Twitter Thread by Kai Wu



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June's research paper: Intangible Value ■

Can value investing strategies be improved by adding intangible assets?
■ The Asset-Light Economy
■ The Dark Matter of Finance
■ Intangible Moats
■ The Disruption of Value
■■■ Fixing the "Value Factor"

(Not investment advice)

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(0/10) Full paper here ■

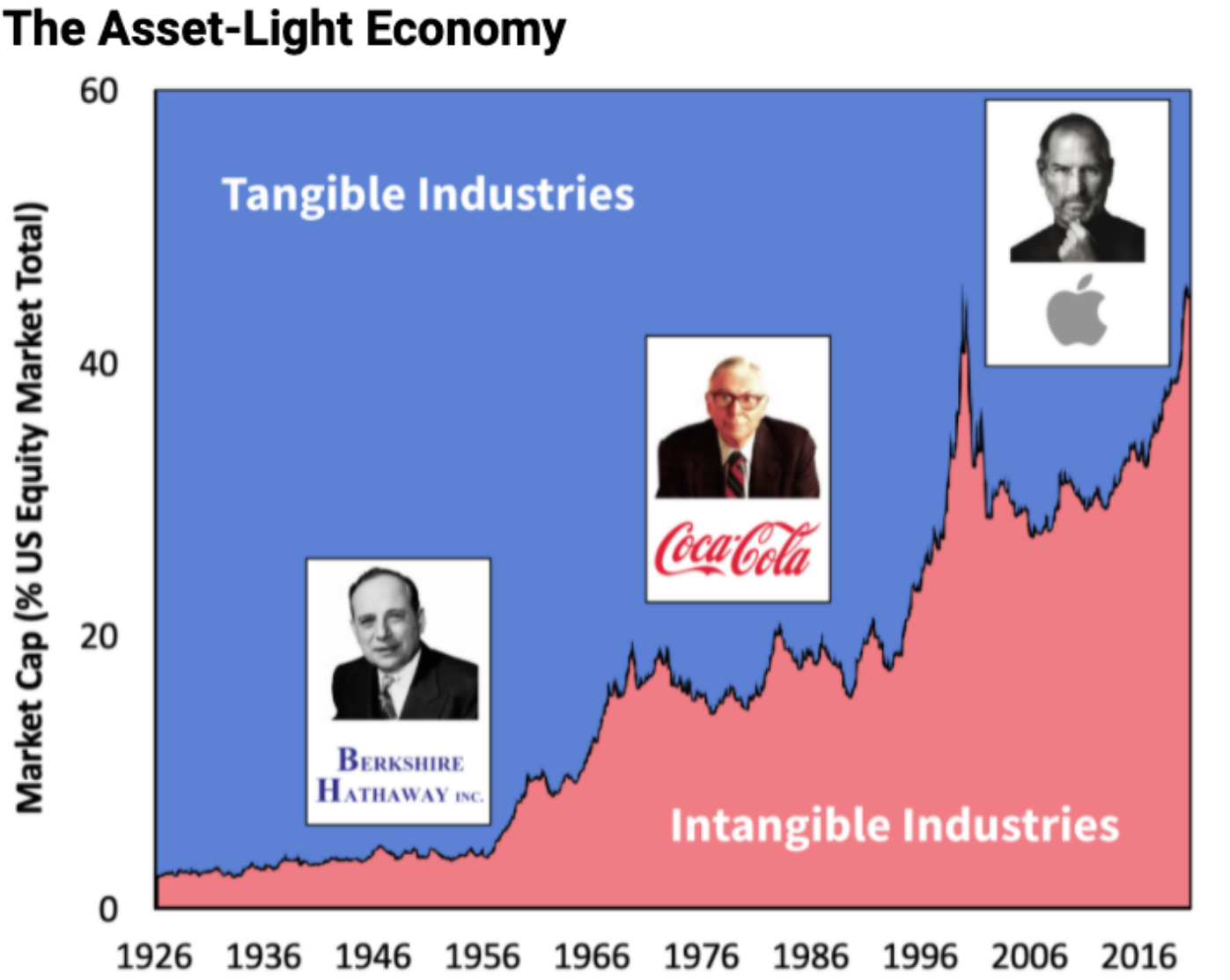
Blog
https://t.co/omtrn9kfvt

PDF
https://t.co/87qE08qZCJ

(1/10) The Asset-Light Economy ■

“The four largest companies today by market value do not need any net tangible assets. They are not like AT&T, GM, or Exxon Mobil, requiring lots of capital to produce earnings. We have become an asset-light economy."

- Warren Buffett

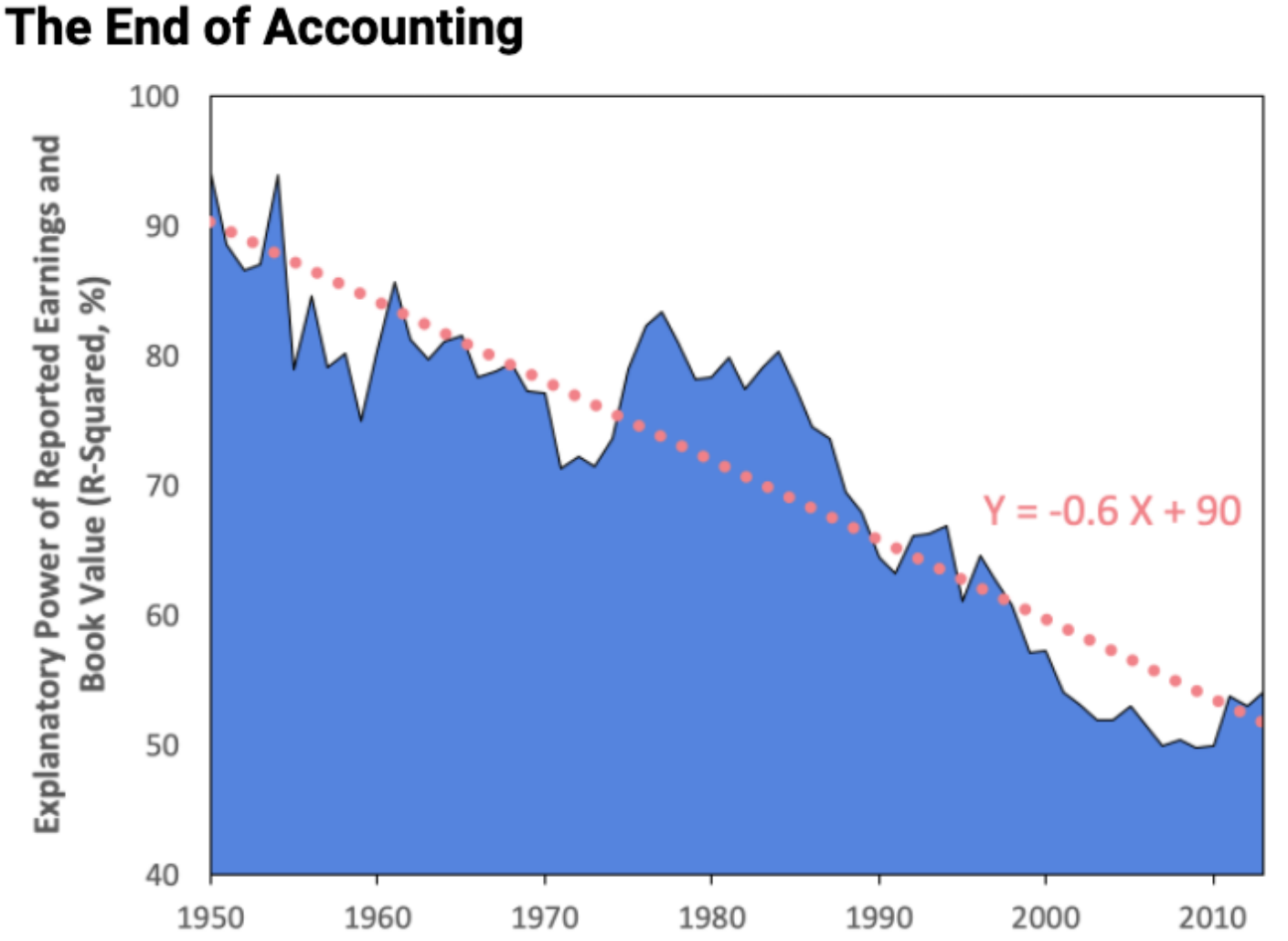


Source: Ken French, Sparkline. We manually divide SIC industries into 9 intangible industries (hardware, software, chips, drugs, medeq, labeq, hlth, bussv, persv) and 40 tangible industries (e.g., transportation, oil, steel, autos, chems, utilities, banks, retail, telecom, household). As of 4/30/2021.

(2/10) The End of Accounting ■

“The constant rise in the importance of intangibles in companies’ performance and value creation, yet suppressed by accounting and reporting practices, renders financial information increasingly irrelevant.”

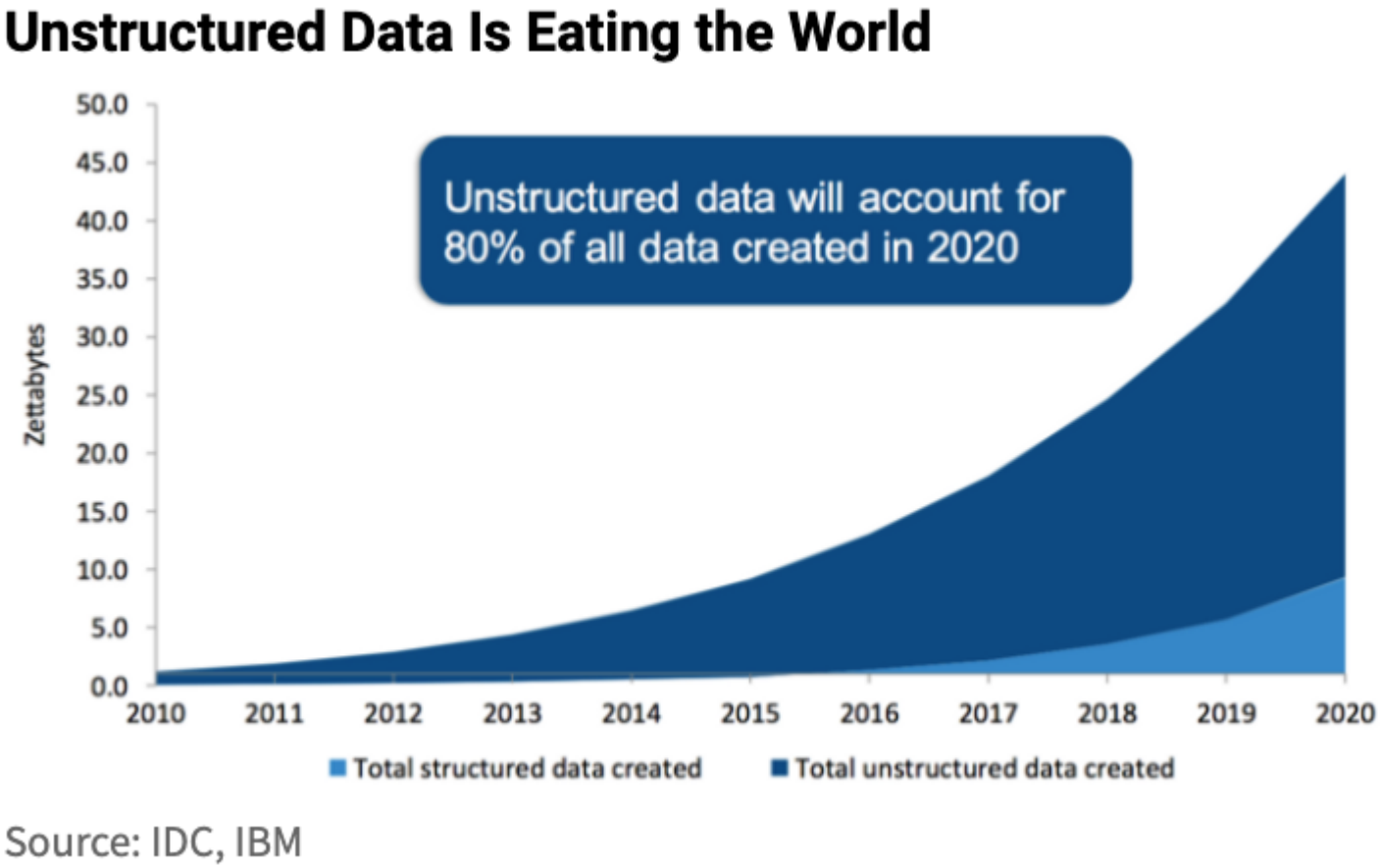
- Baruch Lev and Feng Gu



Source: Lev and Gu (2016), Sparkline. Metric is the adjusted R-squared of a regression of market value on reported earnings and book value. As of 2013.

(3/10) The Dark Matter of Finance ■

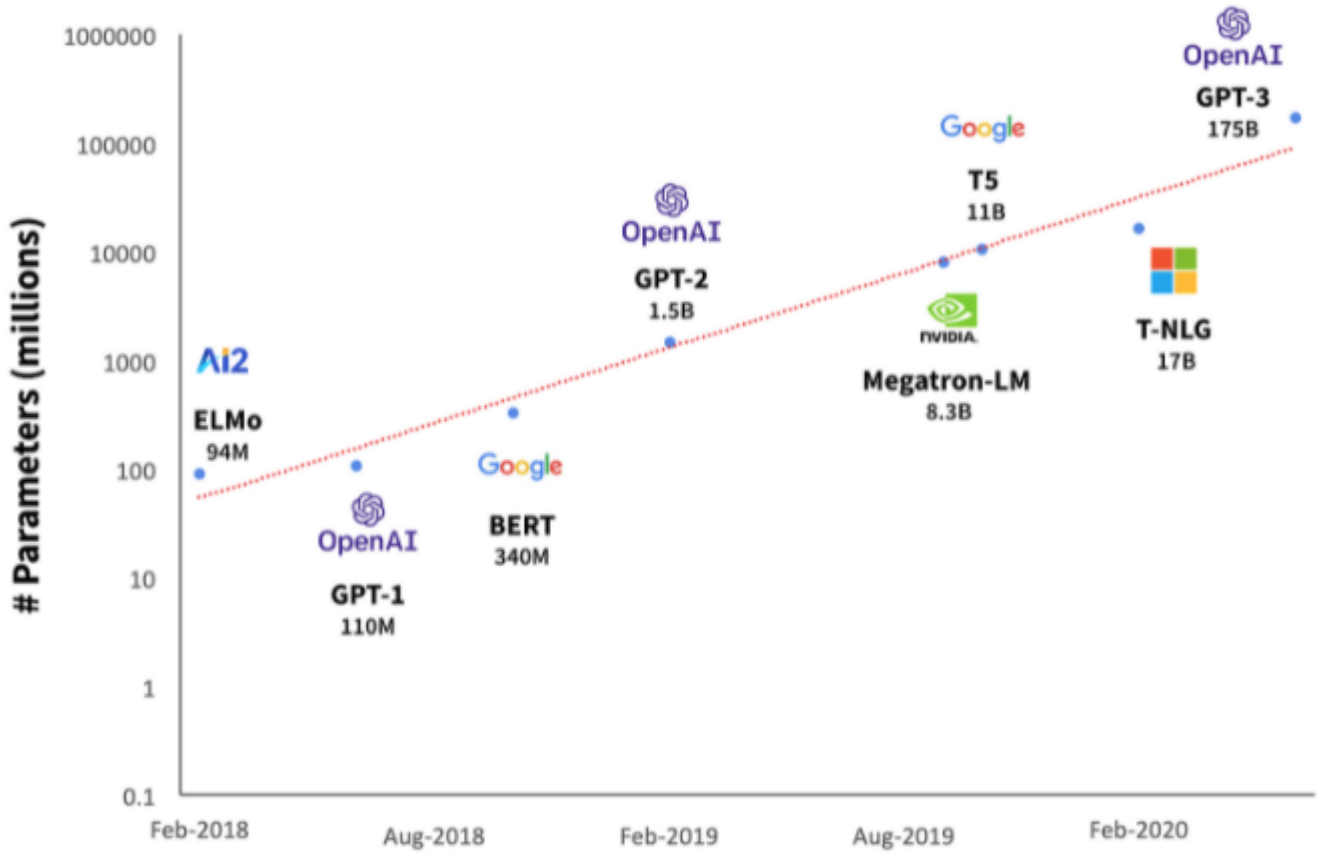
While intangible matter holds the financial universe together, it is not visible to the naked eye. Unstructured data contains info on intangibles but is large, noisy, and resistant to standard statistical analysis.



(4/N) The NLP ■

Fortunately, the digital age has also triggered an explosion of new data and tools, enabling us to start exploring this brave new world.

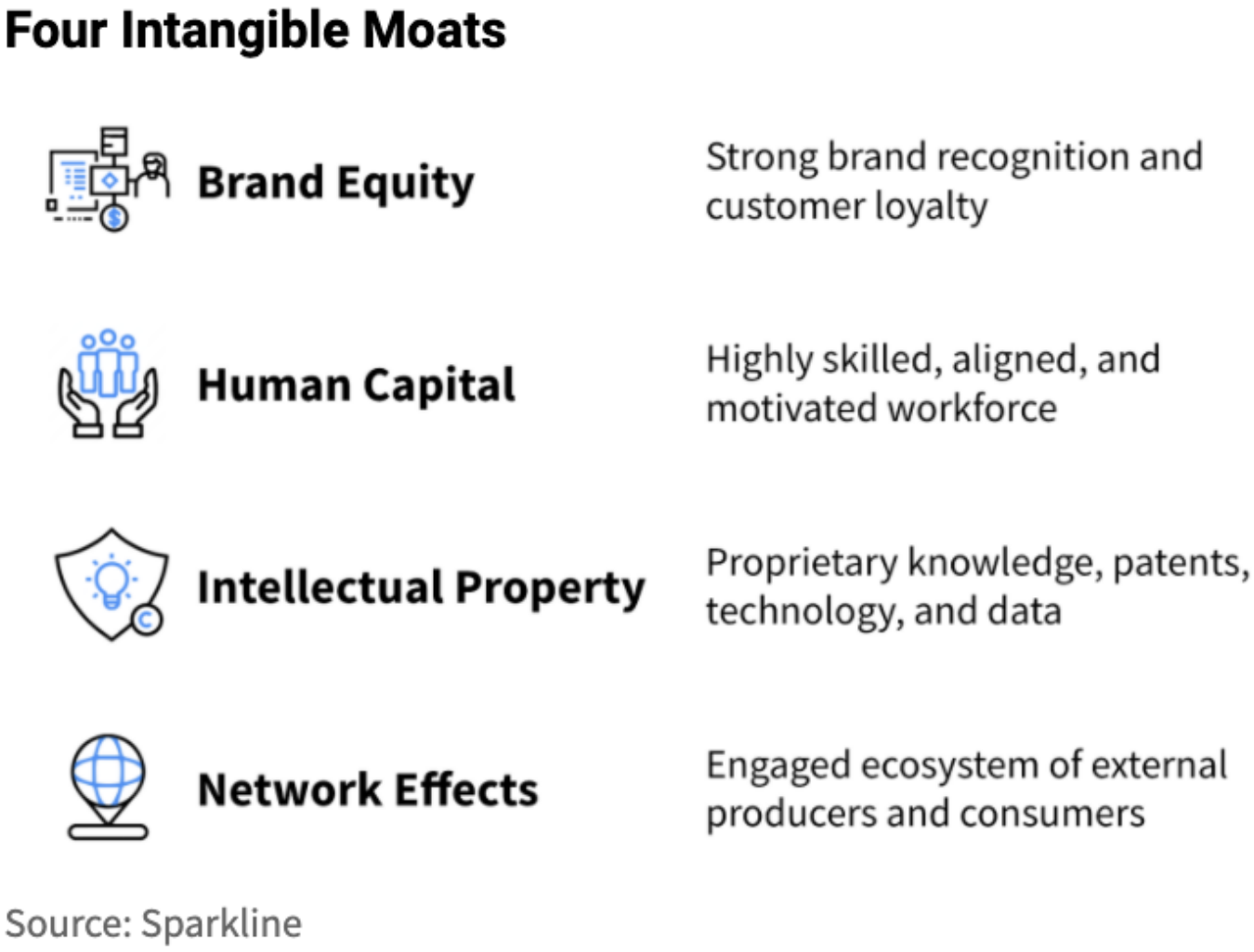
NLP 🚀



Source: Sparkline (adapted from HuggingFace). As of July 2020.

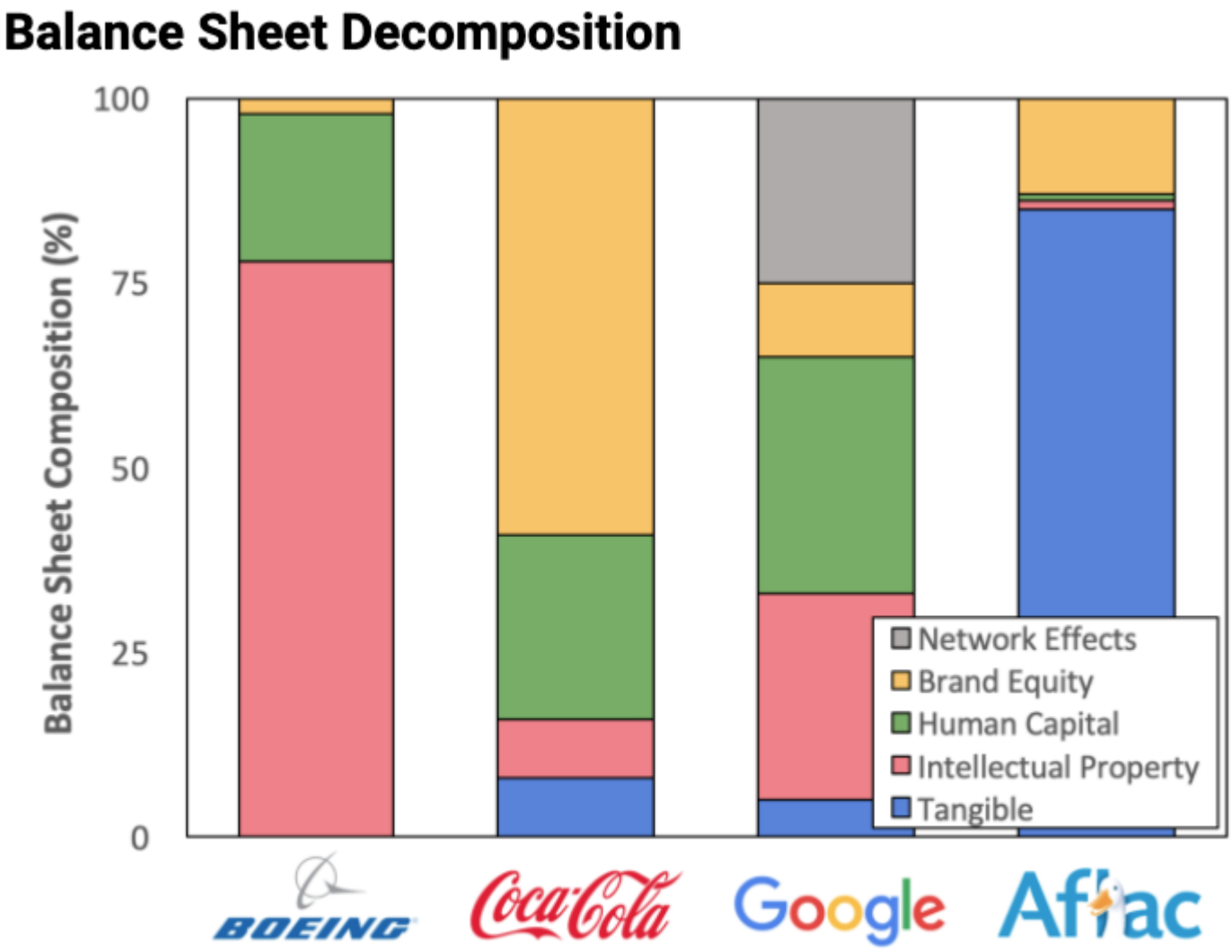
(5/10) Intangible Moats ■

Intangible assets are quickly becoming the primary form of economic value. Firms with loyal customers, top talent, innovative products, and network effects are increasingly dominating economic activity.



(6/10) Intangible Balance Sheets ■

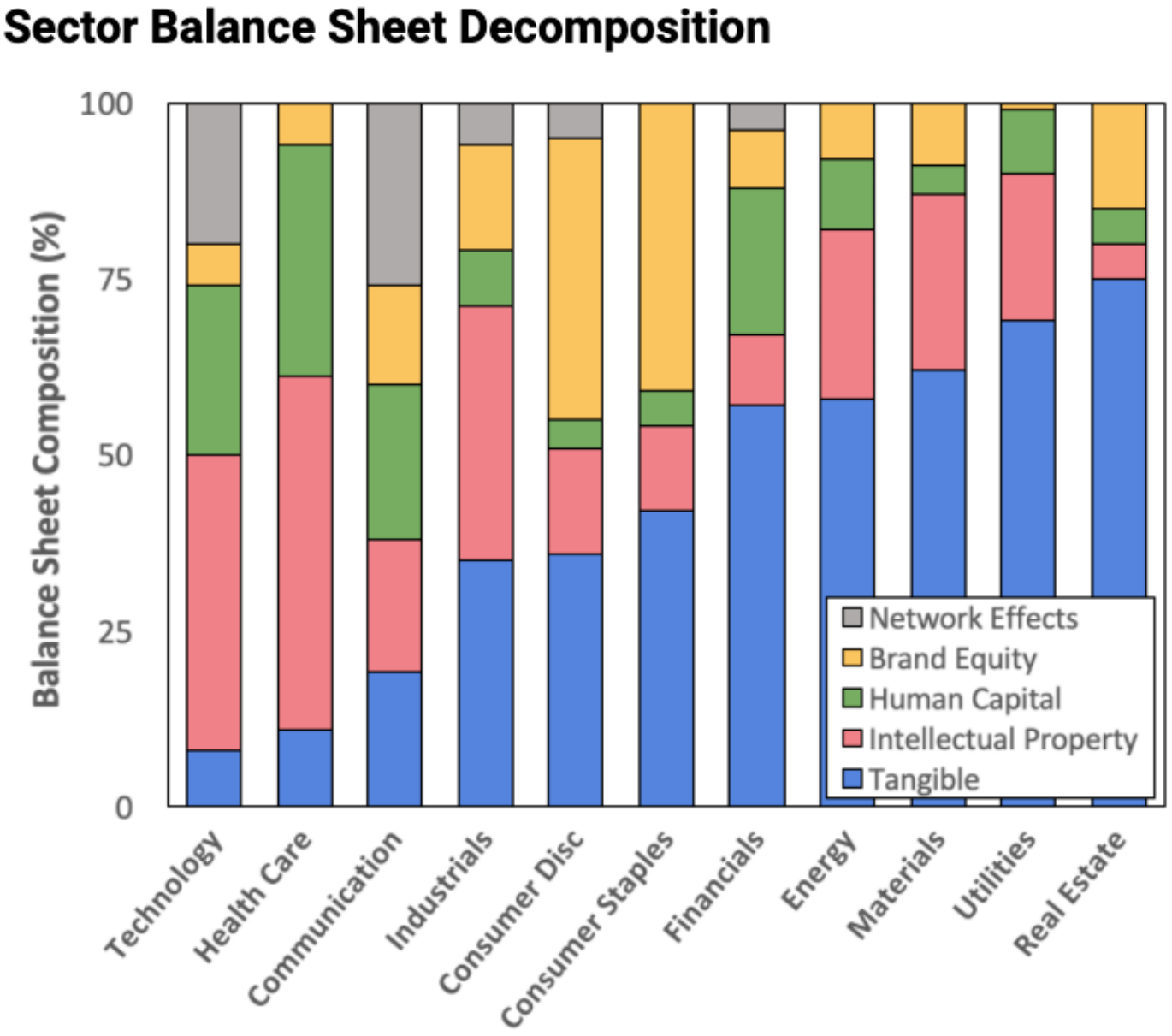
We decompose the balance sheets of four firms to highlight their varying dependence on tangible assets, IP, human capital, brand, and network effects.



Source: Sparkline. As of 5/28/2021.

(7/10) Industry Balance Sheets ■

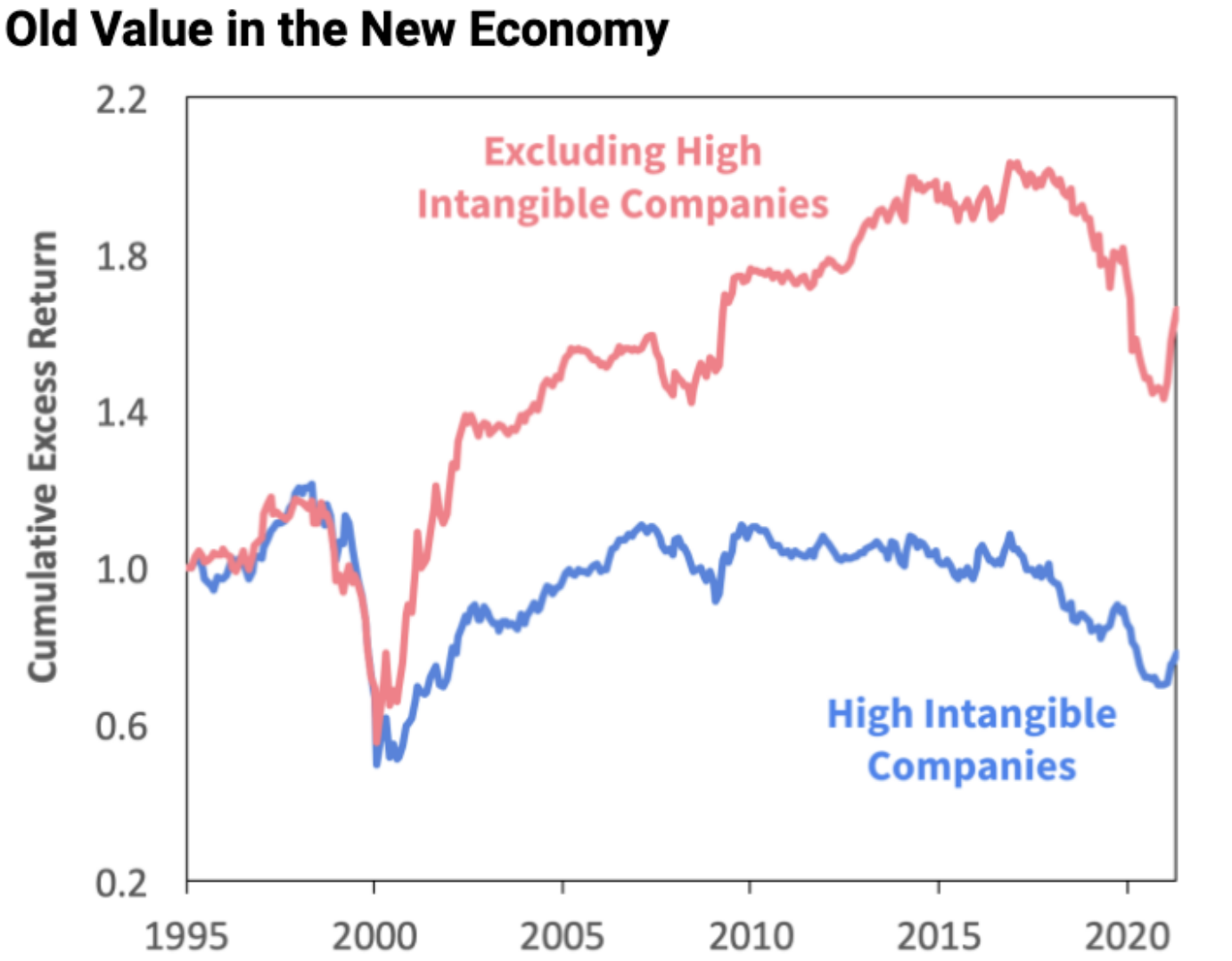
■■Tangible: Real Estate, Utils, Mats, Energy & Fins
■IP: Tech & Health
■Human Capital: Tech, Health, Comm & Fins
■Brand: Consumer Staples & Disc
■■NFX: Comm & Tech



Source: Sparkline. As of 5/28/2021.

(8/10) The Disruption of Value ■

Traditional value investing has continued to work -- but only as long as you avoid running it on high-intangible companies. Unsurprisingly, tangible value metrics have been ineffective in evaluating firms composed mainly of intangible assets.

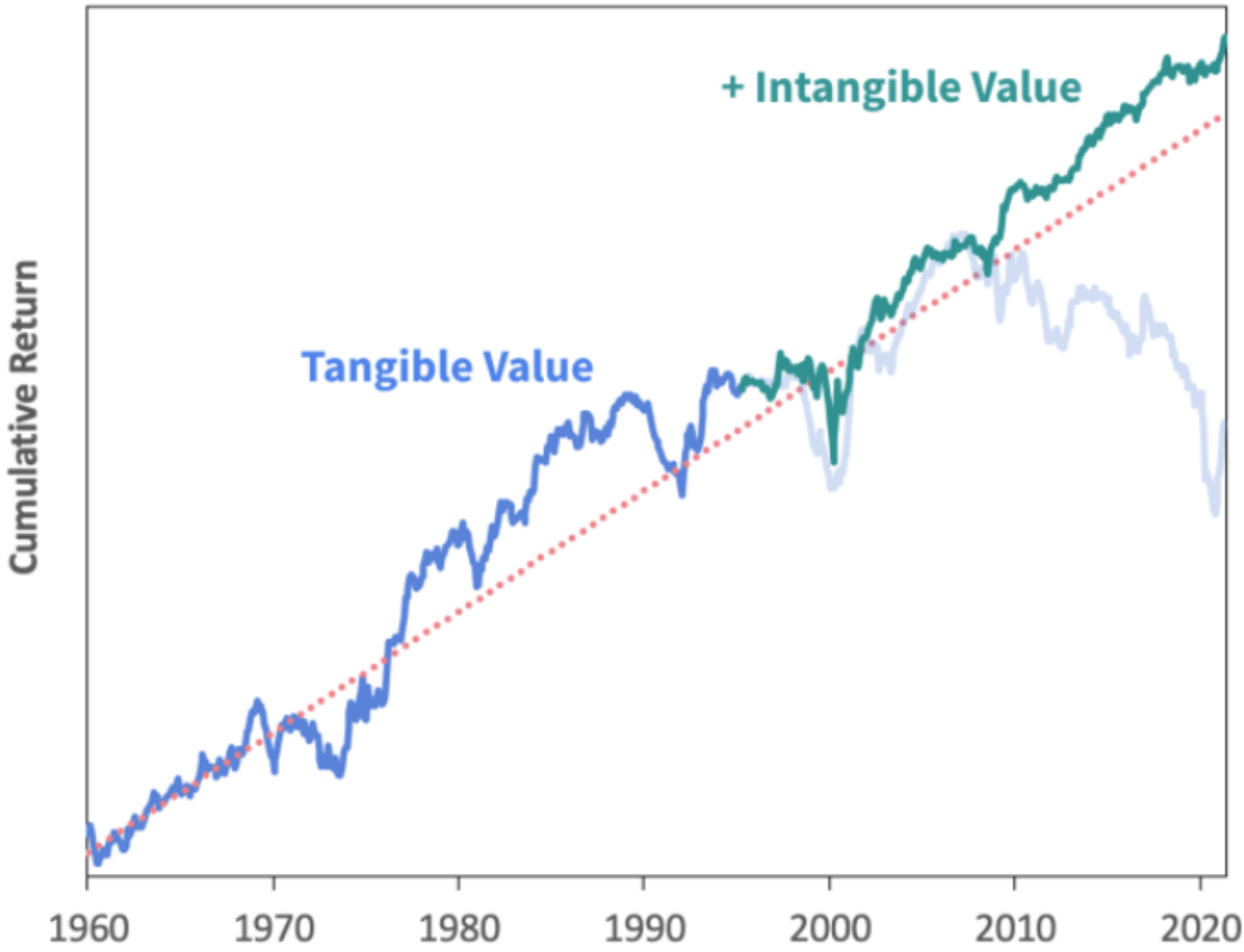


Source: S&P, Sparkline. Blue line is performance of the traditional value factor in a universe consisting of the top quartile of the top 1000 largest U.S. firms on intangible share. Red line is the same but in a universe of all other stocks. The traditional value factor is a long-short portfolio of the top and bottom quartiles of stocks on price to book, earnings, sales, and cash flow (both trailing and expected). We exclude transaction and financing costs. From 12/31/1994 to 5/28/2021. See important backtest disclosure below.

(9/10) Fixing The "Value Factor" ■■■

The Fama-French "Value Factor" (i.e., price / book ratio) is a widely used academic benchmark. We find that adding intangibles might help improve it.

Value Is Dead, Long Live Value! ✊



Source: Ken French, Sparkline. Tangible Value is a long-short portfolio of the top and bottom quintiles of U.S. equities on book value / market value, market cap weighted (per Fama-French). Intangible Value is the same except it uses our intangible-adjusted intrinsic value metric. We exclude transaction and financing costs for comparability to Fama-French. From 12/31/1959 to 4/30/2021. See important backtest disclosure below.

(10/10) Expanding Intrinsic Value ■■

Let's return to our original equation:

Intrinsic Value = Tangible Value + Intangible Value

In the days of Ben Graham, the final term in this equation was a mere rounding error. **Intrinsic value** and **tangible value** were functionally equivalent. However, as we've seen, **intangible value** is a significant and growing part of the economy and can no longer be ignored.

We highly doubt that Graham intended value investors to so strictly adhere to the specific metrics used in his books. The lessons are in his frameworks and mental models. As the world shifts from railroads to airplanes to flying cars, the principles of value investing will always hold. The intelligent investor is one with the mental dexterity to apply these frameworks to the changing problems of his day.