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SaaS and the Rule of 40: Keys to the critical value creation metric
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A playbook for newly minted private-equity portfolio-company CEOs
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Climbing the private-equity learning curve
CEOs who are used to engaging with public-company boards face a different paradigm when it comes to private-equity boards. Here’s what they can expect.

Winning at portfolio-company integrations
Private-equity firms use add-ons to scale portfolio companies, but poor integrations impact results. Five practices can ensure that deals flourish.
Welcome to the seventh volume of *McKinsey on Investing*, a compendium of our recent research and reflections relevant to investors. Colleagues from across the globe who specialize in a diverse array of disciplines, including private equity, asset management, and institutional investing, contributed to develop these insights.

As the world works its way through the effects, side effects, and aftereffects of the COVID-19 pandemic, we cannot help but feel fundamentally altered by this momentous challenge. Thus, the theme of this issue is the very topic that confronts all aspects of business and investing today: change.

We begin with two pages of notable facts and figures that reflect the dramatic effects the events of the recent past have had on global private markets. Our nine featured articles then examine change from three perspectives. The first three pieces look at how the world has changed and calls upon investors to change with it. In the center of this publication, readers will find 16 pages of insights from a broad span of McKinsey’s sector research, each focusing on a changing dynamic within an industry of interest to investors. Three featured articles go deeper into transformations occurring within industries that pose challenges and opportunities for private markets. The final three articles delve into ways private equity firms and their portfolio companies are modifying how they operate—and why.

Though the pandemic has consumed an enormous quantity of capital, focus, and capacity over the past two years, the dynamics reflected in these pages communicate an inspiring message: innovative minds across industries cannot be deterred from the pursuit of advancements.

We hope you enjoy this collection and also find it useful. Please let us know what you think: you can reach us at Investing@McKinsey.com. You can also view these articles and many others relevant to investing at McKinsey.com and in our McKinsey Insights app, available for Android and iOS.
Notable facts and figures

The recent past has been turbulent. We typically assess meaningful change in the industry over years or decades, but the pandemic and other events spurred reassessment on a quarterly or even monthly basis.

$14 trillion
Global government stimulus in 2020

5.4%
year-on-year pace of US inflation for both June and July 2021, the highest rate of inflation for the past 13 years

Mind the gap

Industry structure changes

8%
Growth in the count of active private market firms per year since 2015

9.1%
Growth in the count of private equity firms per year since 2015

–2%
Growth in the count of hedge funds per year since 2015

13%
Growth in North American asset managers’ AUM in 2020

7%
Growth in North American asset managers’ revenues in 2020
In 2020, private equity investment performance outpaced that of other private markets assets for the fourth consecutive year. Over the longer term, private equity has remained the highest-returning asset class in private markets since 2006.

How the world is changing

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The workplace will never be the same: Imperatives for real-estate owners and operators

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Women as the next growth market in US wealth management

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Ron O'Hanley of State Street on corporate resilience and ESG
The workplace will never be the same: Imperatives for real-estate owners and operators

The cubicle farm has to go. Offices should be places of magic.

by Vaibhav Gujral, Rob Palter, Aditya Sanghvi, and Alex Wolkomir
For investors and owners of office properties, 2020 was a roller-coaster year that left an unprecedented amount of office space empty for many months. Although working from home is a challenge for many knowledge workers, in a recent survey 72 percent said they love it. Many employees wonder if the typical office might become a thing of the past. At the same time, rents were paid at approximately 95 percent of normal levels during the year, and delinquencies of more than 30 days were consistently below 3 percent. All of this added up: office real-estate investment trusts lost 20 percent of the prepandemic peak of their unlevered value.

The unexpected experiment in remote working surpassed expectations because of the mass adoption of collaboration technologies. It reset expectations for the future because it opened up new possibilities for how much flexibility employees can have in choosing how and where to work. In fact, more than half of employees say that they would like their organizations to adopt more flexible models. Remote working has not been an overwhelming success, however, as issues of burnout and isolation have continued. A recent global study by the Harvard Business Review notes that 56 percent of workers surveyed said that job demands have increased. And the work-from-home experiment has helped certain populations more than others.

As occupiers reflect on the past year, they are trying to merge the best of the old ways of doing business with the best of what was learned during the pandemic. Many questions are swirling in the minds of office occupiers about how work should be done in the next normal, how to think about talent, what the role of the workplace should be, and how much real estate companies need.

Despite the experience of working from home for almost a year, the vast majority of organizations believe that the physical presence of workers is critical at some regular frequency. For example, recent Microsoft research on 122 billion email exchanges and 2.3 billion meeting interactions shows that although their number increased within employees’ immediate teams and close networks during remote work, interactions with secondary networks are shrinking. Moments of innovation and cross-pollination may not be happening. As evidence suggests that physical space is still needed, some of the companies that have announced permanent work-from-home options are simultaneously signing major leases or building new headquarters.

The future will be hybrid, but the proportions of work-from-home and in-office time are far from settled. This reflection is already leading many to focus on the in-person, face-to-face “moments that matter” for collaboration, alignment, community, and so on. Office investors are eager to see what these moments are and how frequently they occur—daily, weekly, monthly—to determine both the amount of space office tenants need and the designs and configurations that will promote the types of interactions tenants seek.

Much of today’s office space won’t meet the needs of tenants and workers in a hybrid world. There will be an oversupply of space and a scarcity of offices purpose-built for hybrid work. Spaces, designs, experiences, amenities, leases, food- and beverage options, and the like will have to be reimagined. In our view, owner/operators should adapt in five significant ways.

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3 Green Street.
4 Andrea Alexander, Aaron De Smet, Meredith Langstaff, and Dan Ravid, “What employees are saying about the future of remote work,” April 1, 2021, McKinsey.com.
6 “The next great disruption is hybrid work—are we ready?,” March 2021, microsoft.com.
Become a solution partner, not a negotiating foe
Most tenants do not yet know how to navigate hybrid work. Many risk drifting into a hybrid model in which they get neither the benefit of having everyone in person nor the benefit of full flexibility. Tenants need owner/operators to come forward with solutions rather than sit as foes across the negotiation table. Owner/operators will have to evolve their leasing approach to become more consultative. Leading owner/operators are already taking steps; for example, many are considering sensor technologies or analytics that use badge data to track occupancy and space usage for their tenants.

The most proactive owner/operators are going even further, building (or partnering with digital companies to build) tools that directly address their tenants’ needs for physical space—for example, understanding desk and conference-room usage patterns. Their aim is to deliver compelling value propositions that go beyond a mere “four walls” to solutions that create convenient experiences, measure in-space factors, and generate insights about what happens within those spaces. These owner/operators offer a digitally powered experience within a set of walls, fundamentally transforming the tenant relationship and the factors that drive leasing and renewal decisions.

Make the workplace magical
Occupiers will increasingly focus on making the workplace an exciting place to be, recognizing that the next-best alternative for most employees—their homes—has turned out to be better than they had imagined. Workers need a reason to get up, get dressed, and commute. Space should be purpose built for hybrid work. A food-and-beverage ecosystem of restaurants, lounges, cafeterias, pantries, all digitally accessible, has to emerge. The experience of the workday will become more digital: ordering food and concierge services, showing that you’ve complied with a building’s health and safety protocols, booking rooms and workspaces, and so on will need to be as easy as a tap on a smartphone. But the need for a digital experience is about more than just apps that help owner/operators communicate with users of space; it’s about services and experiences contextually embedded within the workplace through the digital layer of office buildings.

Cube farms have to go. The traditional allocation of 70 percent of space to desks and offices needs to be fundamentally challenged. People are going to return to the workplace only if the space is safe, comfortable, easy to navigate, invites collaboration, and offers a “wow” factor. Smart conference spaces, collaboration areas, and lounges (among

Much of today’s office space won’t meet the needs of tenants and workers in a hybrid world. There will be an oversupply of space and a scarcity of offices purpose-built for hybrid work.
other models) that inspire the collision of ideas and creativity will come to define the floor plate, depending on the nature of work taking place. Leading owner/operators are providing their tenants with the means to generate this magic.

**Expand flexibility**
The new leasing models of recent years were just a start—flexibility will expand even more. On lease structures, owner/operators could begin to experiment with innovations as retailers have. When lessors help a hybrid workforce adapt to new ways of working, they will want greater variability both in the amount and type of space they rent and in the timing of their requirements in a given week or month. As organizations experiment with new models and rediscover their corporate identities after the pandemic, they will seek space that can expand, contract, and evolve with their new image. Niche work models once associated solely with coworking players will probably become more common and will come directly from owner/operators as they take on collaborative postures with their tenants.

**Emphasize tenant selection**
Not all commercial office tenants are created equal. Owner/operators will need to think about the mix of tenants and the importance of physical space to their business models and ways of working. Owner/operators that can thoughtfully lease space with these considerations in mind will ensure a “stickier” set of leases to support their business in coming years. Industries, job types, and companies are adapting to hybrid work in different ways. To ensure long-term performance and sustained occupancy levels, it will be vital to take the pulse of tenants to learn what they are thinking and what their people are doing in the office (such as collaborative tasks that require in-person work or sales calls that could be done from home). Just as mixed-use spaces can help hedge the risk of real-estate assets, mixed tenant types provide owner/operators with a hedge for long-term occupancy trends.

**Reimagine operations**
During the lockdowns at the height of the pandemic, owners and operators had to evolve new ways of working to service their buildings. From leasing to property management to the tenant experience, the way companies operate day-to-day can become hybrid with the right kind of digitization. Owners and operators must both adapt to and embrace these new models of operations if they are to improve the tenant experience, gain cost advantages, and strengthen the efficiency and experience of their own people. For example, perhaps some property-management services could be delivered by technology to several buildings rather than by staff in an individual building. Leading players are using this moment to test and install new technologies that optimize operations, from energy usage to predictive staffing and maintenance. Many tenants are still not back in the office, so owner/operators are piloting new configurations of their teams and new technologies. Findings from these experiments will prove invaluable and put these owner/operators a step ahead of their peers in the coming months.
Women as the next growth market in US wealth management

An unprecedented amount of assets will shift into the hands of US women over the next three to five years, representing a $30 trillion opportunity by the end of the decade.

by Pooneh Baghai, Olivia Howard, Lakshmi Prakash, and Jill Zucker
Attracting and retaining female clients will be a critical growth imperative for wealth management firms. To succeed, firms will need to deeply understand women’s differentiated needs, preferences, and behaviors when it comes to managing their money. Firms can then diversify their offerings and commit to a systematic approach to winning with women.

As part of recent McKinsey research on affluent consumers, we surveyed over 10,000 affluent investors, nearly 3,000 of them female financial decision makers. We also leveraged analysis from McKinsey’s proprietary PriceMetrix solution. The resulting insights, highlighted in this article, provide a rich view into affluent women as investors.

For decades, wealth management has been a male-dominated endeavor. Not only are the vast majority of financial advisers men (female representation is just 15 percent across channels), but also the customers making financial decisions are far more likely to be men than women. In two-thirds of affluent households in the United States, men are the key financial decision makers. But this is about to change.

Women as the new face of wealth

Today, women control a third of total US household financial assets—more than $10 trillion (Exhibit 1). But over the next decade, large sums of money are expected to change hands. The biggest driver of this shift is demographics. Today, roughly 70 percent of US affluent-household investable assets are controlled by baby boomers. Furthermore, two-thirds of baby-boomer assets are currently held by joint households (where a female is present but not actively involved in financial decisions), meaning that roughly $11 trillion in assets are likely to be put into play. As men pass, many will cede control of these assets to their female spouses, who tend to be both younger and longer lived. In the United States, women outlive men by an average of five years, and heterosexual women marry partners roughly two years older than they (Exhibit 2). By 2030, American women are expected to control much of the $30 trillion in financial assets that baby boomers will possess—a potential wealth transfer of such magnitude that it approaches the annual GDP of the United States. After years of playing second fiddle to men, women are poised to take center stage.

Along with these demographic changes among older women, younger affluent women are getting more financially savvy. Compared with five years ago, 30 percent more married women are making financial and investment decisions, according to recent McKinsey research on affluent consumers. And more women than ever are the family breadwinner, spurring growth in their investable assets. Indeed, McKinsey’s 2019 Women in the Workplace survey indicates that there has been a significant increase in the share of women in corporate America—and in the upper echelons of management. For example, 44 percent of companies have three or more women in their C-suite, up from 29 percent of companies in 2015.

All these changes represent a critical inflection point for the financial-services industry. When affluent women take over financial decision making for a household, they typically seek out new wealth-management relationships to better suit their needs. Women are more likely than men to feel they have a critical gap in meeting their key financial goals. This is especially true for widows: 70 percent of women switch their wealth relationship to a new financial institution within a year of their spouse’s death.

1 McKinsey affluent consumer research survey, conducted in conjunction with Dynata, 2018; n = 9,434 individuals aged 25 to 75 with investable assets between $100,000 and $5 million, including 2,000 respondents between $1 million and $5 million. Total respondents included 2,889 women and 6,545 men. Key financial decision makers are those who indicated making all or most investment and financial decisions or indicated high levels of familiarity when decision making is shared equally in relationship.

2 Federal Survey of Consumer Finances; respondents reported at least $100,000 in wealth and were 25 to 75 years old.

3 McKinsey PriceMetrix, 2019. PriceMetrix is an integrated data and business intelligence platform for the wealth management industry. This analysis includes US industry surveyed households with $100,000 to $10 million in personal investable assets.


Today, women in the United States control $10.9 trillion in assets.

### Exhibit 1

<table>
<thead>
<tr>
<th>Asset band</th>
<th>Women</th>
<th>Men</th>
<th>Share controlled by women, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000–$249,999</td>
<td>1.1</td>
<td>1.4</td>
<td>43</td>
</tr>
<tr>
<td>$250,000–$499,999</td>
<td>1.5</td>
<td>2.9</td>
<td>33</td>
</tr>
<tr>
<td>$500,000–$999,999</td>
<td>2.9</td>
<td>4.9</td>
<td>37</td>
</tr>
<tr>
<td>$1,000,000–$2,499,999</td>
<td>2.6</td>
<td>7.9</td>
<td>10.5</td>
</tr>
<tr>
<td>$2,500,000–$4,999,999</td>
<td>1.3</td>
<td>4.4</td>
<td>23</td>
</tr>
<tr>
<td>$5,000,000 or more</td>
<td>1.5</td>
<td>4.0</td>
<td>39</td>
</tr>
<tr>
<td>Total</td>
<td>10.9</td>
<td>24.0</td>
<td>34.9</td>
</tr>
</tbody>
</table>

Note: Figures may not sum, because of rounding.
Source: Federal Survey of Consumer Finances: $100,000+ in wealth and 25–75 years old; McKinsey analysis: n = 9,434 ($100,000+ in investable assets and age 25–75); women n = 2,889, men n = 6,545

### Exhibit 2

**Women in the United States are well positioned to capture a significant share of money in motion.**

- **5 years**
  - Additional years of life expectancy for women in the United States compared with men
- **30%**
  - Increase over the past 5 years in married women making financial household decisions
- **70%**
  - Share of women who change advisors within 1 year of their partner dying

Source: McKinsey analysis: n = 9,434 ($100,000+ in investable assets and age 25–75); women n = 2,889, men n = 6,545

The COVID-19 crisis will likely accelerate the amount of “money in motion.” First, as clients reevaluate their financial circumstances, we expect firms to see higher churn. During previous economic recessions, there have been upticks in transfers of assets, with clients seeking advisers who can better help them navigate the new normal. Second, the COVID-19-driven economic uncertainty is fueling an increased demand for advisers among people who don’t have one currently. In recent surveys taken during the global pandemic, 30 percent of consumers without financial advisers said they planned to actively seek one in the next year. Over the next three to five years, as women increasingly take responsibility for making their households’ financial decisions, they will become the critical battleground for wealth-management firms. Many leading companies have already articulated their commitment to meeting women’s needs. They have experimented with new product offerings, hired more female advisers, and launched...
financial-literacy and community-outreach events that reiterate the importance of serving women as clients. And there certainly has been no shortage of marketing campaigns that feature women setting up retirement plans, purchasing insurance, or buying houses.

However, such measures are no longer enough. As wealth begins to pour into the hands of women, firms will need to commit to a much more systematic approach—transforming their business and client-service models in ways that will acquire, retain, and serve women as long-term investors. Other previously male-focused industries, such as automobiles and real estate, have revamped their product and service models to meet women’s needs. For instance, the real estate industry, recognizing that there are more single female buyers than male buyers, moved from a focus on married couples to creating powerful value propositions for single women looking to become home owners. Now the time has come for wealth-management firms to refresh their offerings. Firms that wait too long risk losing out on the next leg of growth.

The prize is substantial. Analysis by McKinsey’s PriceMetrix indicates that simply by retaining baby-boomer women (the segment we see being most at risk of churning) as clients, firms could see one-third higher revenue potential. In addition, firms that acquire and retain younger women—especially millennials—as clients could see up to four times faster revenue growth. Indeed, a PriceMetrix analysis of advisers who are winning with this small but influential segment of younger women (today representing just 15 percent of affluent households’ investable assets) reveals annual revenue growth of 5 percent, outperforming the industry average of 1 percent. Interestingly, these advisers tend to be less tenured.

To rise to the challenge, wealth-management firms must deeply understand women’s differentiated needs, preferences, and behaviors when it comes to managing their finances. Based on McKinsey research conducted in partnership with Dynata, we surveyed over 10,000 affluent investors, nearly 3,000 of them female financial decision makers; here we offer a dynamic view into affluent women as investors.

**How women manage their money differently than men do**

Affluent women approach wealth management somewhat differently than their male counterparts. As a group, they are more likely to seek professional advice and less likely to feel confident about their own skill at financial decision making. Female decision makers tend to be less risk tolerant and more focused on life goals. In seeking an adviser, they tend to place more emphasis on a personal fit and are more likely than males to identify a life event as their motivation to seek guidance.

**Greater demand for advice**

Compared with males, affluent female financial decision makers are likelier to have an adviser. They are also more willing to pay a premium for in-person financial advice. In fact, according to our research, older affluent women are twice as likely as older affluent men to favor paying a 1 percent or higher fee for an account managed by a financial adviser, versus paying ten basis points for a digital-only service.

**Lower financial self-confidence**

In our survey, many women self-report lower confidence in their own financial decision making and investment acumen. Only a quarter of affluent women say they are comfortable making investment and savings-related decisions on their own—15 percentage points lower than their male counterparts.

While socially ingrained gender roles and other factors undoubtedly play a role in these self-reported measures, the gap between female and male self-confidence highlights the need for advisers to do a better job of helping women meet their goals and build trust in their own financial literacy. Indeed, roughly half of all female financial decision makers say they feel unprepared for their financial goals despite having a financial adviser.

**Less risk tolerance**

Women are nearly ten percentage points less likely than men to say they would take big investment risks for the potential of higher returns. According to recent McKinsey research on affluent consumers, they tend to prioritize capital protection over alpha generation and are more likely to manage their
money through passive instead of active investment strategies—favoring lower-cost exchange-traded funds over mutual funds, for example.

**Greater focus on real-life goals**
Although many women would be happy to outperform the stock market, it’s not the primary goal for most (Exhibit 3). Instead, retirement is a big theme. Women are roughly ten percentage points more likely than their male counterparts to say they are concerned about outliving their assets in retirement and having enough savings for retirement. Health also is top of mind: women are more likely than men to worry about the cost of health care, paying for long-term care insurance, and being a burden on others later in life. In addition to these long-term goals, our research shows that women also want more help with cash management and other day-to-day finance needs.

**Desire for a personal fit with an investment adviser**
While most women do not explicitly look for female advisers, many place a high value on establishing a personal connection with their adviser. Roughly a third of affluent women say they would only work with an investment professional they trust, roughly ten percentage points more than men. Over half say the same about a good personality fit (Exhibit 4).

If women don’t feel they have this kinship, they are more likely than men to switch advisers, according to McKinsey research. An older male client, for instance, told us he was moving to a new financial institution after years with the same adviser because he wanted his wife to find someone she trusted before he passed away. One adviser built a fast-growing book of business by providing financial advice to women she had a connection with—other moms at the school her child attended.

**Pivotal life moments as a driver**
Consumers are more likely to seek a wealth relationship after a major life experience, such as a marriage, promotion, divorce, or the loss of a loved one. For women, divorce is a particular differentiator. Women often experience greater financial impacts from divorce or separation than men and are twice

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**Exhibit 3**

**Women in the United States tend to be more concerned than men about meeting their financial goals.**

<table>
<thead>
<tr>
<th>Category</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>41.8</td>
<td>47.7</td>
</tr>
<tr>
<td>Outliving assets in retirement</td>
<td>35.7</td>
<td>46.4</td>
</tr>
<tr>
<td>Savings for retirement</td>
<td>38.7</td>
<td>46.3</td>
</tr>
<tr>
<td>Lifestyle maintenance</td>
<td>38.6</td>
<td>45.7</td>
</tr>
<tr>
<td>Poor market performance</td>
<td>32.8</td>
<td>44.0</td>
</tr>
<tr>
<td>Rainy-day fund</td>
<td>33.2</td>
<td>41.2</td>
</tr>
<tr>
<td>Tax reduction</td>
<td>32.4</td>
<td>37.5</td>
</tr>
<tr>
<td>Day-to-day expenses</td>
<td>26.7</td>
<td>33.0</td>
</tr>
<tr>
<td>Long-term-care insurance payments</td>
<td>22.3</td>
<td>29.2</td>
</tr>
<tr>
<td>Family cover should something happen</td>
<td>30.1</td>
<td>33.8</td>
</tr>
</tbody>
</table>

Note: Charts show share of survey respondents that “strongly agreed” or “agreed” with each statement. Source: Federal Survey of Consumer Finances: $100,000+ in wealth and 25–75 years old; McKinsey analysis: n = 9,434 ($100,000+ in investable assets and age 25–75); women n = 2,889, men n = 6,545
as likely as men to cite divorce as the reason for opening a new investment account. The dissolution of a marriage is an even more powerful driver of switching financial advisers than the loss of a loved one.

To address the unique needs of divorcées, some firms and advisers have built successful specialty service offerings. One registered investment adviser (RIA) that McKinsey interviewed saw double-digit growth in assets under management over a year by creating a compelling value proposition for women undergoing divorce. To help women navigate their settlements and chart a course of financial independence, the firm paired its financial planners with a suite of experts, including certified divorce financial planners, divorce attorneys, therapists, and real estate brokers.

The playbook for capturing the industry’s new growth customer

Despite efforts to engage female customers, most wealth managers are still not fully meeting women’s needs. Many married women, for instance, told us they often feel shut out of household wealth discussions; they said adviser teams reached out to them infrequently or only on matters of day-to-day cash management, rather than bigger investment decisions. We’ve also heard through our field interviews with RIAs that many of their new female clients came to them from other firms, where they

Exhibit 4

Women in the United States—more so than men—seek hyper-personalized, outcome-based financial advice that meets their real-life goals.

Share of respondents who agree with each statement, %

Women express a greater need for a wealth relationship …

<table>
<thead>
<tr>
<th>% by asset band</th>
<th>Believe it is extremely important to find an investment professional who is a good personality match.</th>
<th>Right now, think it is more important to protect my wealth than to grow it.</th>
<th>Would only work with an investment professional who was recommended by someone I know and trust.</th>
<th>Prefer to invest in outcome-oriented products designed for my goals (eg, retiring in 2030).</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100,000–$249,999</td>
<td><img src="chart1.png" alt="Chart" /></td>
<td><img src="chart2.png" alt="Chart" /></td>
<td><img src="chart3.png" alt="Chart" /></td>
<td><img src="chart4.png" alt="Chart" /></td>
</tr>
<tr>
<td>$250,000–$499,999</td>
<td><img src="chart5.png" alt="Chart" /></td>
<td><img src="chart6.png" alt="Chart" /></td>
<td><img src="chart7.png" alt="Chart" /></td>
<td><img src="chart8.png" alt="Chart" /></td>
</tr>
<tr>
<td>$500,000–$999,999</td>
<td><img src="chart9.png" alt="Chart" /></td>
<td><img src="chart10.png" alt="Chart" /></td>
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</tr>
<tr>
<td>$1,000,000–$2,499,999</td>
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<td><img src="chart14.png" alt="Chart" /></td>
<td><img src="chart15.png" alt="Chart" /></td>
<td><img src="chart16.png" alt="Chart" /></td>
</tr>
<tr>
<td>$2,500,000–$4,999,999</td>
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<td><img src="chart18.png" alt="Chart" /></td>
<td><img src="chart19.png" alt="Chart" /></td>
<td><img src="chart20.png" alt="Chart" /></td>
</tr>
<tr>
<td>$5,000,000–or more</td>
<td><img src="chart21.png" alt="Chart" /></td>
<td><img src="chart22.png" alt="Chart" /></td>
<td><img src="chart23.png" alt="Chart" /></td>
<td><img src="chart24.png" alt="Chart" /></td>
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</tbody>
</table>

Note: Charts show share of survey respondents that “strongly agreed” or “agreed” with each statement.

Women express a greater need for a wealth relationship …

<table>
<thead>
<tr>
<th>% overall</th>
<th>Am confident I will achieve my goals, when I think about my financial future.</th>
<th>Am very comfortable making important investment/savings decisions on my own, without the help of a professional advisor.</th>
</tr>
</thead>
<tbody>
<tr>
<td>51</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

Women and emphasize hyper-personalized, outcome-based financial advice that meets real-life goals.
didn’t feel they could ask basic financial-literacy questions or spend enough time with advisers to find the right financial plan to meet their goals.

Such gaps have created a flurry of new firms catering to women. Many of these have experienced rapid growth, though none have yet achieved significant scale. Nor have any incumbents quite cracked the code. Surprisingly, there is little difference in the rate at which established firms are serving women. When it comes to millennial women as a percent of total client base, for example, most firms cluster around an average high watermark in the low teens, according to PriceMetrix; a similar pattern exists for other female segments.

As unprecedented sums of assets shift into the hands of women over the next decade, wealth-management firms have a choice. If they want to attract and retain female customers and capture some of the trillions up for grabs, they will have to diversify their offerings and commit to a much more systematic approach (see sidebar, “Questions for management teams”). This will include making changes across multiple areas—go-to-market, people and practice management, value propositions, and technology—and supporting new initiatives with change-management levers like incentives. Additionally, because there is no silver-bullet solution, a commitment to testing and learning will be critical. For example, pilots for new pricing models, adviser incentives and teaming models, client perks and benefits, and segment-specific value propositions will allow firms to identify successful strategies.

Yet the winning playbook is more than a few pilots. It is a multiyear approach incorporating a dozen distinct modules that firms can roll out over three sequential phases (Exhibit 5):

1. Adapt to better meet the needs of current female clients, with a sharpened value proposition across distinct segments.

2. Evolve client service and business models to put women’s needs front and center, with aligned pricing and compensation models.

3. Leap to transform the value proposition and fundamentally rethink how the firm creates value for the women they serve, while extending the footprint into white spaces via new business builds and digital extensions.

Questions for management teams

— Where are we in the journey to win with women? If we are honest with ourselves, have we had the impact we aspired to?

— Do we have a go-forward playbook we are methodically executing, module by module? Are we tracking our results in a systematic way across the measures that matter?

— Have we piloted new compensation and incentive structures to attract and retain more diverse field talent? How are we seeking to build capabilities among advisers and the rest of the firm?

— When we lose an account or see a large transfer of assets following a key life event (eg, loss of a loved one, divorce), do we systematically capture the feedback to inform our go-forward strategy?

— Have we piloted new service and product offerings and corresponding pricing models for segment-specific client acquisition (eg, “white glove” subscription models for high-net-worth women)?

— Do we have a segmented view of our client base by gender and household composition, with a dedicated strategy to win with each segment (eg, joint baby-boomer households, millennial women)?
Winning with women will take a multiyear approach across three sequential phases.

**1: Adapt**
Better meet the needs of women you serve today with a sharpened value proposition

- **Go-to-market**
  Segment existing client base to prioritize women with differentiated needs and growth potential (eg, divorcees, widows, executives, single mothers)

- **People/practice management**
  Identify “change champion” advisors who have won with female investors. Set up branch townhalls so these advisors can educate peers about women and their needs

- **Value proposition**
  Pilot new product/service offerings and pricing models—eg, advisory fees for personalized, higher-touch “subscription service” models

- **Technology**
  Roll out change-management levers to boost adoption of current digital and advanced-analytics tools to enrich client experience for women—eg, DTC email marketing, outcome-based financial plans, text alerts on major life events, real-time trade receipts for fee transparency

**2: Evolve**
Tailor client service and business model to put women’s needs front and center, expanding your reach

- **Go-to-market**
  Bring on team of experts to support advisors in offering segment-specific advice—eg, divorce attorneys and certified divorce financial planners for divorcees; other benefits/perks

- **People/practice management**
  Pilot new incentives to diversify field—eg, bonuses for advisors ceding AUM to female advisors in succession planning, “return to work” for working mothers, sponsored CFA certification courses

- **Value proposition**
  Pilot new client-service models—eg, “full household” financial planning (dual-spouse goal-setting); add-on service offerings with networking and educational events; passive-only investment vehicles

- **Technology**
  Develop digital and advanced-analytics tools to enable financial advisors to grow female business—eg, asset-aggregation tools, smart CRMs to enable acquisition of women likely to leave existing wealth relationships after lifetime events (eg, loss of loved one, promotion, marriage), “refer a friend” marketing

**3: Leap**
Transform value proposition, fundamentally rethinking which women you serve and how you create value for them—extending your footprint

- **Go-to-market**
  Identify underserved “white space” segments of women and design new business to capture them—eg, build digital-attacker business for millennial women, or buy/partner to do so

- **People/practice management**
  Roll out new compensation structures and formalize suite of field-diversification levers, including female advisor-led recruiting, “challenger” competitions for advisors with female hires, discretionary retention bonuses for tenured females

- **Value proposition**
  Craft new value proposition (brand, service model, advice, benefits/perks) and monetization model for business—eg, tiered “subscription model” offerings for women, women-only events

- **Technology**
  Build new, innovative digital business to support longer-term growth—eg, data and advanced-analytics-enabled delivery of hyper-personalized, on-demand “Netflix-like” advice to meet women’s needs; next-gen hybrid robo-advice models, with simulated in-person sessions

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Getting this playbook right and creating a winning value proposition for women will be mission-critical for firms to see the next leg of growth over the next five years and beyond. Further, wealth managers that succeed in acquiring and retaining women will also have a replicable road map for connecting with other growing customer segments, such as millennials and Gen Xers.

Pooneh Baghai is a senior partner in McKinsey’s Toronto office, and Olivia Howard and Lakshmi Prakash are consultants in the New York office, where Jill Zucker is a senior partner.

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Ron O’Hanley of State Street on corporate resilience and ESG

The CEO of the US financial giant reflects on the lessons in managing environmental, social, and governance risks that the pandemic delivered to global business.
As chairman and CEO of State Street Corporation, Ron O’Hanley oversees one of the largest and oldest American financial institutions, with $38 trillion in assets under custody and administration, and $3.5 trillion in assets under management. In this episode of the Inside the Strategy Room podcast, he tells Celia Huber, who leads McKinsey’s board services work in North America, why State Street’s focus on environmental, social, and corporate governance (ESG) issues has grown dramatically, what gaps in corporate America’s resilience the COVID-19 pandemic has revealed, and how State Street is disrupting its own business. This is an edited transcript of the discussion. You can subscribe to the series and listen to the full episode on your preferred podcast platform.

Celia Huber: Ron, how has the pandemic affected your industry and State Street specifically?

Ron O’Hanley: We do these tabletop exercises, “What are the key risks?” and a pandemic was one of them, but I don’t think anybody had any idea what it would mean for most businesses. For us, the impact was a bit counterintuitive because when the pandemic hit, economic activity shut down but our activity went up because as markets were reacting, raising transaction volumes and volatility, that’s when we get busy. So here we are in March, sending home about 90 percent of our people and being told by almost every country we operate in that we are designated as essential. In many countries, it was impossible for us to keep people in the office given the epidemiological conditions. We have a big operation in China with 3,000 people, which we had to shut down in two days, so we got a flavor of the pandemic’s impact. I would like to say that this helped us get ready, but we did not anticipate the pandemic would move on like it did.

It was a good test of resilience and that is the biggest lesson coming out of this. The resilience I mean is the quite narrow operational resilience. It is the reason why we are a Global Systemically Important Financial Institution. Therefore, we have put a lot of money into technology and resilience, and the good news is it paid off. This point around resilience is something business and society need to be thinking through because it’s great that global policy makers and central banks are making these extraordinary moves, but at some point you have to ask: Wouldn’t we have been better off having invested in our public health infrastructure?

I would make the same resilience point regarding capital. The banking industry was forced to recapitalize after 2008 and that was appropriate given the size of these institutions, the scope of their activities, and those activities’ inherent and unknown risks. But most businesses are carrying far less capital now and you have to ask: Are we going to run the world anticipating that there will be the kind of government interventions we have seen to make up for the lack of investments in resilience? Boards have to look at it too. How do you think about a stock buyback, for example, versus investing it in shoring up the company’s resilience?

Celia Huber: In your broader role as an investor and a board director, what ESG implications has the pandemic highlighted?

Ron O’Hanley: We all have our moral views, but as an investor I think of it as part of the investment risk framework. As recently as five years ago you would hear, “Here is our asset allocation, and that’s all properly done, and let’s leave a little over here for speculation and a little over here to do good things.” That was ESG. I call that the “thou shalt not” stage—thou shalt not invest in sin stocks, for example. The second stage was “thou shalt,” so thou shall invest in good things. Now, we have to look at portfolios and say, where is the ESG risk? How am I going to think about managing that risk either through diversification or by working with my holdings and, as a large institutional investor who can swing some weight, get them to take action?

The big index funds were early on this, which is a bit counterintuitive because they are supposed to be passive investors. But a passive investor has to own every company in the index. We have a large index business and I cannot get upset with a company and say, “From now on, it’s the S&P 499. We’re not going to own that stock.” Therefore, it’s the closest thing to permanent capital in the public markets.
‘When was the peak market capitalization for coal? Everybody gets it wrong and usually by decades. It was in 2011. What did the investors who were buying in 2011 not know or should have known in relation to the E part of ESG?’

Index managers said, “We don’t have the tool of divestment so we have to be engaged with these portfolio companies.” And engagement meant starting to push on these ESG factors.

Early on, it was around the G element: governance. Much of that was informed by the corporate scandals that happened 20 years ago: what is the oversight model and how does it work, board hygiene kinds of things. Now the attention has moved to the E element and much of that is practical. I always use the example of coal. When was the peak market capitalization for coal? Everybody always gets it wrong and usually by decades. It was in 2011. What did the investors that were buying in 2011 not know or should have known in relation to the E part of ESG?

Risk management is nothing more than the statement that more things can happen than will happen and incorporating those risks into the portfolio framework. Some are obvious. If you are a big real estate investor, you want to get a read on the risk of some properties being underwater or unattractive because they frequently flood or the shoreline has moved. Some considerations are more subtle. If I own a chemicals company and its feedstocks include petrochemicals, those may become far more costly or even may be legislated out of production.

Boards initially thought similarly to the investment community. “We ought to have a sustainability committee, which is our feel-good committee, and they will make sure we are doing the right things.” Increasingly, the conversation we have at State Street and on another board I sit on is, how do we make sure that all these ESG risks are incorporated into the charters and oversight of the various committees?

Celia Huber: What is your advice for CEOs and management teams on how to convey those concerns to the board or investors?

Ron O’Hanley: Framing it in terms of risk is the best way to do it because CEOs and boards are used to thinking that way. If you frame it in any other way, it becomes a values argument. Values are important, but this is a value argument: What is this business worth if our beliefs about where the sea level will be or the cost and availability of certain fossil fuel change over the long term? By the way, we have only talked about G and E. The S is the latest frontier. I don’t think even three years ago it was inherently obvious why that element would be equally important to the other two, but it is. I heard a statistic that 50 percent of the elementary school children in the United States are non-white. If you are a retailer, this is a sign that your customer base is changing. Have we thought about who manages and oversees this company? Have we thought about product development?

The idea of stakeholder capitalism has become a lightning rod, but my view is simple: we are not going to maximize shareholder value if we disregard the
rest of the stakeholders. At State Street, we are a talent-based business. If we do not attract and retain the best talent, our shareholders will suffer. Our investors are very worried about these E, S, and G issues, and if we do not pay attention to them, we will not have a customer base.

Celia Huber: I want to pull on the thread about the customer base and talent pool changing. State Street has made some bold stands, including the sponsorship of the Fearless Girl statue on Wall Street in 2017 that faces the bull. What motivated that?

Ron O’Hanley: The Fearless Girl had modest beginnings. We were formally incorporating women on boards into our stewardship guidelines, and not just the number of women but the organizations’ efforts to build board diversity. One of my colleagues had the idea of sponsoring the statue to coincide with International Women’s Day to underscore the importance of boards making this change happen. It was put on Wall Street not to challenge the bull but to illustrate that the way we would make inroads is not by having regulators tell us what to do but by boards incorporating that commitment into their oversight models.

The statue ended up getting a permanent spot and has been the most dressed up statue in New York, everything from a St. Patrick’s Day headdress to Ruth Bader Ginsburg’s neckwear. The addition of the shattered glass ceiling was quite intentional, too, to celebrate the progress on gender, most recently in the last election. Again, I come back to value versus values. One of my values is that diversity is good, but this is about the fact that more diverse boards and management teams lead to better long-term outcomes.

Celia Huber: Tell us a bit about State Street’s strategy. What parts that you put in place before the pandemic are still relevant and how did you work with your top team to adapt your strategic priorities?

Ron O’Hanley: I had two years before the pandemic hit when I could focus deeply on our strategy. There are two parts to our business: asset management and investment services. The latter one is about 80 percent of what we do and it’s about the infrastructure of capital markets. It’s a great business but it was changing. Many areas that once drove growth were no longer there. The professionalization of investing throughout the world meant that there were not many mutual funds or fund ranges, for example, that had not already been formed.

Another change was that many investment organizations had grown from small boutiques into massive enterprises but their technology and operations reflected their boutique origins. State Street Global Advisors [the investment management arm] is an example. When I got here, it was a 50-year-old firm and it had three order-management systems and 19 risk systems. It wasn’t just a tech budget run amok; as we grew, we added on what we needed because few commercial options existed. Now, the investment industry is facing the same challenge that virtually every other industry has around data. It is a combination of having the right data and managing that flood of data that we have. These technologies were not working with each other and were creating operational issues.

So, as part of our strategy in 2018 and 2019, we started pivoting to become an enterprise outsourcer to these firms in addition to our core infrastructure and back-office services. We identified what we didn’t have, built a lot out organically, and acquired Charles River Development to create a front-to-back enterprise outsource offering. When the pandemic came, we recognized a couple of challenges. One, 2020 was a very ambitious year for us in terms of technology and software delivery, and two, we had many conversations under way that we were uncertain we could continue. Anybody that is either an outsourcer or has outsourced something knows there is a big “solutioning” part to the sales cycle and we were not sure how we would do that remotely. Remarkably, it worked. We have a client now that we started talking to in April of last year and only one of us has ever met with this institution physically.
In March and April of 2020, there was unbelievable market upheaval and some pension funds and other clients were concerned about their liquidity. When markets are dropping, the last thing you want to do is sell your portfolio, but they needed liquidity, if only to pay their beneficiaries. So we tried to offer solutions that could finance that for them using their portfolios as collateral. By May, we started to focus back on the strategic pivot.

In many respects, we are fortunate because if somebody had to be convinced that they needed to upgrade their technology and operations, the events of last year showed them why. It is not just troubled institutions; some of the most successful fund managers in the world have come to us. Their view is, “We could afford to do this ourselves, maybe equally well as you, but we would rather put our incremental resources into developing better sources of investment return.”

Celia Huber: Could you share how your perspective on leadership has evolved, both before and during the pandemic?

Ron O’Hanley: You become more mindful in a crisis like this. In 2008, the financial services industry faced existential concerns. In the pandemic, we thought much more about the health of our employees than we ever had before. There is a lot lacking in remote working. First of all, innovation takes longer. Those conference rooms with white boards and papers everywhere, certainly the strategy we are operating on came out of rooms like that. There is also the apprenticeship element. I am very concerned that we have hired 2,000 people since the pandemic and most of them have never met anybody in person. I think about the importance of observing and listening and learning from others during my own career, so we very much will be back in the office, but we will be more mindful about why we are there. Remote work has been a grand experiment, but you start to worry about people’s mental health. We don’t talk much about mental health, certainly in employment situations, but even those people in comfortable homes may not be doing fine at all.

As well, in a crisis like this, we need to talk about the why. We’ve got the what down—we know what needs to be done—and oftentimes we know how to do it, but we don’t spend enough time in the why. Why, for example, do we think it’s so important to take a stand on voting rights? Long-time employees may ask, “Why do we want to attract attention to ourselves with this very public stand?” It is a good question that deserves an answer. Is it even the role of corporate CEOs to do that? I go back to the idea that you will not satisfy the shareholders if you don’t satisfy the rest of the stakeholders. It becomes difficult for firms to ignore these issues when people know that they have power and influence. But if you are going to use your power, you need to make sure that you can make a difference and are willing to follow through. The real danger is that most firms underestimate the difference they can make.

Ron O’Hanley is chairman and CEO of State Street Corporation. Celia Huber is a senior partner based in McKinsey’s Silicon Valley office.

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How investable industries are changing

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What’s ahead for biotech: Another wave or low tide?

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The insurance trends private-equity investors should understand for 2022

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SaaS and the Rule of 40: Keys to the critical value creation metric
Highlights from McKinsey’s 2021 sector research

The pace and scale of change throughout industries as the world has responded to the COVID-19 pandemic is unprecedented. McKinsey experts break down key dynamics of relevance to investors.
The automotive semiconductor shortage was sparked by the pandemic, but its effects could reverberate long afterwards

by Ondrej Burkacky, Stephanie Lingemann, and Klaus Pototzky

The supply-chain disruptions caused by the COVID-19 pandemic resulted in persistent under-supply of automotive semiconductors. Demand for vehicles plummeted but recovered faster than anticipated; by that point, the semiconductor industry had already shifted production to other applications. Other factors, including demand related to the 5G rollout, will continue to add to supply pressures. OEMs must consider new strategies, including rethinking just-in-time delivery systems, regional sourcing, and possibly in-house design.

Automotive semiconductor sales lagged in 2020, but growth in most other segments is expected to exceed pre-COVID-19 estimates.

Semiconductor sales in 2019 by application, $ billions

<table>
<thead>
<tr>
<th>Application</th>
<th>2019 Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless communication</td>
<td>127</td>
</tr>
<tr>
<td>Personal computer (PC)</td>
<td>67</td>
</tr>
<tr>
<td>Storage, GPU, peripherals</td>
<td>52</td>
</tr>
<tr>
<td>Industrial</td>
<td>49</td>
</tr>
<tr>
<td>Automotive</td>
<td>41</td>
</tr>
<tr>
<td>Consumer electronics</td>
<td>38</td>
</tr>
<tr>
<td>Server</td>
<td>29</td>
</tr>
<tr>
<td>Wired communication</td>
<td>26</td>
</tr>
</tbody>
</table>

Forecasted vs actual sales growth for 2020, %

1Products include actuators and sensors; microcomponents; and analog, discrete, logic, memory, and optoelectronic components.
2Includes Chinese inventory effect; growth rate without inventory is expected to be between –4% and –8%.
3Graphics processing unit.
4As of December 2019. The estimates for 2020 were calculated using a 2019 baseline, and percentages have been rounded.
Source: IHS Markit; Strategy Analytics; McKinsey analysis
Digitization: The $20 billion opportunity for aerospace and defense

by Reed Doucette, Sophie Hilaire, Varun Marya, and Rob Wavra

Aerospace and defense (A&D) companies create some of the world’s foremost technological marvels and have pioneered many different applications of digital and analytics technologies. Ironically, these industries still have a long way to go to leave behind paper-based processes, fragmented data systems, and stubbornly manual operations. A&D will need to transform how it approaches digital across strategy, talent, delivery, technology, data, and adoption. McKinsey’s estimate of the potential prize: $20 billion in incremental annual earnings before interest, taxes, depreciation, and amortization (EBITDA), an approximately 10 percent improvement based on the global sector EBITDA of $200 billion in 2018. This value would come from both cost and growth opportunities across the value stream—from engineering to supply chain, manufacturing, aftermarket services, and support functions.

Global aerospace and defense companies could unlock more than $20 billion in potential value from digitization.

Annual, $ billions

<table>
<thead>
<tr>
<th>Potential value at stake</th>
<th>20</th>
<th>9</th>
<th>4</th>
<th>3</th>
<th>3</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurement and supply chain</td>
<td></td>
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<tr>
<td>R&amp;D and engineering</td>
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<tr>
<td>Manufacturing</td>
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<tr>
<td>Aftermarket services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Support functions</td>
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Source: McKinsey partnered with the Aerospace Industries Association to study the digital maturity of the aerospace and defense industry. We assessed digital maturity through McKinsey’s Digital Quotient, a benchmark of more than 25,000 respondents from 750 companies across 21 sectors.
Agriculture’s connected future: How technology can yield new growth

by Lutz Goedde, Joshua Katz, Alexandre Ménard, and Julien Revellat

Advances in machinery, crops, irrigation, and fertilizers have radically transformed farmers’ yields over the past 50 years. Now, agriculture is on the cusp of a revolution in data and connectivity. Artificial intelligence, analytics, connected sensors, and other emerging technologies could further increase yields, improve the efficiency of water distribution and other inputs, and build sustainability and resilience across crop cultivation, including fruits and vegetables, and animal husbandry, including milk and dairy. If connectivity is implemented successfully in agriculture, the industry could add $500 billion in additional value to the global gross domestic product by 2030.

Agriculture connectivity could unlock more than $500 billion in GDP by 2030.

Distribution of potential value from connectivity in 2030

By subindustry

<table>
<thead>
<tr>
<th>Subindustry</th>
<th>In $ billions</th>
<th>As % of the industry’s output</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fruits and vegetables</td>
<td>190.0</td>
<td>8.9</td>
</tr>
<tr>
<td>Cereal and grain</td>
<td>174.3</td>
<td>9.2</td>
</tr>
<tr>
<td>Livestock</td>
<td>16.9</td>
<td>7.7</td>
</tr>
<tr>
<td>Dairy</td>
<td>20.1</td>
<td>4.1</td>
</tr>
</tbody>
</table>

By region

<table>
<thead>
<tr>
<th>Region</th>
<th>In $ billions</th>
<th>As % of the industry’s output</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia and the Pacific</td>
<td>237.5</td>
<td>8.2</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>64.2</td>
<td>12.2</td>
</tr>
<tr>
<td>South Asia</td>
<td>61.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Europe and Central Asia</td>
<td>53.8</td>
<td>8.8</td>
</tr>
<tr>
<td>North America</td>
<td>45.7</td>
<td>8.7</td>
</tr>
<tr>
<td>Middle East and Africa</td>
<td>39.0</td>
<td>7.8</td>
</tr>
</tbody>
</table>

Source: McKinsey analysis
Cultivated meat requires investment to move to global scale

by Tom Brennan, Joshua Katz, Yossi Quint, and Boyd Spencer

Cultivated meat, made by replicating animal cells in a controlled environment, was little more than the dream of academic scientists a decade ago. However, in December 2020, consumers tasted it for the first time in Singapore, the first country to authorize it. The industry, which at present comprises fewer than 100 start-ups, has attracted roughly $350 million in investments in 2020 and about $250 million so far in 2021. The industry’s next goal is to move from pilot scale to global scale, which will require investment in R&D, equipment, and inputs.

Depending on factors such as consumer acceptance and price, the market for cultivated meat could reach $25 billion by 2030.

Possible cultivated-meat market size

<table>
<thead>
<tr>
<th>Marke-size projections, $ billions</th>
<th>Market-size projections, thousands of metric tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low growth</td>
<td>Low growth</td>
</tr>
<tr>
<td>Medium growth</td>
<td>Medium growth</td>
</tr>
<tr>
<td>High growth</td>
<td>High growth</td>
</tr>
<tr>
<td>~0 5 1</td>
<td>25 20 1</td>
</tr>
<tr>
<td>2 400 40</td>
<td>1,500 1,500 40</td>
</tr>
<tr>
<td>20 400 75</td>
<td>2,100 2,100 75</td>
</tr>
</tbody>
</table>

- **Low growth**: cultivated meat is only able to replace processed meat (eg, burgers, sausages), limiting penetration; sales geographically limited to North America, Europe, and select Asia-Pacific countries.
- **Medium growth**: cultivated meat is able to replicate processed meat and whole cuts; sales geographically limited to North America, Europe, and select Asia-Pacific countries.
- **High growth**: cultivated meat is able to replicate a wide variety of both processed meats and whole cuts; sales in multiple large meat-consuming countries and regions (eg, Brazil, China, EU, India, US).

¹Manufacturing sales price.
Source: McKinsey analysis
New mobility start-ups have been rewarded for getting sustainability, software, and new value pools right

by Kersten Heineke, Timo Möller, Asutosh Padhi, Dennis Schwedhelm, and Andreas Tschiesner

Over the past year and a half, the mobility industry has significantly outperformed top-performing industries in capital markets. New mobility start-ups are doing several things right, including focusing on sustainability, innovating in software and online car sales, and creating new value pools, such as shared mobility. Traditional auto companies will have to compete fiercely to capture a healthy portion of these new value pools. Whether those efforts are enough for capital markets to reward them, too, remains an open question.

Capital-market performance by industry cluster reveals the rapid growth of new mobility.

Total returns to shareholders, H2 2019–20, %

1 Second half of fiscal year.
2 Weighted average by market cap as of June 1, 2019.
Source: S&P Capital IQ; McKinsey analysis
Capital projects and infrastructure

The zero-carbon mine is necessary, possible, and increasingly economical

by Henry Legge, Clemens Müller-Falcke, Tomas Nauclé, and Erik Östgren

The mining industry is at a tipping point regarding sustainability, which is increasingly a focus for capital markets. The cost of capital can be 20 to 25 percent higher for miners with the lowest environmental, social, and governance (ESG) scores. Encouragingly, our analysis shows that solutions to decarbonize the majority of emissions will become economically viable within this decade. To understand how this could work, we have created a mine-decarbonization model that assesses a variety of decarbonization options.

Addressing emissions from multiple sources is key to the decarbonization of mining.

Mining emissions by activity, illustrative, %

<table>
<thead>
<tr>
<th>Activity</th>
<th>Diesel</th>
<th>Electricity</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling</td>
<td>4</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Blasting</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Loading</td>
<td>31</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Hauling</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Other equipment</td>
<td>24</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Conveying</td>
<td>37</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>Crushing and grinding</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Beneficiation</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
<td>55</td>
<td>55</td>
</tr>
</tbody>
</table>

1 Example mine is an open-pit iron-ore mine in Australia with a run of 25 metric megatons per annum.
2 Figures may not sum to 100%, because of rounding.
Source: McKinsey mine decarbonization model
A flush recovery for consumers?

by Susan Lund, Anu Madgavkar, Jan Mischke, and Jaana Remes

The massive shift toward digitization, automation, and hybrid work over the past year and a half has had a large impact on the way consumers shop, live, and work. But there’s another way in which these innovations may change the consumer landscape: if companies continue to move forward with the bold actions they took during the COVID-19 crisis, they could boost annual productivity growth by one percentage point per year through 2024. We estimate this would add about $1,500 per capita in Spain and $3,500 per capita in the United States to GDP in 2024, with implications for consumers and the companies who serve them.

Our sector analysis indicates potential for incremental productivity growth of roughly one percentage point per year through 2024.

United States and Europe nonfarm business sectors

<table>
<thead>
<tr>
<th>Sector</th>
<th>Share of economy, 2017, %</th>
<th>Pandemic-related productivity acceleration potential, CAGR, 2019–24, %</th>
<th>Main contributors to potential productivity growth driven by COVID-19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>10</td>
<td>1.6–3.0</td>
<td>• Telemedicine</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Operational efficiency</td>
</tr>
<tr>
<td>Construction</td>
<td>5</td>
<td>1.7–2.5</td>
<td>• Operational efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Industrialization</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Digital construction</td>
</tr>
<tr>
<td>Retail</td>
<td>7</td>
<td>1.0–2.4</td>
<td>• E-commerce</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Warehouse automation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Advanced analytics</td>
</tr>
<tr>
<td>ICT²</td>
<td>10</td>
<td>1.2–2.3</td>
<td>• Online channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Online advertising</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Demand for online services</td>
</tr>
<tr>
<td>Pharmaceutical²</td>
<td>2</td>
<td>0.8–2.3</td>
<td>• Digitization of sales channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Automation of manufacturing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Artificial intelligence for vaccine discovery</td>
</tr>
<tr>
<td>Banking</td>
<td>8</td>
<td>0.9–2.0</td>
<td>• Hybrid working</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Online channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Shift to digital payments</td>
</tr>
<tr>
<td>Automotive³</td>
<td>3</td>
<td>0.4–1.2</td>
<td>• Electric vehicles</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Connected cars</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Online sales</td>
</tr>
<tr>
<td>Travel and logistics⁴</td>
<td>13</td>
<td>0.3–0.5</td>
<td>• Digital interaction (eg, apps)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Agile working</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Automation of tasks</td>
</tr>
<tr>
<td>Other⁵</td>
<td>42</td>
<td>0.3–0.9</td>
<td>• Automation of tasks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Digital channels</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Lower real-estate costs</td>
</tr>
</tbody>
</table>

¹Weighted by total nominal GDP contribution of the United States (62%) and six European economies (38%). Sectors included amount to 74% of the total economy in the United States and 75% of the total economies of the six European focus countries.
²Information and communications technology.
³Includes chemicals and pharmaceuticals manufacturing due to combined statistics for the United States and Sweden.
⁴Includes transport machinery.
⁵Includes arts and recreation, accommodation and food services, transportation and storage, other service activities, and activities of households and extraterritorial units.
⁶Includes professional services, wholesale, mining and quarrying, manufacturing (excluding automotive, chemicals, and pharmaceuticals), and utilities. Excludes public administration and defense, real-estate activities, education, and agriculture.

Source: EU KLEMS, European Commission, ec.europa.eu; McKinsey Global Institute analysis
A huge new upper-middle class will emerge in China over the next decade

by Jeongmin Seong, Jonathan Woetzel, and Daniel Zipser

China offers a $5 trillion consumption-growth opportunity over the next decade. Within ten years, China could account for almost as many households of upper-middle income and above as Europe and the United States combined. Chinese consumers are increasingly digitally native and concerned about the environment; live in smaller, urban households; and are willing to spend on domestic tourism and sharing platforms. The sheer scale of China’s consumer markets and rising incomes remain key considerations for consumer-facing companies, but they also need to learn how to serve markets that are changing socially, demographically, and technologically.

Over the next decade the number of households with upper-middle income and above in China is expected to grow by almost 70 percent.

# of households with upper-middle income and above,1 millions

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>235</td>
<td>395</td>
</tr>
<tr>
<td>United States</td>
<td>119</td>
<td>126</td>
</tr>
<tr>
<td>Europe</td>
<td>268</td>
<td>293</td>
</tr>
</tbody>
</table>

1 Annual income of $22,000 or more; adjusted to 2011 international purchasing power parity.

Note: Projections based on McKinsey’s baseline scenario, which assumes that the long-term growth trajectory of China, Europe, and the United States is not materially affected by the pandemic. Growth outcomes will depend on the shape of the recovery from the pandemic and other macroeconomic factors in different geographies.

Source: McKinsey Global Institute analysis
Power companies can create value by modernizing existing plants.

*by Harold Janin, Jochen Latz, Katsuhiro Sato, and Benjamin Sauer*

Simply put, power companies are not nearly as advanced as they could be, which means that operational and maintenance costs could potentially be much lower. Further complicating matters, cost pressure for thermal assets—namely, coal and gas—continues to rise because of ongoing power-market liberalization and large-scale deployment of renewable energy sources. Tech-enabled transformation that combines new technologies with traditional improvement can create significant value. In an illustration of the dynamic situation, Europe is currently in the midst of a natural gas shortage that has hit industry and consumers with huge price increases.

Coal and gas still dominate power generation—and will likely continue to do so through 2030.

**Global power generation mix, petawatt-hour (PWh)**

<table>
<thead>
<tr>
<th>Source of Energy</th>
<th>Baseline</th>
<th>Reference case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar and wind</td>
<td>27</td>
<td>33</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Bioenergy</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Nuclear</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Oil</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Gas</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Coal</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: Figures may not sum to totals, because of rounding.
Source: McKinsey Global Energy Perspectives; McKinsey 1.5°C scenario analysis.
Existing buildings need retrofitting to meet decarbonization targets.

Construction is directly or indirectly responsible for 25 percent of global greenhouse-gas emissions. About 30 percent of emissions derive from material processing (largely cement and steel), while the other 70 percent come from building operations. With roughly 80 percent of the building stock predicted for 2050 already in existence, there is a huge need for retrofitting. The good news is that there are clear actions that can dramatically reduce the industry’s carbon footprint—and many will also deliver cost savings.

Switching to solar thermal energy and medium insulation in existing stock is a no-regrets move to reduce emissions from heating.

Average abatement cost per technology switch in 2050, €/tCO₂

1The labeled costs are aggregated for the eventual technology. Switches between technologies originate from multiple other technologies. The relatively low reduction from district heating is due to a relatively high baseline (compared to heat pumps) and a large number of switches from gas boilers to district heating. Although natural gas is not carbon neutral, a temporary change to gas is foreseen when replacing oil- or coal-based heating.

2Metric tons carbon dioxide.

3Metric megatons carbon dioxide.

Financial services

Buy now, pay later: A small but rapidly growing new competitor to traditional unsecured lending

by Diana Goldshtein, Blazej Karwowski, Udai Kaura, and Felicia Tan

Financing at the point of sale may be a small share of unsecured lending in the United States today, but it’s growing fast. Thus far, fintech companies have taken the lead, diverting $8 billion to $10 billion in annual revenues away from banks. Banks seeking long-term growth would be wise to explore market entry, and merchants should considering reassessing their financing offers.

Point-of-sale financing is growing faster than other unsecured lending—a trend likely to continue.

<table>
<thead>
<tr>
<th>Outstanding balances for unsecured lending products,¹ $ billions</th>
<th>CAGR,² 2020–23, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>2019</td>
</tr>
<tr>
<td>717</td>
<td>848</td>
</tr>
<tr>
<td>92</td>
<td>1,114</td>
</tr>
<tr>
<td>131</td>
<td>1,148</td>
</tr>
<tr>
<td>1,029</td>
<td>1,231</td>
</tr>
<tr>
<td>143</td>
<td>161</td>
</tr>
<tr>
<td>121</td>
<td>106</td>
</tr>
<tr>
<td>18 to 20</td>
<td></td>
</tr>
<tr>
<td>8 to 10</td>
<td></td>
</tr>
<tr>
<td>5 to 6</td>
<td></td>
</tr>
<tr>
<td>Point-of-sale financing</td>
<td>Personal loans</td>
</tr>
<tr>
<td>Private-label credit cards</td>
<td>General-purpose credit cards</td>
</tr>
<tr>
<td>Source: Federal Reserve; TransUnion; McKinsey consumer finance pools</td>
<td></td>
</tr>
</tbody>
</table>

¹Includes all consumer and small-business credit cards, installment-based products offered at point of sale, and personal loans. Excludes overdrafts and student loans.
²Compound annual growth rate.

© Adene Sanchez/Getty Images
The pandemic turbocharged telehealth. Companies should capitalize on its momentum

by Oleg Bestsennyy, Greg Gilbert, Alex Harris, and Jennifer Rost

As of July 2021, telehealth utilization was 38 times higher than it was before the pandemic. Investment in virtual care and digital health more broadly has also skyrocketed, with three times more venture-capital investment in digital health last year than in 2017. As investment in virtual health companies continues to grow at record levels, so does the pressure on the companies within the ecosystem to innovate and to find winning models in this quickly evolving space.

Both investment in digital health and the revenues of telehealth players have almost doubled since 2019.

Venture funding in 2020 was significantly higher than in recent years in both invested capital and deals.

Total venture funding for digital health companies by year, $ billions

<table>
<thead>
<tr>
<th>Year</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>3</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Q2</td>
<td>6</td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Q3</td>
<td>9</td>
<td>12</td>
<td>15</td>
<td>18.5</td>
</tr>
<tr>
<td>Q4</td>
<td>12</td>
<td>15</td>
<td>18.5</td>
<td>21.4</td>
</tr>
</tbody>
</table>

Venture funding in 2020 was significantly higher than in recent years in both invested capital and deals.

Total annual revenues, $ billions

<table>
<thead>
<tr>
<th>Year</th>
<th>2019/2020</th>
<th>2020/2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ billions</td>
<td>3.0</td>
<td>5.5</td>
</tr>
</tbody>
</table>

Venture funding in 2020 was significantly higher than in recent years in both invested capital and deals.

Source: Adriana Krasniansky et al., “H1 2021 digital health funding: Another blockbuster year… in six months,” Rock Health, July 2021, rockhealth.com; McKinsey virtual health vendor database
Electric-vehicle charging and nonfuel sales represent opportunities for retailers who get trends right

by Álvaro Bau, Arjun Chopra, Mladen Fruk, Lazar Krstić, Klaas Mantel, and Florian Nägele

Nonfuel retail can continue to offer attractive returns, particularly for retailers who successfully execute a comprehensive electric-vehicle charging strategy. Nonfuel consumption is likely to move away from tobacco, sugary drinks, and salty snacks, although milk, diapers, and other basics remain significant parts of nonfuel offerings. Fuel retailers need to think about developing their forecourts into destinations for fresh-food shopping, click and collect, pharmacy purchases, postal services, and other services that dovetail with consumer trends.

Developing markets and nonfuel retail are growing, while e-mobility is an emerging value pool.

Net value pools, EBITDA\(^1\) equivalent, $ billions

<table>
<thead>
<tr>
<th>Road transportation for fuel value pools(^2)</th>
<th>Nonfuel-retail value pools(^3)</th>
<th>EV-charging value pool(^4)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>China</td>
<td>United States</td>
</tr>
<tr>
<td></td>
<td>Rest of the world</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Asia</td>
<td>Europe</td>
</tr>
<tr>
<td></td>
<td>Latin America</td>
<td>Middle East</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>2030(^b)</td>
<td>2019</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>88</td>
<td>2</td>
<td>79</td>
</tr>
<tr>
<td>21</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>26</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>29</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures may not sum to totals, because of rounding.

\(^1\)Earnings before interest, taxes, depreciation, and amortization.

\(^2\)Includes B2C (passenger vehicles and two- and three-wheelers) and B2B (passenger-vehicle fleets, light commercial vehicles, buses, and trucks).

\(^3\)Includes forecourt convenience and car wash.

\(^4\)Electric vehicle. This is a nascent and uncertain market requiring significant investment, and its eventual value could differ significantly from this projection.

Use cases include home, work, destination, fleet, and on-the-go charging, but not two-wheeler charging.

\(^b\)2030 projections are based on the McKinsey muted virus recovery scenario.

\(^c\)Assuming no cap on tariffs for public charging, allowing private players to set tariffs.

Source: McKinsey energy insights value pool model
Quantum computing can accelerate drug discovery for firms that prepare for its potential

by Matthias Evers, Anna Heid, and Ivan Ostojic

The ability of quantum computing (QC) to simulate complex molecules could be game changing for drug innovators. QC is expected to be able to predict and simulate the structure, properties, and reactivity of molecules more effectively than conventional computing can, significantly improving the early steps of drug discovery. Pharmaceutical companies should assess QC now and lay the groundwork to reap the benefits of the technology later.

Value creation through quantum computing in the pharmaceuticals industry is expected to start by 2030.

Evolution of quantum computing (QC)

<table>
<thead>
<tr>
<th>Maturity</th>
<th>Incubation (prior to 2020)</th>
<th>Window of opportunity for pharma</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not fully error-corrected QC¹ (2020–30)</td>
<td>Fully error-corrected QC (beyond 2030)</td>
</tr>
</tbody>
</table>

- **Key activities**
  - Fundamental research and technology development
  - Academic and early commercial R&D activities
  - Disruptive changes
  - Emergence of quantum-inspired algorithms

- **Source of funding**
  - Only governments or pioneers invest
  - QC is financed by corporate R&D budgets, venture capital, and governments

- **Window of opportunity for pharma**
  - Commercialization wherever QC can bring early value
  - Commercial R&D and business development
  - Disruptive and incremental changes

- **Full value creation and commercialization of QC for multiple problems**
  - Upscale and rollout to serve late adopters
  - Dominance of incremental changes

- **Value-based pricing**

¹ Not fully error-corrected QC is often referred to as “noisy intermediate-scale quantum” (NISQ). This phase describes the not-error-corrected characteristics of near-term devices that are based on an initially considerable number of quantum bits (qubits) to solve problems classic computers can’t solve yet and do not provide fault tolerance.
The recent winners in retail were best positioned to benefit from the pandemic-inspired flight to online sales

by Chris Bradley, Sajal Kohli, Dymfke Kuijpers, and Thomas Rüdiger Smith

During the COVID-19 pandemic, 90 percent of market-cap gains in retail have accrued to 25 companies. These are primarily highly capitalized, tech-forward, asset-light businesses in four categories: home-economy players, value retailers, online specialists, and platform players.

Most of the shifts in retail over the past year were evident to keen industry observers before the pandemic hit; the pandemic merely put the sector’s gradual transition into overdrive.

The retail industry has seen a huge shift of value to online.

Market capitalization, $ billions

<table>
<thead>
<tr>
<th>Category</th>
<th>Feb 2020</th>
<th>Apr 2021</th>
<th>Growth, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amazon</td>
<td>1,750</td>
<td>6,186</td>
<td>62</td>
</tr>
<tr>
<td>Specialty retail</td>
<td>762</td>
<td>1,080</td>
<td>17</td>
</tr>
<tr>
<td>Home retail</td>
<td>571</td>
<td>651</td>
<td>42</td>
</tr>
<tr>
<td>Grocery</td>
<td>464</td>
<td>470</td>
<td>−1</td>
</tr>
<tr>
<td>Online pure-play companies</td>
<td>1,306</td>
<td>880</td>
<td>48</td>
</tr>
<tr>
<td>General merchandise</td>
<td>1,333</td>
<td>1,101</td>
<td>21</td>
</tr>
<tr>
<td>Chinese platforms</td>
<td>314</td>
<td>1,477</td>
<td>173</td>
</tr>
<tr>
<td>Platform</td>
<td>688</td>
<td>1,628</td>
<td>34</td>
</tr>
<tr>
<td>Online specialists</td>
<td>118</td>
<td>561</td>
<td>195</td>
</tr>
<tr>
<td>Value players</td>
<td>1,127</td>
<td>1,513</td>
<td>16</td>
</tr>
<tr>
<td>Home specialists</td>
<td>974</td>
<td>513</td>
<td>46</td>
</tr>
<tr>
<td>Other companies (166 total)</td>
<td>1,477</td>
<td>1,101</td>
<td>10</td>
</tr>
</tbody>
</table>

*As of April 29, 2021.
Source: Corporate Performance Analytics; S&P Global
A travel boom is looming, but some pandemic-era changes could last for a long time

by Jaap Bouwer, Vik Krishnan, Darren Rivas, Steve Saxon, and Nina Wittkamp

Call it “revenge travel”: after living through a crisis, people crave vacations and want to visit loved ones. Business travel, on the other hand, has historically been much slower to recover after a crisis and, this time, may be permanently altered by the wide adoption of videoconferencing. Hotels will need to find new purposes for meeting and conference spaces, and airlines will have to figure out how to fill intercontinental business-class seats, likely with premium leisure promotions.

Business travel usually takes the longest to recover after economic crises—if it fully recovers at all.

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Time to reach precrisis levels, years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visits to friends and relatives</td>
<td>0, 3</td>
</tr>
<tr>
<td>Vacation</td>
<td>0, 6</td>
</tr>
<tr>
<td>Study</td>
<td>4, 6</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>0, Not yet recovered</td>
</tr>
<tr>
<td>Business</td>
<td>4, Not yet recovered</td>
</tr>
</tbody>
</table>

Source: Travelpac: Travel to and from the UK, UK Office for National Statistics, ons.gov.uk
What’s ahead for biotech: Another wave or low tide?

Even in tough times, investor expectations and deal making in biotech are surging. Can the sector maintain its strong growth?

by Laura Cancherini, Joseph Lydon, Jorge Santos da Silva, and Alexandra Zemp
Unlike most industries in these extraordinarily challenging times, biotech is experiencing a high. The search to understand and find treatment or preventive solutions to COVID-19 has focused intense government, media, and public attention on science and medicine, reinforcing the perception that biotech acquisitions and partnerships represent a good investment.

In an effort to understand worldwide biotech financing in the context of the COVID-19 crisis, McKinsey analyzed the sector’s financial performance and interviewed 20 C-level executives from small and midsize biotechs and venture-capital (VC) firms.

The pandemic has had an enormous financial impact on many sectors, but biotech has weathered the storm: after a brief downturn early in the crisis, it recovered quickly (Exhibit 1). Between January 2020 and January 2021, the average share price for European and US biotechs increased at more than twice the rate of the S&P 500, and Chinese biotechs performed more than six times better, with their average share price more than doubling in a year. Overall, biotech is outperforming its sister industry, pharmaceuticals, as well as many household-name consumer-goods and technology companies.

With acquisitions, partnerships, IPOs, and fundraising still increasing, biotech’s star has, if anything, risen higher than it was before the pandemic. The industry’s response to the crisis, its record of innovation, and its reputation as a safe haven for investment have all served it well. But whether biotech can sustain this performance is

Exhibit 1

After a brief downturn in the spring of 2020, biotech quickly recovered.

Average share price of 970 biotechs listed in China, Europe, and US,¹ (index 1 = Jan 2020)

<table>
<thead>
<tr>
<th>Region</th>
<th>Growth rate, Jan 1, 2020, to Jan 19, 2021, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>+106</td>
</tr>
<tr>
<td>Europe</td>
<td>+39</td>
</tr>
<tr>
<td>US</td>
<td>+37</td>
</tr>
<tr>
<td>S&amp;P 500</td>
<td>+17</td>
</tr>
</tbody>
</table>

¹Outliers removed.
Source: S&P Global; Corporate Performance Analytics by McKinsey
open to question. This article looks at the industry’s record of growth, its resilience during the global pandemic, and the factors that could determine whether the biotech wave continues.

The great biotech acceleration
Between 2019 and 2020, biotech saw double-digit annual growth in fundraising from VCs and deals such as partnerships, codevelopments, and joint ventures. It also saw triple-digit growth in IPOs (Exhibit 2).

Venture capital
VC activity in biotechs grew by 45 percent in a year, taking the 2020 global total to $36.6 billion. US biotechs still led on investments, although Europe and China were not far behind. In Europe, mean funding size grew at more than twice the rate than in the United States. In China, the number of funding rounds grew four times faster than in Europe and the United States.

Some VC investors believe that biotech has matured as a business and that it carries lower risk than it did in the early days. Others think it has suffered from underinvestment in the past. Still others note that investment in the sector is partly driven by the need to diversify VC portfolios. In any case, the fact that more conservative markets such as Europe’s are having larger funding rounds indicates that the local life-science offer is more advanced in its development cycle, or that investors are able to place larger bets.

Deals
The value of codevelopments, partnerships, joint ventures, licensing agreements, and other deals almost doubled between 2019 and 2020 to reach

Exhibit 2
Venture-capital funding, deals, and IPOs reached record levels in 2020.

<table>
<thead>
<tr>
<th>Global venture-capital funding, deals, and IPOs compared, $ billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Venture-capital funding</td>
</tr>
<tr>
<td>Deals¹</td>
</tr>
<tr>
<td>IPO funds raised</td>
</tr>
</tbody>
</table>

¹Includes acquisitions, partnerships, codevelopments, and joint ventures; covers only disclosed deal values (representing 26% of deals in PharmaDeals).
Source: BCDIQ, January 2021; IQVIA PharmaDeals, January 2021
$170.6 billion. However, this total represents only those deals with disclosed value—which accounts for 26 percent of all deals—so the true magnitude will be much higher.1 Biotechs partnered with a broad range of other organizations, from big pharma to investment funds and other biotechs. Pharma companies have long used acquisitions to sustain their portfolio strategy while also pursuing pipeline and top-line growth.

Deal growth was mostly driven by the United States, where the average deal size doubled and the number of deals increased by 25 percent.2 China and Europe also saw strong growth as they started to catch up from a smaller base.

**IPOs**

IPO activity has grown faster than any other category of fundraising, with companies raising $34.3 billion in 2020, an increase of 186 percent on the previous year. Although US biotechs represented the lion’s share of IPOs, companies based elsewhere, particularly in China, have also seen significant growth in the past few years. Biotechs tend to source opening capital from their local stock market, with the United States (mainly NASDAQ) being the preferred nonlocal option.

As part of our research, McKinsey asked biotech executives whether they were likely to seek an IPO in the next few years and, if they did, whether they would look for capital at home or abroad. The answers were mixed. Some biotechs want to make the most of their local network and feel more comfortable listing at a market they know; others prefer to follow investors, crossing oceans if need be. But they all agreed on choosing a market where biotech and science are not seen as a risky investment, which often means a foreign stock exchange, and specifically a US one.

**Unexpected resilience**

As the pandemic spread across the globe in early 2020, biotech leaders were initially pessimistic, reassessing their cash position and financing constraints. When McKinsey and BioCentury interviewed representatives from 106 biotech companies in May 2020,3 half of those interviewed were expecting delays in financing, and about 80 percent were tight on cash for the next two years and considering trade-offs such as deferring IPOs and acquisitions. Executives feared that valuations would decline because of lower revenue projections and concerns about clinical-trial delays, salesforce-effectiveness gaps, and other operational issues.

Belying this downbeat mood, biotech has in fact had one of its best years so far. By January 2021, venture capitalists had invested some 60 percent more than they had in January 2020, with more than $3 billion invested worldwide in January 2021 alone.4 IPO activity grew strongly: there were 19 more closures than in the same period in 2020, with an average of $150 million per raise, 17 percent more than in 2020. Other deals have also had a bumper start to 2021, with the average deal size reaching more than $500 million, up by more than 66 percent on the 2020 average (Exhibit 3).5

**What about SPACs?**

The analysis above does not include special-purpose acquisition companies (SPACs), which have recently become significant in IPOs in several industries. Some biotech investors we interviewed believe that SPACs represent a route to an IPO. How SPACs will evolve remains to be seen, but biotechs may be part of their story.

**Fundamentals continue strong**

When we asked executives and investors why the biotech sector had stayed so resilient during the worst economic crisis in decades, they cited innovation as the main reason. The number of assets transitioning to clinical phases is still rising,

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1 IQVIA PharmaDeals, January 2021.
2 Ibid.
4 BCIQ, January 2021.
5 IQVIA PharmaDeals, January 2021.
and further waves of innovation are on the horizon, driven by the convergence of biological and technological advances.

In the present day, many biotechs, along with the wider pharmaceutical industry, are taking steps to address the COVID-19 pandemic. Together, biotechs and pharma companies have more than 250 vaccine candidates in their pipelines, along with a similar number of therapeutics. What’s more, the crisis has shone a spotlight on pharma as the public seeks to understand the roadblocks involved in delivering a vaccine at speed and the measures needed to maintain safety and efficacy standards. To that extent, the world has been living through a time of mass education in science research and development.

Biotech has also benefited from its innate financial resilience. Healthcare as a whole is less dependent on economic cycles than most other industries. Biotech is an innovator, actively identifying and addressing patients’ unmet needs. In addition, biotechs’ top-line revenues have been less affected by lockdowns than is the case in most other industries.

Another factor acting in the sector’s favor is that larger pharmaceutical companies still rely on biotechs as a source of innovation. With the top dozen pharma companies having more than $170 billion in excess reserves that could be available for spending on M&A, the prospects for further financing and deal making look promising.

For these and other reasons, many investors regard biotech as a safe haven. One interviewee felt it had benefited from a halo effect during the pandemic.

More innovation on the horizon

The investors and executives we interviewed agreed that biotech innovation continues to increase in quality and quantity despite the macroeconomic environment. Evidence can be seen in the accelerating pace of assets transitioning across the

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If the industry is to maintain its recent strong growth, it will need to address three key areas: building talent, handling complexity, and improving commercial and development execution.

development lifecycle. When we tracked the number of assets transitioning to Phase I, Phase II, and Phase III clinical trials, we found that Phase I and Phase II assets have transitioned 50 percent faster since 2018 than between 2013 and 2018, whereas Phase III assets have maintained much the same pace. There could be many reasons for this, but it is worth noting that biotechs with Phase I and Phase II assets as their lead assets have accounted for more than half of biotech IPOs. Having an early IPO gives a biotech earlier access to capital and leaves it with more scope to concentrate on science.

Looking forward, the combination of advances in biological science and accelerating developments in technology and artificial intelligence has the potential to take innovation to a new level. A recent report from the McKinsey Global Institute analyzed the profound economic and social impact of biological innovation and found that biomolecules, biosystems, biomachines, and biocomputing could collectively produce up to 60 percent of the physical inputs to the global economy. The applications of this “Bio Revolution” range from agriculture (such as the production of non-animal meat) to energy and materials, and from consumer goods (such as multi-omics tailored diets) to a multitude of health applications.

What will it take to create value in the future?
Our interviews with biotech executives and investors suggest that if the industry is to maintain its recent strong growth, it will need to address three key areas: building talent, handling complexity, and improving commercial and development execution.

Building talent
As one biotech investor put it, “There is much more capital available than talent.” Many companies struggle to attract and retain executives with experience in biotech, business development, and commercialization. In addition, a third of the executives and investors we interviewed think that European biotechs lack a sufficiently entrepreneurial mindset. Clinical-development expertise is also in short supply.

The talent pool has been growing in recent years, particularly in the United States, with Europe, China, and other regions still a ways behind. Some companies are establishing a global footprint early on to target the widest possible talent pool, such as the European biotechs that have set up US affiliates and distributed their business-development, access, marketing, and strategy teams across continents. Other biotechs are experimenting with outsourcing models, keeping select talent in-house but looking outside the organization for multiple specialist capabilities. Whichever approach companies choose to pursue, their ability to build, attract, and retain biotech talent will be fundamental to their success.

Handling complexity
As well as staying on top of accelerating technological and biological advances, biotechs must navigate an increasingly complex ecosystem

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of competitors, service providers, investors, and customers. We see three challenges for the future. One is for biotech companies to rethink supply chains in order to facilitate the scale-up of new biologic innovations and technologies, such as personalized therapies and cell and gene therapies. A second challenge is to maintain focus on the business while dealing with a new financing and investing ecosystem that includes novel investment vehicles such as SPACs, an increasing number of noninstitutional investors, and a broadening of the geographic footprint of investors. The third challenge, for smaller biotechs in particular, is simply to keep up with the speed of technological evolution.

**Improving commercial and development execution**

A recent McKinsey analysis of launch performance shows that first-time launchers have a lower share of successful launches than their more experienced peers. Many struggle to realize the expected value from their launches: the median first-time launcher reaches just 63 percent of analysts’ expectations, compared with 93 percent for experienced launchers.

Clearly, scientific promise does not necessarily translate into business performance. A stronger focus on execution could help biotechs create more value from their assets and technologies. For instance, investing early to develop a deep understanding of the market in relevant disease areas could help biotechs make better decisions about how to position their product in relation to competitors’ offerings, both during clinical development and in the marketplace. Biotechs could also benefit from tailoring their go-to-market approaches to the needs and potential of their products rather than the resources available to them. Having defined an appropriate go-to-market approach, they could then work to secure sufficient funding or set up partnerships to support it.

Biotechs also have scope to improve the pace and quality of their clinical development, which is critical in meeting investors’ expectations and securing funding. As innovation increases, so does competition for clinical-trial sites and investigator capacity. Getting to market quickly requires biotechs to intensify their focus on clinical operations, plan early, and find ways to derisk clinical development.

Biotech is unlike any other sector. Buoyed up by advances in science and technology, it bucked the downward trend seen in many industries and attracted record levels of investment through 2020 and into early 2021. More broadly, the pandemic has brought biological science to the attention of patients, families, healthcare workers, healthcare suppliers, governments, and agencies worldwide. What remains to be seen is whether biotechs and their ecosystems can continue to scale up rapidly and keep riding the wave for some time to come.

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The insurance trends private-equity investors should understand for 2022

The uncertainty that plagued the industry in 2020 is clearing. Here’s where performance is trending—and how private-equity investors can double down.

by Ramnath Balasubramanian, Grier Tumas Dienstag, Katka Smolarova, and Ruxandra Tentis
As the contours of a postpandemic economy begin to take shape, the implications for private-equity (PE) investors in the insurance sector are also coming into focus. When we last published our perspective on this space, in November 2020, insurance-industry M&A activity was on the rise, insurtech IPOs and special-purpose acquisition companies (SPACs) were taking off, and uncertainty around the timing of COVID-19 vaccines and the “next normal” loomed large.¹ Today, many players in US and European markets are applying insights from their 2020 performance to emerge stronger amid increased consolidation, digitization, and specialization, as well as persistently low interest rates.

These trends also light the way for PE investors, who continue to look for ways to deploy large amounts of capital—leading to what some in the industry see as outsize valuations, especially in public markets. While PE’s total insurance investment was lower in 2020 than in 2019, it remained above 2017 levels, primarily driven by distribution and balance-sheet transactions.² Insurance accounts for more than half of all PE deals in financial services. This is partially driven by an increased appetite for balance-sheet investments, which investors view as a significant source of permanent capital, as well as by continued opportunities for value creation in an industry that has historically been slower to adopt new business models. In this article, we offer an update on the industry’s outlook and highlight several areas for investors to consider as they search for value in insurance services, distribution, technology, and balance-sheet plays.

Insurance investment priorities in 2021
The uncertainty of 2020 caused industry-wide disruption. The SNL US Life Insurance Index closed the year more than 20 percent below the S&P 500 Index, and property and casualty (P&C) insurers, while slightly higher on a year-over-year basis, also closed significantly below the S&P 500. But the first half of 2021 showed notable improvement (Exhibit 1). Insurance stocks recovered, with life insurers and software providers leading the way. And while pre-IPO and pre-SPAC insurtech valuations remained high, publicly traded insurtech companies were a notable outlier in the first half of 2021, as investors reevaluated their appetite in this space because of increased concerns about long-term profitability.

Several tailwinds—consolidation, digitization, and specialization—will play a key role in informing investors’ decisions and value-creation priorities in a postpandemic environment. Persistent low interest rates can also create a tailwind for investors when existing balance-sheet asset owners look to offload risks.

Consolidation shifts focus to less trodden paths of opportunity and continued need for value creation
Despite vigorous deal making among brokerage and claims services and third-party administrators, these industry segments remain fragmented. In personal P&C, for example, new independent agencies have emerged nearly as quickly as existing ones have merged. While the number of agencies declined an estimated 20 percent from 1996 to 2006 because of agency roll-ups, the decline was less than 5 percent over the following decade.³ Two major factors are propelling agents to open their own independent agencies: the 68 percent increase in M&A activity over the past five years⁴ has led an increasing number of unsatisfied individual agents in M&A situations to strike out on their own. And in personal lines, insurers have decreased their use of agents who sell their products exclusively in favor of independent agents who sell multiple brands.

This activity has attracted the attention of investors, who have invested heavily in distribution compared with services, technology, and balance-sheet transactions (Exhibit 2). We expect acquisitions

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² McKinsey analysis of Pitchbook and Preqin 2020 insurance transactions.
For more on how insurance players can fully harness the benefits of scale, see Nagendra Bommadevara, Björn Münstermann, Sanaya Nagpal, and Ulrike Vogelgesang, “Scale matters … to an extent: Playing the scale game in insurance,” March 2, 2021, McKinsey.com.

Larger distributors can negotiate higher compensation as a percentage of premium than smaller agencies can, and larger services players can provide a wider breadth of offerings to clients, from servicing more lines to covering more steps in the claims value chain. Indeed, small insurers tend to consolidate outsourcing into just a few players that can handle most of their needs, while large insurers tend to stitch together “best-in-breed” claims solutions. Together, these tendencies will continue to influence the growth of claims agencies that develop capabilities across lines, geographies, and elements of the claims value chain.

Given higher multiples, investors entering the insurance brokerage space are targeting what have been traditionally considered adjacent or riskier asset classes, such as nonstandard auto agencies or MGAs focused on cyber insurance. In 2020, around 70 percent of acquired brokerages had standard P&C lines, according to McKinsey analysis of Capital IQ transaction data. Going forward, investors can look to riskier, specialized niches and models to find platforms for growth. Investors also have to consider the acquisition pipeline and diversification challenges of specialized brokerage targets. Given that niche areas naturally offer fewer opportunities for M&A, operational levers—such as commission optimization, targeted geographic expansion, and cross-selling—are more important to achieving organic growth.

The same principles for targeting adjacent and riskier spaces hold true for claims businesses.

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Exhibit 1

In the first half of 2021, total shareholder returns for US insurance businesses trended upward.

Total shareholder returns (TSR), Jan 1–June 30, 2021, %

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>15</td>
<td>15</td>
<td>24</td>
<td>-9</td>
<td>4</td>
<td>34</td>
</tr>
</tbody>
</table>

¹Market-cap-weighted index includes underwriters Lemonade, Metromile, and Root; brokers Goosehead and SelectQuote; and software providers CorVel, Crawford, Duck Creek, Ebix, Guidewire, and Sapiens.
Source: S&P Global Market Intelligence

⁵For more on how insurance players can fully harness the benefits of scale, see Nagendra Bommadevara, Björn Münstermann, Sanaya Nagpal, and Ulrike Vogelgesang, “Scale matters … to an extent: Playing the scale game in insurance,” March 2, 2021, McKinsey.com.
One claims-services provider, for example, has made more than a dozen acquisitions to deepen its expertise in one service adjacent to claims services, while also broadening its geographical reach and covered insurance lines to round out its portfolio. This approach has elevated the prominence and value of services providers because large customers appreciate their depth in specific services and small to midsize customers turn to them to consolidate outsourcing.

Accelerated digitization encourages investments

The capital markets are increasingly rewarding intermediaries and insurers that use technology to create value, often by augmenting their internal IT capabilities through third-party vendors. IT or data-and-analytics vendors can support insurers on a specific part of the process or value chain, from underwriting increasingly granular packets of risk (including liabilities previously aggregated with larger segments or seen as unfavorable) to gathering data and adjudicating claims without a human adjuster. Traditional brokers also seek out tech to support their growth and maximize agent time spent on value-added activities. For example, they are increasingly leveraging customer relationship management in conjunction with intelligent lead matching or dashboards and streamlining the digital experience for agents in small commercial lines. In our experience, this can lead to a reduction of up to five hours a week in the work required for submissions, freeing up valuable time for agents.

Adding to the fray are the increasing numbers of digital-native distributors that build their own technology. These distributors use their homegrown tech as a point of differentiation and a faster route to online channels in some lines. Because they often struggle to manage costs—for customer acquisition, for example—digital distributors are also adding products and acquiring balance-sheet capabilities to expand their presence along the value chain. Once a digital-native distributor gains traction with a specific customer segment—business owners who want pay-as-you-go workers’ compensation, for example, or millennial renters—it can offer additional products. However, even the most mature distributors that have gone public have yet to prove this strategy leads to long-term profitability—their

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Exhibit 2

Distribution has been a core investment across lines since 2016.

Number of private-equity deals in insurance by area of investment, 2016–20¹

<table>
<thead>
<tr>
<th>Category</th>
<th>Deals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>958</td>
</tr>
<tr>
<td>Services</td>
<td>128</td>
</tr>
<tr>
<td>Balance sheet</td>
<td>92</td>
</tr>
<tr>
<td>Technology</td>
<td>66</td>
</tr>
</tbody>
</table>

¹Excludes health insurance; includes select deals not classified under Insurance by Pitchbook.
²Property and casualty.
Source: Pitchbook; Preqin for technology deals; McKinsey analysis

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McKinsey on Investing Number 7, November 2021
loss ratios hover above 100 percent compared with a more typical ratio of approximately 70 percent for established insurers.

Likewise, the increasingly granular segmentation and data usage enabled by technology providers will continue to gain traction in the marketplace. Both digital-native and traditional insurers are becoming more adept at identifying niche customer segments and using data and analytics to serve them well. Instead of attempting to sell homeowner’s insurance to everyone, for instance, distributors and insurers are using data and technology to analyze specific cohorts—such as coastal homes in specific zip codes—to better understand properties, market directly to homeowners, and underwrite risk. This model enables rapid growth from homes that less tech-advanced insurers might charge higher rates, serve at a higher combined ratio, or decline to serve at all.

**Specialty insurance opens new doors**

Specialty insurance, which covers unique risks or special circumstances, and reinsurance have continued to attract investor interest in the face of ongoing market hardening.

On the carrier side, multiple de novo and scale-up platforms raised a total of more than $8 billion during 2020 to bolster their balance sheets and take advantage of the hardening. However, in the past decade, growth of alternative capital has increased supply in the specialty market, making the class of 2020 different from prior classes in several ways:

— A sole focus on reinsurance has become more difficult for start-ups given a global oversupply of capital; almost all de novo carriers are building new businesses in both primary and reinsurance.

— With growing availability of technology and data sources, insurers are looking to differentiate beyond capacity to take on insurance risk. Some are deploying capital more efficiently to boost ROE, while others are using digital and analytics to innovate underwriting, even partnering with leading tech companies that are newer to insurance.

— While London and Bermuda remain the main incubation locations for start-up carriers, competition in the specialty market has gone global; for example, 17 of the top 20 Lloyd’s syndicates now belong to a global insurance group. As a result, new and growing insurers are increasingly looking for partners with global reach and expertise beyond capital.

On the distribution side, major mergers increase market consolidation in the long term, but they have also provided an opportunity for smaller brokers to retain key talents and assets during the transition. As a result, the competitive landscape for specialty brokers is becoming more dynamic and fragmented, with a strong tier of up-and-coming brokers likely to pursue aggressive growth in the next few years, particularly in London. Recent major transactions highlighted investors’ continued interest in the distribution space. In addition, the number of managing general agents (MGAs) and the players that support them, such as fronting carriers, continues to grow. Those with scale and sophisticated capabilities in operations and analytics look for opportunities to "go upstream" and attract capital to co-invest in balance-sheet risk-taking—for instance, by setting up their own Lloyd’s syndicate. In the long run, this new model of pairing distributors’ data-and-analytics insights with high-quality alternative capital could disrupt a significant portion of the specialty market focused on lower-premium, higher-volume products.

While investing in specialty carriers and brokers in the hard market has become a proven model for value creation, investors can now also look beyond that for two new types of opportunities. First, data and insights are playing a more important role in underwriting specialty insurance and reinsurance. Investing in data and service vendors focused on complex emerging perils—including cyber, political, renewable, and environmental—could unlock new

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Structural changes in the US insurance industry—such as heightened risk for directors and officers and ongoing risks related to the pandemic and climate change—will continue into the foreseeable future.

sources of value. Second, new business models that match capital more efficiently with risks—including exchanges, MGA platforms, and syndicated structures—will continue to gain traction in the market in the long term.

Capture-divestiture moves amid prolonged low interest rates

With recent moves to take insurers private, sophisticated PE investors are buying blocks of policies and assuming those risks—and billions in assets often come with that risk. In the United States in 2020, entities affiliated with general partners (GPs) acquired more than $100 billion in general account liabilities from traditional insurers’ balance sheets.⁸ If the current low-interest-rate environment persists, growing pressure could make acquisition candidates of another $2 trillion in liabilities, further accelerating growth in GP insurance capital.

As insurers are under pressure to divest assets and liabilities that were underwritten at much higher rates, GPs have both the investment capabilities to manage the assets and the culture and skills to build the operational capabilities to handle the policies.⁹ Specifically, investors that combine operating capabilities with skill in managing investments and maximizing returns have a clear value proposition, making management teams more comfortable in taking over their blocks and customers.

Meanwhile, PE investors see significant value in long-term capital with a life cycle beyond that of a typical fund, reducing the fundraising burden on GPs and increasing through-cycle investment flexibility. Purchasing divested blocks also provides income diversification and a predictable, captive stream of fee income. For example, after a long track record in insurance vehicles, one investment management firm reported that nearly half of its assets under management were in insurance, amounting to half of all management fees earned.

How PE investors can make the most of these trends

Structural changes in the US insurance industry—such as heightened risk for directors and officers and ongoing risks related to the pandemic and climate change—will continue into the foreseeable future. Savvy investors playing the long game in insurance can seek pockets of opportunity among these challenges by, for instance, investing in specialty insurers writing small-business cyberrisk for which there is increased need, and partnering with ecosystem players using superior climate data to price risk at a granular level.


Consolidation will continue across sectors, but accessible targets that are both mature and profitable are becoming increasingly sparse. Many available nonpublic entities are either very small or very large, especially in the technology space, and PE investors face increasing competition from other forms of capital. According to McKinsey analysis of Dealroom data, planned or completed insurtech IPOs raised nearly $2 billion in public capital in 2020 and the first quarter of 2021, exceeding prior years’ activity.10 SPAC deal momentum also increased the competition, with several multibillion-dollar announcements since the third quarter of 2020. Strategic investors (namely, insurance carriers and distribution players) are closing similarly sized deals in 2021, including the sale of annuity units to mutual insurers or other offshore insurers that are not subject to the disclosure requirements facing US publicly traded entities, as well as the purchase of multiple independent distribution networks and platforms. PE investors will need to become more creative in sourcing deals—for example, by creating earlier-stage and growth-equity funds, co-investing with venture capitalists or insurers, taking public companies private, or aggregating smaller targets to achieve scale beyond classic broker and third-party administrator roll-ups.

Finally, implementing operational improvements continues to increase in importance relative to capturing structural differences in valuation multiples. While consolidation opportunities remain, in a competitive market a business-as-usual approach is increasingly insufficient to acquire attractive targets and achieve multiples arbitrage. Across sectors, investors need a differentiated value-creation thesis to succeed—for example, by vertically integrating, automating claims processes and services, improving agent productivity, and monetizing data-and-analytics use cases across the value chain.

While much lies ahead on the road to postpandemic normalization, some of last year’s uncertainty has abated, and opportunities abound for the prepared investor. Those who take bold, targeted action in both M&A and value creation within their portfolio companies will lead the way as the industry marches through the Roaring 2020s.

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10 For more on trends in insurtech investments and partnerships, see Insurance insights that matter, “Insurtechs are increasingly ripe for insurer investments and partnerships,” blog entry by Shitij Gupta, Varun John Jacob, and Shalija Raheja, July 16, 2021, McKinsey.com.
SaaS and the Rule of 40: Keys to the critical value creation metric

Investors reward SaaS companies that hit this operating performance marker, yet a surprisingly small number have been able to do so. Here’s how more can follow their industry leaders’ example.

by Paul Roche and Sid Tandon
**The purest test** of a management team and its operational discipline is arguably how well it can maintain strong shareholder returns as the business matures. That’s especially true for software as a service (SaaS). Despite the sector’s image as a bastion of hypergrowth, only a small share of SaaS companies sustains growth rates above 30 to 40 percent. In fact, of 100 public SaaS companies in the United States with revenues above $100 million that we analyzed in May 2021, the median revenue growth rate was just 22 percent.

As businesses near the top of their initial S-curve, revenue growth tends to slow and free cash flow becomes more important. However, the 100 companies we analyzed had a median last 12 months (LTM) free cash flow of just 10 percent of revenue. Spending needs to align with realistic growth forecasts, and growth from existing customers driven by customer retention, cross-sell, and upsell takes on greater significance. Knowing which levers to pull and which targets to aim for is especially important in SaaS because of the lag between bookings and revenues, the upfront expense of acquiring customers, and the constant rate of R&D spend required to keep features and products current.

How well leaders do in balancing these demands is where the “Rule of 40” comes into play. The popular metric says that a SaaS company’s growth rate when added to its free cash flow rate should equal 40 percent or higher. The rule has become a favorite of SaaS industry watchers, including boards and management teams, because it neatly distills a company’s operating performance into one number. But McKinsey research finds that barely one-third of software companies achieve the Rule of 40. Fewer still manage to sustain it. Analysis of more than 200 software companies of various sizes between 2011 and 2021 found that businesses exceeded Rule of 40 performance only 16 percent of the time.

That’s a staggeringly small number and a major missed opportunity. Data show that investors reward companies that are at or above the Rule of 40 with consistently higher enterprise value (EV) to revenue multiples. Moreover, the higher the number, the greater the gain. Top-quartile SaaS companies generate nearly three times the multiples of those in the bottom (exhibit).

The SaaS players that operate at the Rule of 40 consistently deliver these results by instilling much greater operational rigor and performance transparency than the average company. By embracing similar practices, others can do the same.

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**Exhibit**

**Investors reward SaaS companies that are at or above the Rule of 40 with consistently higher valuation multiples.**

**Median enterprise value/revenue multiples for B2B software-as-a-service (SaaS) companies, by Rule of 40 performance**

<table>
<thead>
<tr>
<th>Performance Quartile</th>
<th>Median Enterprise Value/Revenue Multiple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top quartile</td>
<td>22</td>
</tr>
<tr>
<td>Overall</td>
<td>12</td>
</tr>
<tr>
<td>Bottom quartile</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: data as of May 28, 2021; n = 100.

Performance quartiles are based on companies’ Rule of 40 scores (growth rate + free cash flow rate).
What the top-performing SaaS companies do differently

Through our work with dozens of SaaS companies and performance analysis of 100 others, we’ve discerned a set of practices that are highly correlated with Rule of 40 success. Leading players keep the organization squarely focused on securing future growth, continually pivoting resources to core revenue drivers. And they spend based on today’s numbers, adjusting their growth and free cash flow objectives according to where they are in their life cycle to stay at or above the Rule of 40 (see sidebar, “Focus on the metrics that matter”).

Here’s how to follow their example.

1. **Set realistic growth targets.** The commonly held perception is that SaaS companies have seen soaring rates of growth in recent years. But of the 100 SaaS businesses we analyzed in May, only the top quartile had growth rates north of 40 percent. Yet many SaaS players continue to set inflated growth projections and spend based on revenues that don’t materialize quickly enough. The reality is that a company whose total addressable market is expanding at a CAGR of 8 to 10 percent cannot realistically grow revenue by 30 percent in the near term. Doing so requires a large addressable market and the ability to be one of a few leading vendors in a concentrated space, much in the way Jira is to project management, ServiceNow is to IT help desks, and Salesforce is to customer relationship management. Only a handful of companies have this opportunity at any given time. Our research found that just 1.6 percent of 200 software companies were able to sustain consistently strong revenue growth of 30 percent or higher from 2011 to 2021.

Rule of 40 leaders understand these fundamentals. They set revenue growth targets based on what is organically achievable within the existing portfolio over a three-year period and manage the entire business within that envelope. For example, when a $600 million enterprise SaaS company saw revenue growth begin to settle at 15 percent as it became a leader in its segment, management realized they could no longer spend as freely as when the business was growing at 30 to 40 percent annually. So they adjusted their cost structure, with a goal of generating a 20-percentage-point improvement in free cash flow (FCF) over a two-year period taking it to 30 percent. That rebalancing will keep them at the Rule of 40 and provide the means for them to invest in new, high-growth businesses.

2. **Prioritize net retention.** SaaS businesses that aim to achieve higher growth put as much attention into caring for existing customers as they do into acquiring new ones, investing in specific postsales constructs to increase cross-sell, upsell, and retention and sourcing the right talent, tools, and analytics. These efforts, combined with strong pricing and product support, result in median net retention rates (NRR) of 120 percent or more—which means these businesses are able to deliver 20 percent growth every year without adding a single new customer. Top performers span different end markets, including companies such as Twilio (139 percent), CrowdStrike (128 percent), and Elastic (130 percent).

Analysis of 40 public B2B SaaS companies shows that those with NRR of 120 percent or more also have higher multiples—with a median EV/revenue of 21-fold compared with ninefold for those below the 120 percent mark. This is because net retention is a core driver of growth and sales, as well as marketing efficiency.

Many slower-growing SaaS companies underinvest in customer success, customer care, and professional services because the overwhelming focus is on gaining new customers and because existing SaaS customers generally don’t pay extra for postsales support. So the additional effort in courting them seems unprofitable. But neglecting existing customers ends up adding costs in the long run, resulting in more churn, lower cross- and upsell, and more pressure on sales teams just to stay level. By looking at customer success and related efforts as an investment in growth rather than as a cost center, companies can protect their installed base and gain scale and efficiency.
3. **Optimize go-to-market spend.** Sales and marketing is one of the biggest expense areas for SaaS companies—amounting to 50 percent or more of revenue in high-growth businesses. The high ratio is partly a result of the business model, in which revenue lags behind investment. But it’s also because many companies are inefficient. Where SaaS companies with the strongest EV/revenue multiples are able to recover their customer acquisition costs in under 16 months,¹ bottom-quartile players take nearly four years to do the same. Top-quartile companies also generate revenue growth 3.5 times faster than the bottom quartile.

Top-quartile companies optimize sales and marketing performance in four ways, underpinned by a data-driven growth engine.

- **First,** they allocate sales and marketing resources based on future customer opportunity—not current revenue—giving high-growth accounts the most coverage. And they define total opportunity using a “retain-acquire-develop-optimize” (RADO) structure,² which allows them to set the level of resource intensity to the total growth potential. They understand the efficiency of their spend at a granular segment level and use it to adjust spending to segments that produce the highest returns (for example, by using relative customer lifetime value over customer acquisition cost for each segment).

- **Second,** they pull granular operating data from across the business into integrated dashboards that make it easy for leaders to see the relationship between specific, often siloed, sales and marketing activities and overall growth outcomes (for example, marketing funnel to lead gen, sales quota attainment to win rate, and customer success to cross-sell/upsell and churn).

- **Third,** they innovate go-to-market propositions that scale efficiently. For example, they may focus on product-led motions for small-to-midsize customers and marketplace-enabled models for the developer segment.

- **Finally,** they use advanced analytics and machine learning to build a predictive view of customer health, which then helps drive proactive cross-sell/upsell, preventative churn measures, and positive feedback loops across sales, marketing, customer success, and product.

4. **Build new business—fast.** SaaS businesses often reach the tip of their initial S-curve without a market-ready venture or offering ready to pick up the slack, so their growth dips. Rule of 40 players maintain momentum by standing up net new businesses more quickly. For example, a $400 million SaaS company built a new $50 million annual recurring revenue (ARR) business from concept in 18 months. Leading players incubate new businesses thoughtfully, selecting micro domains based on a deep understanding of customer personas. They supply them with dedicated resourcing and attend to the operational, organizational go-to-market aspects of business building with the same rigor they do product development. Given the challenge of maintaining growth over time, developing the capability to build new lines of business quickly is critical for long-term growth and value creation.

In addition to the four elements identified above, top performers insist on transparent data and metrics that allow them to gain an integrated view of growth and margin drivers. This visibility helps them to execute against bold growth, efficiency, and productivity targets, and to make decisions on new investments at a global integrated level.

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¹ Measured in terms of LTM median payback period.
² RADO segmentation aligns marketing and sales efforts based on total customer opportunity. Teams “retain” accounts where the revenue growth opportunity is maxed, “develop” accounts where significant upside exists, “acquire” net new accounts that present significant opportunity, and “optimize” net new accounts with smaller opportunity. The segmentation drives the type of account activity and level of resourcing applied.
Focus on the metrics that matter

Of the roughly 20 operational metrics we assessed for SaaS companies, four have a high correlation with enterprise value to revenue multiples (exhibit). These are the measures that companies should track.

— **Annual recurring revenue (ARR) growth**: This measure reflects a company’s ability to drive topline growth, crucial for Rule of 40 performance since revenue lags behind ARR for SaaS companies (the median for top-quartile SaaS companies is 45 percent; bottom quartile is 14 percent).

— **Last 12 months (LTM) median payback period**: This indicator reveals how successful a company is at generating returns on its sales and marketing investment and scaling them as the business grows (the median for top-quartile SaaS companies is 16 months; bottom quartile is 47 months).

— **LTM free cash flow (FCF) percentage for mid-to-large SaaS companies**: This indicator measures FCF as a percent of revenue for the past 12 months. From a Rule of 40 standpoint, this is the metric that industry watchers use to determine the FCF percentage, especially for large companies with revenues greater than $600 million. The correlation between the LTM FCF percentage and value multiples applies to both moderate and fast-growing companies in this size range, with moderate-growth companies seeing the highest correlation. Our analysis shows that the top quartile within the moderate-growth band has a median FCF of 31 percent; bottom quartile is 15 percent. The top quartile for fast-growers (more than 30 percent revenue growth rate) is 26 percent; bottom quartile is 10 percent.

— **Net retention rate**: An important measure of growth efficiency, this metric shows how effective the company is at driving growth in its existing customer base while keeping churn low (the median for top-quartile SaaS companies is 130 percent; bottom quartile is 104 percent).

Other conventional measures that many industry leaders and watchers use include ARR per customer, ARR per employee, operational expenditures per employee, growth persistence, and the “magic number” (a measure of sales efficiency). But our analysis finds almost no correlation between these measures and value multiples.

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<table>
<thead>
<tr>
<th>High correlation</th>
<th>Medium correlation</th>
<th>Low correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Annual recurring revenue (ARR) growth (revenue/ARR)</td>
<td>• LTM FCF % (medium-to-large revenue enterprises with &gt;30% growth)</td>
<td>• Growth persistence</td>
</tr>
<tr>
<td>• Last 12 months (LTM) median payback period</td>
<td>• Annualized opex/employee</td>
<td>• LTM FCF % (small-to-medium revenue enterprises)</td>
</tr>
<tr>
<td>• Net retention rate</td>
<td></td>
<td>• Share of revenue from US operations</td>
</tr>
<tr>
<td>• LTM free cash flow (FCF) %</td>
<td></td>
<td>• Market capitalization</td>
</tr>
<tr>
<td>(medium-to-large revenue enterprises with &lt;30% growth)</td>
<td></td>
<td>• ARR/customer</td>
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<td></td>
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<td>• Magic number</td>
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<td>• ARR/employee</td>
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<td>• LTM revenue</td>
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<td></td>
<td></td>
<td>• ARR($)</td>
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Note: ARR growth: total revenue divided by annual recurring (subscription) revenues; LTM median payback period: the median time to recover the cost of acquiring customers over the past four quarters; LTM FCF % (different size bands): net cash yielded from operating activities over the past 12 months; annualized opex/employee: total operating expenses over the past 12 months divided by the number of employees; growth persistence: current quarter revenue growth divided by the same quarter’s revenue growth the prior year; magic number: the amount of revenue generated for every dollar spent on sales and marketing.
This approach stands in contrast to the location-based resource allocation that many other businesses employ. Leaders also ensure that they unpack the software engineering black box by building world-class product-management capabilities and a data-driven engineering performance-management culture, investing in core developmental health and channeling resources into growth-oriented products and features.

Our experience with a $500 million SaaS company shows how management teams pull this together. The company was used to seeing revenue growth of 25 to 40 percent, but recently the rate had slowed to 10 percent. After analyzing their market opportunity and competitive environment, they landed on 15 to 20 percent growth as a more realistic model. They also took a hard look at their existing business. With churn averaging 15 to 20 percent and cross- and upsell levels modest, the company’s NRR was just 100 percent. Upskilling their customer success team helped put them on track to gain a ten-percentage-point improvement in NRR. They are also seeking to fast-track digitization efforts within marketing and sales—efforts that will lower costs within the function from 40 percent of revenue to 20 to 25 percent. To fund the improvements, leaders conducted cost analysis across the business, which identified $100 million in savings. Leaders plan to use 25 percent to support its transformation and reinvest in new business lines. Together, the improvements are expected to propel the company’s Rule of 40 performance from below 10 (owing to negative free cash flow) to over 40 within the next two years.

**Getting ahead of the curve**

Investors aren’t the only stakeholders keeping a close watch on Rule of 40 performance. Boards are increasingly engaging leaders on this point. A midsize SaaS company’s board recently created an operating committee to support the management team in building a path to the Rule of 40. And the compensation committee of another large SaaS company has devised incentive plans for top executives tied to progress achieved against the Rule of 40. The bottom line for a growing number of boards is that if the company is not doing its job with the Rule of 40, then leaders aren’t doing their job as a management team.

The best will act in enlightened self-interest. By taking a hard look at what rate of growth the business can reasonably maintain and steering the organization to maintain it in the most efficient way possible, leaders can turn the Rule of 40 into a winning proposition for the organization and all its constituents.

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How private equity firms are changing

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A playbook for newly minted private-equity portfolio-company CEOs

Unprecedented private-equity deal flow means more leaders than ever are stepping into the portfolio-company CEO role. Here’s guidance from the experts on the unique challenges and demands of leading a PE-backed firm.

by Claudy Jules, Vik Krishnan, Vivek Pandit, and Jason Phillips
CEOs who helm companies owned by private-equity (PE) firms face a leadership challenge unlike any other. They must master everything a great public- or private-company CEO does, all while operating at a higher metabolic rate. A newcomer to PE also faces the conundrum of having limited access to insight about the road ahead, because there is so little specific guidance in print about the portfolio-company CEO role. Its unique demands and nuances, however, need not be a mystery.

The world’s top PE firms can’t afford to skimp on CEO talent. The partners who hire, manage, and sometimes dismiss their portfolio-company CEOs think deeply about what sets their investment philosophy and ideal leaders apart.

“In short, we are constantly looking for the CEO with an ownership mentality,” said one PE-firm executive in Asia. In the interview process, this executive hopes “they will ask, ‘What is your underwriting base case and expected holding period? How much value do you expect to generate?’”

Executives at other PE firms highlight additional traits they consider essential to the CEO role, including nonhierarchical thinking, an instinctual grasp of financial metrics, and superlative team-building skills. These executives collectively emphasize the abundant support large PE firms offer their leaders, including operations teams, functional experts, senior advisers, trusted confidants, and a network of other CEOs within their holdings. The ability to derive benefit from these allies is a key leadership strength. In the words of one PE partner, “If they have the art to leverage the network to their advantage, they will be successful. Those who just use their wits will not be as successful.”

The lore of great public-company CEOs is so embedded in business culture that our definitions of leadership itself largely come from their experiences. However, at a time of unprecedented PE deals, more companies require leaders attuned to a portfolio company’s specific mission and pace, making it increasingly urgent to generate a body of knowledge about the CEO role. After massive COVID-19-related disruptions in the second quarter of last year, global PE deal flow increased 35 percent in the third quarter, compared with the prior quarter, and another 15 percent in the fourth quarter. Despite the pandemic, PE firms closed more than 3,100 deals in the fourth quarter, the largest count of any quarter to date. More is likely to come: global PE uncalled capital has reached $1.4 trillion, an early sign that 2021 may be a banner year for deal flow.

In 2020, PE firms paid higher purchase multiples in the United States than during any year in history, rising in one year from 11.9 times to 12.8 times. To put the multiples growth into context, an investor in 2020 paid 30 to 40 percent more than a decade ago to acquire the same earnings before interest, taxes, depreciation, and amortization (EBITDA). To create alpha in their portfolios and justify higher multiples, PE firms are increasingly moving to an even more hands-on engagement model.

This article, informed by our work and several recent interviews with PE executives, intends to pull back the curtain on how to be great in this role. We speak directly to you, the newly minted CEO at a PE-owned company. We consider the unique challenges you face and offer a set of actions to guide you through them.

What makes this role different
The CEO role is peerless, exciting, rewarding—and notoriously all-consuming. McKinsey’s research highlights the mindsets and practices of the best CEOs. Portfolio-company CEOs need to master not only these dynamics but also add to them another layer: delivering a broad and challenging agenda within a short time frame. In short, these leaders must train for a sprint and a marathon at the

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1 McKinsey analysis of custom data provided by Pitchbook.
same time. Typical CEOs look at their calendars to prioritize their week, while portfolio-company CEOs look at their watches.

**Working with a hands-on portfolio-company board**

Oversight of the portfolio company is the PE board’s day job, not just a fiduciary duty. This means that it’s more actively involved; in many ways, it works more like a “super management team,” at least about a quarter of the time. A PE board may require monthly in-depth financial reviews, a subset of the board may intervene when plan deviations occur or progress does not happen fast enough, and the board may be closely involved in helping select the management team.

Even when they are not engaging this deeply, high-functioning board members will behave like “cooperative skeptics”\(^3\)—meaning they will ask probing questions and defend against errors and assumptions. It is best, therefore, to design an engagement model that will allow you to get the best out of this active board construct.

"They have to understand that the board is not just a formality; they are a real forum that the CEO can use as a thought partner, and the board is in the driver’s seat," said a PE executive who routinely hires CEOs. Her advice? Give newcomers books about the PE industry so that they understand its history and language, which makes it easier to communicate with the board.

**An executable investment thesis is the top priority**

CEOs in PE face a paradox: the business plan is often “written in blood,” and thus, decisions and actions must align with the investment thesis. On the other hand, the CEO must simultaneously be creative, always looking for new ways to underwrite and expand the value-creation plan. The role of the CEO as a strategist is trumped by the need to execute the investment underwriting.

Executing based on a preset plan requires you to understand the deal thesis in both its essence and details and be on top of the numbers and value-creating levers more than any other type of CEO. This granular insight is vital because injecting more capital or time to absorb a mistake can be a problem for the PE firm’s returns and credibility.

The best CEOs “care about how well the finance team is pulling the data for them, giving them visibility into the business,” said a PE executive based in Asia who specializes in hiring.

"In a public company, the CFO will drive all that, but in PE, the CEO has an equally strong grasp of the financials," said another partner, echoing a common refrain among PE experts: silos between departments and functions have no place in a PE-backed company. Portfolio-company CEOs need to get comfortable with a nonhierarchical, horizontal culture.

**Speed to value is prized over meticulous planning**

Arguably, the biggest concrete difference between the role of a CEO in PE and any other type of CEO is the pace. Capital in PE clocks at 20 to 25 percent a year, and every month of delay burns returns. PE firms operate with strict timetables for when a company should deliver against its deal thesis, which means that urgency is a way of life for leaders. In the words of a PE director, “A lot of [CEOs] come to the realization that the performance pressure is for real.” (For a look at other psychological challenges that can accompany this role, see sidebar, “Coping with the pressure: The inner life of a portfolio-company CEO.”)

Our research indicates that inertia will stick out like a sore thumb. You will be compared to other CEOs across your PE owners’ portfolio, and partners won’t show the patience corporate boards or shareholders might.

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\(^3\) Kathy Kantorski, “Primed for the boardroom,” *Hispanic Executive*, April 1, 2019, hispanicexecutive.com.
Coping with the pressure: The inner life of a portfolio-company CEO

“*It’s a combination* of insecurity, imposter syndrome, ego issues, all of that,” said one PE director when asked to name the biggest psychological challenges portfolio-company CEOs face. Then there’s the pressure of interacting with the board, coupled with very little time to figure out how best to present earnings, strategies, or other crucial issues, as expressed recently by one of her CEOs: “I used to deal with my public shareholders every quarter. I thought working for you would be easier, but you guys are looking at us on a monthly basis, and I have very little room to massage the numbers or get the story lined up.”

Some leaders struggle with the pace. After two dissatisfactory quarters, a PE board is likely to get deeply involved in solving the problem. That alacrity can surprise newcomers and may prompt rash decision making. One PE partner who acts as a mentor to several CEOs said he often counsels them to make lists, consider options, and run scenarios.

Another struggle for some CEOs is maintaining a sense of conviction in the face of a deeply embedded PE board and operating team. Too much acquiescence, however, is a mistake: “We had a CEO who said yes all the time, and we fired him,” said one PE partner. “They have to have their own point of view, be able to defend it with logic and numbers, and be able to have a constructive debate with us,” he said.

Newly minted portfolio-company CEOs: Four ways to succeed

Any CEO must know their stakeholders, assemble a great executive team, make plans, and develop a network of trusted advisers. Each of these standard leadership tactics will be more important and more nuanced in your new life as a private-equity portfolio-company CEO. To develop mastery in each area, we suggest breaking down the challenges by taking stock, taking action, and, ultimately, taking control.

Build a relationship with the board

As discussed above, a PE board will be engaged in a more intense, hands-on way than any board you have encountered previously. An essential part of your job is to build a good relationship with each board member and shape your license to operate.

As PE firms develop and refine their active management strategies, they are building boards in new ways. Two prominent PE players in Asia recently began to include one or two nonexecutive, independent industry experts on their boards. An executive at one firm said, “We have found that they bring a very refreshed perspective, particularly in areas like environmental, social, and governance [ESG]; accounting; and controls.” It’s essential to understand what each board member brings to the table and how they can help you.

Be on the lookout for common misalignments. It’s possible, for example, that deal partners hold different views of how M&A fits into the company’s future. An operating partner may have been through an analogous situation that informs their ideas about what commercial levers can be pulled and in what sequence. Deal teams may have identified what they view as critical gaps in the company (such as supply-chain, cybersecurity, or ESG risk). It’s essential that you know what people think and why. Aim for “zero daylight” between each stakeholder’s point of view and your plan.

— *Take stock.* Make sure you understand the expectations of the sponsor and board, what they view as priorities for the business, and the skills and experiences you and they bring to the table.
— **Take action.** Establish a structured and frequent cadence of informal conversations and formal reviews, especially with your operating partner. Do you need to check in once a week? Once a month? Enroll critical players in your decision making and determine who you can count on for honest feedback.

— **Take control.** Come to your owners with ideas. Put forward a point of view on organic and inorganic growth. Your job is to constantly search for new sources of value, act at pace, and use informal and formal communication channels.

**Quickly assemble an A-team**

Team-building skills are paramount in this job. Many PE investments involve turnarounds in which the new CEO must partially or fully rebuild the C-suite. Furthermore, because portfolio companies are typically smaller than publicly traded companies, CEOs will spend much of their time working alongside their team rather than providing more distant guidance.4

Our research shows that effective talent management drives financial outperformance. Companies that reallocate talent frequently are 2.2 times more likely to outperform their peers, and those that get talent right in the first year achieve 2.5 times the return on initial investment.5

It’s more than a matter of hiring the CFO or COO with the right résumé. Typically, we find that new portfolio-company CEOs need to fill about 30 to 40 percent of “level two” positions, including heads of finance, human resources, procurement, and revenue, and roughly 50 to 65 percent of “level three” positions, which are typically at the vice president level.

— **Take stock.** You’ll be able to figure out what roles need what talent by getting closer to the investment thesis and sources of value.

— **Take action.** Swiftly assess your direct reports and move quickly on anyone whose performance is questionable. If you’ve confirmed a problem after 90 days, it’s too late; others will assume it’s your problem. Be sure you’ve got your A-team in place before working on esprit de corps. Push for diversity on your management team and board to support internal challenge and healthy debate, improve decision making, and strengthen customer orientation.

— **Take control.** In making a commitment to diversity, arm yourself with the data that prove it is the right business strategy. For example, in an examination of its portfolio companies, the Carlyle Group found that organizations with diverse board members achieved 12 percent higher earnings growth compared with boards that are less diverse.6

**Launch an achievable 100-day program**

Your plan for the first 100 days will depend on the complexities of your business and other issues that are too numerous and nuanced to cover comprehensively in this article. Instead, we highlight below some of the most important factors to consider throughout this crucial period.

A feasible plan with bankable projections is of critical importance. This road map needs to be grounded in a keen understanding of trends, team capabilities, and potential for success. Unrealistic, overly optimistic plans are perilous, while realistic goals are central to aligning the portfolio-company board and management. Confirm the plan’s feasibility early in the process.

Never “fall in love with the asset.” Instead, continually conduct mental acid tests: If you were a venture-capital or PE firm, would you buy the business and keep your talent? In short, be open to possibilities and move fast to capitalize on opportunities.

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— **Take stock.** Develop an employee experience that attracts the best thinkers and doers. Identify three to five strategic priorities and set the team on task. Secure external expertise to support change initiatives. Put comprehensive reporting tools in place for monthly financial and operating metrics tied to strategy.

— **Take action.** Maintain an expansive mindset that encompasses all potential levers for value creation, including potential profit or balance-sheet improvements, working-capital optimization, product innovation, customer partnerships, regulatory actions, M&A opportunities, and the right exit strategies.

— **Take control.** Once you have identified the potential levers for value creation, the next challenge is to deliver this broad agenda in record time. Design your governance setup around a cadence of interactions to deliver the company’s full potential, which should include special sessions with the board to discuss M&A and/or divestiture options and intensive sessions to look at innovation opportunities.

**Leverage the resources your PE sponsor has to offer**

Today, top PE firms are building internal operating groups and developing more resources to help improve the operating performance of their companies. Some PE firms are staffed with functional experts with deep knowledge of e-procurement, data analytics, leadership development, and enterprise support, among other topics; these experts don’t join company boards but instead work with portfolio companies as needed. In addition to their own operating partners, PE firms may have access to senior advisers with deep experience on specific topics, such as inflation, or relationships with trusted consultants. CEOs of other portfolio companies are another consortium from which you can draw counsel.

— **Take stock.** Identify key resources within your PE sponsor and determine how to integrate them into your operating model. Consider which networking events with peers will most help you. Be open to receiving and acting on constructive criticism and advice.

— **Take action.** Design your interventions with the capabilities and oversight you have identified in mind. Clarify mentally the type of leader you want to be (for example, inspirational visionary, disruptor, execution driver, among others). Have a personal reckoning to decide whether this is a capstone to your career or if you are positioning yourself for something else. If it’s the former, focus on contributing back to the PE-firm repository by coaching other potential CEOs. If it’s the latter, decide on the impact you intend to have as CEO, hold yourself accountable, and never lose sight of the fact that you will eventually transition.

— **Take control.** Know what leadership behaviors your team and the company need from you, and model them daily. Be vigilant about your personal boundaries, making sure to manage your most valuable resource—your time—for maximum efficacy.

The role of CEO of a PE-portfolio company stands apart from other leadership opportunities. From 1996 to 2015, the number of publicly traded

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companies listed on US stock exchanges alone declined by nearly 50 percent. Some of this shift resulted from company bankruptcies, failures, or mergers—but in most instances, the delisting came from publicly traded firms going private. ⁸

Despite the growing predominance of PE-owned companies and the CEOs who steer them, playbooks for this type of leadership have previously been scarce. The guidance here provides the latest thinking by major players in PE who scrutinize leadership practices daily. Absorbing these winning strategies into your muscle memory will help you meet the challenges of this demanding and rewarding role. It is a form of leadership better aligned with the way a growing number of companies are financed, run, and valued.

Claudy Jules is a partner in McKinsey’s Washington, DC, office; Vik Krishnan and Jason Phillips are both partners in the San Francisco office; and Vivek Pandit is a senior partner in the Mumbai office.

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Climbing the private-equity learning curve

CEOs who are used to engaging with public-company boards face a different paradigm when it comes to private-equity boards. Here’s what they can expect.

by Conor Kehoe and Tim Koller
Successful executives from public companies may be eager to take on the new challenges of leading a private-equity (PE) firm’s portfolio company. However, they may not realize the differences in approach between the boards of public companies, which often view themselves as stewards, and the boards of PE portfolio companies, which frequently take a far more active role. As a result, C-suite leaders who are making the switch face a learning curve—which, based on more than 30 interviews conducted with CEOs of PE-owned companies over the past few years, typically spans three phases: the initiation, a realization of benefits, and full integration. It’s an adjustment that may require the experience of several PE-ownership cycles, but here we describe the stages mapped onto one deal cycle.

The key differences
Our research has shown that public companies and PE portfolio companies alike can have engaged boards. However, boards of PE portfolio companies tend to systematically take a coleader role with the CEO on important topics; engaged directors not only help set strategy and manage performance but also master the details needed to stress-test, push back on, reset, and dramatically improve the business.

Indeed, PE board members feel like owners themselves. Senior managers of the portfolio company typically own about 5 to 8 percent of the company stock, and the PE firm votes the rest of the shares, which are owned by the PE fund (in which the PE firm is a major investor). While there is no uniform board size or lineup, the boards of PE portfolio companies usually include the “deal partner,” who is typically a midcareer financier, and one other member of the PE firm. There is typically a chair, who is frequently an ex-CEO, often from a much larger company than the portfolio company in question. Additionally, the boards will include one or two other nonexecutives—for example, experienced external nonexecutive directors with specific know-how in the company’s core sector or in a functional topic, such as digitization or artificial intelligence, that is key to the company’s future.

PE portfolio company boards are generally younger and smaller than public-company boards, thereby increasing each individual’s engagement. This engagement and PE company board members’ bias toward active ownership are what drive much of the “alpha”—outperformance relative to quoted peers—in any deal.

The learning curve
The active ownership of PE boards can take some getting used to. CEOs accustomed to working with boards of publicly traded companies typically go through three stages to climb the PE learning curve.

The first phase, the initiation, can last about six months. During this period, PE portfolio company executives come to realize that the PE board’s approach is both hands-on and focused on the medium and long term. Short-term earnings targets, particularly in the first two years, matter far less than robust value creation by year four.

Right from the start, the board will be geared to engage. As part of their diligence in acquiring the portfolio company, the incoming nonexecutive board members often will have spent three or more months steeped in due-diligence reports, including reviews of management plans and projections. The board’s commercial due-diligence team will have reported back on 50 to 100 interviews of suppliers, large customers, regulators, former employees of the company and of rival companies; other due-diligence teams will have delved deeply into financial accounts, legal commitments and liabilities, and environmental, social, and governance (ESG) risks. It adds up to the incoming board having a considered, research-based viewpoint on the company and its industry.

Almost certainly, the members will have developed their own multiyear value-creation strategy for the company as part of their investment plans.
Moreover, they know the plans can change: the new board members expect that the management team will have ideas they had not thought of and that new facts will come to light. The same will apply for CEOs when they present their plans to the PE board. They should be ready for detailed scrutiny and a robust back-and-forth.

PE boards have a determined focus on performance management and associated key performance indicators to meet longer-term strategic plans. This longer-term approach should, of course, apply for publicly listed companies as well—thoughtful public-company board members also recognize that a focus on short-term earnings-per-share targets is usually detrimental to long-term value creation. The reality is, however, that outside-driven, short-term targets can distract even the most conscientious public companies. These distractions are less of an issue in the PE context.

Indeed, new CEOs of PE-held companies may find that they need less time for formal board meetings overall because board members will already be highly engaged between meetings—visiting sites, customers, and suppliers and conducting ad hoc calls to advise management on opportunities or threats arising between board meetings.

The second phase of the learning curve is when PE portfolio company executives begin to see the benefits of working with PE boards. For example, should an executive need to fire a senior member of her team, it can be quite a lonely spot. With an active board, however, CEOs aren’t alone; they have full thought partners on their board who know the company inside and out. An actively engaged board also helps inoculate CEOs against second-guessing; directors are right there, making the hard decisions, too.

The pace of decisions is quicker as well. Business isn’t run at the artificial pace of board-meeting dates. Senior executives come to realize that the quality of their proposals to the board is higher; this, when combined with well-informed decision making, can be a double step-up.

With this realization, PE portfolio company executives are at phase three: fully up the learning curve. At this point, they find themselves enjoying the flow of ideas and encouragement from the chair and nonexecutives and from the deal partner. Based on anecdotes we’ve heard, at this stage, transitioning executives often feel like they are becoming better managers. In their public-company experience, they may have grown used to putting their ideas for enhancing the company through two filters: first, how hard it would be to explain this idea to their board, and, second—should they succeed with their board presentation—how hard it would be to convince a dispersed set of shareholders. In the process, they may weed out good ideas too early. That is not the case with a deeply engaged PE board. Its members not only grasp the business circumstances immediately but also vote the stock and can be an almost “instant shareholder meeting,” if need be.

The lessons of longer-term orientation, open dialogue, and support for bold moves are ones that successful public companies can internalize, as well. In fact, companies of all types can learn from what makes good boards even better.

As senior executives confront the transition to PE ownership, experienced PE board members can let them know that they understand how discomfiting a manager’s experience can be, particularly at the start. For their part, CEOs who are transitioning to PE-held companies should understand what awaits them and how they can expect the experience to unfold. As in value creation itself, it’s a process for the longer term.

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Winning at portfolio-company integrations

Private-equity firms use add-ons to scale portfolio companies, but poor integrations impact results. Five practices can ensure that deals flourish.

by Oliver Engert, Ali Korotana, James McLetchie, Sean O’Connell, Yves Slachmuylcers, and Patryk Strojny
One increasingly popular strategy for private-equity (PE) firms in recent years is to “buy and build.” In that approach, existing portfolio companies create platforms and pursue add-on acquisitions to achieve rapid growth and scale. In 2004, add-on transactions accounted for roughly 43 percent of PE companies’ deal volume, but the share increased to approximately 71 percent as of the end of 2020.¹

While buy and build can be a winning strategy, mediocre integrations turn deals that might have been transformative into slow-growing add-ons. At worst, poorly managed integrations can erode investor returns. Unfortunately, in our experience, that isn’t a rare outcome. A large group of PE owners and portfolio companies will likely have inconsistent integrations for many reasons, including lack of expertise, slow decision making, and poorly defined roles for both platform companies and PE firms’ deal teams.

PE-company teams and platform-company managers can, however, capture maximum value from their integrations. In this article, we examine four key, often-overlooked principles that the most successful companies make central to their integration efforts. We then propose five practices that PE sponsors can pursue in their next add-on deals. Activating these best practices will help deliver successful integrations, maximize the potential of the add-on strategy, and capture full value from deals.

The value of integration
After the intense focus required to advance a deal to signing, companies often call on management teams that lack merger-management experience to execute the integration. Although the leaders of such teams may be experienced in running private companies with great success, they often realize too late that an integration is different and that it requires highly specific expertise. In such situations, the integration falters and is managed only intermittently. To create full value, successful merger-management teams must operate at a much faster rhythm. They are required to make many more decisions, in a much shorter period, than during business as usual.

The benefits of broader, faster action
During due diligence, companies consider how quickly cost synergies can be realized and the potential for future revenue growth. This, plus any additional value that can be created, is the basis on which financing and decision making occur. However, it has been our experience that a lot more value—well beyond the estimates made before the deal—can be unlocked once ownership is assumed.

Successful integrators revisit the drivers of value for the merging companies. They look more aggressively at what’s possible through at-scale cost reductions and rapidly move on to consider broader, transformational shifts in productivity to accelerate growth (for example, through professionalization of the sales force and adoption of agile techniques). Transformational capital efficiencies, such as those that can be achieved through the choice of technology infrastructure or platform, may also present substantial upside.

The division of labor
In an integration, the PE firm’s deal team (or for some, operations team) and the portfolio company have essential but different roles to play in making the integration work. While collaborating on the big picture, they can each take on the primary roles for which they are best positioned.

Four underestimated themes in an integration
Leading PE firms approach integration planning with the same discipline and rigor that they use in deal sourcing and diligence. They understand the material value that can be derived by successfully integrating acquisitions and the extent to which great integrations build confidence in the platform company’s valuation. We have observed four key themes that lead to success.

The PE company’s team oversees responsibilities that include the following:

— identifying the primary opportunity areas for synergies as well as sources of risk
— finding and installing the best possible management team (which might be the current leaders) for the newly acquired company
— developing and continuously monitoring the performance requirements (both financial and operational, including the expected synergies) for the newly acquired company

The portfolio company’s management team focuses on the following:

— delivering on the deal thesis by capturing opportunities, mitigating risks, and putting plans in place to capture value from initiatives to reduce costs and capital usage and lift revenues
— operationalizing the newly formed company, with managers designing and establishing the operating model, organizational structure, governance and decision processes, talent-selection process, cultural initiatives to align the merged companies, and the necessary change-management program to deliver the newly formed company
— designing a “glitchless” day one, as well as making subsequent fast transitions for customers, employees, and vendors

The role of experienced integration professionals
The model for the governance, oversight, and support for a portfolio company that is pursuing an add-on strategy often resembles one used for a stand-alone acquisition. While the model can work well in some cases, many companies miss opportunities by not including individuals who have direct integration experience in company-level operating teams and on boards. When portfolio companies are run by lean leadership teams or have substantial M&A activity, adding such experts to PE firms’ deal teams rather than portfolio companies’ management teams likely makes more sense. It ensures that any lessons learned are shared and that M&A synergies are fully realized across the portfolios.

Five add-on practices for private-equity sponsors
Successfully executing an add-on strategy requires that both the PE firm and the portfolio company bring expertise, integration capabilities, and unique mindsets to the table. Five practices help ensure that the integration extracts the maximum value from the deal.

Align goals
A shared mission focused on a deal’s full potential is the glue that will make partnerships sustainable across the PE firm and the portfolio company’s management team. Lack of this core alignment often sits at the heart of disrupted mergers, and it manifests as lost momentum, missed targets, and talent attrition.

During an integration, portfolio-company leaders will be asked to do much more than usual, including making decisions faster than they are used to while simultaneously taking on a heavier workload. In those circumstances, some management teams may be hesitant to commit to ambitious targets or to widen the aperture on value and broaden their perspective on potential synergies and opportunities.

Accelerate decision making
Integration planning often takes a back seat during deal making. Top-performing integrators, however, invest substantial time before a deal closes in tailoring an integration approach based on the deal rationale, value, and risk and in putting in place an integration program that enables fast decision making.

In practice, that means identifying the 12 to 15 critical decisions required and ranking them on a critical-decision road map. Moreover, the most effective deal and operations teams in PE firms use a focus on value creation to overcome secondary
and distracting objectives. They and management teams jointly prepare, present, and use such road maps to ensure focus, prioritization, and transparency.

Ensure rigor
One crucially important but often overlooked step after the deal closes is to establish an apples-to-apples financial and full-time-equivalent baseline to understand exactly how each company has classified its employees and functions so that they can be correctly compared. It’s only by having granular insight into roles, salaries, and departments that management teams can make accurate estimates, find all the possible synergies, and eventually track the outcomes of those synergies. A baseline can ensure that near-term synergies are clearly identified and rapidly executed.

PE firms’ teams can set quantified targets that top managers can buy into, insist on highly detailed planning, and prioritize execution through a series of value-capture summits. During those dedicated working sessions, sponsors and managers (properly prepared with the right fact bases and relevant data) can align on and prioritize initiatives. In our experience, a series of such summits can deliver a structured and trackable approach to overdeliver on targets. The plan is then built into the company budget.

Secure talent
PE investors are generally good at identifying and retaining critical leadership talent, typically CEOs and founders. They can take their talent-spotting skills a level deeper and assure retention of three other important types of talent:

— **Mission-critical talent.** Critical employees are essential to completing important activities and next to impossible to replace.

— **High-potential talent.** High-performing, high-potential employees can rise to more senior roles.

— **Value-creating talent.** Value creators are crucial to delivering the deal thesis and the majority of synergies. It’s important to note that in relatively small companies, it doesn’t take many people to move the needle—often, ten to 20 roles drive most of the economic value.

Appreciate culture
Culture is relevant not only to top teams but also to management practices, which are essential to understand when merging two companies. For example, are decisions made by the most senior, accountable executive or by building consensus in the leadership team? Creating alignment in styles and practices when combining marketing, R&D, sales, and other teams is critical to creating a united group that’s focused on delivering the core deal rationale.

If not addressed properly, cultural-integration challenges inevitably lead to friction within the top team, decreased productivity, and unexpected talent attrition. Successful teams will rigorously assess top-management practices and working norms as part of diligence and head off cultural risk early.

The practices outlined in this article can quickly improve integrations, with results that can be seen in both top- and bottom-line results. Taking these factors together, it’s clear that M&A integration can be a powerful driver of ROI across the ownership cycle and should be a key pillar of a portfolio alpha strategy.

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