242,833 | € 1,438,976 |
| Gross Profit | € 399,634 | € 437,121 | € 749,802 | € 886,683 |
| Operating Profit | € 129,834 | € 136,652 | € 363,027 | € 321,230 |
| Net Profit | € 101,318 | € 116,229 | € 187,111 | € 161,289 |
| Gross Margin | 54.90% | 45.44% | 60.33% | 61.62% |
| Operating Margin | 17.84% | 14.20% | 29.21% | 22.32% |
| Net Margin | 13.92% | 12.08% | 15.06% | 11.21% |

# One reason for the growth turnaround..

**Prada Brocade Birkenstock Sandals**

**CHF 340.00**

**OUT OF STOCK**

SKU#: 54808

**Certified Authentic**

We guarantee this in an authentic Prada item or 100% your money back.

Learn more about our authentication process.

**ADD TO WISH LIST**

Notify me when the price drops

Shipping & Returns

# Birkenstock: Industry Background

| | Revenues ($) | Revenue CAGR (13-22) | Gross Margin | Operating Margin | Invested Capital | EV/Sales |
|---|---|---|---|---|---|---|
| 10th Percentile | $7.42 | -20.89% | 10.56% | -20.74% | 0.67 | 0.26 |
| First Quartile | $42.30 | -11.51% | 23.99% | -2.78% | 0.95 | 0.65 |
| Median | $169.50 | -1.67% | 42.35% | 6.91% | 1.50 | 1.04 |
| Third Quartile | $1,102.90 | 6.50% | 51.29% | 10.95% | 1.86 | 1.94 |
| 90th Percentile | $3,688.60 | 9.71% | 55.82% | 18.10% | 2.59 | 6.15 |

# A Narrower List of Peers…

| *Company Name* | *Market Cap ($ mil)* | *Country* | *Company Age* | *EV/Sales* | *Revenue: CAGR (13-22)* | *Gross Margin* | *Operating Margin* | *Sales to Invested Capital* | *Invested Capital* | *Enterprise Value* | *Revenue: LTM* |
|---|---|---|---|---|---|---|---|---|---|---|---|
| LVMH | 393,041.8 | France | 100 | 4.59 | 8.66% | 68.72% | 26.41% | 1.07 | $86,612 | $424,775 | $92,462 |
| Hermès | 206,085.8 | France | 186 | 14.16 | 10.44% | 71.42% | 42.21% | 2.54 | $5,520 | $198,218 | $14,001 |
| NIKE | 144,765.9 | United States | 59 | 2.86 | 7.28% | 43.52% | 11.55% | 2.98 | $17,176 | $146,235 | $51,217 |
| Christian Dior SE | 134,604.6 | France | 77 | 2.20 | NA | 68.72% | 26.51% | 1.10 | $83,810 | $203,734 | $92,462 |
| Richemont SA | 74,979.5 | Switzerland | 44 | 3.33 | 4.62% | 68.74% | 25.49% | 1.24 | $17,522 | $72,149 | $21,679 |
| Kering SA | 59,678.2 | France | 60 | 3.12 | 5.41% | 75.65% | 26.80% | 0.94 | $23,855 | $70,045 | $22,441 |
| Lululemon | 48,648.8 | Canada | 25 | 5.51 | 19.46% | 56.75% | 22.12% | 2.88 | $3,064 | $48,735 | $8,839 |
| ANTA Sports Products | 32,299.8 | China | 32 | 3.78 | 20.32% | 60.99% | 22.73% | 1.95 | $4,051 | $29,914 | $7,905 |
| adidas AG | 31,556.0 | Germany | 103 | 1.56 | 2.06% | 46.39% | 0.95% | 2.08 | $11,685 | $37,860 | $24,270 |
| Moncler S.p.A. | 16,649.1 | Italy | 71 | 5.54 | 15.74% | 76.61% | 28.79% | 0.98 | $3,134 | $17,068 | $3,080 |
| Prada S.p.A. | 15,455.7 | Italy | 110 | 3.55 | 0.02% | 80.05% | 21.25% | 0.91 | $5,426 | $17,566 | $4,948 |
| Deckers Outdoor | 13,889.9 | United States | 50 | 3.55 | 9.71% | 50.89% | 18.10% | 4.05 | $912 | $13,104 | $3,689 |
| First Quartile | | | 48.50 | 3.05 | 5.02% | 55.28% | 20.46% | 1.05 | $3,822 | $26,827 | $7,166 |
| Median | | | 65.50 | 3.55 | 8.66% | 68.72% | 24.11% | 1.59 | $8,603 | $59,390 | $17,840 |
| Third Quartile | | | 100.75 | 4.82 | 13.09% | 72.47% | 26.58% | 2.62 | $19,105 | $159,231 | $31,007 |

# Birkenstock's Intangibles

1. Brand Name: It is undeniable that Birkenstock not only has a brand name, in terms of recognition and visibility, but has the pricing power and operating margins to back up that brand name.
2. Celebrity Customer Base: Birkenstock attracts celebrities in different age groups, from Gwyneth Paltrow & Heidi Klum to Paris Jackson & Kendall Jenner, and more impressively, it does so without paying them sponsorship fees. If the best advertising is unsolicited, Birkenstock clearly has mastered the game.
3. Good Management: Birkenstock seems to have struck gold with Oliver Reichert. Not only has he steered the company towards high growth, but he has done so without upsetting the balance that lies behind its brand name.
4. The Barbie Buzz: Margot Robbie's pink Birkenstock sandals in that movie, which has been the blockbuster hit of the year, hyper charged the demand for the company's footwear. It is true that buzzes fade, but not before they create a revenue bump and perhaps even increase the customer base for the long term.

# Birkenstock IPO Valuation

Sep-23

| Base Year and Comparison | Company | Big Apparel |
|---|---|---|
| CAGR in Revenues (2013-22) | 18.20% | 8.66% |
| Revenue (LTM) | € 1,439,976 | |
| Operating Margin (LTM) | 22.31% | 14.74% |
| Operating Income | € 321,230 | |
| EBIT (1-t) | € 224,861 | |

**Growth Story**

Growth of 25% in year 1, followed by 15% in years 2-5

**Barbie Buzz** in year 1. **Strong management** finds growth in new markets/proudcts, without sacrificing brand name.

**Profitability Story**

Operating margin of 23% in year 1, rising to 25% over the following four years.

**Brand name** allows for preservation & slight growth in strong profit margins.

**Growth Efficiency Story**

Set to third quartile (2.62) of big brand apparel & footwear firms.

**Free celebrity advertising** and more sponsorship deals will allow for more efficient reinvestment.

| *Terminal Value* | |
|---|---|
| Growth Rate | 2.74% |
| Cost of capital | 7.74% |
| Return on capital | 12.00% |
| Reinvestment Rate | 22.83% |

| | |
|---|---|
| PV(Terminal value) | € 6,087,285 |
| PV (CF over next 10 years) | € 2,862,595 |
| Probability of failure = | 0.00% |
| Value of operating assets = | € 8,949,880 |
| - Debt | € 1,874,002 |
| - Minority interests | € - |
| + Cash | € 307,078 |
| + Non-operating assets | € - |
| Value of equity | € 8,382,956 |
| - Value of options | € - |
| Value of equity (common stock) | € 8,382,956 |
| Number of shares | 202,853.00 |
| Estimated value /share | € 41.33 |
| | |
| Price per share | € 46.50 |
| % Under or Over Valued | 12.52% |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Terminal year |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Revenue Growth | 25.00% | 15.00% | 15.00% | 15.00% | 15.00% | 12.55% | 10.10% | 7.64% | 5.19% | 2.74% | 2.74% |
| Revenue | € 1,799,970 | € 2,069,966 | € 2,380,460 | € 2,737,529 | € 3,148,159 | € 3,543,190 | € 3,900,910 | € 4,199,096 | € 4,417,113 | € 4,538,142 | € 4,662,487 |
| Operating Margin | 23.00% | 23.80% | 24.20% | 24.60% | 25.00% | 25.00% | 25.00% | 25.00% | 25.00% | 25.00% | 25.00% |
| Operating Income | € 413,993 | € 492,652 | € 576,071 | € 673,432 | € 787,040 | € 885,797 | € 975,228 | € 1,049,774 | € 1,104,278 | € 1,134,535 | € 1,165,622 |
| EBIT (1-t) | € 289,795 | € 344,856 | € 403,250 | € 471,403 | € 550,928 | € 620,058 | € 682,659 | € 734,842 | € 772,995 | € 794,175 | € 815,935 |
| Reinvestment | € 103,052 | € 118,509 | € 136,286 | € 156,729 | € 150,775 | € 136,535 | € 113,811 | € 83,213 | € 46,194 | € 47,460 | € 186,305 |
| FCFF | € 186,743 | € 226,347 | € 266,964 | € 314,674 | € 400,153 | € 483,524 | € 568,848 | € 651,629 | € 726,801 | € 746,715 | € 629,630 |
| | | | | | | | | | | € 12,592,600 | |
| Cost of Capital | 7.45% | 7.45% | 7.45% | 7.45% | 7.45% | 7.51% | 7.57% | 7.63% | 7.68% | 7.74% | |
| Cumulated WACC | 0.9306 | 0.8661 | 0.8060 | 0.7501 | 0.6980 | 0.6493 | 0.6036 | 0.5608 | 0.5208 | 0.4834 | |
| Sales to Capital | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | 2.62 | |
| ROIC | 7.38% | 8.56% | 9.73% | 11.01% | 12.41% | 13.51% | 14.44% | 15.18% | 15.70% | 15.98% | 12.00% |

**Risk Story**

Cost of capital reflecting business mix, geography & debt policy.

**Centering production in Germany** reduces supply chain & country risk.

**Competitive Advantages**

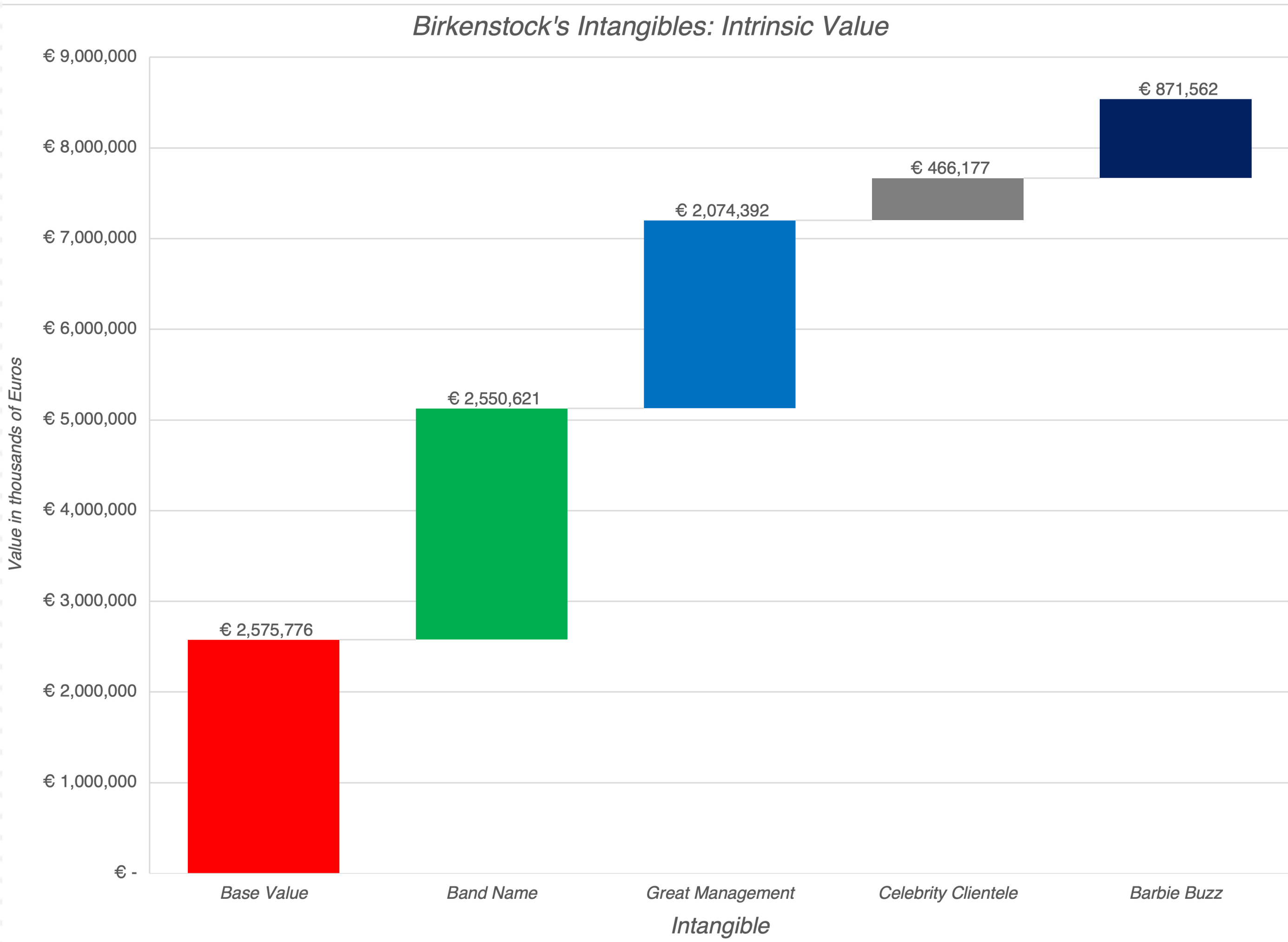
Compeive advantages will persist.

Intangibles collectively sustain a return on capital above the cost of capital.

# Where are the intangibles?

| *Intangible* | *Input with intangible* | *Input without Intangible* | *Value Without* | *Value Effect* |
|---|---|---|---|---|
| Barbie Buzz Effect | Higher revenue growth in the next year (25%) | Revenue growth in year 1 reverts to CAGR of 15% in year s 2-5. | € 7,666,966 | € 871,562 |
| Celebrity Clientele | Growth delivered more efficiently, with sales to capital of 2.62 (third quartile of big brand apparel/footwear) | Growth delivered as efficiently as typical brand name company (1.59) | € 7,200,789 | € 466,177 |
| Good/Great Management | Expected CAGR of 15% in revenues, tripling revenues oer next decade. | Expected CAGR of 8.66%, matching growth at big, brand name apparel/footwear firms. | € 5,126,397 | € 2,074,392 |
| Brand Name | Operating margin of 23% next year, rising to 25% in year 5. | Operating margin set to 14.74%, average for entire apparel/footwear sector. | € 2,575,776 | € 2,550,621 |

# Intangibles in Value



# The Bottom Line!

- If you do intrinsic valuation, there should be no need for premiums for intangibles, no matter how valuable they might be. They should be in your inputs (cash flows, growth and risk).
- If you find yourself adding premiums for these intangibles
  - Your intrinsic valuation is flawed or incomplete
  - You are doing pricing (where you are using peer group multiples) explicitly or implicitly (in a DCF)
  - You are just trying to push up your value, so that you can justify the unjustifiable.
- While intangibles can be valued collectively in an intrinsic valuation, trying to break them out individually, which is what accounting rule writers are trying to do is an exercise in futility and will not end well.