

Morgan Stanley

INVESTMENT MANAGEMENT



# Intangibles and Modern Value Investing

## Ben Graham Centre Value Investing Conference

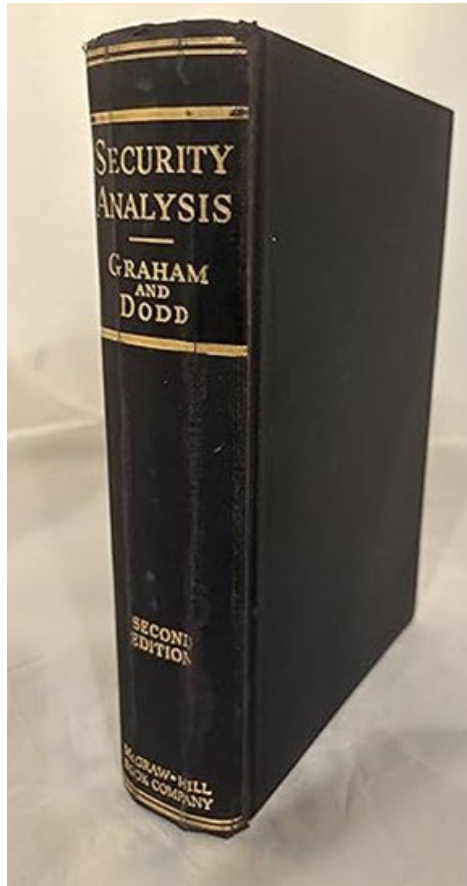
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**Head of Consilient Research**

**Counterpoint Global, Morgan Stanley Investment Management**

**April 2025**

## Ben Graham and Intangibles



It may be pointed out that under modern conditions the so-called “intangibles,” e.g., good-will or even a highly efficient organization, are every whit as real from a dollars-and-cents standpoint as are buildings and machinery. Earnings based on these intangibles may be even less vulnerable to competition than those which require only a cash investment in productive facilities.

Source: Benjamin Graham and David L. Dodd, *Security Analysis, Second Edition* (New York: McGraw Hill, 1940), 577.

## Agenda

- The rise of intangibles
- Characteristics of intangibles
- Why investors should care

# Tangible to Intangible Investment

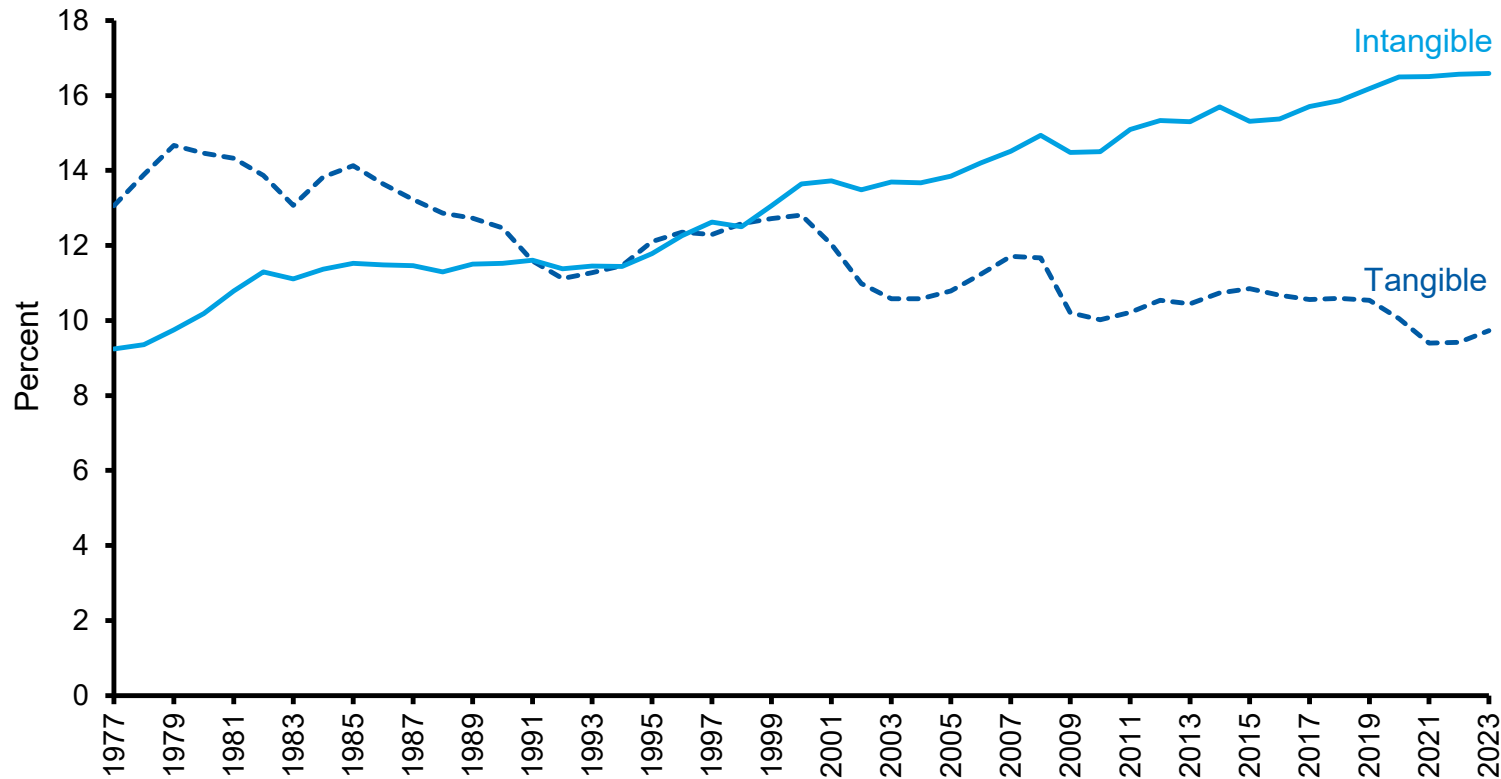
## Categories of Intangible Assets

Broad category	Type of investment	Type of legal property that might be created
<b>Computerized information</b>	Software development	Patent, copyright, design intellectual property rights (IPR), trademark, other
	Database development	Copyright, other
<b>Innovative property</b>	R&D	Patents, design IPR
	Mineral exploration	Patents, other
	Creating entertaining and artistic originals	Copyright, design IPR
	Design and other product development costs	Copyright, design IPR, trademark
<b>Economic competencies</b>	Training	Other
	Market research and branding	Copyright, trademark
	Business process re-engineering	Patent, copyright, other

Source: Jonathan Haskel and Stian Westlake, *Capitalism Without Capital: The Rise of the Intangible Economy* (Princeton, NJ: Princeton University Press, 2017), 44.

# Tangible to Intangible Investment

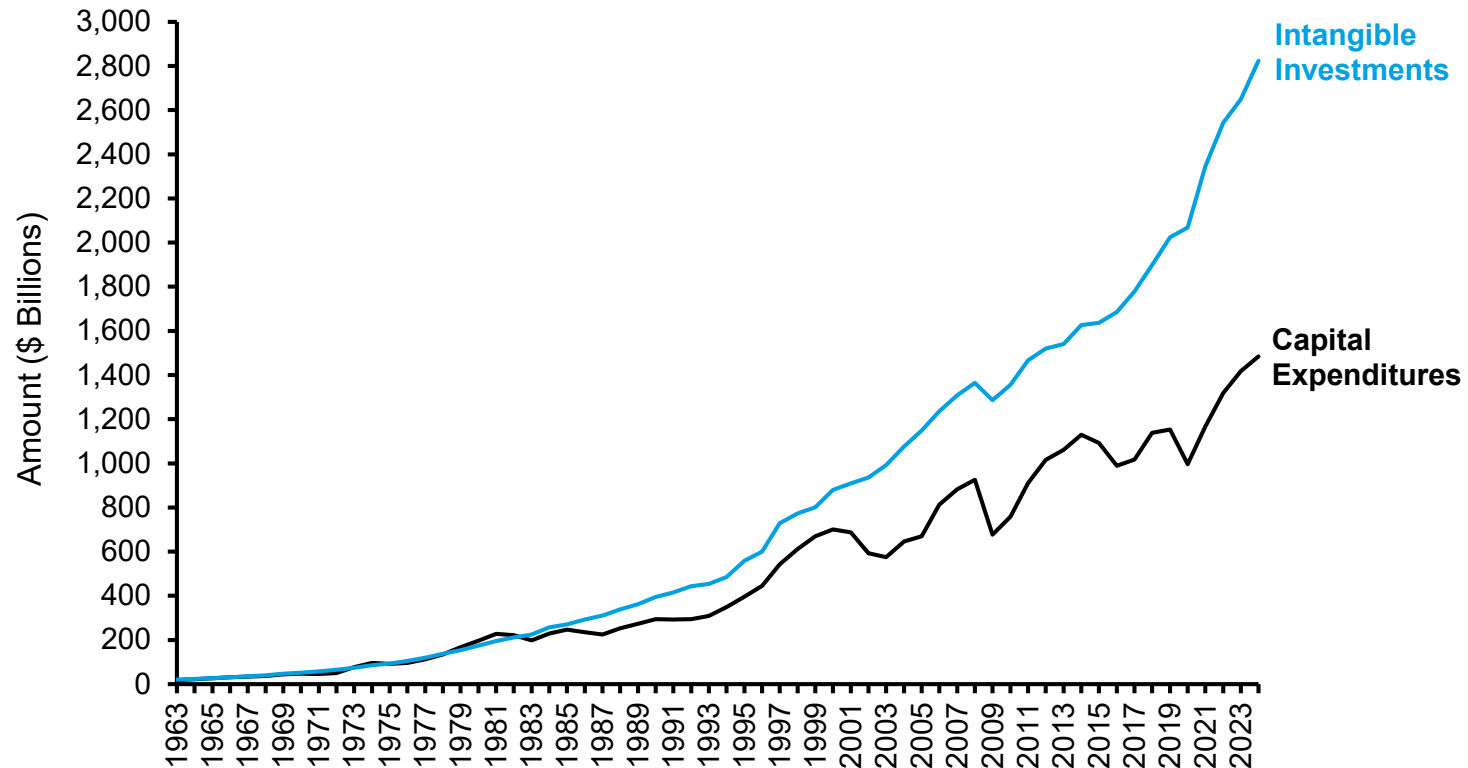
Investment Rates in Assets, as a Percentage of GDP, in the U.S., 1977-2023



Source: Global INTAN-Invest Database, see <https://global-intaninvest.luiss.it/download/>.

# Tangible to Intangible Investment

## Intangible Investments and Capital Expenditures for U.S. Companies, 1963-2024

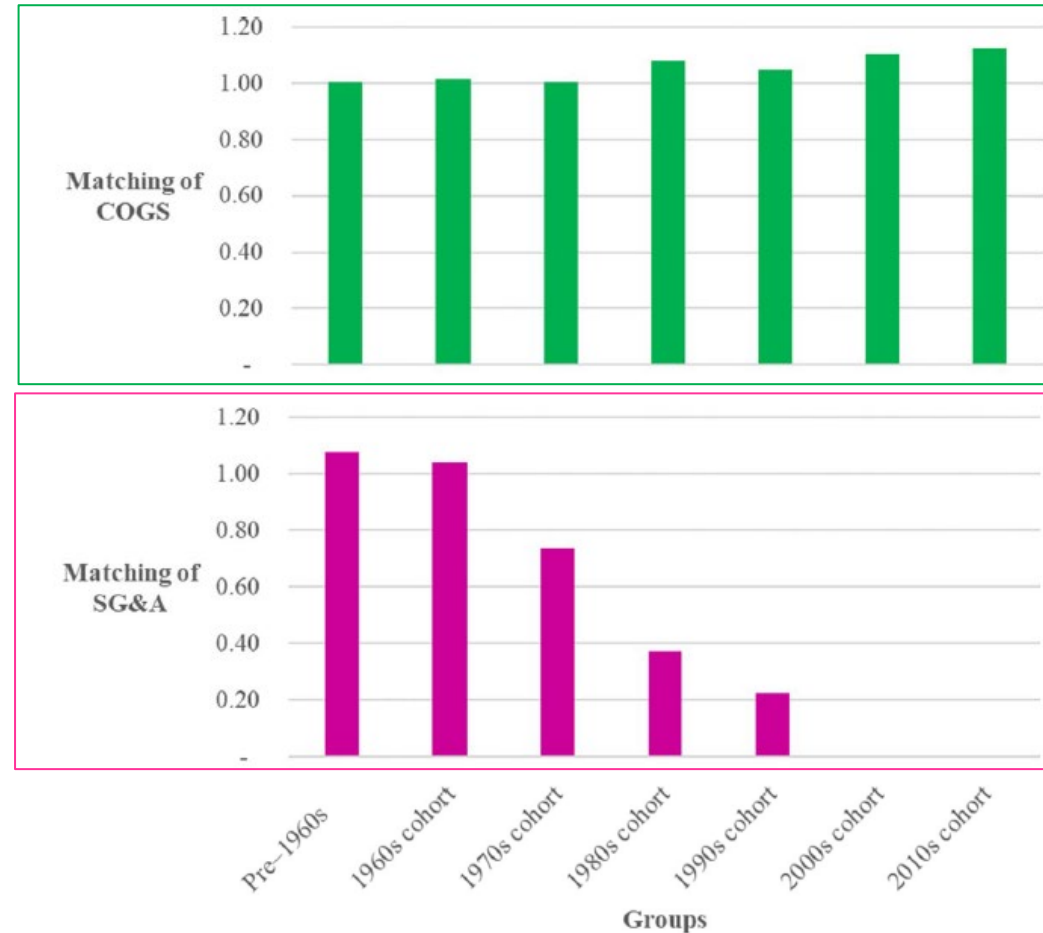


Source: FactSet, Compustat, and Aneel Iqbal, Shivaram Rajgopal, Anup Srivastava, and Rong Zhao, "A Better Estimate of Internally Generated Intangible Capital," *Management Science*, Vol. 71, No. 1, January 2025, 731-752.

Note: SG&A=Selling, General, and Administrative expense; Intangible investments = Investment SG&A ex-R&D + Investment R&D; Companies listed on New York Stock Exchange, NASDAQ, and NYSE American, excluding those in the finance sector, those that do not have an ROIC every year, and American depository receipts.

# Tangible to Intangible Investment

## Matching principle: COGS and S,G&A



Source: Anup Srivastava, "Trivialization of the Bottom Line and Losing Relevance of Losses," *Review of Accounting Studies*, Vol. 28, No. 3, September 2023, 1190-1208.

## Microsoft's Free Cash Flow, 2023-2024

(\$ Billions)	<u>2023</u>	<u>2024</u>
Operating income (EBIT)	89	109
Amortization of intangibles	3	5
<u>Operating lease payments</u>	<u>2</u>	<u>3</u>
EBITA	93	117
Income tax provision	17	20
Deferred taxes	6	(0)
<u>Tax shield</u>	<u>0</u>	<u>(0)</u>
Cash taxes	23	20
<b>Net Operating Profit after Taxes (NOPAT)</b>	<b><u>70</u></b>	<b><u>97</u></b>
Change in working capital	2	(6)
Additions to property and equipment *	32	56
<u>Depreciation</u>	<u>11</u>	<u>17</u>
Capital expenditures, net	21	38
Acquisitions	2	69
<b>Investment (I)</b>	<b><u>24</u></b>	<b><u>102</u></b>
<b>Free cash flow</b>	<b><u>46</u></b>	<b><u>(5)</u></b>

Note: \* = includes assets acquired under capital leases.  
Source: Microsoft Corporation.



# Quantifying Microsoft's Intangible Investments

## Intangibles on the Income Statement, Microsoft's Fiscal 2024 Figures

<b>Item</b>	<b>Amount</b>	<b>Percent Allocated to Intangible</b>	<b>Intangible Investment</b>
<b>Research &amp; Development</b>	\$29.5 billion	100	\$29.5 billion
<b>Sales &amp; Marketing</b>	\$24.5	70	\$17.1
<b>General &amp; Administrative</b>	\$7.6	20	\$1.5
<b>Total</b>	\$57.5 billion		\$48.2 billion

Source: Charles R. Hulten, "Decoding Microsoft: Intangible Capital as a Source of Company Growth," *NBER Working Paper 15799*, March 2010 and Microsoft Corporation.

# Reclassifying Microsoft's Intangible Investments

<u>Without Adjustments</u>			<u>With Adjustments</u>		
(\$ Billions)	<u>2023</u>	<u>2024</u>	(\$ Billions)	<u>2023</u>	<u>2024</u>
Operating income (EBIT)	89	109	Operating income (EBIT)	89	109
Amortization of intangibles	3	5	Amortization of intangibles	3	5
<u>Operating lease payments</u>	<u>2</u>	<u>3</u>	<u>Operating lease payments</u>	<u>2</u>	<u>3</u>
EBITA	93	117	EBITA	93	117
Income tax provision	17	20	Income tax provision	17	20
Deferred taxes	6	(0)	Deferred taxes	6	(0)
<u>Tax shield</u>	<u>0</u>	<u>(0)</u>	<u>Tax shield</u>	<u>0</u>	<u>(0)</u>
Cash taxes	23	20	Cash taxes	23	20
<b>Net Operating Profit after Taxes (NOPAT)</b>	<b><u>70</u></b>	<b><u>97</u></b>	<b>Net Operating Profit after Taxes (NOPAT)</b>	70	97
			Intangible investment	45	48
			<u>Amortization of intangibles</u>	<u>34</u>	<u>38</u>
			Intangible investment, net	11	11
			<b>Adjusted NOPAT</b>	<b><u>80</u></b>	<b><u>108</u></b>
Change in working capital	2	(6)	Change in working capital	2	(6)
Additions to property and equipment *	32	56	Additions to property and equipment *	32	56
<u>Depreciation</u>	<u>11</u>	<u>17</u>	<u>Depreciation</u>	<u>11</u>	<u>17</u>
Capital expenditures, net	21	38	Capital expenditures, net	21	38
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			Intangible investment	45	48
			<u>Amortization of intangibles</u>	<u>34</u>	<u>38</u>
			Intangible investment, net	11	11
			<b>Adjusted investment</b>	<b><u>35</u></b>	<b><u>112</u></b>
<b>Free cash flow</b>	<b><u>46</u></b>	<b><u>(5)</u></b>	<b>Free cash flow</b>	<b><u>46</u></b>	<b><u>(5)</u></b>

Note: \* = includes assets acquired under capital leases.  
Source: Microsoft Corporation.

# Recalculating Microsoft's ROIC

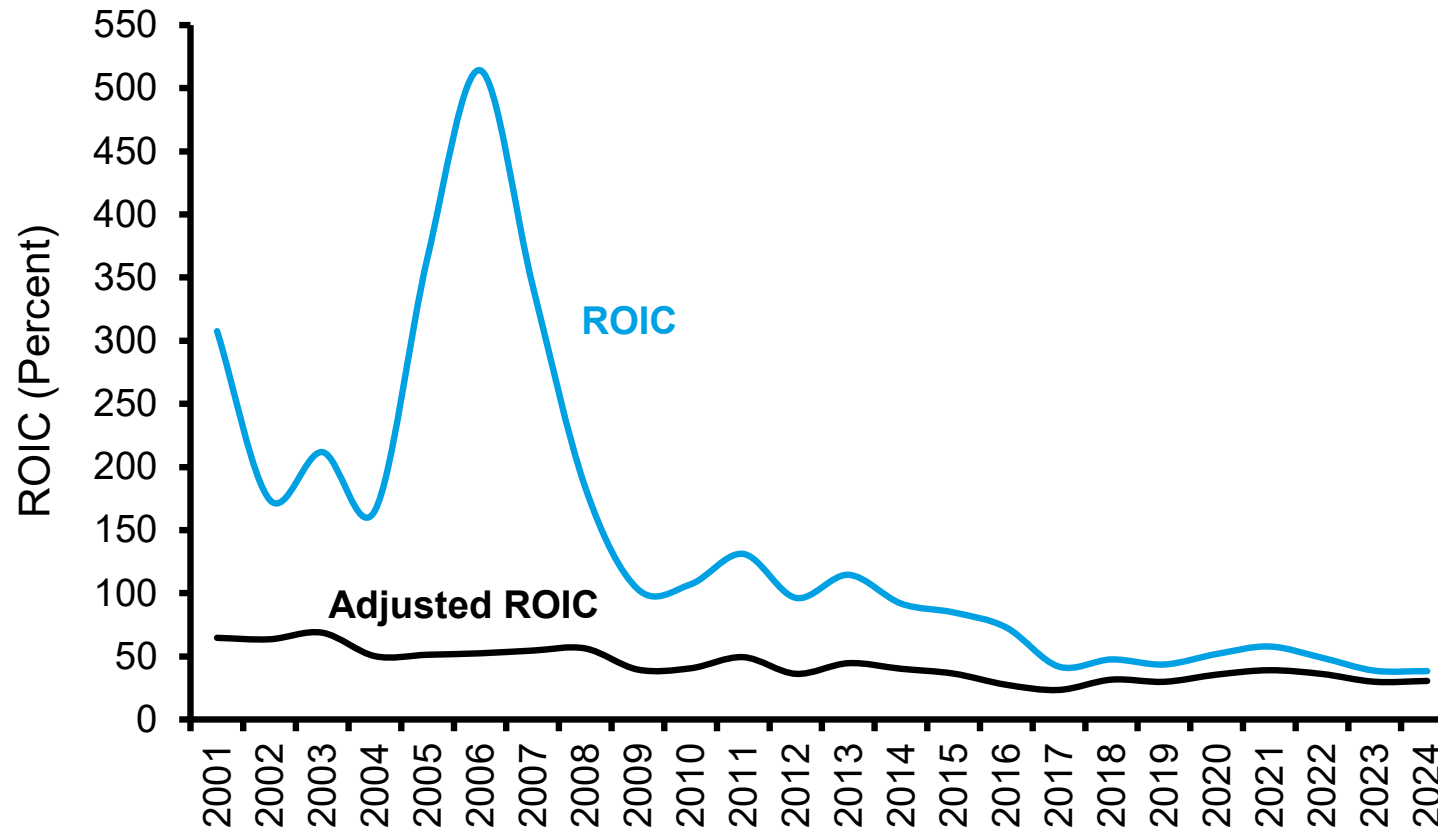
(\$ Billions)		
Operating approach (traditional)		
	2023	2024
Cash *	4	5
Accounts receivable, net	49	57
Deferred income taxes	0	0
Inventories	3	1
<u>Other current assets</u>	22	26
Total current assets	77	89
<u>- NIBCLs</u>	99	116
Net working capital	(22)	(27)
Property and equipment, net	96	136
Operating lease right-of-use assets	14	19
Goodwill	68	119
Intangible assets, net	9	28
Other long-term assets	31	36
<b>Invested capital</b>	<u>196</u>	<u>311</u>
NOPAT	70	97
Invested capital (average)	180	253
ROIC	39%	38%

(\$ Billions)		
Operating approach (with adjustments)		
	2023	2024
Cash *	4	5
Accounts receivable, net	49	57
Deferred income taxes	0	0
Inventories	3	1
<u>Other current assets</u>	22	26
Total current assets	77	89
<u>- NIBCLs</u>	99	116
Net working capital	(22)	(27)
Property and equipment, net	96	136
Operating lease right-of-use assets	14	19
Goodwill	68	119
Intangible assets, net	9	28
Other long-term assets	31	36
<b>Invested capital</b>	196	311
Capitalized intangibles, net	94	105
<b>Adjusted invested capital</b>	<u>290</u>	<u>415</u>
NOPAT	80	108
Invested capital (average)	269	353
ROIC	30%	30%

Source: Microsoft Corporation.

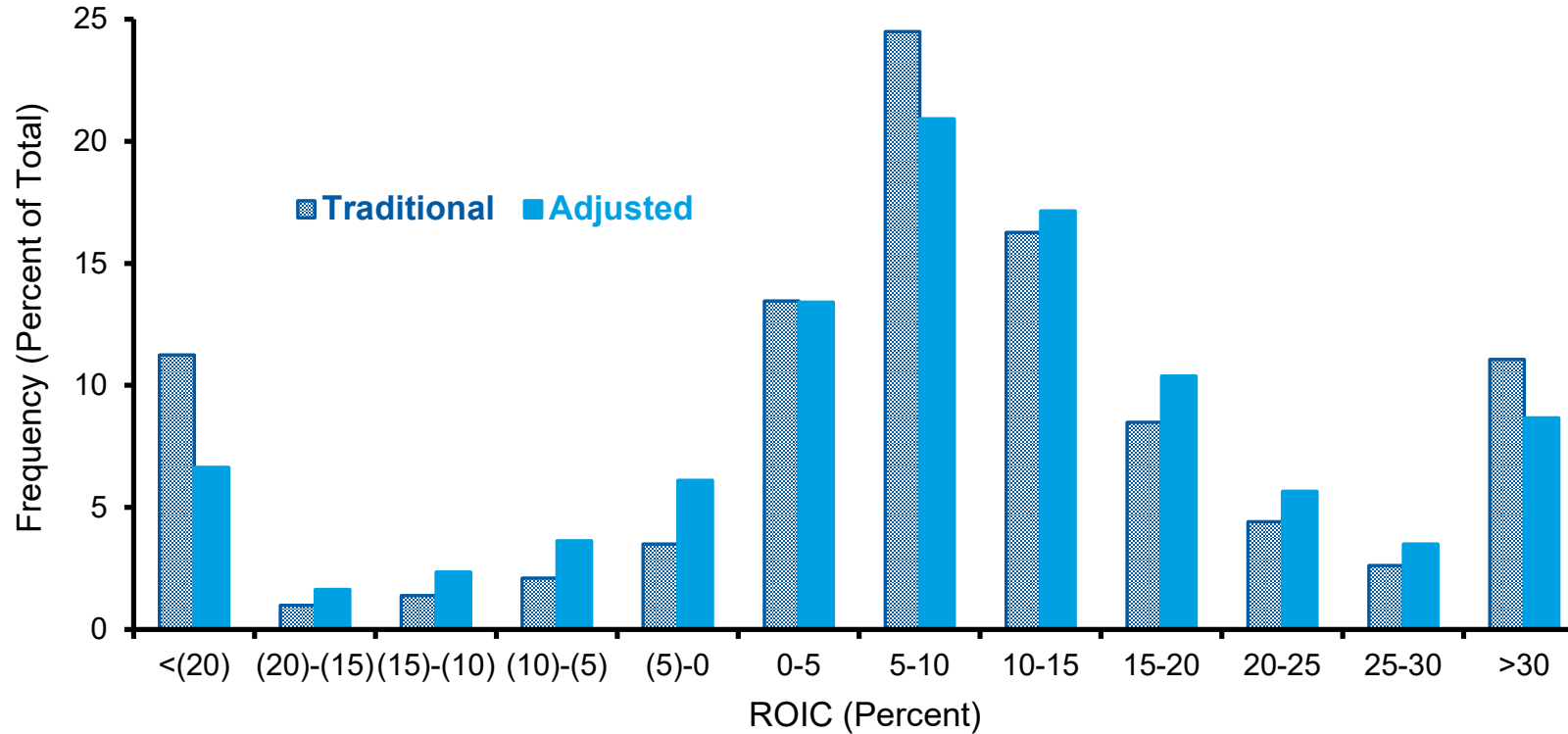
Note: \* = cash = 2 percent of sales; NIBCLs is non-interest-bearing current liabilities.

## Microsoft's ROIC Before and After Adjustments



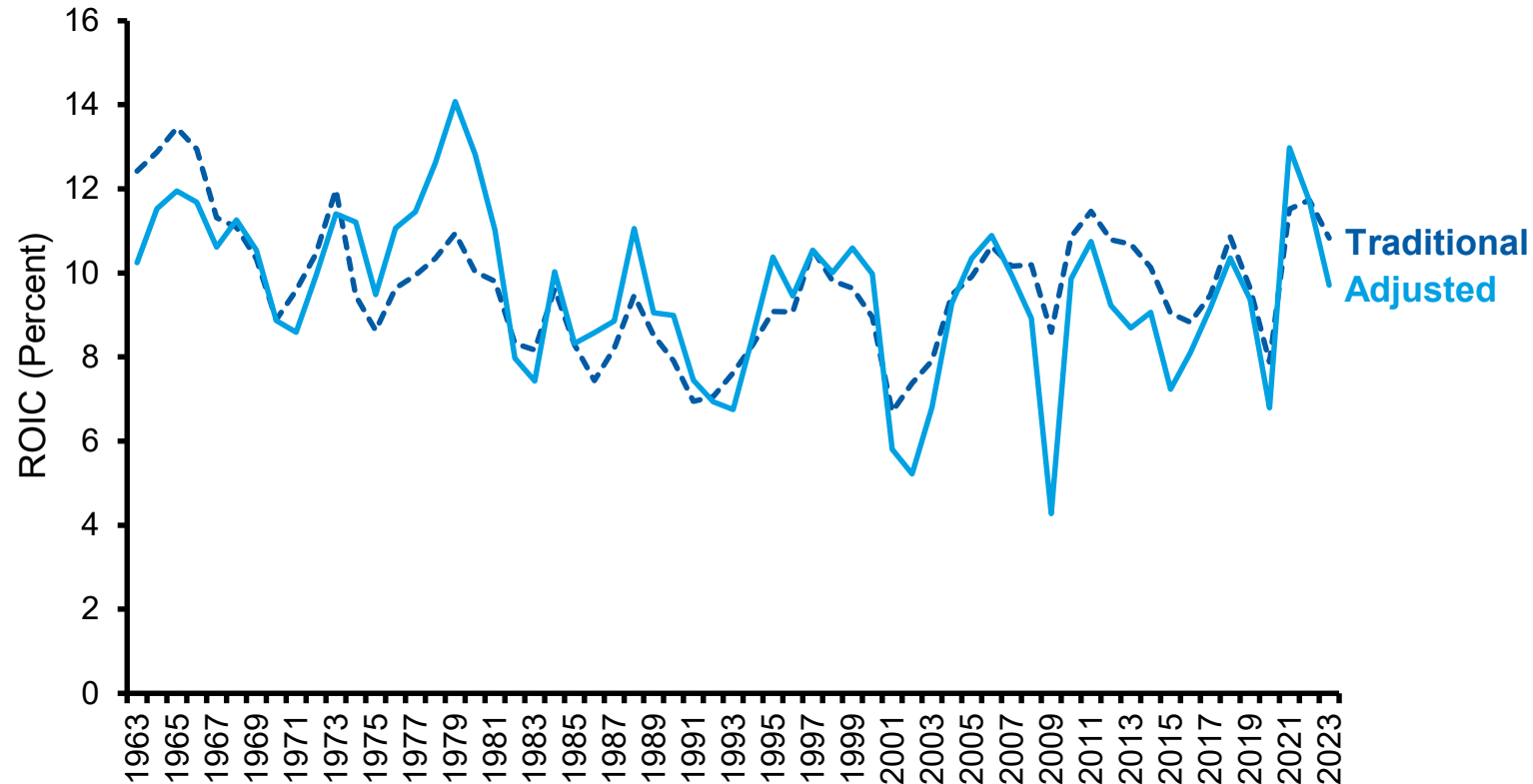
Source: Microsoft and Counterpoint Global.  
Note: Invested capital is the average of the current and prior year.

# Distributions of ROICs for U.S. Companies, 1963-2023



Source: FactSet and Counterpoint Global.  
 Note: Companies listed on New York Stock Exchange, NASDAQ, and NYSE American, excluding financials.

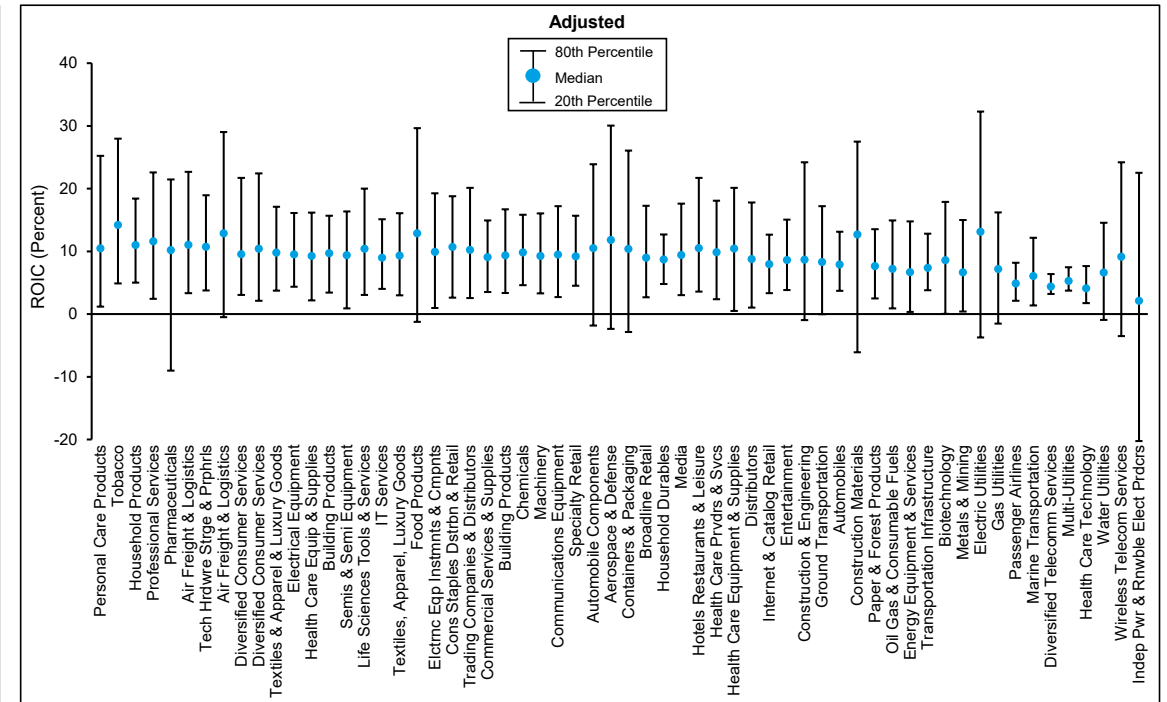
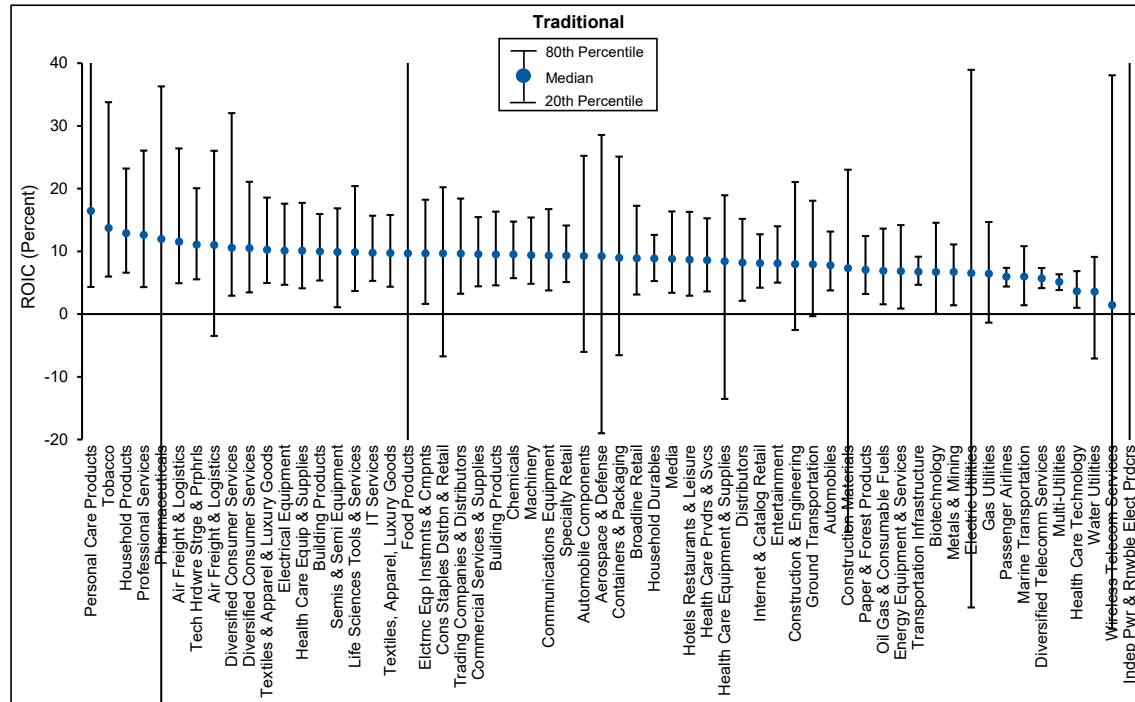
# Aggregate Traditional and Adjusted ROICs for U.S. Companies, 1963-2023



Source: FactSet and Counterpoint Global.

Note: Companies listed on New York Stock Exchange, NASDAQ, and NYSE American, excluding financials; Adjusted ROIC reclassifies part of SG&A expense as intangible investments and places these investments on the balance sheet and amortizes them over their useful lives.

# ROICs by Industry, Traditional and Adjusted, for U.S. Companies, 1963-2023



Source: FactSet and Counterpoint Global.

Note: Companies listed on New York Stock Exchange, NASDAQ, and NYSE American, excluding financials; Minimum 10 million sales in 2023 U.S. dollars.

## Characteristics of Intangible Assets – Four S’s

- **Scalability:** High upfront costs but low incremental costs (drugs, software, music)

- Network effects (ridesharing, social networks, complementary products)

“A telephone—without a connection at the other end of the line—is not even a toy or scientific instrument. It is one of the most useless things in the world. Its value depends on the connection with the other telephone—and increases with the number of connections.”

- *American Telephone and Telegraph Company (AT&T), 1908 annual report*

- **Sunkness:** Tangible assets retain more resale value due to their standardization



\$1.3 billion



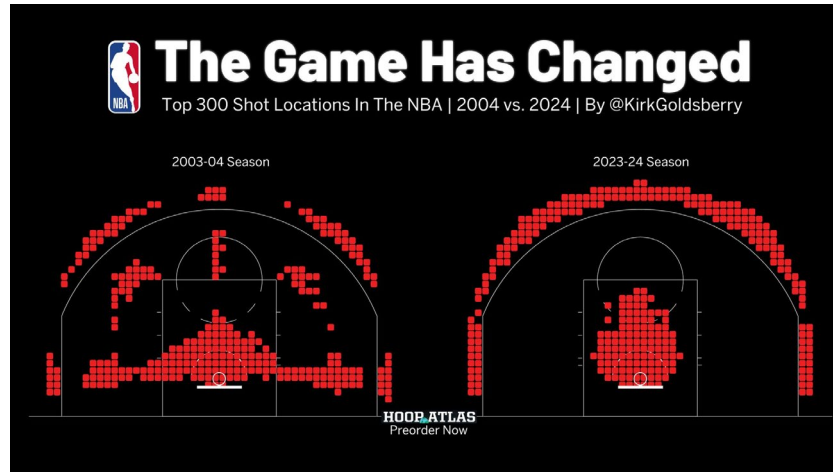
\$15 billion → \$15 million

Source: Jonathan Haskel and Stian Westlake, *Capitalism Without Capital: The Rise of the Intangible Economy* (Princeton, NJ: Princeton University Press, 2017), 56-88, (left image) Chris6d / CC BY-SA (<https://creativecommons.org/licenses/by-sa/4.0>), and (right image) RadioShack.

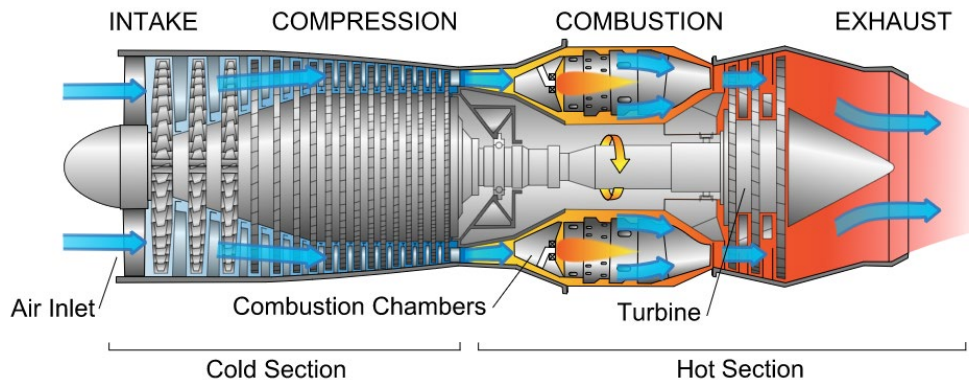


## Characteristics of Intangible Assets – Four S's

- **Spillovers:** Intangible assets are more easily imitated, but copyrights offer protection



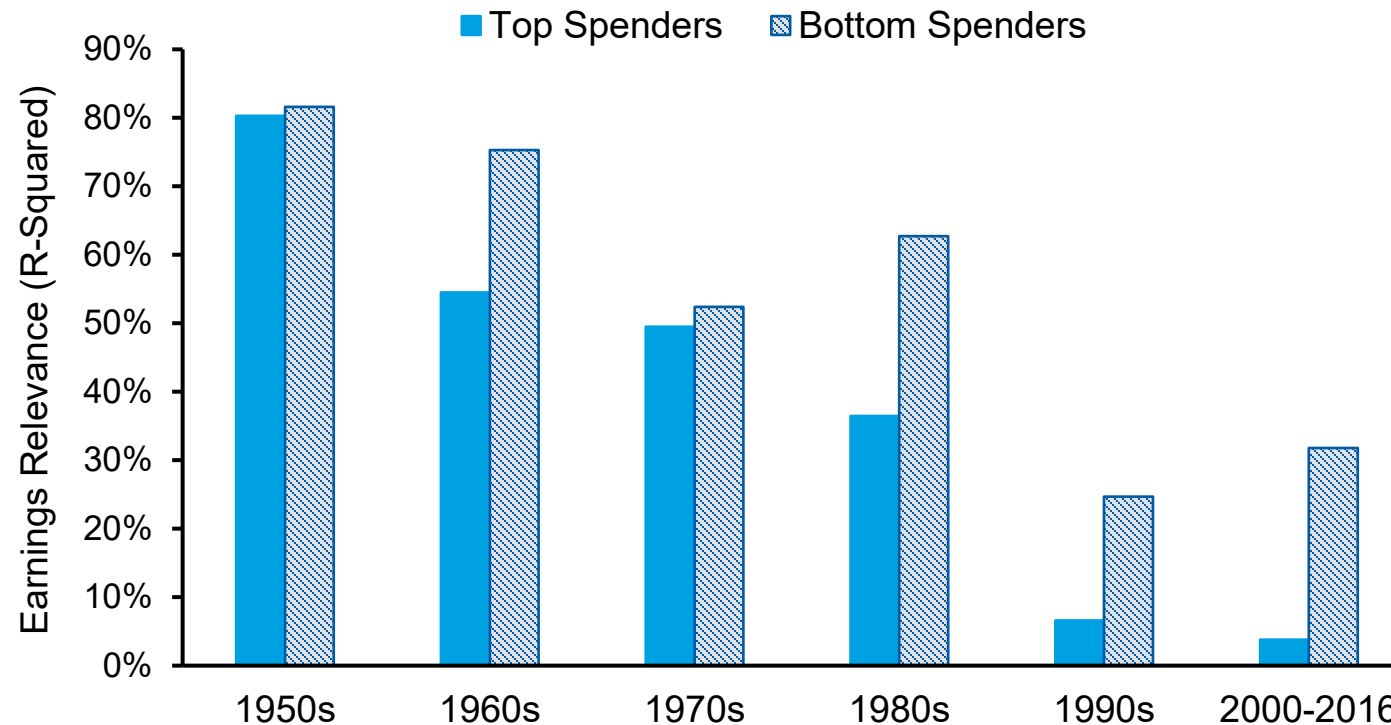
- **Synergies:** Innovation arises from combining technologies that already exist



Source: Jonathan Haskel and Stian Westlake, *Capitalism Without Capital: The Rise of the Intangible Economy* (Princeton, NJ: Princeton University Press, 2017), 56-88, (top image) Kirk Goldsberry, and (bottom image) Jeff Dahl / CC BY-SA (<https://creativecommons.org/licenses/by-sa/4.0>).

# Implications for Investors – Lost Relevance

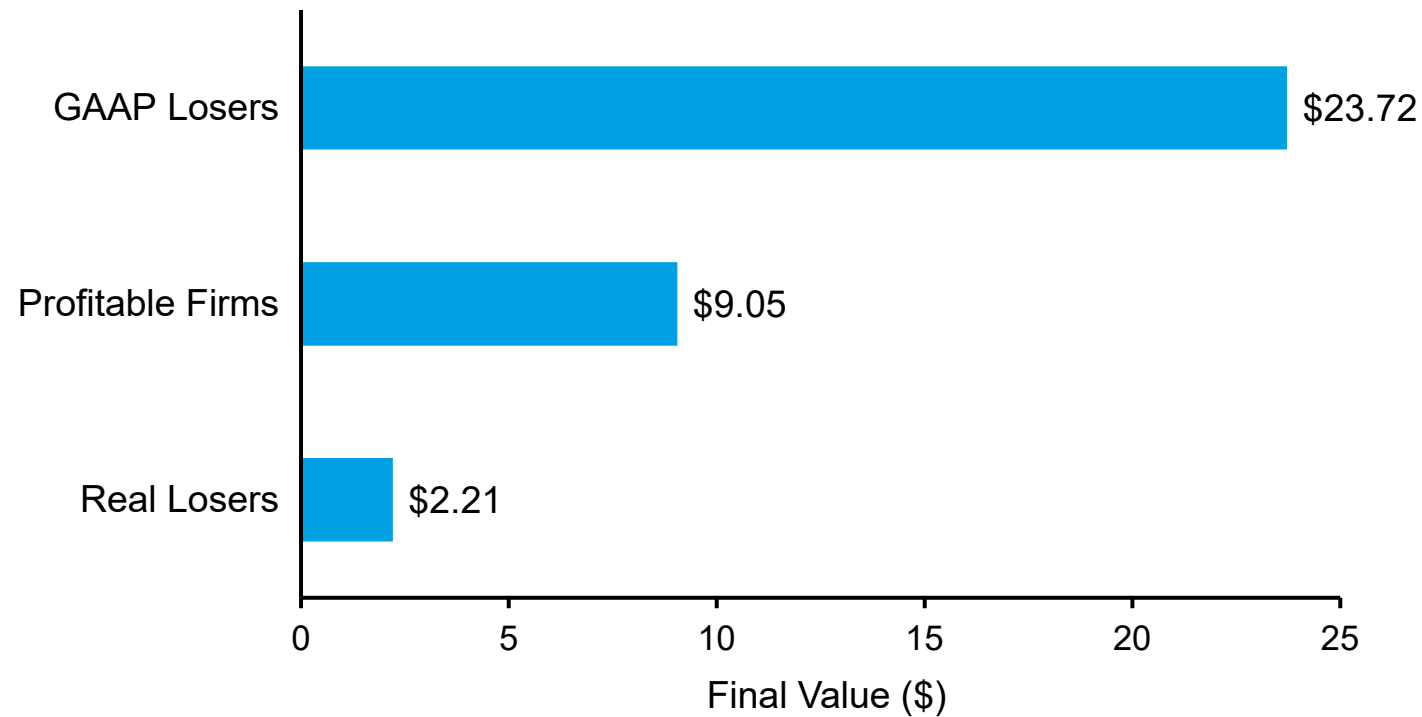
## Earnings Relevance Has Declined



Source: Based on Baruch Lev, "Ending the Accounting-for-Intangibles Status Quo," *European Accounting Review*, Vol. 28, No. 4, September 2019, 717.

## Implications for Investors – All Losses Are Not Alike

### Value of One Dollar Invested in Portfolios of GAAP Losers, Profitable Firms, and Real Losers, 1980-2017 (Matched Firms\*)



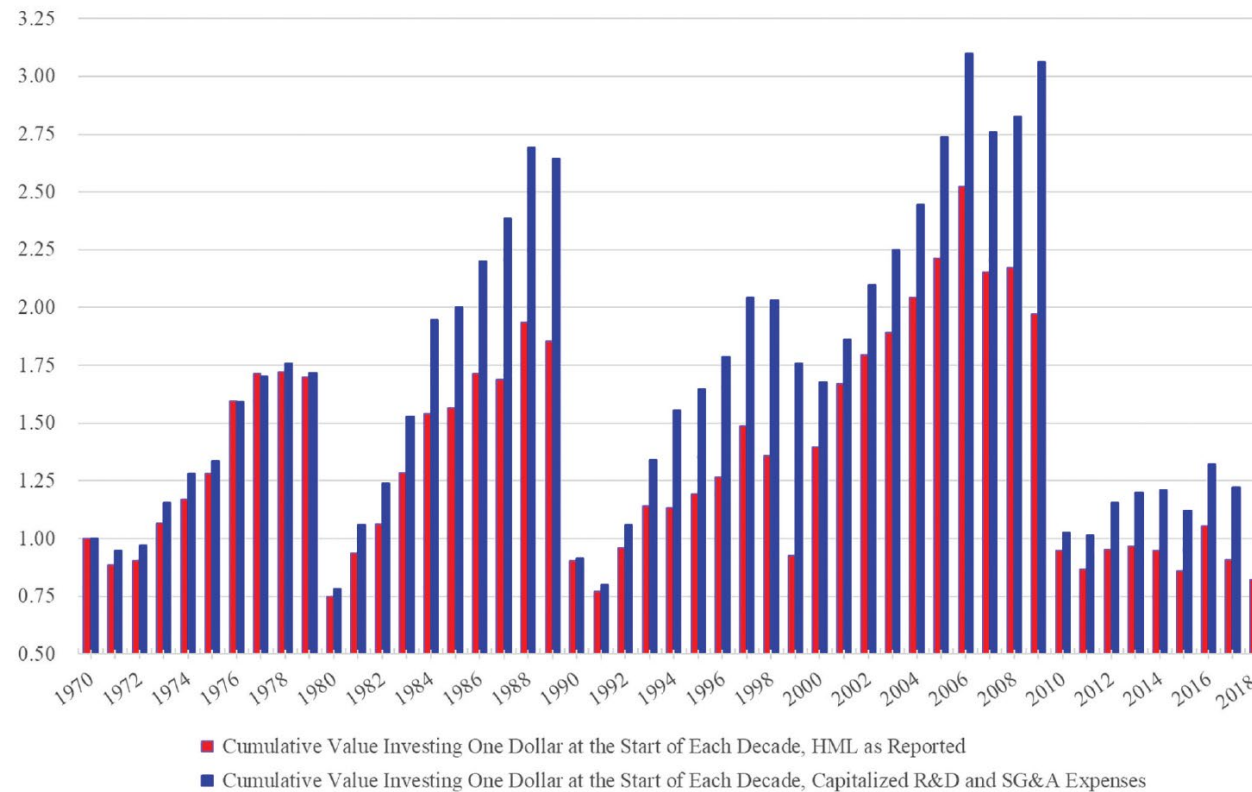
Source: Based on Feng Gu, Baruch Lev, and Chenqi Zhu, "All Losses Are Not Alike: Real versus Accounting-Driven Reported Losses," *Review of Accounting Studies*, Vol. 28, No. 3, September 2023, 1141-1189.

Note: GAAP=Generally Accepted Accounting Principles.

\* Firms matched by size, price/book, industry, and year.

# Implications for Investors – Relevance Found

## High Minus Low (HML) Factor Before (Red Bars) and After (Blue Bars) Capitalization of Intangibles



Source: Baruch Lev and Anup Srivastava, "Explaining the Recent Failure of Value Investing," *Critical Finance Review*, Vol. 11, No. 2, 2022, 333-360.

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**April 2025**

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