

VOLUME 7 | SPRING 2021

# THE REAL ECONOMY

# INDUSTRY OUTLOOK

THE POWER OF BEING UNDERSTOOD  
AUDIT | TAX | CONSULTING



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As the U.S. economy revs up for a sustained recovery, data-driven analysis provides critical insights for middle market businesses.

*The Real Economy: Industry Outlook* provides a collection of sector-specific insights developed by our RSM US LLP

senior industry analysts, a select group of professionals dedicated to studying economic and industry data, market trends and the emerging issues faced by middle market businesses.

Each outlook offers a data-driven approach to industry research, examining the effect of economic factors, including the impact of COVID-19, earnings, competitive landscapes, consumer behaviors, capital flows, mergers and acquisitions, supply chains, labor and more.

Should you have questions about any of the following content, please [contact us](#).

Sincerely,

**JOSEPH BRUSUELAS**, CHIEF ECONOMIST, RSM US LLP

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The services firms best positioned for the future are those that are taking advantage of the low real interest rate environment.

## INDUSTRY OUTLOOK:

# BUSINESS AND PROFESSIONAL SERVICES

BY MICHAEL GERLACH AND STEPHANIE JOHNSON

### BUSINESS AND PROFESSIONAL SERVICES

firms continue to anticipate what doing business will look like following the pandemic while advising their clients to do the same. This has involved investments in such operational components as technology, digital transformation, data-driven decision-making, virtual on-boarding, employee engagement and increased cybersecurity. This investment also includes time spent reassessing strategic initiatives, targeting end markets and shifting sources of demand going forward.

The services firms best positioned for the future are those that are taking advantage of the low real interest rate environment to prepare for the opportunities the economic recovery will bring.



### KEY TAKEAWAYS

- Law firms are tackling technological challenges the pandemic has forced upon them, including increasing cyberthreats and rising expenditures on potential efficiency solutions.
- Many law firms do not have processes to teach their attorneys how to productively implement new, beneficial technologies.
- Government contractors should be prepared to comply with new regulations designed to secure the defense supply chain.
- As the Biden administration prioritizes environmental, social and corporate governance (ESG), contractors are aligning to those pillars.
- Workforce solutions providers are anxiously awaiting growth—not just recovery—in the post-pandemic economy.

## LAW FIRMS

As law firms look to see if the rate increases they adopted heading into 2021 have staying power in shooting them toward the vaunted top-line growth, many firms are continuing to tackle the technological challenges the pandemic has forced upon them. Law firm leaders are contending with increasing cyberthreats, requests for additional expenditures on potential efficiency solutions, and repetitive demands from staff for some sort of shift in the law firm model. They will have to determine which investments make sense right now and which solutions will need to take a back seat.

### Continued cyberthreats

The safekeeping of client data is essential for law firms. Many have access to key client data that in the wrong hands could lead to hugely negative financial impacts for law firms and their clients. Firms have both ethical and legal obligations to protect privileged client data—or face potential fallout from the untold cost of recovering from a data breach.

To be sure, cyberthreats remain imposing: 28% of middle market executives (not only at law firms) claimed that their company experienced a data breach in the last year, according to RSM US' Middle Market Business Index [Cybersecurity Special Report](#), which received survey responses from executives at 284 companies in the first quarter of 2021. That's the highest annual percentage in the six-year history of the survey and up from 18% a year ago.

More specifically among law firms, we have recently seen two of the Am Law 100 firms affected by data breaches through third-party vendors' readily exploitable vulnerabilities. And according to the American Bar Association's [2020 cybersecurity survey](#), 29% of respondent firms reported experiencing a cybersecurity breach last year, up from 26% in 2019. That underscores why national security leaders since 2016 have warned law firms that cybercriminals are seeking access to law firm networks and the significant amount of data to which they have access.

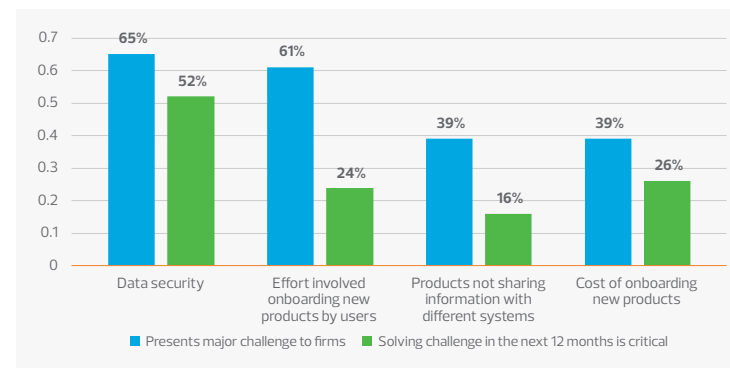
However, given the structure of many firms, it is common for numerous executives or partners to challenge whether cybersecurity expenses actually are benefitting the firm and its clients. Of the ABA survey respondents that reported experiencing

a cybersecurity breach, 67% reported their belief that no significant business loss or disruption resulted from it—an increase from 62% in 2017 and 65% in 2018 and 2019.

"It is only natural to wonder whether the seemingly positive trends reflect a troubling false sense of comfort in the short term amid the prospect of potentially longer-term harm," the ABA wrote in its survey report.

On the other hand, consider the results of a Thomson Reuters Legal survey that reported the largest concern for law firm leaders around technology is, in fact, the security of the data housed inside the firm.

### Interoperability challenges and plans to solve challenges



Source: Thomson Reuters

Given those mixed signals within the feedback from firms, firm leaders must make sure they have the right information about their clients, their clients' data and the susceptibility of their systems to outside threats to be able to support increased expenditures on security enhancements. All the while, those same leaders have to decide how to walk the fine line between expanding their firms' digital footprint and determining the interoperability of their current systems.

### MIDDLE MARKET INSIGHT

Law firm leaders must have the right information about their clients, their clients' data and the susceptibility of their systems to outside threats to be able to support increased expenditures on security enhancements.

What many law firms find upon implementing new technologies is that many of their attorneys barely scratch the surface of the technology's usefulness.



### Invest in technology and people?

Our recent discussions with law firm leaders illuminated a trend in how firms are investing in the productivity of their attorneys. What many firms find upon implementing new technologies—whether it be a new matters management system, new application programming interfaces (APIs) to integrate data streams, or new systems for customer relationship management (CRM) or enterprise risk management (ERM)—is that many of their attorneys barely scratch the surface of the technology's usefulness. Therefore, attitudes toward technology upgrades take a long time to shift in support of advancements, as the perceived value of the investment is simply not being realized by the individual attorneys.

However, as we inquired further about the firms' ability to train or upskill their attorneys on the exponential growth in technology that has transpired over the past five years, many firms acknowledged they simply do not have the processes in place to teach their attorneys how to productively implement new technologies that would increase their teams' overall productivity. Firms whose [digital strategy](#) includes an implementation team (comprised of attorneys and information security professionals) will equip their attorneys to serve clients as efficiently and effectively as possible, regardless of how complex the new technology is.

The aforementioned Thomson Reuters Legal survey found that only 44% of those surveyed provide formal project management training that could teach attorneys how to effectively manage their projects. In addition, when surveyed firms were asked how many attorneys are actually trained in project management, 53% responded that no more than 20% of their attorneys are trained in effective project management.

How might law firms fill this large void? They can collaborate with staff attorneys, especially those who have recently graduated and are looking to make an impact at their firms, on how to effectively implement technology and fully benefit from their firm's investment.

In fact, as is the case with students graduating from accounting and finance programs who are trained in data interrogation and manipulation, we see a huge opportunity for firms to separate themselves in the marketplace by attracting law school graduates that possess data skill sets that many more experienced attorneys simply don't have and, as is often the case, don't have the desire to learn.

As long as the firms can effectively implement a process by which the partners work with, seek feedback from and listen to these staff members, the results could be game-changing in the firms' efforts to attract top talent. So, as firms are looking for ways to increase attorney productivity to increase profits, there should be a mechanism in place to ensure their attorneys are trained in successful project management, especially as legal technology continues to offer new solutions at an exponential pace.

### MIDDLE MARKET INSIGHT

We see a huge opportunity for law firms to separate themselves in the marketplace by attracting law school graduates that possess data skill sets that many more experienced attorneys simply don't have and don't have the desire to learn.

## GOVERNMENT CONTRACTING

Government contractors continue to position the federal government for the future, whether objectives are related to space exploration, digital transformation, managing smart and secure supply chains, or pushing forward ESG initiatives. The federal government continues to lean on its partnership with private, commercial businesses to tap into the brightest minds with the flexibility and agility to innovate in an economical manner.

### SPACs in space

High growth areas in government contracting are not missing out on the [special purpose acquisition company](#) sensation. Virgin Galactic charted an unusual path in October 2019 when it went public via a SPAC called Social Capital Hedosophia. Fast forward to Q1 2021, and many space businesses are seeking financing for their expensive endeavors via SPAC transactions. While Sir Richard Branson's goal to make everyone an astronaut screamed "Expensive!" in 2019, space exploration and defense can also have large addressable markets, high growth expectations and significant up-front investment, making a SPAC a viable option for raising capital.

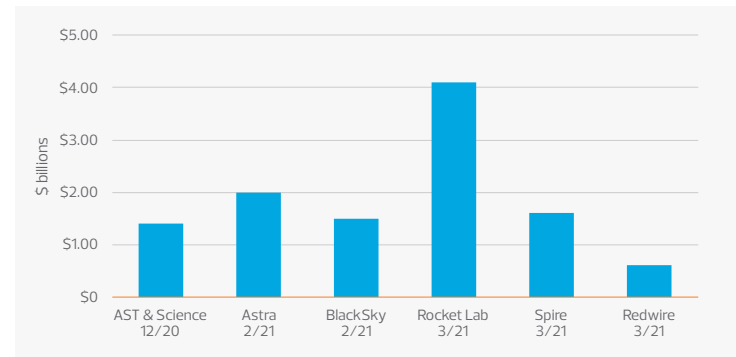
Six notable SPAC transactions were announced in Q4 2020 or Q1 2021, all with estimated valuations exceeding \$600 million. These businesses spanned the space applications spectrum: AST & Science is building a space-based cellular broadband network; Astra and RocketLab are developing small launch vehicles; BlackSky is providing satellite imagery and geospatial intelligence; Spire is operating satellites; and Redwire is manufacturing space infrastructure. Space Acquisition Corp. also filed its Form S-1 on March 3, 2021, and intends to "focus on a prospective target business in the 'space economy.'"

April subsequently brought a slowdown in SPAC IPO activity and an SEC warning that some SPACs may have improperly accounted for warrants issued or sold to their investors.

#### MIDDLE MARKET INSIGHT

While ESG initiatives can provide additional compliance and reporting burdens on government contractors, they also provide contractors great opportunity to help the federal government achieve its goals.

### Space SPAC valuations



Source: SpaceNews; RSM US LLP

### Securing and innovating the defense supply chain

The defense supply chain is a central focus as the federal government looks to mitigate risk in light of the hot geopolitical climate and additional exposure resulting from the coronavirus pandemic. The Biden administration [set a resolute tone in its first 100 days](#) by issuing two executive orders focused on reshoring and shoring up U.S. supply chains, particularly those that affect defense and national security.

Govini conducted a survey that examined the supply chains of over 1,000 Department of Defense contractors to better understand how the U.S. defense supply chain is geographically dispersed. The summary table of their results illustrates the increasing foreign involvement in the defense supply chain as it progresses into the various tiers of the supply chain. The presence of Chinese firms begins in tier 2 and increases to approximately 9.0% by tier 5.

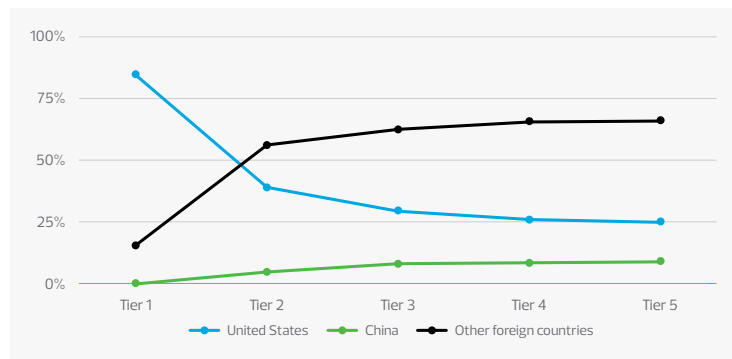
Per Govini, Chinese firms have the greatest presence in a handful of industries, including specialty chemicals, major diversified chemicals, telecommunications equipment and electronic components. Reshoring efforts will likely be focused in the areas where Chinese firms have the largest footprint and demand is expected to increase.





Efforts to reshore the U.S. defense supply chain will likely be focused in the areas where Chinese firms have the largest footprint and demand is expected to increase.

### Country-based suppliers by tier (2019)



Source: Govini

Government contractors should be prepared to comply with new regulations and be poised and ready to help the federal government reshore, simplify the complexity and mitigate the risk embedded in the current procurement structure.

In addition to remaining compliant with government regulations, contractors should also look to embed innovation within the defense supply chain. Charlie Prow, CEO of Vectrus, noted in the company's fourth-quarter earnings call: "Our clients are going to expect us to operate facilities and supply chains in a much more instrumented and predictive way." He also highlighted his company's focus on converged infrastructure that shifts from traditional operations and supply chain management to using targeted, integrated, innovative, smart, secure and energy-efficient technologies. Some of those technologies could include 5G-enabled smart warehouses, robotic material moving, Internet of Things automation, environmental sensing capabilities and more.

### Aligning federal operations with ESG goals

ESG initiatives are in vogue in government with the Biden administration ensuring every major federal government decision considers the related impact on the environment and social justice issues.

First, the Biden administration campaign platform targets to triple the federal government's contracting goal for small, disadvantaged businesses by 2025 (increasing from 5% to 15%), highlighting the new administration's focus on empowering disadvantaged groups via government procurement benefits.

From an environmental perspective, government contractors are planning and positioning themselves accordingly. During Parsons Corporation's Q4 2020 earnings call on Feb. 25, Chief Operating Officer Carey Smith highlighted their "alignment with the Biden administration's focus on sustainability" and said they are "well postured for smart, sustainable infrastructure priorities."

### MIDDLE MARKET INSIGHT

Business confidence in the economic recovery is increasing enough for employment services firms to rebuild or expand their workforces. However, success is likely experienced in industry pockets and depends on how the pandemic is affecting the end market served by each firm.

Additionally, ICF International CEO John Wasson, on an earnings call Feb. 25, referenced the Biden administration's "overarching goal of decarbonizing the U.S. economy," citing the effort to rejoin the Paris Climate Accord and the U.S. Treasury Department's establishment of a climate hub. Wasson sees this as an opportunity for ICF to provide related analysis, expertise, tools and coordination to achieve this goal.

Finally, L3Harris published its inaugural [sustainability report](#) that highlights goals and actions across the pillars of ESG considerations. Specifically, environmental considerations include reducing greenhouse gas emissions, signing renewable power purchase agreements, conserving resources and preventing pollution. Social initiatives include diversity hiring goals, COVID-19 safety procedures, STEM (science, technology, engineering and math) education, and community enhancement. Governance encompasses enterprise risk management, strategic oversight of ESG matters and compliance, and expanded ethical and compliance review boards.

While ESG initiatives can provide additional compliance and reporting burdens on government contractors, they also provide contractors great opportunity to help the federal government achieve its environmental and social goals. We expect the Biden administration to incorporate ESG matters into procurement practices in a meaningful way going forward.

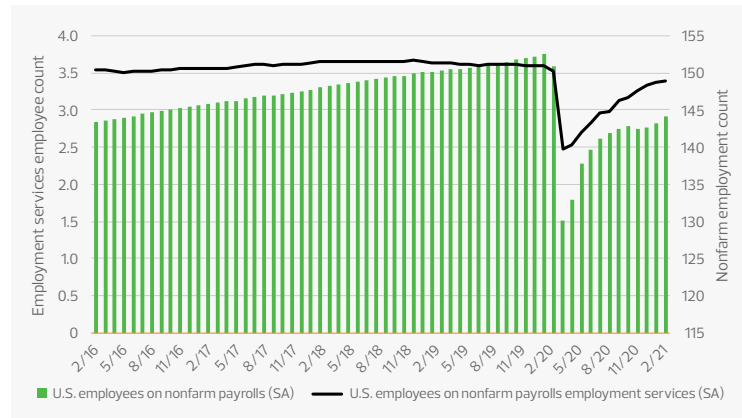
## WORKFORCE SOLUTIONS

Among the variety of workforce solutions providers, a narrow focus on staffing and executive search firms shows a subsector recovering from pandemic-induced hiring freezes at the companies they serve. Payroll processing firms are hoping for an economic recovery that supports small and medium-sized businesses in a way that allows them to not just survive, but thrive. Overall sector performance is driven by employment and business growth. Therefore, these firms are anxiously awaiting federal fiscal stimulus and policy decisions to translate into a lower unemployment rate and increased business confidence and investment.

## Employing the employers

The number of U.S. employees on employment services payrolls is gradually approaching pre-pandemic levels after a cliff drop-off in April 2020 when total employment bottomed at 2.5 million, approximately 1 million lower than the lowest period in the last five years (3.5 million in May 2016). This signals that business confidence in the economic recovery is increasing enough for employment services firms to rebuild or expand their workforces. However, success is likely experienced in industry pockets and depends on how the pandemic is affecting the end market served by each firm.

### U.S. employees on nonfarm employment services payroll (in millions; seasonally adjusted)



Source: Bloomberg; Bureau of Labor Statistics

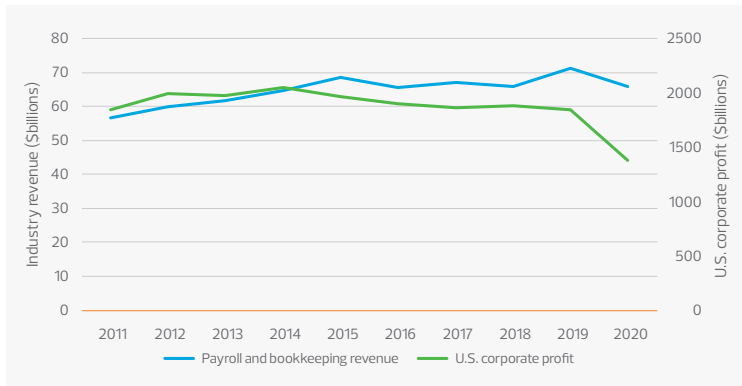
## We need the American dream

U.S. corporate profits (total profit earned across all industries) correlate with revenue for payroll and bookkeeping services providers, as companies look to outsource administrative tasks as they scale and achieve profitability. U.S. corporate profits dipped in 2020 as a result of the pandemic, with industry revenue following a similar pattern.

Payroll and bookkeeping service providers need policy decisions and recovery efforts to support and promote the small and medium-sized businesses that underpin the U.S. economy and spark the American dream.



### Revenue versus U.S. corporate profit

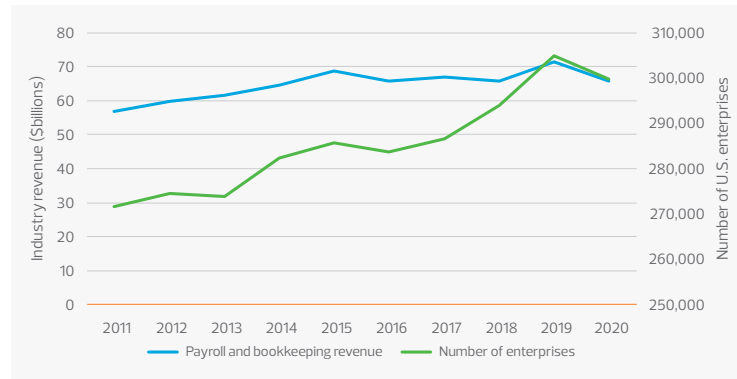


Source: IBISWorld; RSM US LLP

Payroll and bookkeeping service providers also benefit from U.S. entrepreneurship and increased business formation. The greater number of businesses, the greater the potential client pool. Per IBISWorld, payroll and bookkeeping industry revenue has correlated tightly with the number of U.S. enterprises in recent years.


However, small, early-stage businesses typically aren't a primary target, as workforces are lean and accounting needs are relatively simple. As the companies grow and mature, outsourcing payroll and related administrative activities become a more feasible option. Therefore, this sector is reliant not only on a macroeconomic recovery that lifts small and medium-sized firms back to health, but also the growth of those firms.

### Revenue versus number of U.S. enterprises



Source: IBISWorld; RSM US LLP

To put it another way, if small and medium-sized businesses remain shuttered—or are never started in the first place—the effects will continue to ripple through the services economy, hindering growth and profitability. Payroll and bookkeeping service providers need policy decisions and recovery efforts to support and promote the small and medium-sized businesses that underpin the U.S. economy and spark the American dream. ■



From labor and supply considerations to early holiday planning, there's much to consider.

## INDUSTRY OUTLOOK:

# CONSUMER PRODUCTS

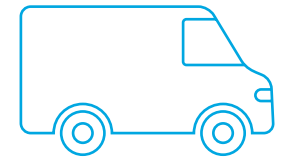
BY SETH BACON, PETER CADIGAN, KAREN GALIVAN AND CHRISTOPHER SHAKER

**FROM RETAILERS** and restaurants to fashion, food and beverage companies, this year more than ever means that consumer products companies will need to anticipate preferences, adapt to labor challenges, use digital to transform business and look for ways to cut costs.

## RETAIL

### The way-too-early holiday outlook

It's not typical to hear discussion surrounding the holiday retail season in the second quarter of the calendar year. That said, 2021 is not a typical year. As the U.S. vaccination efforts scale up with more supply available, and warmer weather takes people outdoors more frequently in the summer, it's very likely that the health situation at the end of the calendar year will be better than it's been since the first positive coronavirus test was reported in early 2020.



### KEY TAKEAWAYS

- Food and beverage producers, processors and distributors still struggle to maintain labor as new stimulus is released.
- Direct-to-consumer has put additional strain on the relationship between retailers and brands as strong brands are changing their distribution strategies.
- People will once again return to on-premises dining in the spring and summer of 2021 and, coupled with the third stimulus payments, this will allow for a strong second quarter in the restaurant sector.
- Consumer demand for home furnishings continues and can only be constrained by import bottlenecks.
- Cosmetic businesses should leverage customer data through retail partnerships, social media and their own direct-to-consumer platforms to monitor trends.
- Concerns over the use of forced labor in China's Xinjiang cotton producing region continue to loom over the fashion and apparel world.

## MIDDLE MARKET INSIGHT

Companies that pivoted quickly to different delivery methods including BOPIS (buy online and pick up in store), curbside and home delivery, saw their investments quickly returned in the form of revenue that helped maintain market share and cash flow during challenging times.

If so, that means that there will likely be very little restriction on retail and restaurants. In addition, consumers were largely deprived last year of the social aspects of the holiday season they've become so accustomed to; there will be pent-up demand for holiday revelry. Improvements in the overall employment market and economy should also be factored in. Indeed, the stars may just be lining up for one of the strongest holiday seasons in years for the retail sector.

Behind the scenes, most retailers are well on their way to planning for the holiday season in the second quarter. However, the way in which retailers go about planning for this season will be unlike any other. The questions are still the same. What will consumers want? How and where will they want to shop and make purchases? What's the right price? The curveball this year is that changes to consumer habits that evolved during the pandemic will linger long after and add many different dynamics to these same age-old questions. Retailers will need to act sooner than ever to get the right answers.

### Retail foot traffic returns

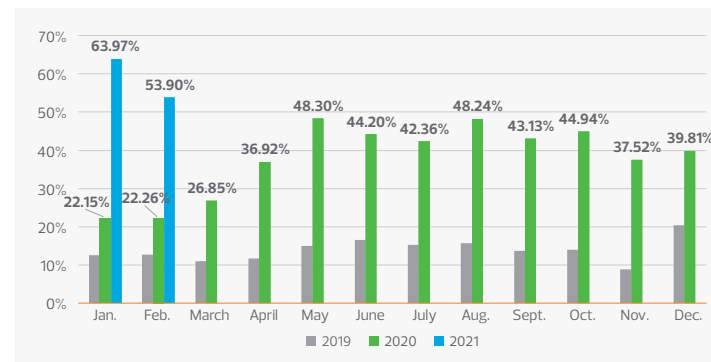
With more than 18.8% of the U.S. population vaccinated as of April, according to the Centers for Disease Control and Prevention, the extent to which customers return to brick and mortar stores is now becoming a central question for retailers affected by state restrictions and general pandemic fears. In particular, mall-based retailers are among those that were most affected during the pandemic. Many anchor retailers declared bankruptcy or announced larger store closings, including Neiman Marcus, JCPenney and Macy's. The loss of these anchors, which have traditionally brought shoppers into the mall, also has had an impact on boutique retailers hoping to capitalize on foot traffic.

In an effort to make use of the space that they kept during times of slower customer traffic, retailers turned many of their stores into distribution centers, focusing staff on the delivery process to fulfill online and curbside orders. As we emerge from the pandemic, retailers are now faced with finding the balance between serving customers in stores as well as through other sales channels in light of changes to preferences that developed during 2020.

Part of that challenge is that the expected increase in foot traffic has the potential to put strain on locations and staff that are now attempting to both engage customers in stores, while also fulfilling online orders. In addition, retailers need to determine how these changes affect their product mix. For retailers looking to find the right balance, survey data from Coresight Research might help. Their recurring weekly survey questions indicated that consumers have tended to buy their essential items in stores, while more discretionary items were purchased online. Those retailers selling either category will likely have to change their operating models in different ways to align with the preferences of their respective customers. Those that carry both essential and discretionary items will need to consider what products they offer through each channel.

Many retailers have already made changes to their operating models in response to the acceleration and growth of [e-commerce](#) in 2020. Companies that pivoted quickly to different delivery methods, including BOPIS (buy online and pick up in store), curbside and home delivery, saw their investments quickly returned in the form of revenue that helped maintain market share and cash flow during challenging times.

### Nonstore retailers sales percentage change compared to 2018



Source: Bloomberg; RSM US LLP



A strong digital platform is not only a necessity to maintain customers with new and evolving habits; it's also an opportunity for growth.

At the same time, building out these new sales channels brought increased costs for [labor](#), technology and deliveries, and these cut into margins. Customers expect to pay the same for an item whether they purchase that item online for delivery or purchase that item in a store. Costco's Chief Financial Officer, Richard A. Galanti, highlighted this challenge in their Q1 2021 earnings call when asked about customers' use of Instacart. He indicated, "One of the challenges right now is a lot of the buy online and pick up in store traditional retail promotions are the same price as what you come in and buy it for. So somebody's paying for the picking it up and storing it and waiting for you to pick it up."

In response, many retailers have been forced to carefully consider which items are available online in order to ensure the right product mix as well as to protect margins. Those retailers that can tackle this challenge will be the earliest winners in 2021.

### **Direct-to-consumer sales**

Retailers were not the only ones that saw an opportunity to engage with customers through e-commerce in 2020. Changes to consumer habits also brought about the acceleration of existing consumer products companies exploring direct-to-consumer (DTC) sales. Strong brands saw an opportunity to increase their market share and gather additional insights from their customers by engaging with them directly online. The DTC movement has put additional strain on the relationship between retailers and brands as strong brands are changing their distribution strategy. Nike is a prime example. The brand recently dropped DSW, Urban Outfitters and Macy's as retail

partners. Nike's CFO, Matthew Friend, highlighted that Nike will "also prioritize available product supply to Nike Direct and our strategic partners" during their Q3 2021 earnings call.

Nike's decision is likely a factor of its recent success. In their Q3 2021 earnings call Nike reported that direct sales were \$11.9 billion through the first nine months, up 22%, and represented 40% of total brand revenue. Friend also emphasized Nike Direct on the earnings call on March 18, 2021, and how it has become a core part of their approach. Nike is experiencing a "strategic shift to increasingly direct and personalized connections with consumers as a way to unlock strategic and financial opportunity for Nike." The increase in interaction with customers has increased the data and insight available to them. Friend went on to highlight how Nike is using data to increase revenue through the channel. "We [Nike] expect Datalogue to amplify our speed in analyzing consumer data and inform products marketing, and service recommendations, ultimately increasing member buying frequency, basket size and member retention rates."

### **MIDDLE MARKET INSIGHT**

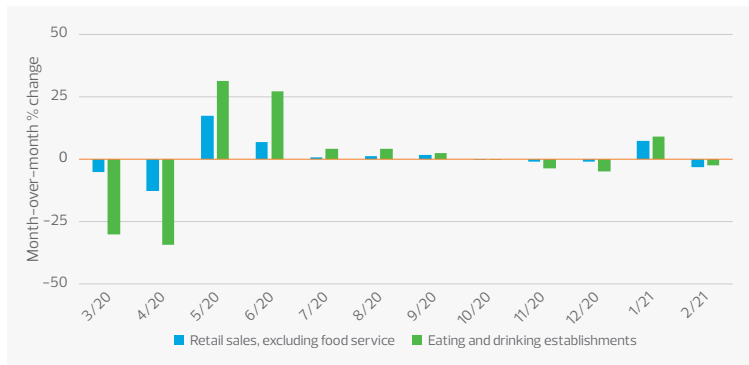
It's clear that the DTC strategy is more than just new sales and improved margins; it's also another opportunity to gather invaluable data to inform smarter decisions as retailers continue on their [digital journey](#).

# RESTAURANT

As we continue to beat back the pandemic, people will once again return to on-premises dining in the spring and summer of 2021. This, coupled with the third stimulus payments hitting bank accounts, will allow for a strong second quarter in the restaurant sector.

The first stimulus payments began reaching consumers in April of 2020. Almost immediately the restaurant sector saw a sharp increase in sales in May, indicating that consumers were willing to spend at least some of their stimulus payments on old comforts. There are three factors that should result in a similar spike in restaurant sales this spring: increasing consumer confidence in the subsiding pandemic, the third stimulus payment and warming temperatures across most of the country.

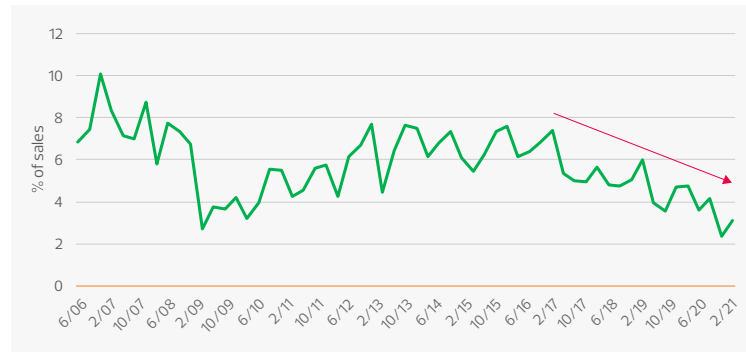
## U.S. retail and restaurant sales



Source: Bloomberg; RSM US LLP

However, while seated diners are likely to increase, the restaurant sales channel mix is not likely to completely return to its pre-pandemic state. New habits formed during the pandemic will make focus on and investment in digital strategy a critical initiative for restaurants across nearly all segments. What's interesting is that there's been a consistent downward trend in capital expenditures in the restaurant sector since early 2017 and the average as a percent of sales has been below 6% for the last two years. This trend should change.

## Restaurant capital expenditures



Source: Bloomberg Intelligence

However, not everyone is following the trend. Chipotle has been known for its focus on the digital side of the business. A quick search for the word "digital" in their Q4 2020 earnings transcript returns 32 uses, and they're putting their money where their mouth is. Unlike the rest of the industry, Chipotle had a capital expenditure to sales ratio of nearly 8% in Q4 2020 and was well above the industry average for the entire year.

It also appears that a strong [digital platform](#) is not only a necessity to maintain customers with new and evolving habits; it's also an opportunity for growth. In the Chipotle Q4 2020 earnings call, Brian Niccol, chair and CEO, noted that in markets where they are starting to open their dining rooms, it's been additive to their overall business and has not cannibalized digital sales. In fact, he estimates they're hanging on to 80% to 85% of their digital business, even as dining rooms reopen.

Restaurants in all sectors will need to rethink their digital strategy in preparation for what should be a significant opportunity to capture pent-up demand in the second half of 2021, especially during the holiday season.



Luxury consumer products companies are poised for a strong rebound after consumers pulled back spending due to economic uncertainty and lack of mobility in 2020.

## FASHION, BEAUTY AND HOME

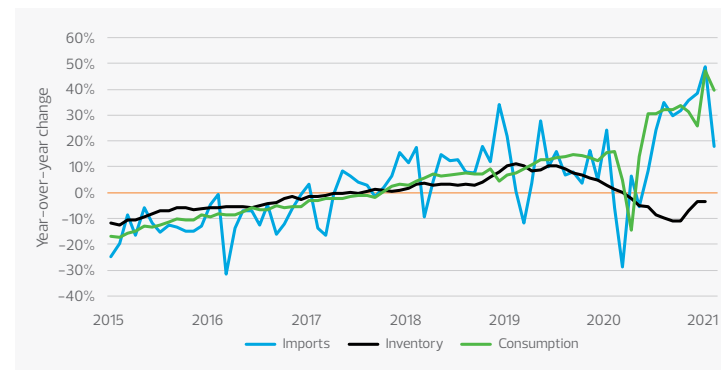
### Home furnishings demand can only be contained by supply

The consumer demand for home furnishings has remained steady even after the initial COVID-19 acceleration that took place in 2020. Even as new home sales slowed in 2021 due to weather and higher home prices, consumers still continued to outfit their homes for their evolving lifestyles. Through the first two months of 2021, personal consumption of home furnishing products is up 16% from the prior year, and underlying sentiment data suggests there are no signs of slowing down. Through the end of 2020, the National Association of Home Builders future remodeling market conditions index, which tracks builders' view of conditions based on committed work, proposals and backlog, is 20% higher than the prior year, while the index that specifically tracks work committed over the next three months is at an all-time high. Likewise, consumers indicated their appetite for major appliance purchases continues to increase with The Conference Board's consumer confidence reading for consumers' plans for major appliance purchases reaching a 12-month high.

#### MIDDLE MARKET INSIGHT

While consumer demand will provide strong tailwinds in 2021, supply chains are struggling to keep up with the surge.

### Home furnishing consumption and imports



Source: IHS Markit, U.S. Census Bureau, Bureau of Economic Analysis, RSM US LLP

While consumer demand will provide strong tailwinds in 2021, supply chains are struggling to keep up with the surge. Even before the COVID-19 pandemic upended the global supply chain, notorious long lead times plagued the furniture and home furnishings industry. Entering 2021, production and imports have slowed with global supply chain bottlenecks and outbreaks forcing manufacturing facilities to close in the United States. Furniture is the top containerized import at the port of Los Angeles, which continues to be plagued by backups. The result is a backlog of nearly 400,000 seaborne containers were imported to the United States in February 2021, an increase of more than 100,000 containers from the previous year, according to IHS Markit. The disruption will be felt by businesses and consumers. Inventories remain below prior year levels despite the demand surge and imports are beginning to lose pace with overall demand. Wholesalers are taking note and

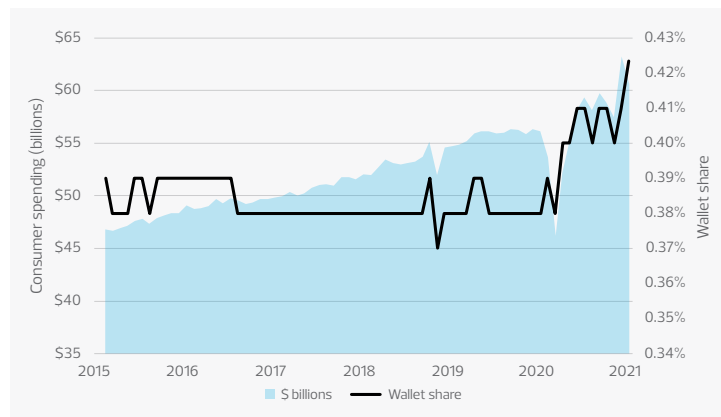


acknowledged that supply chain was a common theme among Q1 2021 earnings calls. The CEO of La-Z-Boy Inc., for example, predicted lead times would reach an “unprecedented five to nine months depending on the category.”

## Beauty and personal care sales are strong but changed

Despite the demand fallout at the onset of the pandemic, overall beauty spending in 2020 slightly outpaced prior year rising to \$672 billion from \$668 billion in 2019 and continues to grow in 2021. Beauty and personal care purchases made up a larger portion of overall household spending, largely benefiting from the shift from service spending to goods-based spending amid lockdown and social distancing orders across the United States. However, the reliance of the beauty and personal sector was not uniform across all categories. Facial cosmetic sales were down 24.5% for the 52-week period ended Feb. 21, 2021, according to IRI data. Losses in the cosmetics categories were made up for by stronger performances in personal and skin care items. New self-care routines and purchases played the part of affordable luxuries during the pandemic and recession. Purchases remained strong even in areas of the country where mobility increased over the summer showing that these sticky habits positioned these categories for long-term strength. In the coming months, cosmetic businesses should leverage customer data through retail partnerships, social media and their own direct-to-consumer platforms to monitor which trends may have staying power and which will change as consumer habits evolve.

### Beauty spending



Source: Bureau of Economic Analysis, Bloomberg, RSM US LLP

## The high cost of inexpensive Chinese cotton

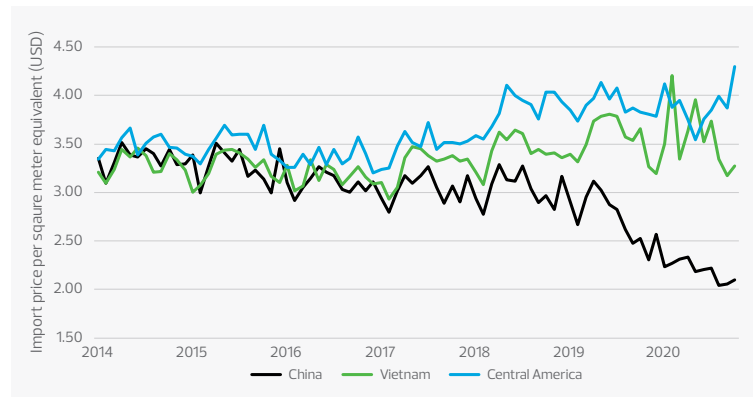
Concerns over the use of forced labor in China's Xinjiang cotton producing region continue to loom over the fashion and apparel world. Sanctions imposed by governments from important consumer regions such as Great Britain, the European Union and the United States have forced many businesses in the sector to devote resources to improving transparency into their supply chain and to limit their exposure to cotton produced in the region. Increasingly, socially conscious consumers and investors have pushed for high profile brands to make statements condemning the use of cotton produced in the region and provide more information about the depth of their supply chains. Apparel companies that have made such statements, such as Burberry, H&M and Nike, have risked alienating the Chinese consumer base that is looked at as a critical area of growth. These brands have faced consumer boycotts, retaliation from the Chinese government and removal from critical Chinese e-commerce platforms.

Even brands that can successfully navigate a complicated consumer and geopolitical landscape are still forced to deal with an underlying sourcing issue. Apparel production has long-standing roots in China and Xinjiang in particular, regions that remain a source of low cost, high-quality cotton. Even as the COVID-19 pandemic and tariffs imposed during the trade war between the United States and China pushed production elsewhere, Chinese cotton remains a critical part of the apparel trade globally. Despite Vietnam overtaking China as the largest exporter of cotton apparel products to the United States in 2020, the appeal of low cost, high-quality Chinese cotton is hard to ignore for apparel brands. Middle market apparel businesses, who utilize smaller supply chain networks, may be more exposed as they may not have the resources to pivot away from the low-cost options and have less leverage to ask for transparency into supply chains.



In the coming months, cosmetic businesses should leverage customer data through retail partnerships, social media and their own direct-to-consumer platforms to monitor which trends may have staying power and which will change as consumer habits evolve.

### Cotton apparel import price (price per square meter equivalent)



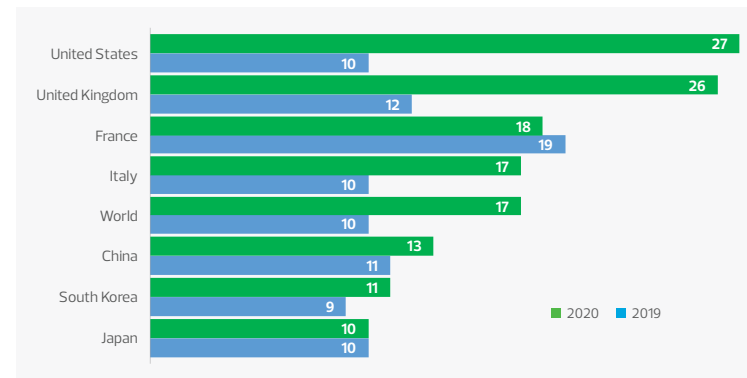
Source: Office of Textiles and Apparel, RSM US LLP

### Digital luxury is here to stay

Luxury consumer products companies are poised for a strong rebound after consumers pulled back spending due to economic uncertainty and lack of mobility in 2020. The impact of the virus is radically changing the key growth drivers in the sector. The most important is the luxury consumer's accelerated comfort with [e-commerce](#) shopping experiences. Prior to the pandemic, consumers and businesses found it difficult to recreate the highly curated luxury buying experience in the digital environment. Even as lockdown restrictions ease and consumer mobility slowly increases, the digital experience luxury brands offer will play an important role in their growth. Chinese consumers may have provided a model in 2020 as digital sales remained constant even as stores reopened in

many parts of the country. Consumers were still drawn to innovative online shopping concepts like virtual fashion shows and shopping events, virtual shopping assistants and online tutorials.

### E-commerce share of personal luxury sales (%)



Source: Euromonitor, Bloomberg, RSM US LLP

For many luxury brands, navigating a new balance of power will be paramount for success going forward. While many of the large luxury brands will have direct access to consumers through their own direct-to-consumer sites, middle market businesses will have to navigate through an increasingly complex network of online and physical market places and platforms. Third-party platforms geared toward the millennial consumer have played a large role in the shift to e-commerce, with sites like Farfetch, Mr Porter and Yoox curating collections that allow consumers to engage with smaller brands,

in addition to Amazon's deeper foray into a luxury apparel offering. Technology also provides new innovations to allow consumers to have access to products that may have been out of their reach, such as the rise in secondhand market places. Luxury apparel companies that understand how these platforms can be leveraged to drive brand value and consumer engagement across platforms will stand out in the new luxury landscape.

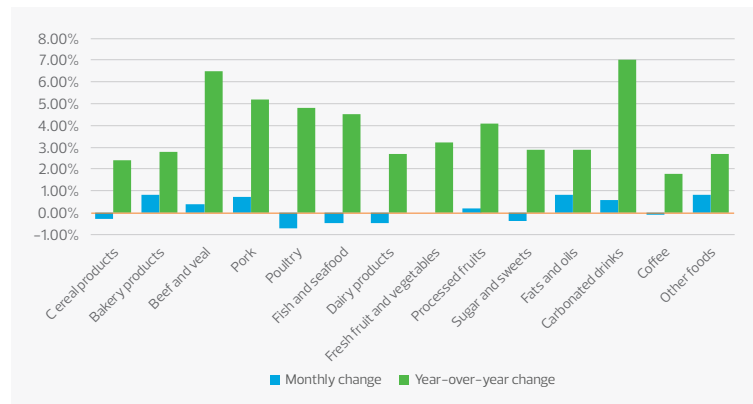
## FOOD AND BEVERAGE

As we have come through a year of the pandemic, food and beverage companies are taking stock of what worked, what could be improved and where to go from here. Many middle market companies in the food and beverage ecosystem actually performed quite well and now are reviewing their data to decipher what increase in revenue is sustainable and what rising costs are on the horizon. Staying current with consumer preferences, adapting to labor challenges and cutting costs are key to staying successful as the economy begins to open.

### The state of food and beverage

In the last 12 months the CPI rose 1.7%, largely driven by higher food prices at an increase of 3.6%. All food items experienced gains for the 12 months ended February 2021 with protein products having some of the highest gains: beef and veal up 6.5%, pork up 5.2% and poultry up 4.8%. Food at home has increased 3.5% year over year at the end of February and food away from home recovered the most in several years at a gain of 3.7%.

#### CPI food at home



Source: Bureau of Labor Statistics

## MIDDLE MARKET INSIGHT

Food and beverage producers, processors and distributors still struggle to maintain labor as new stimulus is released.

The Producer Price Index also increased 2.8% and according to the U.S. Bureau of Labor Statistics, it was the biggest gain since October of 2018. The consumer food index gained 2.4% with beef and veal coming in at 15.9%. Also notable: food for export rose 16.9% amid vaccine distribution and the recovery of economies around the globe.

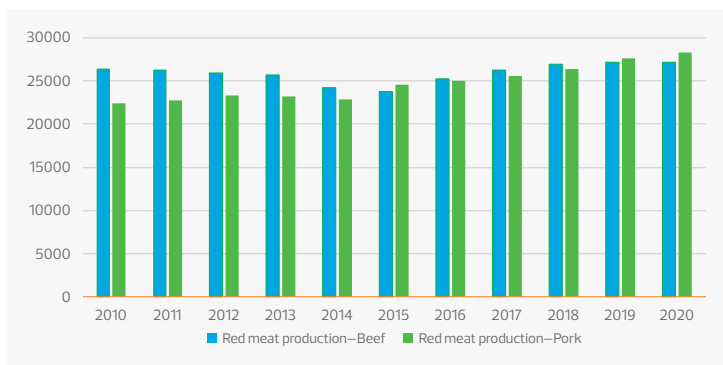
### Protein habits

There is a great deal of excitement around all things plant-based as consumers prefer more natural ingredients and continue to be concerned about the environment. Many new consumers tried plant-based protein products early on in the pandemic as shelves were empty due to supply chain disruptions. However, according to a recent study by data and marketing tech company Numerator, plant-based meat alternatives may not be catching on as quickly as anticipated. They developed a COVID Buyer Habit Index that compares the purchasing habits of new buyers in a particular category during March and April of 2020 to new buyers in the same period of the prior year to monitor repeat buying habits. New buyers were less likely to continue to purchase meat alternatives with only about 7% of consumers habitually purchasing these products. Conversely, seafood purchases were at an all-time high with 78% of seafood buyers forming a new habit. According to IRI data, fresh and frozen seafood purchases increased 25% year over year as of December 2020, exceeding their consumer packaged goods counterparts whose sales grew 6% year over year for the same period. It is anticipated that this trend will continue well into 2021 as the cooking-from-home preference remains strong.

According to IRI, 89% of American households prepared meals at home at the height of the pandemic in April of 2020. By December of 2020 that percentage only fell to 84%. In addition to increases in seafood purchases, 43% of U.S. consumers are buying more meat than before the pandemic, according to IRI data, because of continued cooking from home. Furthermore, according to The Food

Industry Association's research released March 23, 2021, 94% of Americans purchased meat because it provides high-quality protein. Specifically with pork, robust domestic demand continues to show increases in hog prices. According to the USDA, North America is responsible for just under 50% of all pork exports globally. China is one of the largest importers as they have been trying to rebuild their own stocks that were hurt with African swine fever in 2020. Pork prices will remain elevated as exports remain steady and restaurants and food service begin to recover. While innovation continues in the plant-based alternative industry, it has yet to disturb the growth of traditional protein products.

### Meat production



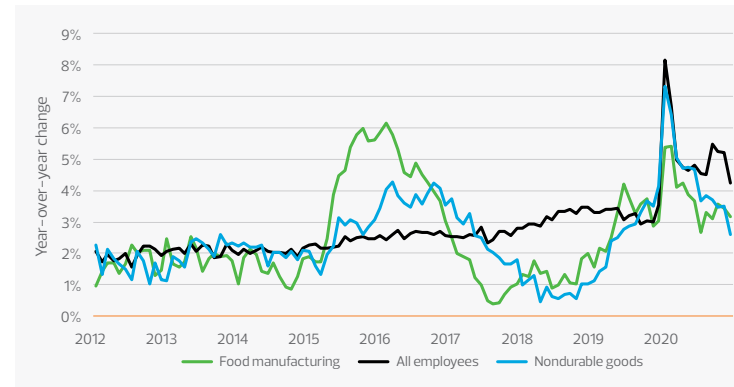
Source: Bureau of Economic Analysis

### The labor challenge

Food and beverage producers, processors and distributors still struggle to maintain labor as new stimulus is released. While the gig economy was negatively affected by the pandemic, the gig economy mindset still exists and it is difficult to find entry-level workers that want to work in the warehouse for the long term. As the population ages, many workers are exiting the workforce as well. According to the United Nations, the number of countries with over 20% of the population aged 65 or above is estimated to rise from 15 countries in 2020 to 44 countries by 2030. Also, in the January 2021 results of the RSM US Middle Market Business Index, 44% of executives

are planning on hiring more workers; more than half the executives expect to increase compensation over the next six months. Labor wage rate growth for food manufacturers has lagged that of other industries; however, increased scrutiny around safety, retraining and other labor forces may require food manufacturers to increase compensation to bring workers back to production floors.

### Change in hourly employee wages



Source: Bureau of Labor Statistics

There has been some positive progress in addressing the labor shortage of agricultural workers. Potential legislation introduced at the end of March of 2021 would help provide a more stable workforce for growers and better protection for laborers in the Farm Workforce Modernization Act. The bill has the support of the United Fresh Produce Association and the New York Farm Bureau. According to advocates of the bill, if enacted this legislation would provide certified farmworkers and their families with an opportunity to earn legal immigration status. Through improvements in wages and working conditions, farmworkers would be better able to help farmers meet year-round labor needs. This would result in a more stable farm labor force, and greater food safety and security to the benefit of employers, workers and consumers. ■



Looking to the rest of 2021, financial services providers should seek out opportunities to finance innovative projects and be diligent about possible forthcoming regulatory changes.

## INDUSTRY OUTLOOK:

# FINANCIAL SERVICES

BY BRANDON KOESER, DAVID MAMANE,  
KENNEDY CHINYAMUTANGIRA,  
ANTHONY DECANDIDO AND BRANDON HOLLIS

**TECHNOLOGICAL CHANGES**, emerging investment trends and shifting consumer expectations continue to push financial services companies to take a proactive approach to innovation. Digital trends are reshaping the insurance sector, investments in minority stakes in asset management firms are on the rise, and banking and capital markets firms are seeing the growing opportunity that environmental, social and governance issues may have as a means to growth.

Looking to the rest of 2021, financial services providers should seek out opportunities to finance innovative projects, keep up with demand for multichannel approaches to products and services, and be diligent about possible forthcoming regulatory changes.



### KEY TAKEAWAYS

- Banking and capital markets firms have an immense opportunity to assist businesses affected by changing preferences as investors and consumers focus more on ESG.
- Millennials' shifting preferences away from more traditional services will continue to be a driving force in the consumer lending market.
- Competition in the insurance space is poised to expand to include not just carriers but also companies in other industries that are starting to offer their own coverage, so it is critical for insurance businesses to evolve digitally.
- Following trading volatility early in the year, we expect regulators to increase their oversight of online activities and dramatic movements in stock prices, and more stringent restrictions on speculative trades.
- In recent years, new firms making general partner stakes investments have entered the market, closing deals on targets in the middle market and emerging manager categories, and this trend is set to continue.

## OPPORTUNITIES FOR BANKING AND CAPITAL MARKETS FIRMS AMID CHANGING PREFERENCES

As investor and consumer preferences shift to more acutely focus on environmental and social issues, businesses may need to realign their priorities in response. Banking and capital markets firms will have an immense opportunity to assist the businesses affected by these changing preferences.

While ESG issues are not new to banking and capital markets organizations, what may be less at the forefront of minds is how businesses can finance their efforts to deliver on their ESG strategies.

### Social and sustainable financing

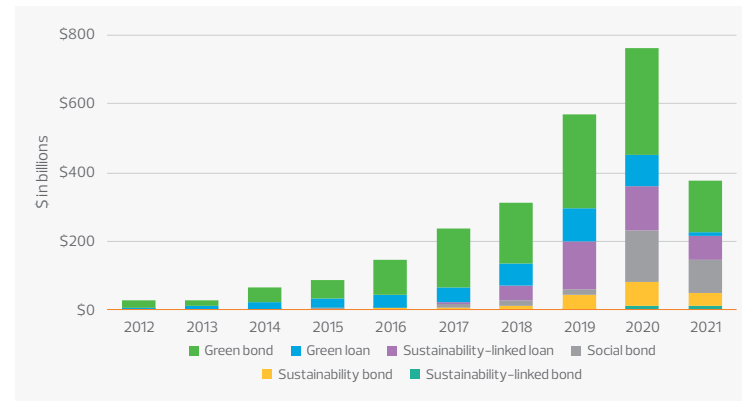
Social and sustainable financing instruments, including green bonds and loans, consist of a variety of fixed-income or loan instruments whereby the proceeds are used exclusively to finance projects with social and/or environmentally sustainable benefits. This in turn leads to more projects promoting a positive social impact or environmentally sustainable outcomes.

While the reasons for social and sustainable financings may vary, the end goal is often aligned between these interested parties:

- **Issuer:** Use of proceeds helps a business in delivering on a social or environmental strategy or promise.
- **Investor:** An investment in such an instrument aligns with personal beliefs that promote social or sustainable interests.
- **Originator:** This party supports issuers in delivering on corporate promises while providing investors an opportunity to support a business with mutually beneficial goals and interests while earning a return.

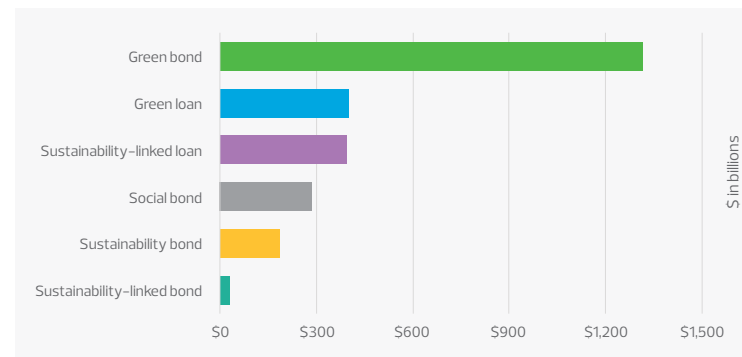
In 2020, a record \$757 billion in social and sustainability-linked instruments were issued around the world, representing a 33% increase over 2019 activity. While the U.S. share of total issuances made up less than 15%, or \$112 billion, of the 2020 total, the activity in the United States is increasing. As of February 2021, the U.S. share of social or sustainable financing makes up over 18% of the total global financings in this category.

### Social and sustainable debt issuance by instrument type



Source: BloombergNEF; RSM US LLP

### Social and sustainable debt issued since 2012 by instrument type



Source: BloombergNEF; RSM US LLP



“As the markets continue to see consumer behaviors and preferences affect asset values, social and sustainable financing options offer banking and capital market participants a unique opportunity to help finance a more responsible future while driving growth.”

## Opportunity to drive growth

As the markets continue to see consumer behaviors and preferences affect asset values (remember GameStop?), social and sustainable financing options offer banking and capital market participants a unique opportunity to help finance a more responsible future while driving growth.

In a report published by the [Global Financial Markets Association](#), an estimated \$100 trillion to \$150 trillion of financing will be needed globally over the next three decades to reach compliance with the Paris Agreement. This equates to roughly \$3 trillion to \$5 trillion per year in financing needs. Contrast this potential need with the fact that as of Sept. 30, 2020, there were an estimated \$119 trillion in fixed-income instruments outstanding in total, globally.

And while the report outlines the various types of financings needed under the Paris Agreement, those financings represent only the investments needed for sustainability. The report doesn't make reference to the massive cultural shift that will drive socially responsible financing.

## Meeting social and sustainable requirements

While the advent of social and sustainable financings is considered by some to still be in its infancy, voluntary guidance has been published—The Green Bond Principles and The Social Bond Principles, from the International Capital Market Association—to provide issuers and originators voluntary guidelines for instrument structuring features, disclosures and ongoing reporting. The principles are broken down between the following: green bonds, social bonds, sustainability bonds and sustainability-linked bonds.

In order to ensure issuances that are intended to support social or sustainable initiatives find the optimal demand and acceptance in the markets, banking and capital markets organizations need to familiarize themselves with these guidelines.

## The takeaway

With consumers' behaviors and sentiments shifting and the increasing likelihood that leaders in Washington, D.C., may push for more focus by businesses and corporations on social responsibility and environmental sustainability, banking and capital markets organizations should begin looking at their operations and resources to better understand if an opportunity to capitalize on this increasingly popular form of financing may provide an avenue for long-term growth.

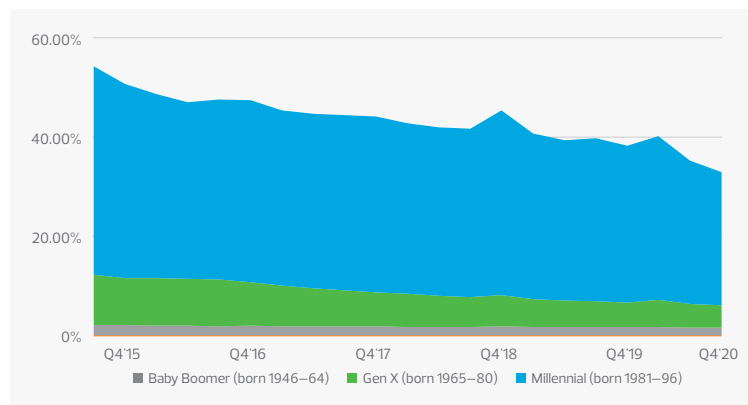
## GENERATIONAL DEBT TRENDS AND IMPACT ON STRATEGY

Consumer lenders have managed to avoid significant bad debts so far during the pandemic, but new loan originations have been slower. Delinquency and charge-off rates on consumer debt have also remained very low over the past year, and government stimulus programs targeted to consumers have largely given Americans the cash needed to remain current on their debt obligations.

Altogether, this makes for a landscape in which lenders will need to explore strategies and approaches to regain volume and drive loan origination growth. In doing so, they should evaluate and strategize around the influence of the millennial generation.

This generation, defined as individuals born between 1981 and 1996, holds significantly more consumer debt as a share of net worth than any other generation as shown in the chart below. Millennials also interact very differently with their financial service providers and have preferences that differ from preceding generations. As a result, consumer lenders may need to alter the way in which they operate to maximize the potential for new growth from this important segment of the population.

### Consumer debt as a percentage of net worth



Source: Federal Reserve; Bloomberg

This will be especially important given current figures on delinquencies and outstanding consumer credit. Quarterly delinquency rates on all consumer loans held by banks as reported by the Federal Reserve have been just under 2% for each quarter reported on since the first quarter of 2020. Prior to the second quarter of 2020, the last quarter where this measure was less than 2% was the first quarter of 2016.

For the year 2020, outstanding consumer credit decreased at a seasonally adjusted annual rate of 0.1%. Conversely, for the three prior years, consumer credit increased at an average seasonally adjusted annual rate of 4.9%, according to the Federal Reserve.

Here are two key millennial spending and borrowing traits that consumer lenders should be prepared to cater to as the anticipated economic recovery begins:

- **Experiences over possessions:** A study by Expedia and The Center for Generational Kinetics found that 74% of Americans prioritize experiences over products, and that the millennial generation more so than any previous generation values experiences over tangible items. There have been some signs of this trend manifesting among traditional financial institutions. Millennials are more likely than earlier generations to save for or seek financing to fund travel, social events, or other experiences shared with friends and family.

Consumer financial services providers should evaluate the experience customers have when interacting with them, whether through physical locations or digital channels. Companies should also be thoughtful about how financial services products are designed and marketed to consumers. Products and services that allow consumers to create new experiences will have greater resonance with millennials than the products and services that are focused on helping to acquire a possession.

- **Flexible, multichannel delivery:** Consumers continue to place higher value on financial services providers that have multiple, on-demand access points to products and services. Millennials comprise the vast majority of users of web- and mobile-based personal finance apps, which are growing in popularity overall. Companies that continue honing a multichannel approach for their products and services—especially an approach that offers real-time, on-demand features—will have a better shot at drawing members of this key demographic.

### Tying it all together

Millennials are a dominant group in the overall user base of consumer financial services, as demonstrated by the ratio of consumer debt to wealth by generation. As such, millennials' shifting preferences away from more traditional services will continue to be a driving force in the market. For companies to remain competitive, they need to understand the way these consumers want to interact with financial services providers. This is especially important for consumer lenders who are seeking to grow their business and portfolio post-pandemic.



"In the current landscape, consumer lenders will need to explore strategies and approaches to regain volume and drive loan origination growth. In doing so, they should evaluate and strategize around the influence of the millennial generation."



## TOP TRENDS RESHAPING THE INSURANCE INDUSTRY IN THE RECOVERY

As the economy fell off a cliff and millions of people started working from home in 2020, shifts in the insurance industry underscored the importance of digital adoption in a sector that has historically lagged in that area.

Now, looking to a future in which competition in the insurance space will expand to include not just carriers but also companies in other industries that are starting to offer their own coverage, it is critical for insurance businesses to evolve digitally. Below, we look at some of the biggest trends reshaping the insurance industry today, and the importance of digital innovation across all of them.

### Acceleration of digital transformation

Well before 2020, many insurance companies had already shifted from using traditional models to offering coverage online in order to serve changing consumer preferences, but the pandemic has elevated the importance of that shift. Companies need to invest in digital technologies that streamline the entire customer journey, from binding a policy to paying a claim and everything between.

The extent to which the use of antiquated processes can hamper growth has only become more apparent over the last year, and companies that haven't embraced digitization will struggle moving forward. Take, for instance, the life and health insurance segment, which continues to lag property and casualty (P&C) insurance in

terms of digital adoption and which now faces suppressed growth in the near term. Carriers of all types will need to prioritize product innovation that supports customer demands if they want to continue to grow profitably.

### Intelligent automation and the data revolution

The velocity and veracity of data available to and collected by insurance companies is rapidly increasing thanks to the rise of telematics, usage-based insurance and Internet of Things devices. Modern enterprise analytics platforms and advances in machine learning and artificial intelligence are fueling strong investment in research and development in these areas, and many operational processes are ripe for automation, including underwriting, pricing, claims and more.

Insurance companies that tap into this potential can set themselves up for future success. Personal lines P&C insurance, for instance, experienced growth tail winds over the last year as policyholders reassessed their insurance needs in the context of the pandemic. As more people worked from home, they started to seek out different types of coverage. Claims activity dropped, particularly for auto insurance claims, and more consumers shifted to using digital platforms.

But digital adoption doesn't just mean more people buying their insurance online—mobile app adoption is up as well, creating new potential touchpoints and cross-sell opportunities between the carriers and their customers. One example that's taking off in personal P&C is usage-based insurance, where customers don't pay an annual auto insurance premium but instead pay by the mile.

## Embedded insurance and alternative distribution models

More and more insurance carriers have invested in direct-to-consumer distribution models in recent years to deepen the connection with the customer and keep up with evolving consumer expectations. But that shift is now evolving to the next level; carriers are looking to partner with other consumer products companies to sell to the customer at the point of purchase of other goods.

These strategic partnerships create alternative distribution channels, in which the insurance itself is bundled with other goods and services. But carriers also need to be aware of the possibility that some consumer products companies could take this a step further and sell their own insurance, like when [Tesla started selling auto insurance](#) in 2019. If an auto manufacturer can use data from its connected vehicles to develop a better insurance cost model, that could lead to more cars sold.

While this trend is happening more in auto insurance than other parts of the market, the growing use of IoT devices in homes and elsewhere could unlock the potential for seismic shifts in the way insurance is sold in the future.

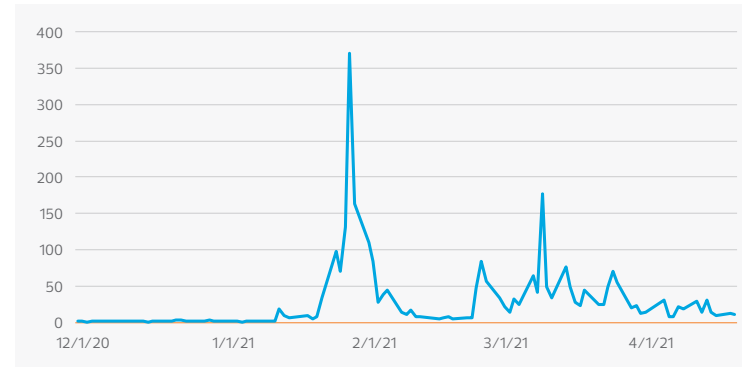
## MEME TRADING PROMPTS TALK OF REGULATIONS

The GameStop trading volatility we observed beginning in late January has prompted questions from regulators around market manipulation, the functioning of capital markets, and the possible negative impacts these events have on investors and market confidence.

Core to all investing is the idea of driving organizational impact, and, in turn, increasing earnings and consequently investor wealth. For asset managers this has long been the case, but meme trading—which is defined as increased trading volume after going viral on social media or another online forum—largely focuses on just one of the two: investor wealth. As more security around trading arises, asset managers will need to be aware of coming regulations.

Following the GameStop trading frenzy, the ensuing meme trading craze—when small-time risk-takers banded together to drive up dozens of obscure stocks by hundreds or even thousands of percent—highlighted the significance of market pricing issues, given the popularity among casual investors. For example, despite GameStop's declining business, its stock price surged from below \$4 per share in early January to over \$370 per share in late January. And other stocks like Blackberry, AMC and Nokia saw similar volatility.

### GameStop stock price (\$ per share)



Source: Bloomberg; RSM US LLP

The Securities and Exchange Commission has taken notice of these recent concerns. Legislators such as Sen. Elizabeth Warren are pressing the agency to respond with new regulations. In a Feb. 25 letter, the SEC's Office of the Chair detailed its awareness of these issues and its plans for remediation, which, among other things, includes plans to safeguard a "fair, orderly and efficient" market function.

It remains to be seen exactly what that may look like. Insider trader hitches of the past revolved around a group of individuals acting on information that was not publicly available, but at the present time, there's no court precedent for whether or not a concerted online effort qualifies as market manipulation, as meme traders seemingly act on publicly available information.



"As the economy fell off a cliff and millions of people started working from home in 2020, shifts in the insurance industry underscored the importance of digital adoption in a sector that has historically lagged in that area."

There are also questions around the role retail investors play in speculative trading, which includes investments that have substantial risk of losing value, but also carry the hopes of significant gains. Speculative trading requires a certain discipline and degree of financial stability that many Main Street investors don't have and long-term investing doesn't carry the same lure as short-term speculative trading, hence the sudden interest in meme trading especially among younger, nonaccredited investors.

### The takeaway

We don't expect most asset managers to suffer losses like we observed with Melvin Capital, the hedge fund at the center of the GameStop trading frenzy. That fund lost 49% of its investments during the first three months of 2021 after its short selling backfired, according to Reuters.

But asset managers will be affected indirectly with added scrutiny by regulators and investors around risk management practices. We expect added disclosures to be made, better monitoring and oversight of online activities and dramatic movements in stock prices, and more stringent trading restrictions on speculative trades.

Some asset management firms have undergone reviews of loss-limit systems to ensure those systems act as circuit breakers if trades suffer quick losses. Others are performing widespread reviews over compliance manuals to ensure surveillance over trading is appropriate. And regulators will play a major role in ensuring that they aggressively address fraud, manipulation and disclosure misrepresentation.

## GENERAL PARTNER STAKES INVESTMENT IN MIDDLE MARKET GROWS

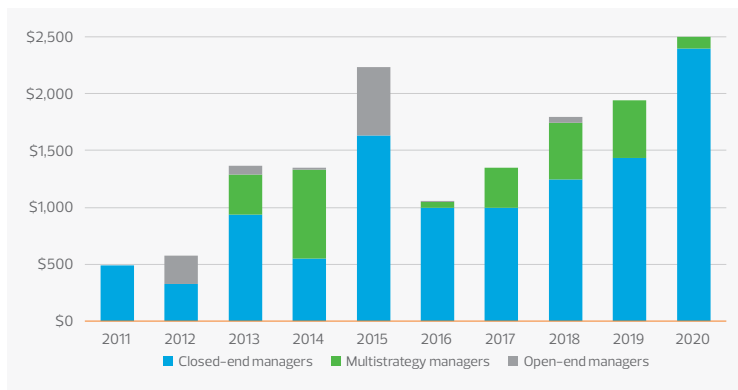
Investments in minority stakes in asset management firms (also called general partner or GP stakes) have continued to accelerate over the last decade as GP stakes investors are focusing more on middle market and emerging asset managers.

Financial benefits include additional capital that can be used to scale up by allowing the manager to fund the GP's commitments to larger funds in the future or to seed new investment strategies. The capital infusion from selling a stake may also be used to invest in new strategic hires or the infrastructure and technology needed to remain ahead of the competition. Selling a stake may also be one way to monetize the ownership interests in the investment firm which would allow retiring or exiting partners to cash out or younger partners to buy in down the line.

The strategic benefits of partnering with buyers of GP stakes include help with fundraising, either directly through allocations from the GP stakes investor as a limited partner in existing or future fund launches, or opening access to their network and other distribution channels. They may also offer advice on business development and marketing strategy. For managers looking to launch new product offerings, GP stakes investors may offer market insights and feedback on the investment manager's plans.

Investments in this space over the past decade have been dominated by a few large players making deals in established investment firms. But in recent years, new firms making GP stakes investments have entered the market, closing deals on targets in the middle market and emerging manager categories. This is set to continue and managers in the lower segments who have not explored this option may soon be getting a knock on the door from potential suitors. Investments have increasingly been targeted toward GPs of closed-end funds, as shown below.

### GP stakes deal activity (\$M)



Source: PitchBook; RSM US LLP


GP stakes investors have ventured beyond the top-tier firms and toward the middle market as the number of top firms yet to sell a stake diminishes with each completed GP stakes transaction. Additionally, given the lower probability of failure with the top-tier firms, GP stakes investors focused on this upper segment take on less risk and therefore can expect a lower rate of return. Investors have increasingly assumed more risk by backing middle market and emerging market managers who present a higher risk profile but offer the possibility of greater outsized returns if all goes according to plan.

### MIDDLE MARKET INSIGHT

Investors have increasingly assumed more risk by backing middle market and emerging market managers who present a higher risk profile but offer the possibility of greater outsized returns if all goes according to plan.

Middle market managers that make suitable targets for GP stakes transactions are those managers that have a good track record and have demonstrated some success in growing their assets through a step-up in fund size in their most recent fund launch. Emerging managers that offer high growth potential can also be good candidates. These can be managers developing an impressive track record or expanding on one developed from previous mandates, with differentiated or niche strategies that offer unique diversification benefits, or with talented investment teams that can benefit from greater scale and support to develop into a more institutionalized shop.

For managers seeking additional capital and strategic partnerships to grow their business, selling a minority stake to a GP stakes investor may be the answer. With capital dedicated to this investment approach growing and competition among the players in this space rising, the balance may be shifting in favor of investment firms that make for suitable candidates. For such firms, multiple bidders may soon be reaching out, if they have not begun doing so already. Proactively deciding how the parameters of such a transaction may be structured given the investment manager's motivation for pursuing a deal and their investment firm's unique circumstances may put the investment manager a step ahead in deciding the best partnership and getting the most out of the transaction. ■



From funding considerations to deal-making opportunities, health care providers have much to address.

## INDUSTRY OUTLOOK: **HEALTH CARE**

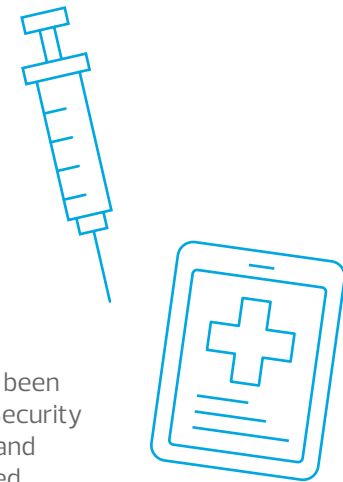
BY LORI KALIC, RICK KES AND MATT WOLF

**AS THE GLOBAL** vaccination rollout continues and communities and businesses recover, the health care industry has much to weigh the remainder of this year, and as we all look toward a more normalized future. From current legislative and funding considerations and the expansion and impact of digital health, to assessing a deal-making environment ripe with opportunity—but also wrought with challenges—there's much for health care providers to address as 2021 churns on.

### **FUNDING**

#### **Legislative impact on the industry**

From a legislative perspective the past 12 months have been quite a ride. The Coronavirus Aid, Relief, and Economic Security (CARES) Act has certainly provided significant funding and liquidity for many health care providers. The Consolidated Appropriations Act (CAA), 2021, which was passed late in 2020, provided for a few changes in the requirements related to some



#### **KEY TAKEAWAYS**

- Despite the broadening of the eligibility requirements, some health systems may still be unable to access PPP funds because they will be unable to demonstrate financial need.
- Even with positive operating margins, health systems experienced double-digit declines in patient volumes across the board.
- Congress will continue to evaluate surprise billing and health care mergers and acquisitions, specifically private equity's involvement in such deal-making.
- The fragmented nature of the health care ecosystem, accommodative rate environment, investor demand for health care and digital disruption shaped by the response to the pandemic will continue to drive deal flow.



The government's focus on health care mergers and acquisitions and particularly private equity's role in transactions is also returning to pre-pandemic levels.

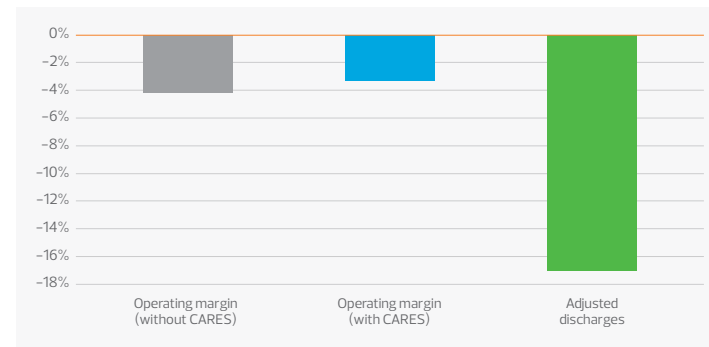
of the CARES Act funding received through the Provider Relief Fund; however, it also introduced the first of potentially many pieces of legislation regarding surprise billing.

In March 2021 we also saw the new administration's efforts regarding stimulus pass in the form of the American Rescue Plan Act (ARP). ARP provided two areas of interest for the health care community. The first was \$8.5 billion earmarked for rural health care, and the second was a change to the eligibility requirements for the Paycheck Protection Program. The change to the PPP loan eligibility was for certain nonprofit organizations to allow for those organizations to evaluate their employee count on a "per physical location" perspective.

As a result of the changes in the PPP we do expect many larger health care organizations to evaluate this program. Many nonprofit health systems were not previously allowed to utilize this program because their employee head count was significantly higher than 500 employees, whereas now on a per-physical-location perspective many of those health systems could potentially apply for a specific hospital or specific physical location.

Despite the broadening of the eligibility requirements, some health systems may still be unable to access the PPP funds because they will be unable to demonstrate the financial need required to access the funds. However, as shown, we expect many health systems may be able to demonstrate need based on their financial results. According to data from over 900 hospitals accumulated by Kaufman Hall, most hospitals reflected declining operating margins early in 2021 despite provider relief funding and other CARES Act aid.

### Median change January and February 2021 from 2020



Source: Kaufman Hall

As Americans become vaccinated and society returns toward normalcy, we expect Congress to continue to evaluate surprise billing and health care mergers and acquisitions, specifically private equity's involvement in such deal-making. This is an issue that garnered bipartisan support pre-pandemic. Part of the CAA addressed surprise billing for (generally) emergent services. Likely next steps include legislation or perhaps administrative actions taken to reduce the patient burden for ambulatory or other nonemergent services. How that burden will be distributed between payors and providers is the multibillion-dollar question.

The government's focus on health care mergers and acquisitions and particularly private equity's role in transactions is also returning to pre-pandemic levels. In March we saw the House Ways and Means oversight subcommittee hold a hearing on private equity's role in health care transactions. The dialogue of the hearing itself offers little insight into any future legislative or administrative action, but the fact that a health care committee of jurisdiction held such a hearing suggests we are moving toward a post-COVID-19 regulatory environment that will likely seek to address perceived issues in health care M&A.

## MARGIN

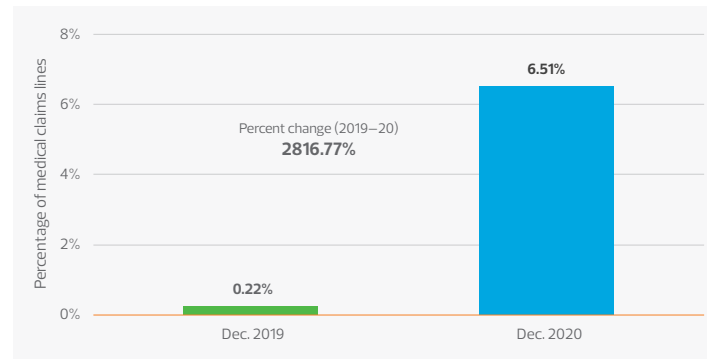
### Show me the money

As indicated in the previous section, relief funds have been partially distributed to health care organizations. However, with the pandemic still affecting hospital operations in a significant way, when will the remaining funds be distributed, and furthermore, why the delay?

Two *Wall Street Journal* reporters, Stephanie Armour and Melanie Evans, reported that the Biden administration is focused on ongoing distributions to cover the cost of treating uninsured patients and is reviewing the program to ensure guidelines for additional funding comply with laws and regulations. The reporters indicated that many hospitals say the relief allocated by Congress to date is not enough to cover the financial hit from COVID-19, with Moody's Investors Service analysts projecting that the impact of the pandemic coupled with a challenged economy will continue to drive down hospital revenues. Hospital groups believe that the lack of a secretary in charge of the U.S. Department of Health and Human Services may have added delays in payment, according to Armour and Evans.

Our evaluation of the data related to how COVID-19 has affected hospital operations financially indicates that the results are mixed. There is one consistent theme, however, and that is that telemedicine or telehealth has had a profound impact on the delivery of care. Through December 2020, telehealth claims are up 2,817% over December 2019.

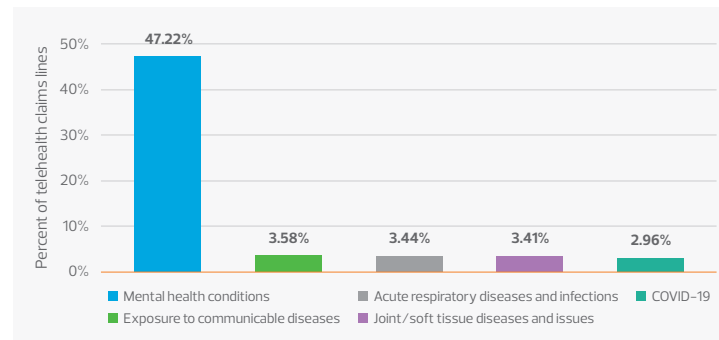
### Volume of claim lines, 2019 vs. 2020



Source: Fair Health, Monthly Telehealth Regional Tracker, Dec. 2020

The following chart illustrates the top five telehealth diagnosis codes for 2020.

### Top five diagnoses, December 2020



Source: Fair Health, Monthly Telehealth Regional Tracker, Dec. 2020

In an article published by *Modern Healthcare* on March 25, 2021, Alex Kacik and Tara Bannow reported that some of the largest health systems in the country experienced an increase in profits during 2020 despite the challenges brought on by the pandemic. Several factors contributed to this trend including: patients that did receive care tended to be higher acuity, which drew more revenue; hospitals tended to have a higher proportion of commercially insured patients, were better at cutting expenses,

The pandemic has forever changed the way health care systems do business and the delivery of care in the communities they serve.



or both; hospitals received benefits from the government like the 20% Medicare add-on payment for COVID-19 patients; there was a moratorium on Medicare rate cuts related to sequestration; and the ability to defer taxes. The reporters acknowledged that while it appears that larger hospitals are doing well given their larger financial and competitive resources, smaller health systems may not have had the same experience.

Health systems experienced double-digit declines in patient volumes across the board. Kaufman Hall conducted a survey of 900 hospitals across the country and provided the following volume statistics in their March report.

#### National volume results

Volumes percent change	Budget variance	Month-over-month	Year-over-year	Year-to-date
Discharges	-13.7%	-9.5%	-14.7%	-12.9%
Adjusted discharges	-14.2%	-2.7%	-13.8%	-16.8%
Adjusted patient days	-5.7%	-7.6%	-8.3%	-8.8%
Average length of stay	8.4%	-3.4%	7.3%	-8.5%
ED visits	-21.1%	-10.7%	-26.8%	-25.6%
Operating room minutes	-7.9%	2.3%	-6.9%	-13.0%

Source: Kaufman Hall National Hospital Flash Report March 2021

February was another challenging month for hospitals that continue to deal with declining patient volumes following January's record-high COVID-19 hospitalizations. February expenses rose while margins, volumes and total revenues all fell below levels seen in February 2020. The report highlights that the median operating EBITDA margin was 4.1% without CARES and 5.4% with CARES. Other key operating margin trends from the report include the following.

#### National margin results

Margin percent change	Budget variance	Month-over-month	Year-over-year	Year-to-date
Operating EBITDA margin less CARES	-27.1%	-4.0%	-22.6%	-32.7%
Operating margin less CARES	-35.2%	-7.5%	-30.8%	-48.0%

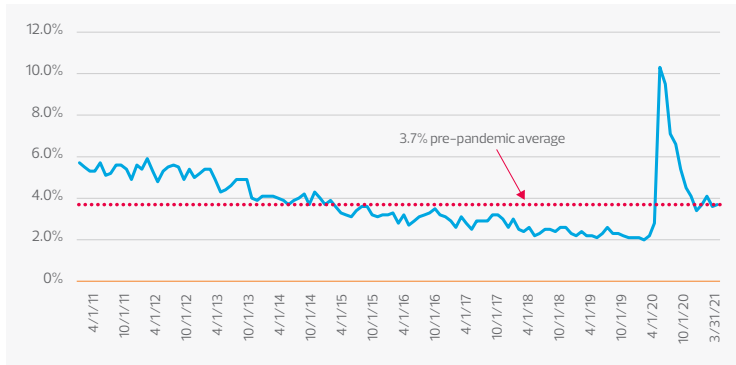
Source: Kaufman Hall National Hospital Flash Report March 2021

As if dealing with a global pandemic isn't enough, "federal records released as part of the 9th annual [Hospital Readmissions Reduction Program](#) audit show that nearly half of all hospitals will be penalized because of their high patient readmission rates," according to a report by Christian Worstell with MedicareAdvantage.com. He reports that 2,545 hospitals will receive lower Medicare payments for one full year due to their poor performance.



And from a workforce perspective, according to the [U.S. Bureau of Labor Statistics Data \(bls.gov\)](https://www.bls.gov), unemployment in the health care and social assistance industry is at 3.6% for February 2021. The industry experienced flat unemployment trends going into 2020, and while the pandemic-related restrictions affected all industries, employment increased at a steady rate during 2021 for health care.

### Health care unemployment rate



Source: U.S. Bureau of Labor Statistics

In analyzing the data, it is clear that health systems across the country have experienced some form of financial impact, some feeling it more than others. Data suggests that there is still a financial need—a “show me the money” moment—as health systems continue to fight COVID-19. The pandemic has forever changed the way health care systems do business and the delivery of care in the communities they serve. Leadership needs to continue to be agile, resilient and creative; additional funding can help support their efforts.

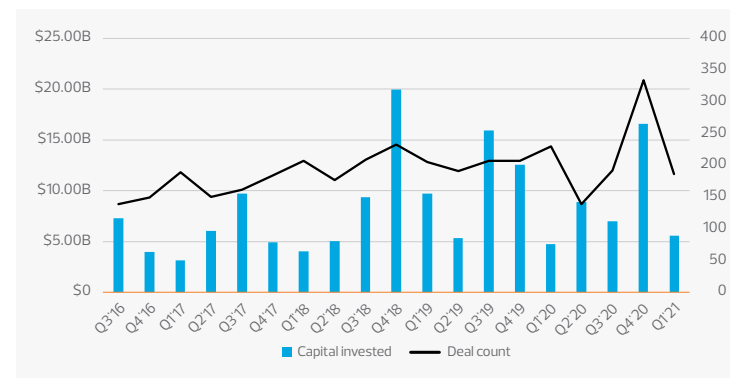
## DEAL-MAKING

### High transaction volume will continue through 2021

Q4 2020 and Q1 2021 were among the [busiest periods in health care deal-making](#) ever. We expect that the fragmented nature of the health care ecosystem, accommodative rate environment, investor demand for health care and digital disruption wrought by the response to the pandemic will continue to drive deal flow.

2020 saw 895 health care service deals, according to PitchBook data, which made it the busiest year for health care services deals since at least 2002 (reliable data prior to 2002 is unavailable). 2019 and 2018, the previous high, saw 810 and 826 deals, respectively. That 2020 was a record year is remarkable given the dearth of deal flow experienced in Q2 as strategic players and financial investors focused on managing existing operations and we all adjusted to a virtual deal-making environment. Q4 2020 saw 334 deals, which represents an increase of 127 deals over Q4 of 2019 and underscores the demand for health care deal-making post-COVID-19.

### Record Q4 health care services deal count



Source: PitchBook Data, Inc.

The [accommodative interest rate environment](#) will [persist](#) for some time, further fueling health care deal fervor. Lower rates better enable investors and buyers, particularly financial buyers like private equity firms, to close deals. According to IBISWorld research, the health care sector remains highly fragmented across most subsectors; for example, no one health system accounts for over 5% of that subsector’s revenue.

Investor interest in health care remains elevated. Bloomberg reports over \$150 billion in dry powder committed to private equity funds focused on health care. Public markets are also active, particularly special purpose acquisition companies, or [SPACs](#).



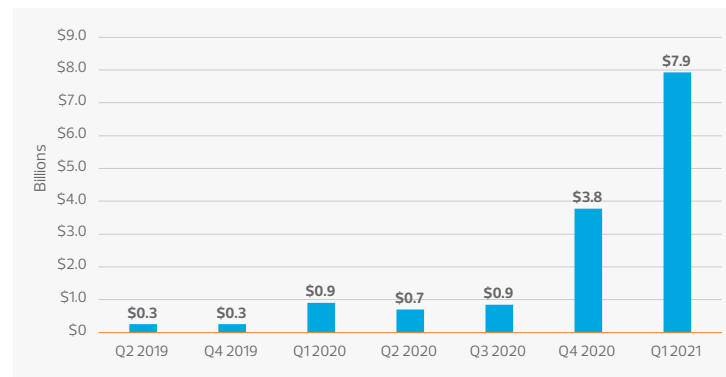
We will continue to see robust activity in divestitures, mergers, acquisitions, joint ventures, capital raises and deals of all shapes and sizes through 2021.

SPACs are not a new financing vehicle. They have, however, garnered favor in the past 18 months as ways for private companies to quickly go public and for a broader set of investors to participate in the traditional initial public offering upside that has usually been reserved for the largest institutional investors and investment banks. Few sectors have seen as much SPAC interest as health care.

More capital has been raised and deployed for health care SPACs in Q1 2021 than was raised and deployed in all of 2020. Significant health care deals include Clover Health, MultiPlan and SOC Telemed. In total, health care SPACs have yet to deploy \$14.6 billion. It is important to note that SPACs are not required to disclaim the industry in which they plan to purchase one or more private companies. However, many do list potential target industries, or their likely targets can be deduced based on the management team's resume.

April has brought a slowdown in SPAC IPO activity and an SEC warning that some special purpose acquisition companies may have improperly accounted for warrants issued or sold to their investors.

#### Health care SPACs' dry powder by quarter raised



Source: Bloomberg

It's little wonder why so much capital is flowing into health care. The pandemic pulled forward digital disruption in health care by at least five to 10 years. Patients have long wanted the option of digital and virtual care.

The digital health and [telemedicine](#) genie is out of the bottle now. Leading legacy health care organizations are rapidly positioning themselves for a future we previously thought was years away. We will continue to see robust activity in divestitures, mergers, acquisitions, joint ventures, capital raises and deals of all shapes and sizes through 2021. ■

From expanding digital health opportunities to increased scrutiny on mergers, life sciences companies face a variety of issues.

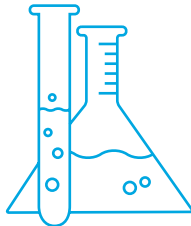


# INDUSTRY OUTLOOK: **LIFE SCIENCES**

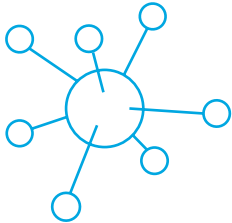
BY ADAM LOHR AND STEVE KEMLER

## **An evolution of the life sciences industry**

As COVID-19 moves from a pandemic crisis to an [endemic fact of life](#), governments, economies and communities have to define what the new normal is going to look like. Communities will need to make affirmative decisions as to how the world and their specific social, political and economic ecosystems will function post-pandemic. For life sciences companies, that will involve consideration of new technologies, business models and consumer preferences.



Two pandemic-induced shifts that will have a broad influence on the future of life sciences include the rapid acceptance of digital health and the sharing of personal health information, and a business environment that is more productive remotely and geographically dispersed than we had previously thought possible. On top of that, we are entering a new phase of national and global politics, which will affect regulations, [supply chains](#), drug pricing and social systems. To put this in perspective, the last 12 months have resulted in unprecedented government stimulus; cooperation between traditionally



### **KEY TAKEAWAYS**

- As the pandemic evolves to become an endemic part of life, life sciences companies, along with other businesses, must consider new technologies, business models and consumer preferences.
- Strong capital markets continue to propel growth in the industry, while public markets reflect long-term growth opportunities.
- The Federal Trade Commission has voiced a more skeptical tone toward life sciences mergers.
- Over the last several months, the pharmaceutical industry has seen an improvement in public perception.

competitive business interests, governments and regulators; and [capital markets](#) that have brought record returns and investment dollars, all while the global economy went into lockdown and advanced the move to virtual by a decade.

Access to capital, improved public sentiment, and an increased ability to leverage external expertise will allow middle market companies to play an increasing role in rapid innovation and development of new drugs and therapies. The industry will also need to consider how best to maneuver in a changing national and geopolitical landscape as the economy emerges from the recession. Overall, we believe that year-to-date performance of the industry is indicative of continued expansion throughout the year with a focus on drug discovery and emerging therapies in biotechnology.

## CHALLENGES/OPPORTUNITIES

### New challenges, but opportunities and promise, too

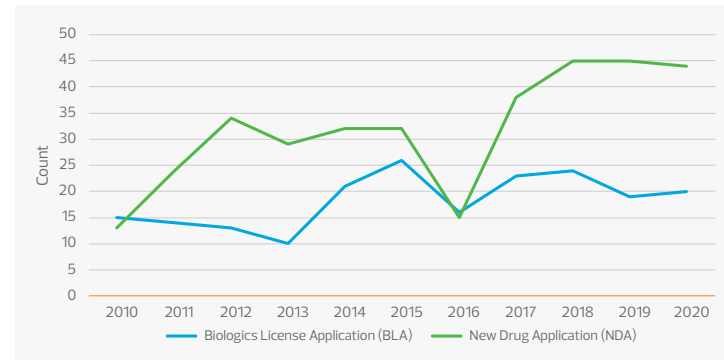
The unprecedented focus on vaccine and therapeutic development for COVID-19 has shifted from development in 2020 to production in 2021, with Moderna, Pfizer-BioNTech, and Johnson and Johnson hoping to produce billions of doses this year. The rest of the life sciences industry can now begin to reset their focus on new challenges and opportunities in 2021.

First, an enormous amount of hard work remains to stop the pandemic and safely control the likely long-term endemic nature of COVID-19. The most obvious is the continued effort to produce sufficient vaccines to inoculate the world, and the public health effort to get those shots into arms. Reducing infection in just the United States and other wealthy countries risks both the lives of people in poorer countries and our own self-interest. Wherever there are populations still suffering from the impact of this virus, there is also [the risk that a new variant arises](#) that can elude our vaccines.

Second, the vaccines are not 100% effective and there will be populations of people that are unable or unwilling to be vaccinated. This makes the development of additional therapies critically important as we adapt to life with this pathogen. With more than a dozen vaccines approved around the globe, there is a new wave of research into antivirals and [promising new clinical trials for drugs like Merck's molnupiravir](#). These drugs offer hope not just for future COVID-19 patients, but will also provide new treatment options for

other viral infections that are not well treated today or that have yet to emerge into human populations. Despite the Food and Drug Administration's focus on COVID-19-related applications during 2020, they were able to approve 64 new medicines.

### FDA approvals of new medicines



Source: Evaluate; RSM US LLP

Third, the industry faces a significantly different regulatory environment than they did a year ago. Starting with the Federal Trade Commission's changes and heightened merger scrutiny (expanded upon later in our outlook), the new administration of President Biden will also include new leadership and priorities at the Food and Drug Administration, Department of Health and Human Services and Centers for Disease Control. The new leadership at these agencies has indicated they are committed to expanding access to health care and reigning in prescription costs.

Fourth, pandemic-induced adoption of [remote work](#), virtual health and digital clinical trials has likely moved the health care and life sciences ecosystem years forward in terms of its digital evolution. However, similar changes are happening across the economy, and as the United States is poised for a major expansion in 2021, the competition for highly skilled employees with technical and scientific backgrounds will be fierce. Life sciences companies will have access to a broader pool of geographically disbursed resources, but will need to develop new strategies to attract, train and retain talent. In some cases, companies may need to evaluate [outsourcing](#) opportunities as well as adopt labor-saving or labor-enhancing technologies in an effort to do more with less.



As the life sciences industry refocuses following the pandemic and begins planning for the next decade, this environment of heightened skepticism of mergers and a focus on business arrangements that appear to affect access or pricing of drugs must be taken into account.

Finally, and perhaps most importantly, the pharmaceuticals industry has seen a major improvement in its public perception according to The Harris Poll. In January 2020 only 32% of respondents had a positive opinion of the industry [compared to 62% in January of this year](#). This improved public opinion will be critical as the industry works to minimize the impact of drug pricing reforms and increased regulatory oversight, and continues to tap into public and private markets to fund drug development.

## CAPITAL MARKETS

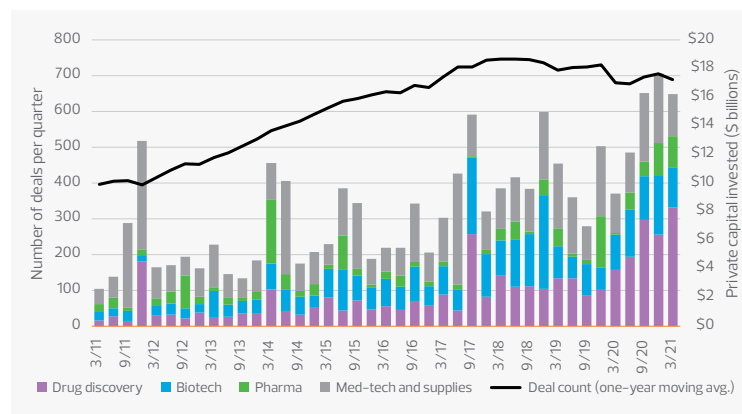
### Strong capital markets continue to propel life sciences growth

Even with the pandemic weighing on the global economy, the life sciences ecosystem continues to drive forward with significant momentum coming out of 2020. Private investment (private equity and venture capital) in Q1 2021 outperformed the same time frame in 2020, and was on par with the second half of 2020 which were the two strongest quarters the industry has ever had. We generally discuss life sciences in the three main sectors of biotechnology, pharmaceuticals and medical devices, but the surging subsector of drug discovery warrants specific consideration.

Startups and middle market companies continue to play a greater role in innovation and development of next generation therapies, and as a result, private investment in drug discovery has been an increased focal point for the industry. Between 2017 and 2019 investment in companies specifically focused on the discovery,

screening and efficacy testing of new drugs, represented approximately 28% of all capital raised and 22% of deals. Since the start of 2020, even before the pandemic, the share of investment increased to 43% of capital and 28% of deals.

#### Private capital invested in life sciences—by sector



Source: Bloomberg; RSM US LLP

While there is likely a COVID-19 induced bump in the growth of drug discovery, we believe downside risk to the long-term is limited because of a structural shift in the market's focus from broadly distrusted blockbuster drugs to personalized medicine. As the focus on COVID-19 vaccines and therapies wanes, development efforts will shift back to cutting edge therapies in immune-oncology and cell and gene therapy. Companies that can help bring drugs to market in an efficient and cost effective way will be in high demand.

# PUBLIC MARKETS

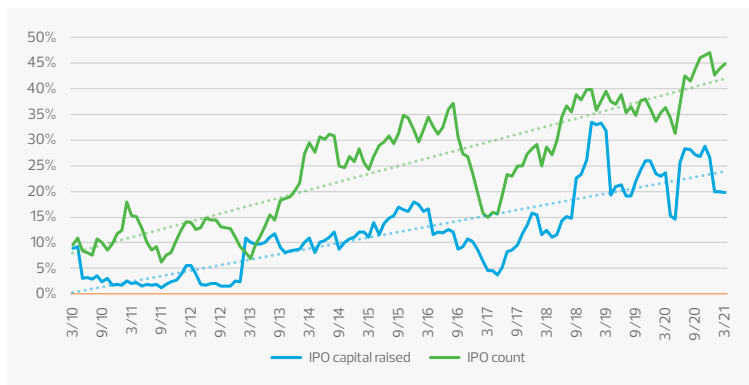
## Public markets reflect long-term growth opportunity

In our last outlook we discussed the 2020 surge of initial public offerings for life sciences companies, which marked a record for capital raised. 2021 has brought much of the same velocity of deal flow, as well as a consistent focus on biotechnology.

The overall proportion of life sciences companies going public in comparison to other industries also continues to rise, and over the last 12 months, 45% of all non-special purpose acquisition company (SPAC) IPOs were life sciences. With that said, the prevalence of SPACs has spiked since the beginning of the pandemic and there is an extraordinary amount of capital being raised by these “blank check” companies. However, April has brought a slowdown in SPAC IPO activity and an SEC warning that some special purpose acquisition companies may have improperly accounted for warrants issued or sold to their investors.

As SPACs have only a limited amount of time to invest their capital, it is not surprising that life sciences companies continue to focus on more traditional market approaches.

### Life sciences IPOs as percentage of all IPOs—200-day moving average (excludes SPACs and holding companies)



Source: Bloomberg; RSM US LLP

### IPO breakdown (excluding SPACs and holding companies\*)

	April 2020–March 2021		April 2018–March 2020	
	Capital	Count	Capital	Count
Biotech	17.5%	31.7%	10.5%	24.1%
Pharma	3.1%	6.0%	4.1%	7.1%
Medical devices	2.6%	7.2%	7.1%	4.8%
All other industries	76.8%	55.1%	78.3%	63.9%
<b>Total</b>	<b>\$107B</b>	<b>265</b>	<b>\$98B</b>	<b>352</b>

Source: Bloomberg; RSM US LLP

\* For the 12 months ending March 31, 2020, U.S. SPACs and holding companies have invested more than \$112 billion in target companies, the majority of which is going into the tech and financial sectors. Life sciences companies have only received 6% of invested capital, which represents 10% of investments made.

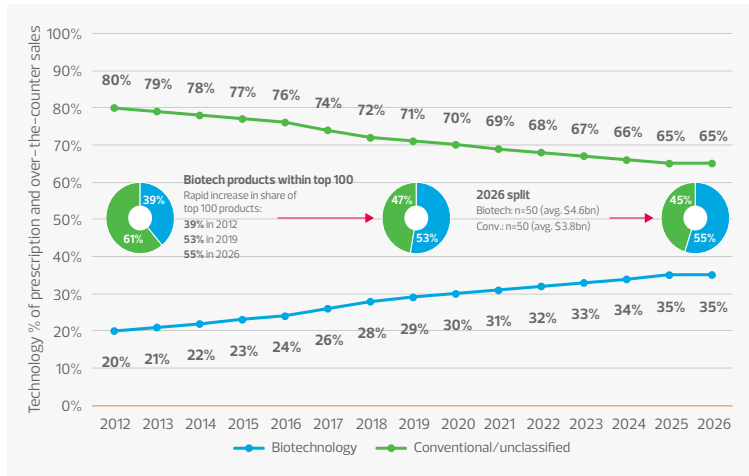
The majority of SPAC investments are focused on the technology and financial sectors that have established products and consumer bases, and can leverage a capital infusion to penetrate the market more quickly. Life sciences companies in comparison have historically long development cycles, high rates of scientific failure, significant long-term needs for research and development and clinical trials, and are faced with FDA approval that can take a year or more.

These barriers to entry result in a slower rate of play, but with very high upside in the long run for successful firms. Recent changes in business models and emerging technologies have also allowed middle market companies to challenge the status quo for drug and medical device development by staying leaner, outsourcing where possible and focusing on targeted innovations in the pursuit of personalized medicine.

It is quantitatively difficult to identify when a structural shift is taking place in an ecosystem, but we believe that life sciences—particularly biopharma—is poised for just such a transition. This is the transition of development and distribution of drugs for the masses to the targeted development of therapies. According to EvaluatePharma’s analysis of worldwide drug sales, the market share gap between biotech drugs and conventional pharmaceuticals is expected to close significantly by the middle of the decade. In 2012, biotech’s share of sales revenue from the top 100 products was 39%, and by 2026 it is expected to represent 55% of sales of the top 100 products.

## Worldwide prescription drug and over-the-counter pharmaceutical sales: Biotech vs. conventional technology

### Worldwide prescription and over the counter drug sales: Biotech vs. conventional technology



Source: EvaluatePharma

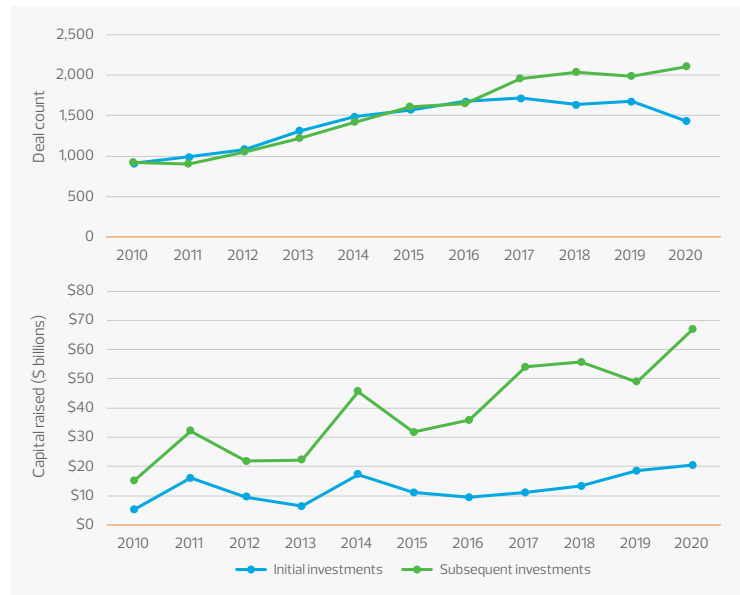
We believe this technological shift is also visible through life sciences startups and how capital is being raised throughout their life cycle. Over the last two decades life sciences companies have been raising significantly more rounds of capital, and have chosen to go public as opposed to being acquired, as is illustrated by the private capital and IPO charts previously, and the following mergers and acquisitions chart.

In 2002 66% of all private financing rounds were the first or second round (initial investments) that a company had received. In 2010, that dropped to 50%, and in 2020 only 40% of all investments were initial investments in life sciences companies. One could assume this was due to fewer new company starts; but as seen in our following analysis of PitchBook deal data, the number of initial investments has been steadily rising for a decade, aside from a pandemic-induced decrease in 2020. Considering additional financing, life sciences companies are going back to the well in increasing numbers and are also able to raise significantly more capital than is secured through initial rounds.

## MIDDLE MARKET INSIGHT

Startups and middle market companies continue to play a greater role in innovation and development of next generation therapies, and as a result, private investment in drug discovery has been an increased focal point for the industry.

### Initial private equity and venture capital investment vs. all other rounds (initial investment defined as first or second round)



Source: PitchBook, RSM US LLP

This should be looked at within the context of the number of life sciences companies going public, which represent 45% of all IPOs, and a 10-year CAGR of ~23%, and in relation to the amount of corporate M&A activity, which has been flat over the last two decades, but with increasing deal size (see following charts). We interpret this to mean that more life sciences companies are starting up with the intention of taking their own drug to market, and in the process are raising more rounds of capital at increased valuations, and are able to either enter the public markets on

2021 has ushered in a unique operating environment in terms of societal attitudes toward life sciences, geopolitics and domestic policy.



their own, or chose to be acquired. However, given the increase in company starts and IPOs compared to flat M&A activity, it appears that middle market life sciences companies are increasingly successful in their own commercialization pursuits.

## MERGERS AND ACQUISITIONS

### Taking stock of exogenous factors

Regardless of how much effort is put toward research, controls and planning, there are many factors outside the control of life sciences companies. 2021 has ushered in a unique operating environment in terms of societal attitudes toward life sciences, geopolitics and domestic policy.

### FTC strikes a more skeptical tone toward life sciences mergers

As we wrote in the [lead up to the 2020 presidential election](#) and in our last outlook, changes in makeup of the Federal Trade Commission will have a significant impact on the life sciences industry. Traditionally, large pharma companies have used M&A as a key strategy for driving growth and filling gaps in their drug development pipelines. This strategy will continue, but the new leadership of the FTC will force the industry to consider more broadly the impact of proposed M&A on competition.

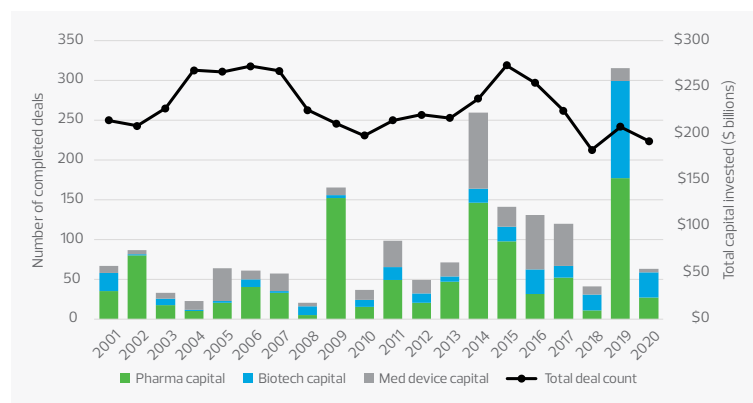
### MIDDLE MARKET INSIGHT

Recent changes in business models and emerging technologies have also allowed middle market companies to challenge the status quo for drug and medical device development by staying leaner, outsourcing where possible and focusing on targeted innovations in the pursuit of personalized medicine.

In January, Rebecca Slaughter was designated acting chair of the FTC. In March, [the FTC sued to stop the acquisition of Grail Inc. by Illumina, Inc.](#) Illumina manufactures systems used for analyzing genetic materials and functions. Grail focuses on tools for cancer screening. It is not uncommon for the FTC to challenge or request changes to a merger; but the commission's 4 to 0 vote to prevent this specific deal represents only the second time in 40 years the commission has sued to stop a merger that is primarily a vertical integration. The FTC's stated rationale for preventing the merger is that DNA sequencing tools Illumina manufactures are critical tools for both Grail and their competitors. They argue that if the merger proceeds, Illumina would be able to prevent competition and innovation in the space of multicancer early detection tests.



## U.S. life sciences mergers and acquisitions activity (completed deals)

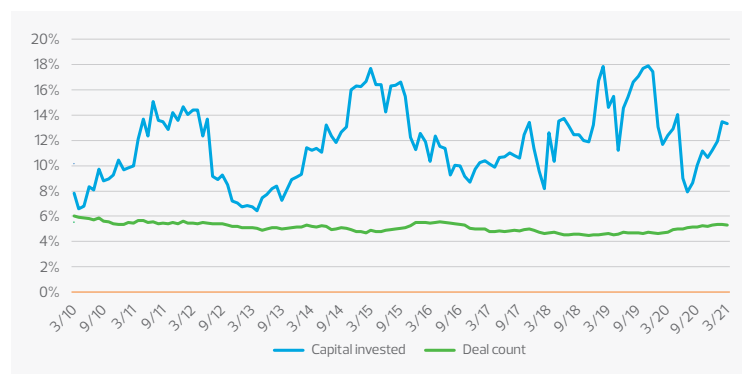


Source: Bloomberg; RSM US LLP

This move quickly followed the launch of [a new FTC working group](#) focused on pharmaceutical company mergers. While the FTC has traditionally focused on areas where the merging companies have similar pipelines and products, this working group’s goal is to look more broadly at the competitive implications of mergers and their impact on drug prices. Looking at the data, drug spending—specifically for branded drugs—does continue to increase year over year, but that is not purely a result of price increases. In reality, a larger portion of the population has expanded access to health care, more prescriptions being written per person, and there is greater availability of a wider range of drug options (albeit some are no more effective than their generic or biosimilar peers).

The conversation on pricing is beyond the scope of this outlook, but if M&A is being considered a primary culprit, we believe consideration should be given to the fact that the amount of life sciences M&A has been falling for several years, and has been flat in terms of the number of deals in comparison to the total amount of M&A throughout all industries.

## Life sciences mergers and acquisitions as a percent of all mergers and acquisitions (trailing 12-month average)



Source: Bloomberg; RSM US LLP

As the life sciences industry refocuses following the pandemic and begins planning for the next decade, this environment of heightened skepticism of mergers and the focus on business arrangements that appear to affect access or pricing of drugs must be taken into account. Although the FTC often focuses on large pharma mergers, middle market life sciences companies that hope to be acquired rather than take their own pipeline commercial will need to pay close attention to the concerns of the FTC and their continued focus on the impact of mergers on drug pricing and competition. ■

Industrial customers increasingly demand speed and customization, requiring manufacturers to be closer to their customers and to adopt tech-enabled distributed manufacturing solutions.



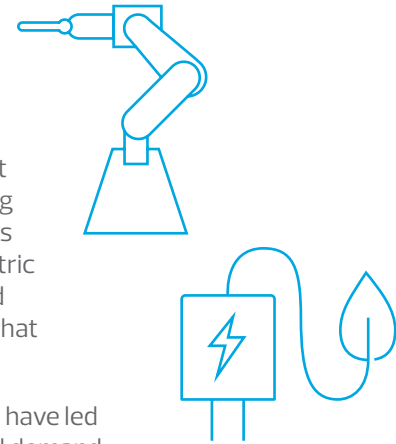
## INDUSTRY OUTLOOK: **MANUFACTURING AND ENERGY**

BY JASON ALEXANDER, SHRUTI GUPTA  
AND ANNE SLATTERY

**SOME OF THE DUST** has begun to settle for the manufacturing and energy sectors following the severe volatility of 2020, but that doesn't mean either is returning to how they looked before the pandemic began.

A rising China's role in global trade and the way governments around the world are responding to it are shaping a new wave of globalization. Continuing supply chain disruptions are triggering new policies to prevent shortages of goods. Interest in the electric vehicle market is heating up, from automakers and investors alike, and suppliers will need to assess what that means for them as auto demand returns.

As the global economy reflates, commodity prices have led the recovery. But we do not believe the supply and demand outlook will play out in a way that results in what's known as a "supercycle" in which commodities trade above their price trend, as has happened several times in the past.



### KEY TAKEAWAYS

- Global trade may have plateaued, but globalization is evolving. Industrial customers increasingly demand speed and customization, requiring manufacturers to be closer to their customers and to adopt tech-enabled distributed manufacturing solutions.
- There has been a flurry of capital market activity in the electric vehicle space, which is also garnering significant investments from legacy automakers.
- We expect automotive supply chains to increasingly revolve around the geography of battery and electronic component production, leaving suppliers that are located closer to production with a competitive advantage.
- Some analysts have suggested that we are in the beginning stages of a commodity supercycle. In our view, however, this hypothesis is premature.

## The fourth wave of globalization

Recent geopolitical conflicts and pandemic disruptions have reignited the debate on the future of globalization. Geopolitical dynamics, with a rising China at the center, continue to reshape many international relationships and consequently, trade policies. Globalization is being redefined and facing new pressures, and that brings new considerations for the global manufacturer.

Shortages of goods ranging from medical supplies to semiconductors have forced many governments around the world to take action, waking them up to critical supply chain vulnerabilities. Countries are formulating new plans and policies to achieve self-reliance for critical supplies. The U.S. government, for one, is reviewing critical supply chains, funding research for securing rare earth minerals for domestic production of EVs, and investing in domestic manufacturing, clean energy, infrastructure and advanced technologies. The goal is to reshore production in these areas that are too risky to depend on foreign supply chains. The European Union is pursuing "strategic autonomy" at the core of its trade and foreign policy and is proposing to target 2030 for reducing reliance on foreign-sourced semiconductors. China is pivoting toward dual circulation, a policy focused on encouraging domestic consumption instead of reliance on exports.

This latest rush to self-reliance can largely be attributed to a rising China. Other countries' response to China's increasing dominance will be a critical factor in shaping domestic manufacturing policies and international trade. Although some countries like the United States, India, Australia and Japan are considering forming an alternative trade block or alliance, there is not yet a cohesive response to address growing polarization.

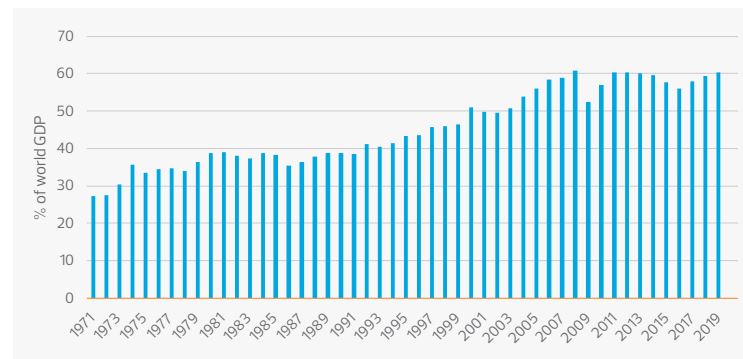
The U.S. approach as summarized by Secretary of State Antony Blinken is that "our relationship with China will be competitive when it should be, collaborative when it can be, and adversarial when it must be." It is safe to assume that this mirrors the approach of most other significant economies. Boris Johnson, while positioning China as "the biggest state-based threat to the U.K.'s economic security," is also promising greater cooperation with China for efforts related to climate change and economic ties.

### MIDDLE MARKET INSIGHT

Large industrial companies have for a long time manufactured close to customers. They now expect their smaller suppliers to be able to deliver in different locations across different channels. Suppliers beyond tier 1 and 2 suppliers—mostly small and mid-sized companies—may need to set up or expand operations globally to support a distributed manufacturing model that is global and local.

What does this mean for globalization and global trade? Total self-reliance in today's global world is a myth. And yet, global trade has plateaued over the years. After having more than doubled from 1970 to 2008, global trade as a percentage of world gross domestic product has not surpassed the highs of 2008. Trade volume, too, has been flat to down, based on the World Trade Volume Index assembled by the CPB Netherlands Bureau for Economic Policy Analysis. Meanwhile, other measures show global trade has been stable. The DHL Global Connectedness Index—which tracks trade, capital, the exchange of information and movement of people to determine whether globalization is increasing or declining—showed that globalization held steady in 2019. While it will decline in 2020, it "is unlikely to fall below levels seen during the 2008–09 global financial crisis."

### Global trade as a percent of world GDP



Source: World Bank



Multichannel delivery capabilities powered by the use of Industry 4.0 technologies to enable efficiency and resiliency across supply chains will be critical.

Global trade may have plateaued, but globalization is evolving. Industrial customers increasingly demand speed and customization, requiring manufacturers to be closer to their customers and to adopt tech-enabled distributed manufacturing solutions. Servitization models—in which manufacturing is provided as a service rather than a product—and distributed manufacturing models mean more information and knowledge sharing between locations while manufacturing is localized.

The multiple supply chain disruptions countries are experiencing right now (although temporary) and the development of government policies aimed at achieving self-sufficiency will encourage and foster more regional manufacturing and regional supply chains. Large industrial companies have for a long time manufactured close to customers. They now expect their smaller suppliers to be able to deliver in different locations across different channels. Suppliers beyond tier 1 and 2 suppliers—mostly small and mid-sized companies—may need to set up or expand operations globally to support a distributed manufacturing model that is global and local.

Many midmarket suppliers have set up overseas operations as a response to a customer's request. Companies that can intentionally and proactively cater to their customers' global footprint will have a competitive advantage. Multichannel delivery capabilities powered by the use of Industry 4.0 technologies to enable efficiency and resiliency across supply chains will be critical.

Middle market companies that need to catch up in order to meet these shifting expectations might want to consider:

- The right location(s) in alignment with a broader global strategy so that they can expand their regional and global customer base
- Warehousing and logistics implications of more regionalized supply chains, incorporating cloud computing and enhanced IT infrastructure solutions that can provide the supply chain visibility required to respond to market changes
- Proactively addressing regulatory compliance matters that accompany global growth to take advantage of cost and operational efficiencies

Marc Levinson, author of *Outside the Box: How Globalization Changed from Moving Stuff to Spreading Ideas*, talks about what is essentially the end of the third wave of globalization (the first started in the 19th century, the second after WWII) and the beginning of a fourth wave. He notes that the third has largely been about engineers and designers in advanced economies creating products that are manufactured in economies where wages are lower, which are then sold around the world. In the fourth iteration of globalization, "it is the research, engineering and design work that is being globalized."

## MIDDLE MARKET INSIGHT

As the drive train for an EV uses very different parts and reduces the number of components required compared to an internal combustion engine vehicle, this will completely remake supply chains. Middle market manufacturers will need to be intentional about how they carve out their place in the market.

## Electrification and the evolving automotive supply chain

Automakers continue to experience pandemic-induced supply chain challenges, but that's not stopping some companies and investors from zeroing in on electrification and the acceleration of the EV market as auto demand returns.

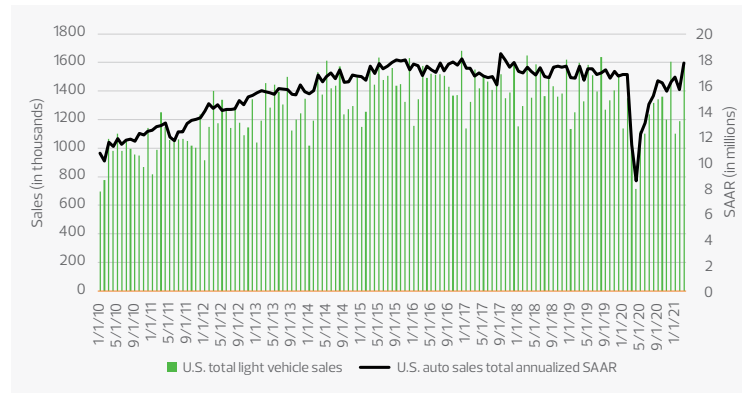
The auto industry overall has mostly bounced back after taking a hit last year, and is now experiencing sales growth in China and the United States. This is especially true in the EV sector, which is benefiting from continued advancements in technology and increasing regulation to curb emissions from gasoline- and diesel-powered vehicles. The EV space is also garnering significant investments from legacy automakers, who have historically taken a wait-and-see approach to embracing electrification, given the unprofitability of some EVs compared to legacy internal combustion engine products.

We have also seen a flurry of capital market activity in the EV and battery space; EV startups raised \$7 billion in venture capital last year, according to data compiled by PitchBook. Sixteen EV startups representing a combined enterprise value of nearly \$78 billion merged with special purpose acquisition companies or were in the process of doing so at the end of 2020, according to PitchBook. (April has brought a slowdown in SPAC IPO activity and an SEC warning that some SPACs may have improperly accounted for warrants issued or sold to their investors.)

All of this activity in the EV space signals that the world's largest automakers are doubling down and accelerating their electrification efforts at a time when U.S. automotive sales recently skyrocketed

to a seasonally adjusted 17.8 million units, a 21-year high for the month of March. (That's after sales hit their lowest levels in a decade last year at 14.6 million, according to data from the International

## U.S. light vehicle sales



Source: RSM US LLP; WARD's Automotive Group; Bureau of Economic Analysis; Bloomberg

Organization of Motor Vehicle Manufacturers.)

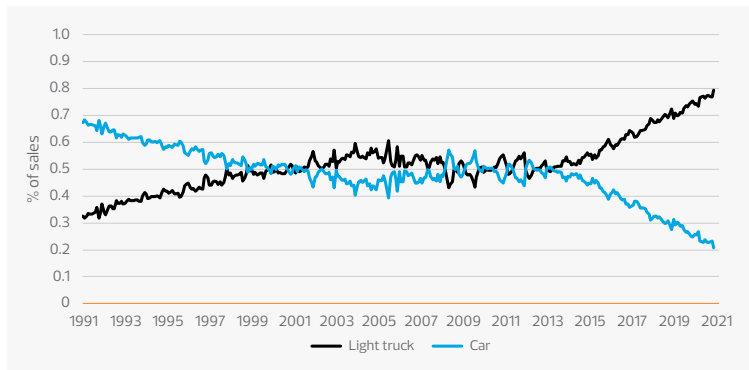
The acceleration in EV investment began in November, when General Motors announced plans to increase the rollout of its EV lineup. The Detroit-based company committed to spending \$27 billion on electric and autonomous vehicles through 2025 with a goal of selling 1 million EVs by 2025, ultimately transitioning its entire lineup to EVs by 2035. Not to be outdone, GM's crosstown rival Ford announced plans in February to invest \$22 billion on EV technologies and \$7 billion on autonomous vehicle technologies, but stopped short of announcing plans for an all-electric future.

We believe that these investments stem in part from the impending entrance of Rivian's R1T electric truck and Tesla's Cybertruck into what is estimated as a \$125 billion pickup truck market, according to Bloomberg Intelligence. Legacy automakers such as GM, Ford and Stellantis will need to defend this highly profitable segment of the market, which accounted for about \$22 billion in operating income and accounted for a record 75.9% of U.S. auto sales in 2020. To do so, these companies will need to maximize profits on current models while also preparing their electric lineups as Tesla and Rivian's production capacity ramps up in 2023.

In addition to the supply chain challenges automakers are facing, there are growing headwinds related to lithium battery development and production that could threaten EV growth prospects as well.



### U.S. light vehicle mix



Source: RSM US LLP; Bureau of Economic Analysis; Bloomberg

### Policy factors at play

U.S. automakers' move toward electrification also may benefit from the recently announced [American Jobs Plan](#), which includes \$174 billion to "win the EV market." The plan is designed to promote EV production domestically, as well as build out a national EV charging network. The plan also calls for the replacement of 50,000 diesel transit vehicles and the electrification of at least 20% of the country's yellow school bus fleet.

While the federal plan does not specify when the sale of new ICE vehicles will end, recent action in some states may provide a preview of what's to come: Massachusetts announced a plan to ban the sale of new cars powered by fossil fuels by 2035; California Governor Gavin Newsom signed an order banning sales of new gasoline cars by 2035; and the New York State Senate recently introduced a bill requiring new cars and trucks to be zero-emissions by 2035.

Government influence on automakers' EV strategy varies widely by region, and it is clear the European Union is leading with some of the world's most stringent targets. This might explain recent moves announced by Germany's Volkswagen Group, which may have the most ambitious EV plans of all legacy automakers. The company aims to be the market leader for electric mobility by 2025 and has stated its [goals](#) to produce 1 million EVs per year by 2023 and 1.5 million per year by 2025. To support these lofty ambitions, the company has committed to investing around €46 billion (~\$54.3 billion) in electric mobility and the hybridization of its fleet in the next five years. At its Power Day event in March, the company announced plans to build six battery factories in Europe by 2030, each with a capacity of 40 gigawatt-hours.

## Can current supply chains handle EV growth?

Recently, semiconductor shortages have dominated the news, exposing the fragility of global automotive supply chains and causing shutdowns at numerous U.S. automotive production facilities. Given the shutdowns experienced by original equipment manufacturers at the beginning of the pandemic, chipmakers shifted their focus away from the automotive sector in favor of the consumer-electronics sector, which was benefiting from increased demand in light of pandemic-induced lockdowns. And with recent stockpiling by Chinese manufacturers, combined with a near-term boost from sales of vehicles with advanced infotainment systems and EVs that require a greater number of chips, it would appear that challenges and potential production disruptions will persist in the near term, especially given that most capacity for the year is already accounted for.

In addition to the supply chain challenges automakers are facing, there are growing headwinds related to lithium battery development and production that could threaten EV growth prospects as well. China currently has around 77% of the world's lithium-cell manufacturing capacity, according to Bloomberg New Energy Finance. Around 60% of the world's cobalt, the most expensive raw material in lithium batteries, is produced in the Democratic Republic of Congo and is mainly processed in China, for both batteries and steel. Organizations are increasingly focusing on ethically-sourced cobalt, as stakeholders have increased their expectations surrounding environmental, social and governance (ESG) indicators, so this may present challenges for companies using longtime mining techniques that some would consider defeating the purpose of EVs.

These challenges will continue to put pressure on OEMs and their suppliers, especially middle market manufacturers. As batteries are the heaviest component in EVs and transporting them is both difficult and expensive, we expect automotive supply chains to increasingly revolve around the geography of the battery and electronic component production, leaving suppliers that are located closer to production with a competitive advantage.

Some key questions middle market manufacturers should be asking themselves to make sure they are prepared to deal with these ongoing changes include:

- To what extent has your company developed a long-term strategy, including identifying the technological capabilities required to compete in the EV sector?
- How will your strategy and supply chain be affected by growing nationalism, including Biden's proposal to "win the EV market"?

For middle market manufacturers, the electrification shift will make or break their future. As the drive train for an EV uses very different parts and reduces the number of components required compared to an ICE vehicle, this will completely remake supply chains. Middle market manufacturers will need to be intentional about how they carve out their place in the market. They must become more agile, focus on differentiating their products, and continue to utilize data and technology to create flexibility in their manufacturing operations. Ultimately, the organizations that are most effectively able to leverage [Industry 4.0 technologies](#) across their organization to transform all aspects of their business will be best positioned to prosper in the growing electric vehicle segment.

## Commodity supercycle not likely in near term

As the global economy reflates following the pandemic, commodity prices have led the recovery. The early move upward in price has been so large, in fact, that some analysts have suggested that we are actually in the beginning stages of a commodity supercycle. A commodity supercycle is defined as an extended period of time, usually a decade or more, during which commodities trade above their price trend. A supercycle is basically a bull market where a shortage of commodities such as crops, oil and gas, and metals results in a long period of high prices.

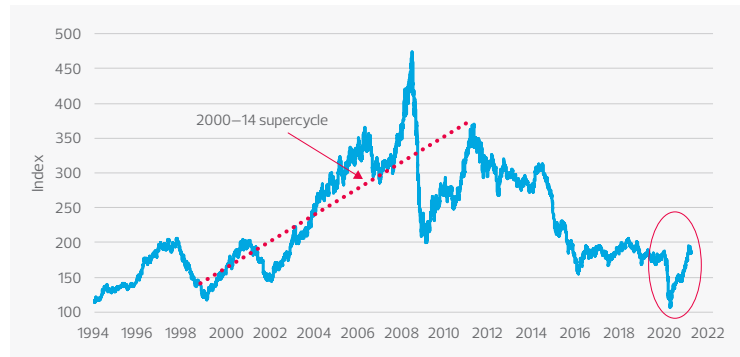


There is simply not going to be the necessary global demand this year and likely in early 2022 to support the tentative claims that underscore calls for a commodity supercycle.

“Our assessment of this hypothesis is that it is entirely premature to label pricing action across the commodities complex as a supercycle,” says RSM US Chief Economist Joe Brusuelas. “While it is clear that the United States and China will be the primary growth drivers early in the post-pandemic global economy, we anticipate an asynchronous international economic recovery where the U.K., Europe, Japan, Australia and Brazil lag the early stages of recovery and expansion. Thus, there is simply not going to be the necessary global demand this year and likely in early 2022 to support the tentative claims that underscore calls for a commodity supercycle.”

Key market conditions that shape a supercycle are extended periods of underinvestment in supply followed by significant demand return. It's the extent and duration of each of these phases of supply/demand imbalance that determines whether the magnitude of the upswing is enough to be considered a true supercycle (rather than, say, a year or two of an upswing). The supply/demand imbalance currently showing up in the market for commodities such as oil, natural gas and copper coupled with loose fiscal policy and depreciation of the dollar, presents some indicators similar to those of previous supercycles.

### Refinitiv/CoreCommodity CRB Index



Source: RSM US LLP; Bloomberg; Refinitiv

One of the most notable commodity supercycles occurred from the early 1970s as a result of booming oil prices and lasted until the early 1980s. Another cycle happened between 2000 and 2014 largely due to rising demand from emerging markets, predominantly China. Both cycles were marked with high oil prices, with oil peaking in July of 2008 when West Texas Intermediate landed at over \$145 per barrel. Although some current market indicators are similar to these previous cycles, the source behind the increase in demand is less likely to be as strong from China as they have shifted to boosting domestic consumption/development. Additionally, the push toward the energy transition will fundamentally hinder demand patterns for fossil fuels in the long term.

“While, yes, there have been disruptions to global supply chains during the pandemic that are currently behind the move in prices across the commodities complex, those chains will over the next 12 to 18 months move back to full production and pricing will adjust accordingly to the rise in supply to meet demand and inflation concerns will most likely abate during that time,” says Brusuelas.



## MIDDLE MARKET INSIGHT

We expect that energy companies in the middle market should plan for market conditions in which oil prices will remain in the upper \$50, low \$60 range (per barrel), allowing them the flexibility to pay down debt and make strategic investments. Specifically, companies should consider what types of advanced technologies would be beneficial to invest in now.

According to a recent Bloomberg survey of institutional and retail investors, 40% of respondents felt that we are, in fact, entering a commodity supercycle, while 50% responded that we are not entering a supercycle but were bullish on commodity prices. The slim margin in responses demonstrates overall optimism around market conditions, countered by market uncertainty and potential headwinds related to demand return.

It is important to note that, at a more granular level, the outlook across commodities varies. Here are three key factors at play right now in the oil and gas space that lead us to believe a commodity supercycle for oil, at least, is unlikely.

**Return of U.S. shale supply slow but on the horizon:** The speculation around a potential supercycle involving high oil prices is largely driven by expected post-pandemic demand growth coupled with producers' major pullbacks in capital spending over the last year. Although oil prices have recovered significantly since this time last year, the focus on liquidity and paying down debt is taking precedence over production investments in the near term, meaning that we have not seen the return of U.S shale drilling traditionally associated with prices above the break-even point.

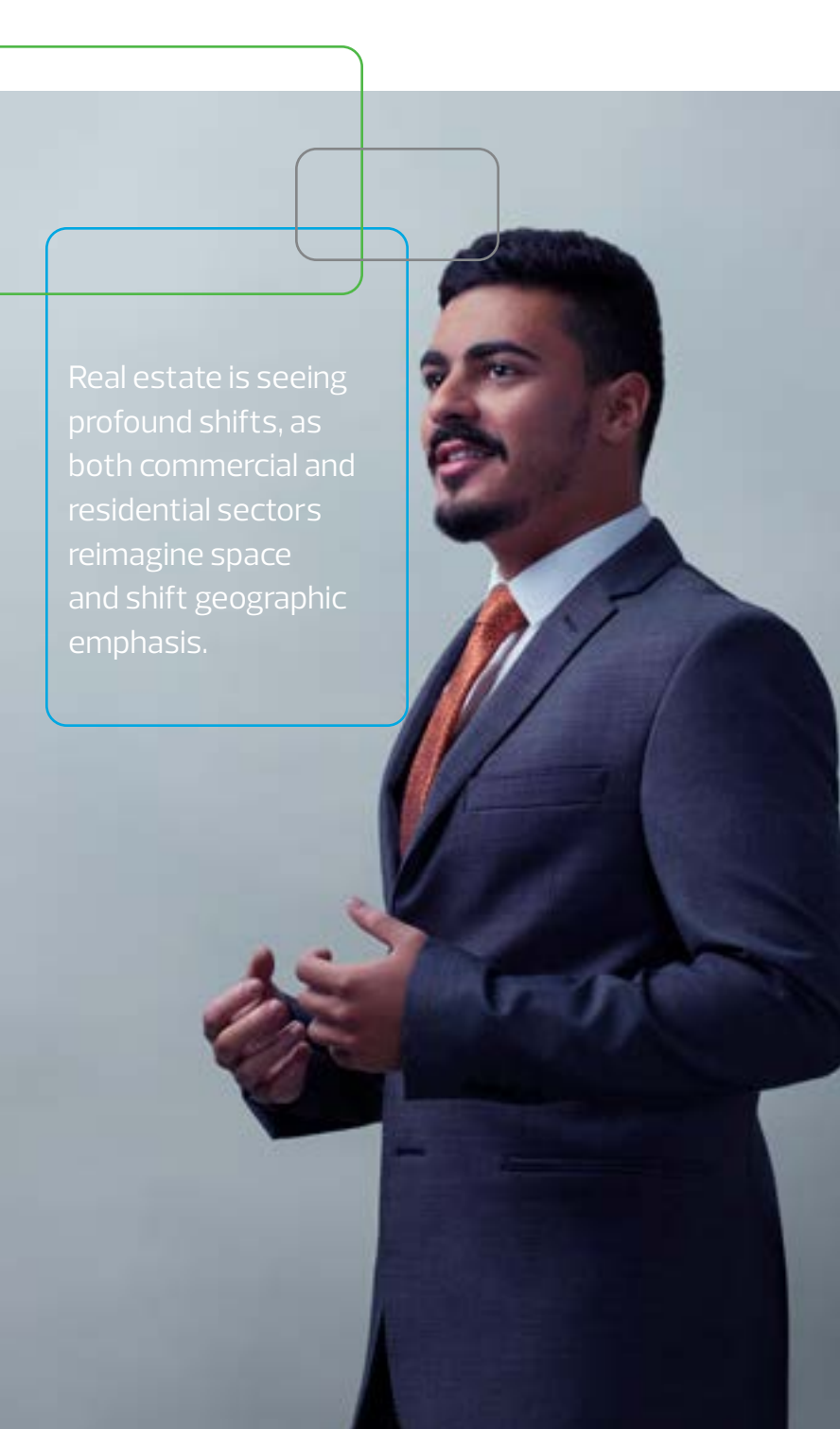
While this type of underinvestment in oil and gas exploration activities could be considered a precursor to a supercycle, the duration of the supply stall is what is key. The longer prices stay above the break-even range, the more likely we are to see a significant return of shale production, meaning that even if the supply comeback is slow, it is likely to return to levels adequate to meet demand in the next two to three years.

**OPEC's role in balancing the market:** OPEC, the Organization of Petroleum Exporting Countries, plays a key role in balancing oil prices. The organization has agreed to setting production limits on its member countries in order to balance the world supply of oil with the downward pressure on demand. This artificial method of stifling production also means that OPEC has spare production, in fact, up to 8.9 million barrels per day, according to Bloomberg, that could be released if the demand warrants it—which contradicts the conditions present in a true supercycle.

**Potential for demand headwinds:** The demand for oil will no doubt rise as the COVID-19 vaccine rollout continues and fiscal stimulus is pumped into the economy. However, the long-term demand for fossil fuels is structurally dented by both the pandemic and the continued acceleration of the energy transition. According to Bloomberg, developed countries' gasoline and diesel use could remain 10% to 20% below pre-pandemic levels. Additionally, OPEC has lowered its 2021 oil demand growth forecast by 300,000 barrels per day, reflecting concerns about the market's recovery amid a wave of new coronavirus lockdowns, according to [Reuters](#).

While we are certainly in for a year of strong growth, it is our view that current conditions do not lend themselves to a true commodities supercycle like those we have experienced historically. Even so, we expect that energy companies in the middle market should plan for market conditions in which oil prices will remain in the upper \$50, low \$60 range (per barrel), allowing them the flexibility to pay down debt and make strategic investments. Specifically, companies should consider what types of advanced technologies would be beneficial to invest in now.

The Biden administration's focus on clean energy and the overall accelerated focus on ESG should guide middle market companies to focus on minimizing the environmental impact from their core operations. Along with that comes the challenge of navigating the data that surrounds the impact of such investments and determining how to accurately report on measures taken to meet emission targets and reduce the overall carbon footprint. As middle market companies mature along the ESG path, the data and reporting aspect will become increasingly important. ■



Real estate is seeing profound shifts, as both commercial and residential sectors reimagine space and shift geographic emphasis.

## INDUSTRY OUTLOOK:

# REAL ESTATE AND CONSTRUCTION

BY LAURA DIETZEL, NICK GRANDY, SCOTT HELBERG, RYAN McANDREW AND TROY MERKEL

**MORE THAN A YEAR** into the pandemic, the real estate and construction industries look profoundly different. Real estate has held up better than expected, helped by a strong housing market and low interest rates. Meanwhile, construction is poised to benefit from the resurgence in infrastructure spending.



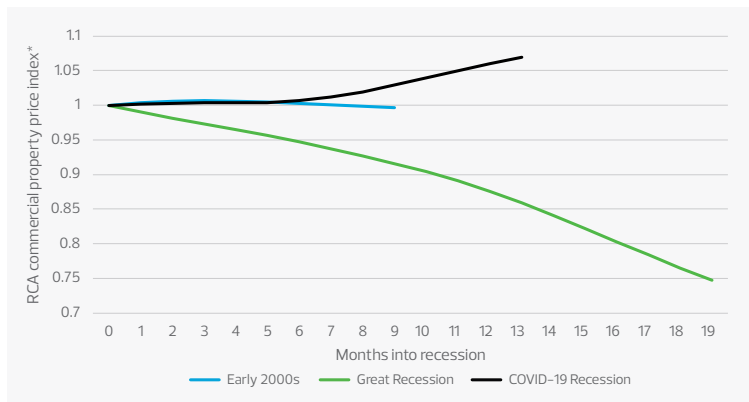
### KEY TAKEAWAYS

- Now, more than a year into the pandemic-induced recession, property values have defied expectations of a drop, moving higher.
- The government's policy and fiscal response has allowed for stability in the property markets, making them a safe haven for investors.
- The construction sector is set to benefit from a \$1.3 billion allocation under the Biden infrastructure plan.
- Construction companies should be looking to invest in new technology both for the job site and in the back office to take advantage of negative inflation-adjusted interest rates.
- The real estate and construction sectors stand to benefit from government credits and incentives meant to spur investment in energy-efficient infrastructure and buildings.
- Social initiatives are crucial for employee and tenant retention.

# THE DISTRESSED REAL ESTATE MARKET THAT HASN'T MATERIALIZED

Soon after the pandemic took hold last March and economic shutdowns ensued, real estate investors began gearing up for opportunities around distressed assets. Success stories of acquisitions following the Great Recession of 2008 were abundant, fueling expectations for a repeat. Now, more than a year into the pandemic-induced recession, property values have not only defied expectations of a drop, they have moved higher. The Commercial Property Price Index (CPPI) from Real Capital Analytics has increased almost 7% since the recession began.

## Not like other recessions



Source: RCA; Bloomberg

\*Indexed to value at beginning of recession

Three reasons account for the real estate market's unexpected resilience in the current environment: rather than a financial crisis, this recession was caused by the pandemic's exogenous shock; the government's policy response was stronger than in prior recessions; and demand for real estate remained strong as dry powder reached record levels.

## MIDDLE MARKET INSIGHT

Social initiatives, while harder to quantify, are now tied to financial metrics and considered crucial for employee and tenant retention at both commercial and residential properties.

## The cause

Recessions typically percolate when weaknesses in the economic system become overexposed, creating bubbles that eventually burst. In the early 2000s, the dot-com bubble that arose from overpriced technology shares brought a shock to the system. Nearly a decade later, the subprime mortgage crisis that led to the Great Recession uncovered weaknesses in the housing market.

The current recession is different, brought on not by inherent financial weakness but a global health crisis. The fundamentals of the real estate market were on sound footing before the pandemic hit, with vacancies near record lows across all sectors, even retail, according to CoStar data. Loan-to-value ratios have maintained lower risk as asset values continue to climb. With these factors in place, lenders have not been as aggressive in foreclosing on assets. Once more people have received a COVID-19 vaccine and economic activity booms, many properties are expected to regain their success.

That isn't to say that all sectors will recover evenly. Behaviors influenced by the pandemic will have a lasting impact. The rise of e-commerce is pushing property owners to rethink the use of retail properties. The shift to remote work may change the level of demand for offices. A falloff in business travel means a full recovery [may not come until 2024](#) in hospitality. Some lenders may not be able to wait that long, but to the extent that properties were operating well prior to the pandemic, many have looked to cooperate with property owners. To those that do end up acquiring distressed assets, it will be important to [tread the waters carefully](#).

## The response

The government's policy and fiscal response has allowed for stability in the property markets. Following the passage of the American Rescue Plan on March 11, the government's total cost of pandemic relief now tallies \$5.35 trillion, according to the Peter G. Peterson Foundation, which focuses on fiscal challenges in the United States.



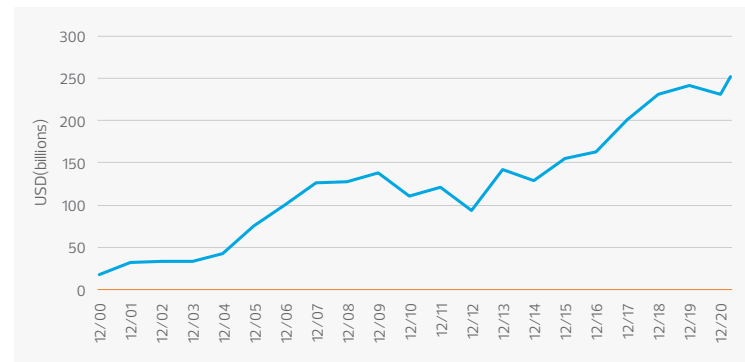
The Federal Reserve was proactive in purchasing commercial mortgage-backed securities loans, which provided steadiness to the real estate market. Investors have remained confident in the asset class.

By September, rent collections had stabilized in the industrial, office and health care sectors, according to the National Association of Real Estate Investment Trusts. Collections in apartments and freestanding retail also remained at 95%. Combined with government policy, fiscal action was also important. The Federal Reserve was proactive in purchasing commercial mortgage-backed securities loans, which provided steadiness to the market. Amid this environment, the 10-year Treasury fell below 1%, dipping to nearly 0.5% in August. Real estate cap rates have remained relatively flat. This has provided investors with confidence in the real estate asset class and a continued attractive premium.

### The demand

Lastly, the fundraising market has kept demand high, and should continue supporting property values. Total dry powder for U.S.-based real estate funds currently sits at over \$250 billion, according to Preqin, the highest level in the research firm's 20 years of tracking real estate market data.

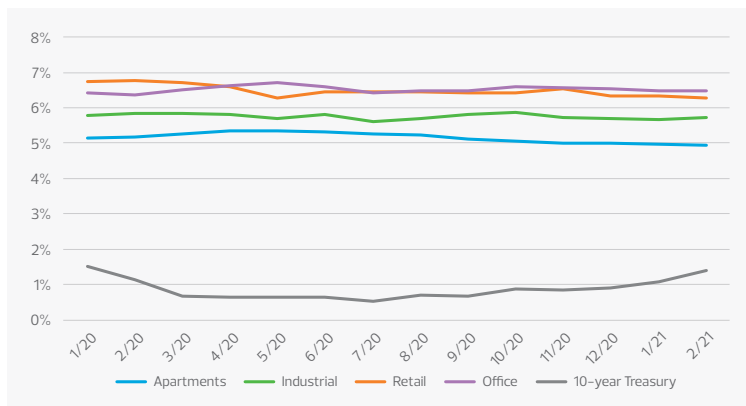
### Real estate dry powder at record levels



Source: Preqin

Funds are flush with money, waiting to take advantage of distressed assets that still have not come to the forefront. Opportunistic real estate funds, in particular, continue to lead the pack in dry powder. With steady cap rates, margins remain thinner to meet funds' targets.

### Real estate risk remains steady



Source: Bloomberg

Luckily, there are other alternative investment options for investors. Some distressed asset funds looking to purchase properties at a discount have morphed into debt funds to fill in property lending gaps left by retreating banks. One European private equity firm, BentallGreenOak, has raised approximately \$1 billion to issue secured loans to various sectors of real estate. The COVID-19 pandemic prompted banks to make hefty provisions for distressed loans as widespread lockdowns threatened landlord and owner rent collections and the ability to service loans. These issues led to diminishing appetite for new institutional real estate lending, particularly to hard-hit sectors such as shopping malls, retail and hospitality, which have seen their revenues flatline. Nonbank lenders have jumped at the opportunity to step in and support investors seeking to reinvent impaired properties or simply keep the doors open until consumer demand returns.

Meanwhile, average fund sizes continue to grow, resulting in greater purchasing power for larger real estate funds and fewer opportunities for middle market players. The average fund size jumped to \$479 million in 2020, up from \$314 million in 2017, according to Preqin data. As properties start to come to market, the vast amounts of dry powder indicate there will be strong competition. With property values perched up, it will be the larger fund managers that are able to keep bidding. Middle market firms should remain grounded by their models and not overstretch into bidding wars where purchase prices can no longer justify potential returns.

## The takeaway

While many real estate investors may be waiting for the shoe to drop on distressed assets, property values have not followed the trend of previous recessions brought on by pitfalls in financial systems. Aggressive fiscal and government policy has provided a safety net to the economy, and record levels of dry powder will keep property values from falling. While some sectors may take longer to recover than others, it will be important for real estate buyers to recognize that expectations around distressed assets may largely go unrealized.

## INFRASTRUCTURE: RETHINK, RESHAPE, REDEVELOP

The president has unveiled a revitalization plan consisting of an ambitious [\\$2 trillion investment in America's infrastructure](#), with a focus on stimulating the economy, job growth and green development to modernize America's old and crumbling roads, bridges, railways and other groundwork. The plan, as currently stated, should act as a catalyst to help modernize America's network of physical and online connectivity, allowing the country to retain and build upon the economic power it has developed over the past century.

The high-level overview of the proposed plan calls for \$1.3 trillion dollars to be spent on transportation, power, communities (housing, schools, child care), water and broadband internet, with remaining amounts slated for significant nonconstruction infrastructure spending, including R&D and technology, revitalization of small and medium businesses, and workforce development. The push for investment in traditional construction infrastructure will serve as a catalyst for growth in the construction sector, resulting in increased employment and nonresidential spending, both of which have fallen below pre-pandemic levels.

### Transportation infrastructure

The core of this infrastructure plan lies in funding for improved transportation. Of the \$1.3 billion designated for construction-related infrastructure, \$621 billion is tied to transportation infrastructure, with allocations that include:

- \$115 billion for roadways and bridges
  - An additional \$174 billion for electric vehicle (EV) facilities
- \$85 billion for public transit
- \$80 billion for Amtrack/freight rail
- \$25 billion for airports
- \$17 billion for ports and waterways

The Biden infrastructure plan promises an impending boon for the construction sector, with opportunities for large-scale improvement in roads, bridges, railroads, waterways, internet connectivity and more.

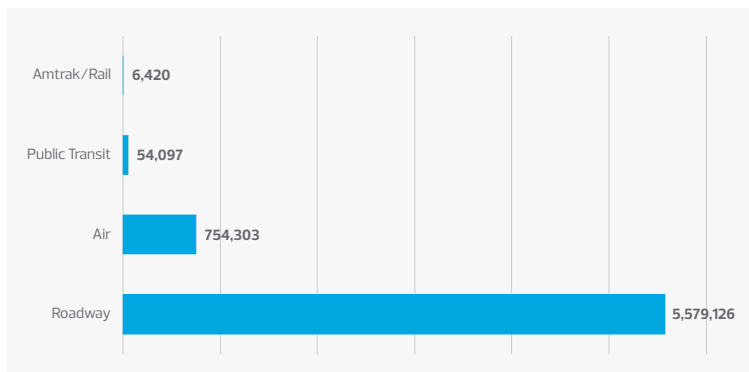


### MIDDLE MARKET INSIGHT

Construction companies should be looking to invest in new technology both for on the job site and in the back office to take advantage of negative inflation-adjusted interest rates to pay for these long-term investments.

The significant request for transportation infrastructure is not a surprise. The most utilized form of transportation in the United States is roadways; as the most recent and significant roadway bill (Fixing America's Surface Transportation Act) expires in September 2021, the Biden administration will need a new plan for roadway and bridge upgrades.

#### US passenger miles by type, 2019 (millions)



Source: Bureau of Transportation

The \$115 billion requested for roadways will be spent to modernize bridges, highways and other road-related infrastructure in most critical need of repair. According to a 2021 report from the American Society of Civil Engineers, 43% of public roadways are in poor or mediocre condition, and 7.5% of bridges are structurally deficient. As car transportation remains the most popular form of transportation, it is critical the necessary capital improvements are made to fix American's roads properly and efficiently. A study by Inrix, a leader in mobility analytics, calculated that in 2018, congestion alone cost Americans \$87 billion in lost productivity.

Biden's revitalization plan also outlined a grant-and-incentive program to promote the construction of 500,000 electric-vehicle charging stations across the country by 2030. While the U.S. market for EV represents only about 2.5% of the total market (based on monthly new vehicle registrations in December 2020), it is expected to quadruple over the next five years; the need for infrastructure to support this growth will be a critical component in helping to reduce carbon emissions.

Finally, the administration's plan includes modernizing many of the old and outdated rail lines and waterways, which are in desperate need of repair.

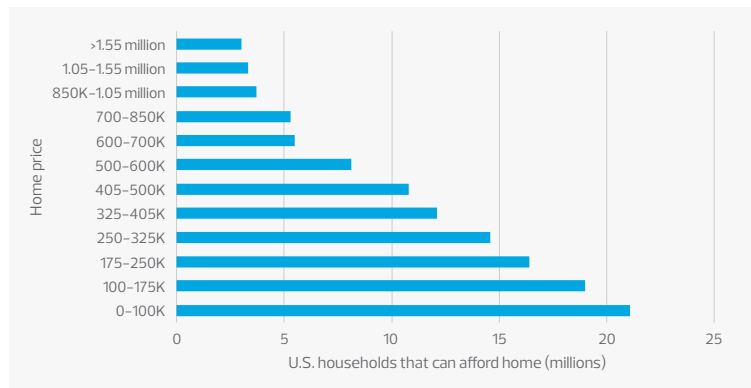
## Water/power/communities

Beyond transportation infrastructure, the administration plans to invest in productivity-boosting projects in other infrastructure categories such as water, power, broadband and housing. In total, the plan calls for \$661 billion to be spent on these infrastructure sectors, with allocation as follows:

- \$100 billion for power
- \$111 billion for water
- \$100 billion for broadband
- \$350 billion for community development (schools/child care/etc.)

The vulnerabilities of these infrastructure sectors have been underscored by high-profile events ranging from the Flint, Michigan, water crisis to the more recent disruption of the Texas power grid. Meanwhile, the pandemic has highlighted the need for all Americans to have access to reliable and affordable broadband internet service. Biden's plan addresses these shortcomings, and includes investment tax credits to incentivize improvements.

### Housing affordability



Source: NAHB (based on data from 2019 American Community Survey Public Use Microdata Sample); U.S. Census Bureau

## Housing


Included in the Biden plan is a component centered on building stronger communities. The main goal is to build and retrofit more than 2 million homes and commercial buildings to address issues of housing affordability, particularly in marginalized communities that have been significantly affected by the COVID-19 pandemic. The focus on homes will allow many Americans to build equity in property, an important path to building wealth. The plan pairs investment in housing with American school systems. In total it calls for \$100 billion to be spent on school systems, with funding to make schools safer, healthier and better places for kids to grow and learn.

### Takeaways

While much of Biden's plan is just that—a plan—and there are still hurdles which need to be overcome to achieve the necessary support to turn this into a bill, it is highly likely that some of these measures will be passed before the end of 2021 to the benefit of many contractors.

In order to prepare for the anticipated rebirth and redevelopment of America's infrastructure, construction companies should be looking to invest in new technology both for on the job site and in the back office to take advantage of [negative inflation-adjusted interest rates](#) to pay for these long-term investments.

Contractors should also be continually evaluating labor and material sourcing needs. One of the most significant industry trends during the post-Great Recession construction boom was shortages of skilled labor. While employment remains below pre-pandemic levels, it would be good for contractors to evaluate personnel across the board and ensure they have the right labor force in place for passage of this plan. With the increase in material prices, contractors also need to evaluate alternative material sources or look to hedge and/or buy out their jobs to lock in pricing.



Carbon neutrality will remain at the forefront of the real estate industry's environmental goals as sustainability efforts gain momentum, with a particular emphasis on the commercial sector.

## ENVIRONMENTAL, SOCIAL AND CORPORATE GOVERNANCE, AND A LONG-TERM STRATEGY

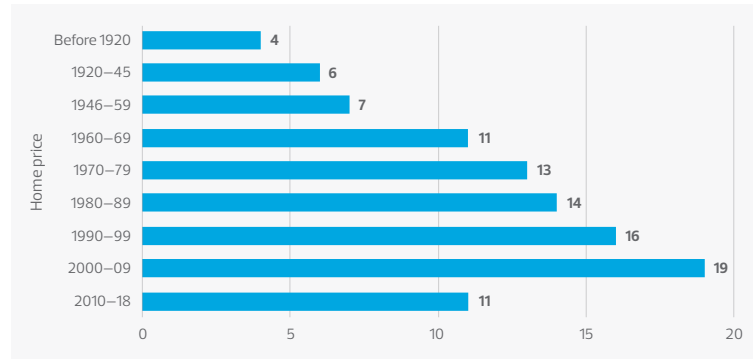
As public pressure builds for industries to adhere to environmental, social and governance (ESG) standards, the [real estate and construction industries](#) are no exception. The European Union has passed many regulations that require proper ESG planning and disclosures for real estate businesses. By contrast, ESG investing in the United States and Canada is resulting more from public pressure than from regulation. Investors globally are watching ESG developments closely.

One of the largest environmental considerations for real estate investors relates to the goal of carbon neutrality. Decarbonizing new and existing buildings has been a critical focus of the Paris Agreement. The United Nations Sustainable Development Goals within the sector demonstrate that residential and commercial buildings are responsible for nearly 40% of energy and process-related emissions, according to studies conducted by the Environmental and Energy Study Institute. Because concrete used in development remains a significant source of carbon emissions, the responsibility for carbon emissions reduction will continue to be a strong focus for commercial real estate. Building stock is set to double by 2050, according to projections included in the 2018 Global Status Concrete Report on buildings and construction.

In the United States, the Biden administration has an opportunity to enact a robust environmental agenda likely to gain bipartisan support—the question is not if, but when, policy will be enacted. A primary goal of the infrastructure plan expected to be passed later this year is reducing climate change; the private sector is already pushing for sustainability amid increasing pressure from investors. The real estate and construction sectors, along with society as a whole, stand to benefit from government credits and incentives meant to spur investment in energy-efficient infrastructure and buildings. One such example is the E-Quip Act, a bill recently introduced in the House that aims to provide assistance for expensive retrofits of aging and obsolete HVAC, lighting, windows, roofing and the like with state-of-the-art systems; it offers 10-year accelerated depreciation on new equipment in commercial and multifamily buildings. E-Quip promises to be a catalyst that will add jobs, promote energy savings and significantly reduce carbon emissions. If passed, this legislation has been estimated to save 100 million tons of CO<sub>2</sub> emissions, or the equivalent of taking 22 million cars off the road for one year, according to an analysis by the American Council for an Energy-Efficient Economy (ACEEE). With over half of commercial real estate buildings constructed before 1989, the industry stands ready for a major environmental face-lift.



## Aging U.S. commercial building stock prime for ESG investment



Source: Environmental and Energy Study Institute

In addition to the new administration's appetite for a federal environmental agenda, many states and cities have established energy benchmarking policies for publicly owned buildings. And it may not be long before such requirements reach private investment. Leading jurisdictions like New York City, Seattle, Washington, D.C., and Boston have already adopted transparency rules for the private sector, with some passing laws that require owners of existing buildings to make efficiency improvements. Legislative requirements aside, the ESG Dashboard of Nareit, the group that represents the interest of REITs, shows that nearly all (98%) of the 100 largest REITs were reporting sustainability efforts in 2020, up sharply from 60% in 2017. Carbon emissions aren't the only target: REITs are reporting on carbon emissions, energy and water usage, and waste management.

Social initiatives, while harder to quantify, are now tied to financial metrics and considered crucial for employee and tenant retention at both commercial and residential properties. Internally, workforce programs are vital to attract and retain employees. Health and wellness programs contribute significantly to an employee's overall engagement with the business. Real estate developers also have a responsibility to consider the overall community during construction. Collaborative spaces like rooftop terraces or parks connect tenants to the property and their neighbors, fostering community and well-being, while reducing the likelihood of turnover.

## MIDDLE MARKET INSIGHT

Social initiatives, while harder to quantify, are now tied to financial metrics and considered crucial for employee and tenant retention at both commercial and residential properties.

Corporate governance involves a delicate balance of the interests of a company's shareholders, executives, customers, supply chain and overall community. Nasdaq's recent push to potentially require listed companies to have women or members of an underrepresented group on a listed company's board is consistent with requirements already in place in many European countries. Goldman Sachs additionally committed to only underwriting IPOs in the United States and in Europe for companies with at least one diverse board member in 2020 and two in 2021, further highlighting the focus on diversity and its importance to the public markets. It's clear that a culture of diversity and inclusion, and the varying perspectives and backgrounds it brings, is essential for sound corporate decisions.

ESG considerations will become even more vital in the coming years for all types of real estate and construction companies as strategies with ESG focus continue to attract institutional investors such as pension funds with ESG mandates. ■



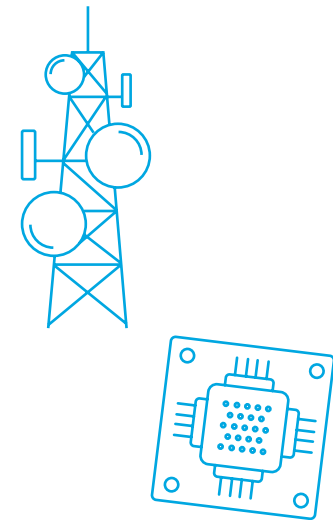
The technology, media and telecom industry continues to be an attractive target for investments. However, companies in these sectors are not immune to challenges.

INDUSTRY OUTLOOK:

## TECHNOLOGY, MEDIA AND TELECOM

BY NATE FARSHCHI, VICTOR KAO, DAVIS NORDELL, KURT SHENK, DAVID STUART AND KEN TINNES

**AS THE U.S. ECONOMY** continues to gain momentum, technology, media and telecom companies have a particularly bright future. The sector continues to be an attractive target for investments, while a new federal infrastructure plan and the potential to capitalize on new innovations present opportunities for growth and process efficiencies. However, the industry is not immune to challenges, as supply chain disruptions have slowed semiconductor production and mobile gaming companies may have to amend their data collection processes.



### KEY TAKEAWAYS

- Technology companies continue to have a wide variety of avenues for raising capital.
- The American Jobs Plan presents significant opportunities for technology and telecommunications companies.
- Drought conditions in Taiwan creating a supply crunch for semiconductors.
- Artificial intelligence is becoming a key strategy to strengthen operations from the back office to maintenance, field service operations and security.
- Apple's planned change to customer activity tracking permissions could have a direct effect on mobile gaming revenue.

# TECHNOLOGY

## Access to capital for the technology sector

The technology sector continues to be extremely attractive to investors, with activity reaching new heights even during the pandemic, and momentum continuing through the start of 2021. Here we analyze the current state of key technology investment vehicles, as well as their outlook for the coming months.

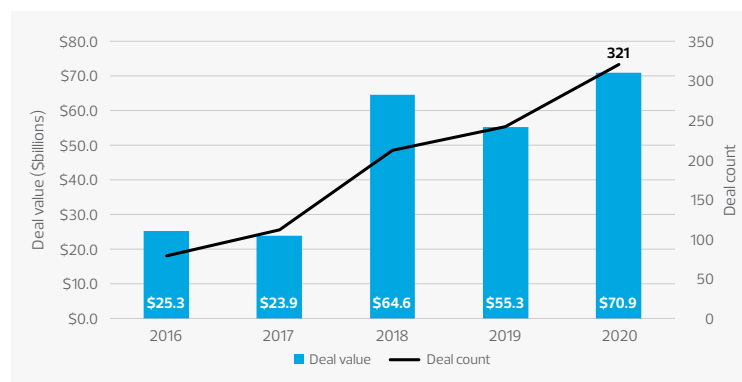
- **Venture capital:** In the current environment, more capital is being deployed into fewer companies. VC-backed technology companies have largely been resilient so far in 2021 amid the continuation of the COVID-19 pandemic. Technology companies continue to have robust earnings and a continued track record to raise capital, particularly after Series C. TMT industry sectors such as [health tech](#), ed tech and e-commerce continue to outperform others, as they have received tail winds as a result of the pandemic. Additionally, as a result of recent legislation, we expect that cybersecurity and clean tech verticals will perform well in 2021.

Late stage VC-backed tech companies (Series C and beyond) continue to perform particularly well, and many technology companies are raising \$100 million and beyond in a later stage round of capital. A round of this size is commonly known as a megadeal, and more megadeals took place in 2020 than in any other year. In 2020, there was over \$70 billion of capital deployed in over 320 megadeals, which was largely a result of VC companies looking to deploy dry powder and double down on existing portfolio companies, while also leading new rounds of capital in new portfolio companies.

We expect this trend to continue into the last three quarters of this year. So far in 2021, several late-stage companies such as Roblox are raising large rounds and then exiting through a direct listing. UiPath and Databricks have also raised mega-rounds in advance of an anticipated exit. In addition to these three decacorns—startups with \$10 billion valuations—these mega-rounds will also mint new unicorns.

As of March 2021, there are currently 603 unicorns globally, according to [CB Insights](#). Stripe is the largest U.S.-based decacorn, which raised capital in March 2021 at a \$95 billion pre-money valuation. This valuation is nearly triple its previously reported \$35 billion valuation from April of last year.


### U.S. venture capital megadeal activity



Source: PitchBook

An increasing number of venture-backed technology companies are also raising debt. In fact, since Jan. 1, 2018, over \$80 billion in venture debt has been raised by VC-backed technology companies, according to PitchBook. Late-stage technology companies are tapping the majority of capital from debt facilities. More venture debt was deployed last year in late-stage companies than in any year on record, while early-stage venture debt deal counts and capital decreased from 2019. Within late-stage venture-backed technology companies, there has been a concentration on venture debt deals, as approximately 60% of venture debt deployed last year was in fewer than 40 companies.

Because valuations have been so favorable over the last three quarters, some technology companies have shortened the journey to [IPO](#). Rather than looking for a Series E or F round, some tech companies have looked at vehicles such as special purpose acquisition companies ([SPACs](#)) or a direct listing to take their company public. However, in other cases when an exit is not imminent, many middle market technology companies are raising capital to give liquidity to early investors who want to take some chips off the table.



Private equity has spent \$80 billion acquiring companies in the global technology sector so far in 2021, according to Bloomberg, representing an all-time high for a quarter and an increase of 141% from this point in 2020.

- **Private equity:** In 2020, 45 different private equity groups raised \$63 billion in capital for investing in the technology asset class. 2020 saw record activity for global [private equity](#) investment in the technology industry, even amid the pandemic—but the first quarter of 2021 results have exceeded 2020. Private equity has spent \$80 billion acquiring companies in the global technology sector so far in 2021, according to Bloomberg, representing an all-time high for a quarter and an increase of 141% from this point in 2020.

We expect this activity to continue into Q2 of 2021, as now is the time when many companies will be evolving as organizations through the adoption of digital technologies. This transformation will help companies evolve their offerings to customers and streamline back-office functions. Beyond private equity investors such as Vista, Thoma Bravo, Francisco Partners and Silver Lake, which have invested in the technology asset class for years, the pandemic has an increasing number of private equity groups interested in the technology sector.

As companies continue to journey through digital transformation, there are many ripe B2B opportunities for private equity groups. Rather than just acquiring a technology company directly, the Q1 trend of private equity groups funding SPAC IPOs has increased from 2020. So far in 2021, there have already been 298 SPAC IPOs that have raised \$97.3 billion in capital, according to [spacresearch.com](#).

But recently, the market has changed. April has brought a slowdown in SPAC IPO activity and an SEC warning that some special purpose acquisition companies may have improperly accounted for warrants issued or sold to their investors.

- **M&A:** In 2021, we expect there to be increased regulation by the Department of Justice over the acquisitions of middle market technology companies, especially in sectors such as fintech. For M&A deals receiving regulatory approval, healthy valuations coupled with the low cost of credit will enable technology companies to structure deals with a combination of stock and debt. Public technology companies have been trading at valuations not seen since the dot-com boom, and these valuations are expected to continue to benefit the exits of middle market companies in the coming quarter.

In 2019 and 2020, there were 2,337 and 1,948 North American M&A deals in the information technology sector, with transaction values that amounted to \$376.9 billion and \$315.4 billion, respectively, according to data compiled by PitchBook. While the economy is still coming online in the second quarter of this year due to the COVID-19 pandemic, we expect that the technology sector will continue to be a target for M&A.

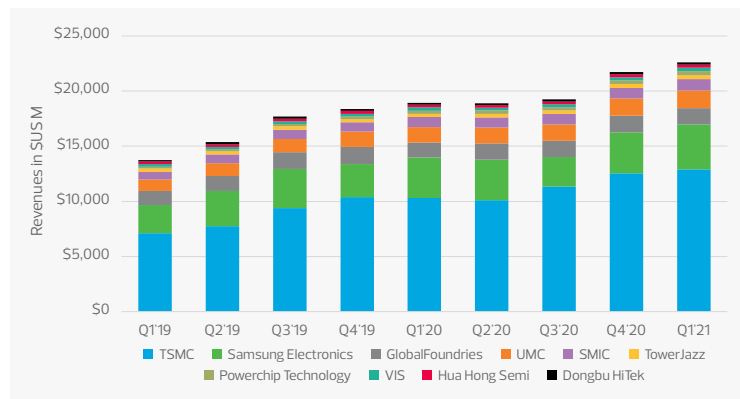
## One island nation's weather and what it could mean for semiconductors

Relentless global demand for microchips during the pandemic and an expensive, painstakingly detailed manufacturing process have left semiconductor customers with few choices when seeking out suppliers. Now, the worst drought Taiwan has seen in decades is resulting in water supply cuts on the island nation that is home to one of the global leaders in semiconductor manufacturing.

Most revenue over the last two years from semiconductor plants—also called foundries—has been generated by a few industry leaders. The top four foundry companies account for almost 90% of total foundry revenue, and the top two account for almost 75%. The leading company in the space is Taiwan Semiconductor Manufacturing Co. (TSMC), which has four such foundries in Taiwan. The country's government recently issued its first red alert on water supply in six years, and "reservoirs in several parts of Taiwan are dangerously low," Bloomberg [reported in late March](#).

If environmental conditions remain turbulent in Taiwan, TSMC could experience prolonged production disruptions and prices can be expected to rise as the company explores alternative sources of water, which is crucial in the development of semiconductors. "TSMC says it plans to increase the amount of water it uses from tanker trucks but the new restrictions would not affect operations," according to Bloomberg.

### Concentration of risk for semiconductors



Source: RSM US LLP, Statista

## MIDDLE MARKET INSIGHT

Over time, more companies are expected to follow Intel's lead and move into or reenter the semiconductor manufacturing space. That could lead to higher industry manufacturing capacity and more choices for semiconductor consumers. Still, climbing vaccination levels and the desire to return to normalcy may be contributing to misplaced optimism about the semiconductor industry's ability to rebound.

The supply crunch is the result of a range of factors, some related to the pandemic. Foundry shutdowns aimed at curbing the spread of COVID-19 last year contributed to a reduction in chip supply just before global demand for consumer electronics, gaming consoles, automobiles and other products requiring such chips went soaring. Over the last few months, semiconductor supply chain disruptions have stalled production of the Ford F-150 at two U.S. plants, reduced the supply of next-gen gaming consoles such as Xbox Series X and PlayStation 5, delayed the launch of game company Intellivision's highly anticipated Amico console by almost a year and [sent shocks through other sectors](#) as well.

The private sector and government have been working to ease the shortage. In January, *The Wall Street Journal* reported that TSMC announced plans to increase capital expenditures on R&D and additional plant capacity to between \$25 billion and \$28 billion in 2021, and in March, it announced plans to increase capital expenditures to \$100 billion over the next three years. Also, Intel Corp. announced plans to spend \$20 billion on two foundry facilities in Arizona, according to Bloomberg.

In February, President Biden signed an executive order calling for a review of America's supply chains. The secretary of commerce was charged with preparing a preliminary risk assessment and policy recommendations to address identified risks to the semiconductor supply chain within 100 days and delivering a more detailed and comprehensive report within one year.

If environmental conditions remain turbulent in Taiwan, TSMC could experience prolonged production disruptions and prices can be expected to rise as the company explores alternative sources of water, which is crucial in the development of semiconductors.



In today's business environment, the pressures to be agile and profitable remain in constant escalation. Most middle market companies lack the purchasing power of large global technology and automobile manufacturers. "Always have a backup plan," advises Tommy Tallarico, CEO at Intellivision. "Having contractual agreements with a primary supplier is important, but having secondary or even tertiary agreements with other suppliers reduces your risk and dependencies of getting a product out. The process of identifying and vetting potential manufacturing partners can lead to delays which last months." Having a backup plan always seems like wasted time, until it's needed.

## MEDIA

### Mobile gaming apps could see ad revenue hit after Apple iOS update

As Apple prepares to make a shift in the way it allows consumers to opt out of having their data tracked within mobile apps, companies in the mobile gaming sector need to brace for what could be a devastating fallout—especially for those that use a "freemium" model.

Apple plans to make an iOS update by mid-2021 that will make it easier and more transparent for users to opt out of having their app activity tracked with what's known as an identifier for advertisers, or an IDFA. Tech companies use this identifier to collect consumer information while keeping the user's actual identity anonymous, and that data is then used for ad targeting.

### MIDDLE MARKET INSIGHT

The mobile gaming market makes up nearly half of the roughly \$175 billion global gaming market at \$83.6 billion. Apple's change could create significant disruptions in the transparency of data that gaming companies have long gathered from their customers and that ad agencies use to more precisely target consumers.

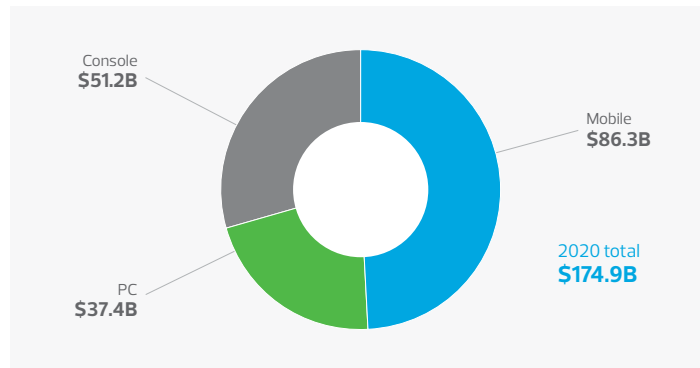
If more Apple users start opting out of having their information tracked, companies will have a harder time getting their ads in front of the right eyes within mobile apps.

From e-commerce to social media, this would have implications for virtually any company that has a mobile app. But the extent to which freemium models are used within mobile gaming could mean companies in this space take a more dramatic hit if they don't figure out alternative ways to gather data on their users.

Here's how it currently works: Freemium gaming apps don't charge a user to download and play the game, but that means they see ads during their gaming experience. The hope is that the gamer will eventually "pay to play" to unlock premium features and become a prized customer who could spend hundreds of dollars a month on the app. It's worth it to advertisers to spend money targeting those ads, but without in-depth information about users, it might not be.

Now take into account the fact that so many free gaming apps are geared toward so-called hypercasual gamers and the potential for major disruption becomes even clearer: "Hypercasual is one of the most talked-about genres in mobile gaming," this [VentureBeat piece](#) explains. It took off in 2014 "and has remained a leading category in terms of downloads ever since."

### 2020 global video gaming market



Source: RSM US LLP Newzoo

It will be important for consumers to understand that by opting out of this iOS tracking, it doesn't mean they will have an ad-free experience. It simply means their information will not be shared to better target advertisements to their devices. Many consumers feel that if an ad impression is heading their way anyway, it might as well be meaningful. Perhaps those users won't opt out of the IDFA tracking.

And the consumers who do opt out of this data tracking should expect to see companies pursue new routes to gather information about them. Maybe that will involve an app asking a user to input personal data such as their gender, birth date or location when they sign up for an account. Whatever the path, consumers will likely have to relinquish some information about themselves, in some way. Mobile gaming companies should start preparing for this shift now—if they haven't already—in order to minimize disruption or declines in ad revenue.

## TELECOM

### The emergence of artificial intelligence in the telecommunication industry

The demand for reliable and fast speed internet has reached a new high. This trend will continue with the emergence of [5G](#), the Internet of Things and the growing number of organizations shifting their data processing toward edge computing solutions. The infrastructure is growing, billions are being invested and competition is increasing.

Consumers have more options than ever. In order to remain competitive, organizations are investing heavily to proactively address the needs and challenges that lie ahead. The International Data Corp. has predicted 63.5% of telecommunications companies are making new investments in artificial intelligence systems. The focus of these investments continues to be on robotic process automation and end-to-end automation solutions to help streamline back-office operations, save costs and free up employee time to focus on more value-added tasks.

Additionally, artificial intelligence through the use of autonomous drones, low-cost sensors and predictive analytics is improving infrastructure maintenance and field service operations, including tower maintenance tasks. Organizations are beginning to proactively diagnose and anticipate failures so they can fix problems before they occur. They are also leveraging these developments to further improve the security of their infrastructure equipment. Development in this field is still at the early stages, but we expect investment will continue to ramp up as high-speed internet connectivity becomes increasingly commoditized and as ubiquitous as electricity.



Artificial intelligence through the use of autonomous drones, low-cost sensors and predictive analytics is improving infrastructure maintenance and field service operations, including tower maintenance tasks.

## INFRASTRUCTURE PLAN OPPORTUNITIES

### How the technology and telecom sectors will benefit from a broad infrastructure plan

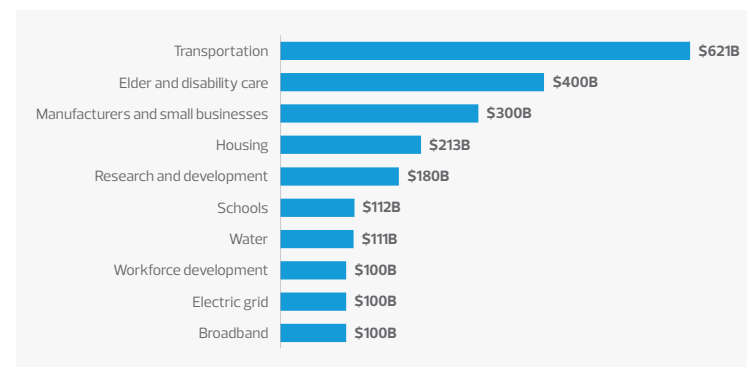
On March 31, the Biden administration released the details of the [American Jobs Plan](#), a \$2.25 trillion dollar investment plan to create millions of American jobs, rebuild the country's infrastructure, and reposition the United States as the global leader in infrastructure quality and technology innovation. Within this plan, budgeted dollars are to be deployed into climate resiliency, mobility electrification, building improvements, digital infrastructure and broadband internet accessibility, among others.

Within every key focus area of this plan, technology companies have an opportunity to play their role and contribute to building a better America.

#### Technology:

- **The issue:** Innovative technology is finding its way into every aspect of today's modern world. The goals of the infrastructure plan should further support the development and adoption of technology solutions in industries like energy, transportation, health care, construction and education.

### Biden administration's proposed infrastructure spending



Source: White House fact sheet

- **The plan:** The plan calls for a \$180 billion investment to expand research and development of technologies of the future, focusing on advanced energy technology, advanced communication technology, computing, biotechnology and semiconductors. Proposed funding includes \$40 billion for upgrades to research infrastructure in U.S. labs, \$35 billion for clean energy and climate-focused research, and \$30 billion for R&D investment that would bring new jobs to rural communities. Additionally, \$30 billion of funding has been designated for programs that would bring credit, venture capital and funding for small businesses, startups and underserved communities.



## MIDDLE MARKET INSIGHT

Key components of the [American Jobs Plan](#) specifically call for hundreds of billions of dollars for technology innovation and America's startup ecosystem, and middle market businesses should position their products and services to benefit from this once-in-a-generation investment plan.

- **The road ahead:** The Biden plan comes with the promise to reestablish the United States as the global leader in research and innovation and create opportunity for jobs of the future and equitable access to the technological advancements that have been made over the past few decades. Beyond the specifics laid out previously, the technology ecosystem will have the opportunity to participate in over an estimated \$1 trillion in spending over the next eight years as a part of the outlined investment plan.

### Telecommunications:

- **The issue:** In January, the Federal Communications Commission reported that an estimated 14.5 million Americans still lacked access to high-speed internet at the end of 2019. However, an independent [BroadbandNow Research study](#) found that the methodology used by the FCC appears to underreport the issue and it is estimated that the number of Americans without access could be as high as 42 million.

- **Bipartisanship agreement:** Over the past year, lawmakers on both sides have called for the expansion of broadband internet and highlighted the need to improve access in rural and urban areas across the country. The role of government and how best to tackle this challenge remains a highly debated topic.
- **The plan:** President Biden's \$2.3 trillion infrastructure plan has carved out \$100 billion dedicated to expanding broadband access. Details of the plan and how it will be dispersed among public and private entities are still unclear, but we expect additional funding will flood the telecommunications industry later this year.
- **The road ahead:** Biden's plan promises to bring affordable, reliable and high-speed broadband internet to every American. In the plan, the administration calls broadband internet the new electricity and directly compares this plan to the 1936 Rural Electrification Act that brought electricity to nearly every American. The plan prioritizes building "future-proof" broadband and supports networks owned, operated or affiliated with local governments, nonprofits and cooperatives with a focus on promoting transparency and competition. Beyond traditional broadband, we expect high-speed satellite internet such as the beta service currently offered by SpaceX's Starlink to also play an important role in fulfilling Biden's goals. ■

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