The Tech Star Keeps Burning Bright

The 2020 TMT Value Creators Report

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With a median five-year TSR (from 2015 to 2019) of 18.3%, technology finished third among 33 industries in value creation, its third consecutive year in the top five. The top-ten tech performers over that period provide a window into the state of the industry as we depart one decade and enter another. (See Exhibit 1.) In the 2010s, digital technology went mainstream. With the cloud, it went everywhere.

EXHIBIT 1 | Semiconductor and Subscription Businesses Lead the Way in TSR

Rank	Company	Headquarters	Segment	Average five-year annual TSR (%)[1]	Market value ($billions)[2]
1	Advanced Micro Devices	US	Semiconductors	76.6	51.1
2	Nvidia	US	Semiconductors	64.8	144.0
3	Sunny Optical Technology	China	Components	63.7	18.9
4	Luxshare Precision Industry	China	Components	50.0	28.0
5	Amazon	US	Cloud computing	42.9	916.2
6	Adobe	US	Software	35.3	159.1
7	ServiceNow	US	Software	33.0	53.2
8	STMicroelectronics	Switzerland	Semiconductors	32.5	24.0
9	Lam Research	US	Semiconductor equipment	32.0	42.4
10	Microsoft	US	Software	30.5	1,203.1

Sources: S&P Global Market Intelligence; annual reports; BCG analysis.
Note: Sample includes 94 companies.
[1]From January 1, 2015, to December 31, 2019.
[2]As of December 31, 2019.

The list's four semiconductor and semiconductor equipment players have deftly positioned themselves to catch the wave of swelling demand in the cloud, artificial intelligence (AI), and the Internet of Things (IoT). The four software and cloud computing firms, including the "retailer" Amazon, are built on subscription and consumption business models that generate recurring revenue and have supported massive growth. ServiceNow, the number-seven value creator, illustrates the stickiness of these services. It has achieved a retention rate of 98% among customers of its digital workflow cloud platform. (See "ServiceNow Means Business.")

SERVICENOW MEANS BUSINESS

Fred Luddy, the founder of ServiceNow, has been a believer in selling software on a subscription basis since long before the idea went mainstream. ServiceNow was founded in 2004 and has offered simple, intuitive workflow tools to corporations on a monthly per-user basis ever since.

ServiceNow made its mark by helping companies manage their IT help desk, but one-third of its business now comes from newer areas such as HR and customer service. The company's goal is to provide something akin to middleware to help companies manage their disparate business services solutions.

ServiceNow's success during its first decade as a company was relatively modest. It turned down a $2.5 billion offer from VMware in 2011 and went public the next year just as the consumerization of corporate IT was underway. Employees wanted to be able to get answers to their IT questions in as little time as it took them to hail a ride or change a password. ServiceNow's focus on simplicity played well during latter half of the 2010s, and the company closed the decade valued at $53 billion.

The list also provides a window into the potential success of renewal and transformation. Seven of the top-ten tech companies were average performers or worse in the prior five-year period, from 2010 to 2014. (See Exhibit 2.) Chipmakers Nvidia, Advanced Micro Devices, and STMicroelectrics have adapted their product portfolio and tightened their execution in line with shifts in demand. Adobe sharply pivoted away from boxed software and toward a subscription model. And after seeing its stock price languish for more than a decade, Microsoft has jumped back into the top ten on the strength of a reinvigoration of its culture and a transformation of its offerings and approach. Today Microsoft is more collaborative and open source than it was a decade ago.

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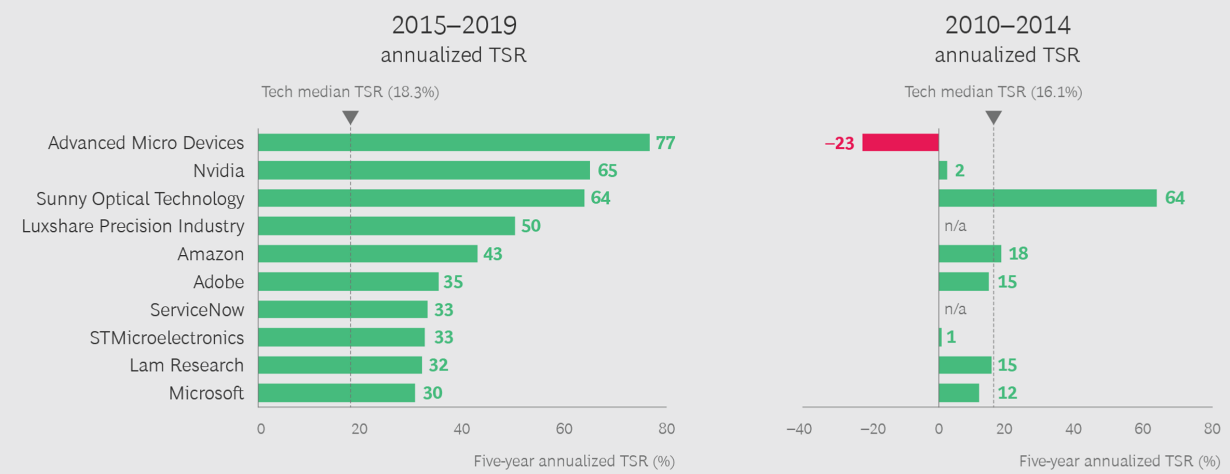
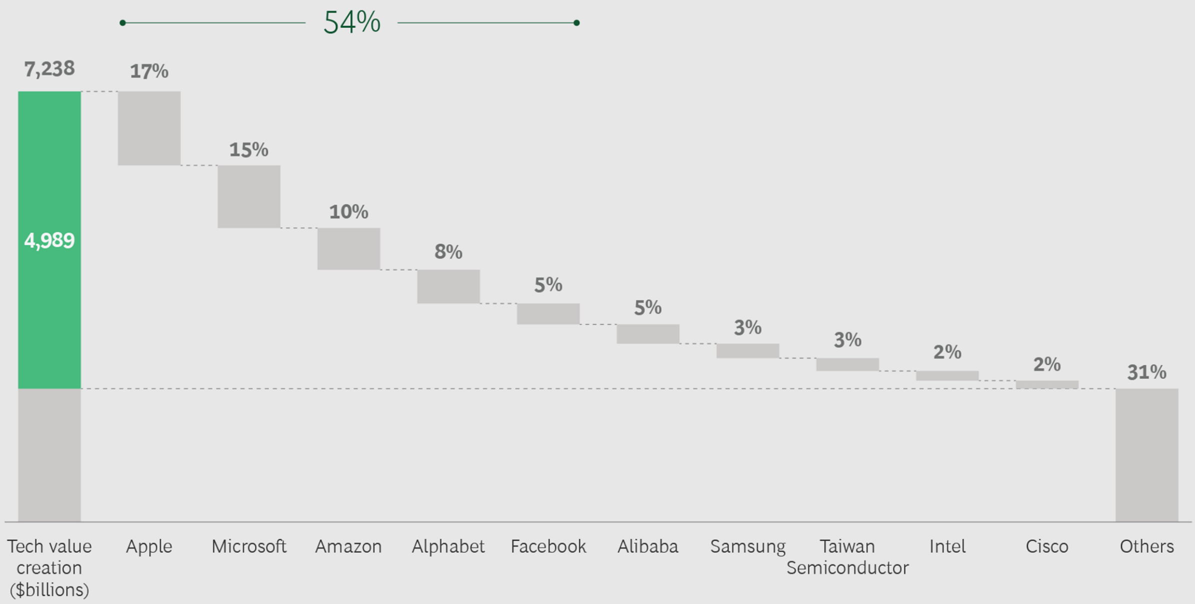
EXHIBIT 2 | Six of the Top Ten Underperformed in the Prior Five-Year Period



Sources: S&P Capital IQ; BCG ValueScience Center.
Note: Luxshare and ServiceNow were missing data for the prior five-year period, so information on them for the period 2010–2014 is labeled "n/a" (not available).

Microsoft is also a member—along with Apple, Amazon, Alphabet, and Facebook—of a familiar group of US tech companies that have built global platform businesses. This quintet generated 54% of the tech industry's absolute value over the five years from 2015 to 2019. (See Exhibit 3.)

EXHIBIT 3 | Five Familiar Faces Generated More Than Half of Tech's Value



Sources: S&P Global Market Intelligence; annual reports; BCG analysis.
Note: Sample consists of 94 companies. Value creation is computed by multiplying a company's market capitalization on December 31, 2014, by its five-year TSR CAGR. Figures are rounded to whole numbers.

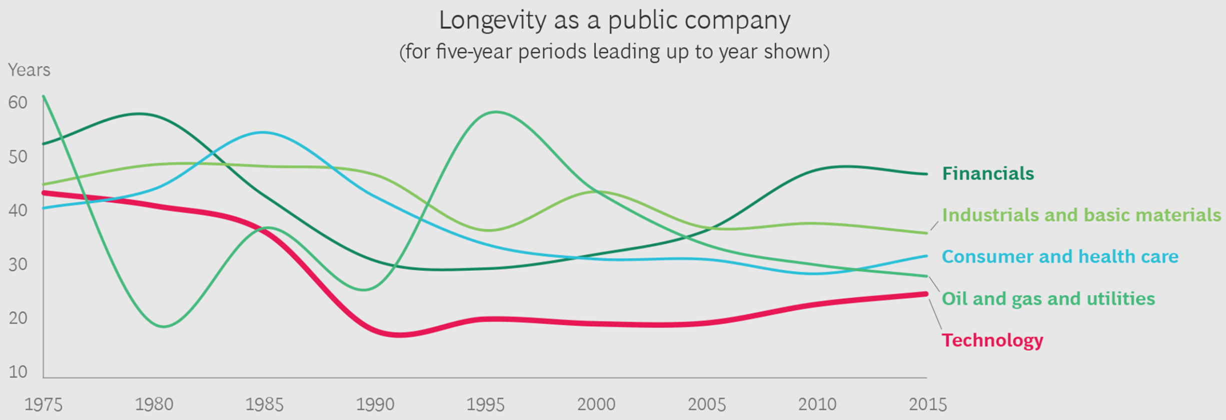
Amazon, the middle member of that list, is sandwiched between two industry elders, Apple and Microsoft, and two relative youths, Alphabet and Facebook.

Tech Grows Up

The tech industry itself is sandwiched between age and youth. Alphabet and Facebook aren't startups anymore. Alphabet is no longer run by its founders. Both companies are in the regulatory spotlight that IBM and Microsoft once occupied. They face familiar growing pains.

Tech is still a comparatively young industry. But despite the success of a few elders, it is also among the most brutal industries: its companies tend to have shorter lifespans as public companies than peers in other industries. (See Exhibit 4.) Our previous research also shows that tech companies' year-to-year performance can be highly volatile. But some of the largest companies are learning how to defy these forces, at least for now.

EXHIBIT 4 | Public Tech Companies Have Short Lifespans



Source: BCG Henderson Institute analysis.
Note: Longevity measures the average time of operating as an independent public company at the time of delisting.

To thrive over the medium and perhaps long term, tech companies must manage a portfolio of mature and emerging product lines. They need to be experts in pricing, tapping into the value that they create without the benefit of simple cost-plus rules. The largest ones need operating models that can manage organizational complexity and allocate capital smartly across diverse businesses. They need to adapt their marketing and sales strategies to keep pace with upstart rivals whose innovation extends beyond products to go-to-market and business models. And they have to do all this while motivating employees who increasingly value their mission as much as their compensation and who have more employment options than ever before. Getting all of this right—or right enough—enabled Microsoft to reemerge from the shadows of more youthful companies to generate outsize returns exceeding 30% annually over the past five years.

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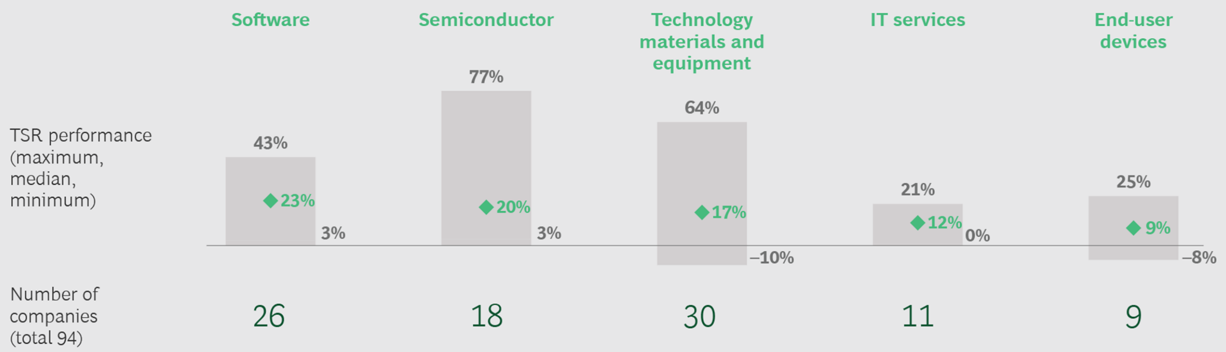
But not every company does get it right, and no company gets it right all the time. Although the software and semiconductor segments of tech had the strongest median performance from 2015 to 2019, large swings separated top and bottom performers in both (40 percentage points in software and 74 percentage points in semiconductors), as well as in technology materials and equipment (also 74 percentage points). (See Exhibit 5.)

EXHIBIT 5 | Software Is the Strongest Tech Segment by Median TSR Performance



Sources: S&P Global Market Intelligence; BCG analysis.

Overall, end-user device makers and IT service providers did not match the strong performance of other tech segments. Other than Apple and Sony, none of the companies in devices or IT services broke out of the pack. But Apple is obviously more than a devices business. Although it generates most of its revenue from selling end-user devices, Apple creates outsize returns by tightly integrating them with its software, platform, and ecosystem business. Other device businesses have not successfully replicated this formula.

A Social License

More so than its media and telecom counterparts, tech is a global business. Tech companies can take advantage of scale and emerging-market growth and hire the best engineering and scientific talent in the world.

These benefits come paired with burdens. Tech companies are exposed to geopolitical risk, as US semiconductor manufacturers are discovering. As our colleagues at the BCG Henderson Institute describe it, a global zeitgeist of risk and insecurity has emerged.

The definition of what constitutes a good company and a good investment in the 2020s is still emerging. The public expects good companies to produce good products, practice sustainability, generate value, and help society meet its biggest challenges, such as climate action and social and economic inclusion.

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The stakes are even higher for tech companies in light of even a partial list of the public debates in which they appear at center stage: privacy, corporate power, security, truth, AI bias, and automation.

In this hothouse environment, tech companies should aim to rediscover their fundamental purpose—what makes them uniquely able to fulfill specific human needs. Shareholder returns are a vital part of a company's raison d'être, but not the only part. A more expansive view of purpose recognizes that societal impact matters, too. Some tech companies are moving in the right direction; others have their work cut out for them. Their right to operate may depend on meeting this challenge.

The five-year records of success posted by many established tech companies suggest that others can strengthen their businesses, renew their social license, and start the 2020s on the right foot.

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