

VOLUME 6 | WINTER 2021

THE REAL ECONOMY

INDUSTRY OUTLOOK

THE POWER OF BEING UNDERSTOOD
AUDIT | TAX | CONSULTING



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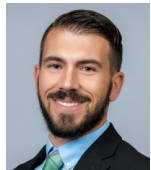
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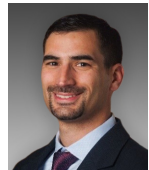
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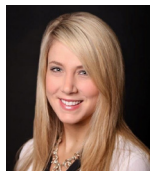
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As the economy emerges from the sustained pandemic-driven downturn, data-driven analysis will be critical for middle market businesses to recover.

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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FIRMS SHOULD TAKE ADVANTAGE OF OPPORTUNITIES TO WORK ALONGSIDE THEIR CLIENTS TO INTEGRATE NEW TECHNOLOGIES AND SHAPE HOW BUSINESS IS CONDUCTED IN OUR POST-PANDEMIC ROUTINE.

INDUSTRY OUTLOOK:

BUSINESS AND PROFESSIONAL SERVICES

BY MICHAEL GERLACH AND STEPHANIE JOHNSON



BUSINESS AND PROFESSIONAL SERVICES firms continue to balance managing cash flow in the short term while preparing for the growth that will result from positive effects of widespread vaccination against the coronavirus. Changes in administration, regulation and workforce preferences will provide opportunities for firms to assist and advise their clients. Firms should take advantage of the opportunity to work alongside their clients to shape how business is conducted in our post-pandemic routine.

This outlook centers on three specific subsectors within business and professional services: law firms, government contractors and workforce solutions. (Workforce solutions are inclusive of staffing solutions, executive search, payroll processing and human capital management.)

KEY TAKEAWAYS

- Law firms' survival could very well depend on whether they seize opportunities to reshape and tailor operations for the post-pandemic environment.
- Office space and automation are operational components that law firms are examining to increase value for partners.
- For government contractors, the extensive cyberattack on U.S. government agencies in 2020 underscores the importance of cybersecurity in conjunction with supply chain security.
- Expect the U.S. Space Force to benefit from investment by the Biden administration, given the administration's support of technological innovation, research and development.
- Providers of staffing solutions and executive search have transitioned to long-term strategic planning for a digital ecosystem, hoping to serve businesses that stick with remote operations.

LAW FIRM EXECUTIVES IN 2021 CAN REASSESS MANY FACETS OF FIRM OPERATIONS TO ENSURE THEY ARE POSITIONED TO CAPITALIZE ON INCREASING LEGAL DEMANDS AND NEW OPPORTUNITIES RESULTING FROM ADVANCING TECHNOLOGIES.



LAW FIRMS

The results are in, and law firm executives are feeling much better about their firms' operations at the start of 2021. The exhausting December crunch of cash collections for most firms is now in the rearview mirror, and many firms ended the year in a position that few thought possible on April 1, 2020. Pre-year-end bonuses, salary increases and other benefits have been provided by many firms to timekeepers and administrative staff alike, as firms realized above-budget cash collections to end the year.

But as firms work to understand how 2021 will be affected by increased matters stemming from pandemic-related suits, more market activity and new opportunities (i.e., self-driving technology, cannabis legalization, etc.), law firm executives have an opportunity to reassess many facets of firm operations to ensure they are positioned to take advantage of increasing legal demands and new opportunities resulting from advancing technologies.

Law firm operational shake-up

The pandemic has created opportunities for law firm executives to examine all aspects of their firms' operations in an effort to build for success in a post-pandemic economy. Employee benefits, employee welfare, compensation structures, partnership structures, growth strategies, expansion and geo-strategies, balance sheet cleanup and expense policies are all areas law firm executives should be reviewing to take advantage of shifting attitudes toward change. There are also many [tax-saving and partner profitability solutions](#) that can be identified by taking the time to review how the firm is currently operating.

MIDDLE MARKET INSIGHT

The pandemic has provided major opportunities to change the culture of needing to impress clients with lavish offices and to reimagine legal office spaces, designing them to enhance efficiency and the comfort of client experiences.

Geographic and market expansion is one area of firm operations that has paused as the pandemic has spread. However, the industry saw an uptick in geographic expansion through mergers or acquisitions in the fourth quarter of 2020 and early 2021. Many national and multinational firms are looking to expand to the Midwestern United States, as firms see an opportunity to take advantage of relatively low overhead, close business ties and high legal spending by corporations headquartered in or expanding to the Midwest.

For example, Dinsmore added three offices in Indiana as part of a merger with Wooden McLaughlin on Jan. 1, 2021. In an article in *The American Lawyer*, Lisa Smith, a principal at Washington, D.C.-based legal consulting firm Fairfax Associates, discussed how the merger exemplifies the trend.

"For Midwestern firms, consolidating in the region gives them a good platform across multiple states where there are often business ties, so it helps them serve clients and expand their practices in those markets," Smith told Law.com. "And they may be as large as they can be in their own market, so it gives them an opportunity to expand practices by adding other offices, other markets."

MIDDLE MARKET INSIGHT

Law firms must continue to focus on [automation](#) of the administrative tasks that keep their firms afloat.

Evolution of legal tech

Jack Newton, founder and CEO of Clio, a legal technology company headquartered near Vancouver, British Columbia, recently wrote on the company's website: "The punctuation that is COVID-19 will drive the speciation of law firms into two groups: those that have rapidly adapted to the new realities of the COVID-19 landscape, and those that are unable or unwilling to change. There will be some law firms that struggle significantly in this new reality, and some that will fail outright. But the law firms that rapidly adapt will be the law firms that not only survive, but thrive in our new legal environment." This statement echoes sentiments made by law firms, as many look to invest in technology that changes the way legal services are provided and law firms operate. Without looking at both sides of the house, law firms risk not truly understanding their digital footprint and how they can best serve clients—important components of increasing value to a firm's partners.

Fully managed legal matter solutions are on the precipice of changing how law firms serve clients. By learning about the data that firms have about their clients and their matters, these solutions streamline the client service process from identification of target clients and winning new business to management of client matters.

At the same time, law firms must continue to focus on [automation](#) of the administrative tasks that keep their firms afloat. Firms can often sink thousands of dollars into operational redundancies that strip profits out of their partners' pockets. Lori Gonzalez, CEO of RayNa, a legal administrative solutions provider, offered her perspective in an article on Clio's website. "While less sexy than things like AI and blockchain, the legal industry remains bogged down by work performed by people that is better handled by good technology," she told the site. "Any technology that changes the one-to-one model of lawyers to allow lawyers to serve a much larger market will be a game changer."

Brick and mortar challenges

Another aspect of firm operations that has continued to come under attack is the need for legacy brick and mortar offices. Whether law firms are challenging their need to maintain space in the same format they have historically utilized, or whether they are actively restructuring current leases, firms are facing challenges of a workforce that remains in a remote environment.

In the near future, while the [pandemic continues](#), many firm clients will continue to be reluctant to meet in person, and many attorneys also prefer to avoid in-person interactions. While office spaces are not being used to their full capacity, firms with lease agreements up for renewal may opt for the cost savings of either canceling or at least reducing their physical space commitments.

However, firm leaders should continue to ask: "What will the future of physical office space look like for lawyers?" The pandemic has provided major opportunities to change the culture of needing to impress clients with lavish offices and to reimagine legal office spaces, designing them to enhance efficiency and the comfort of client experiences. In workplaces that were once built around large private office spaces for lawyers or legacy administrative tasks, there is an opportunity to prioritize shared meeting rooms that still allow for private communications when needed.

GOVERNMENT CONTRACTING

Government contractors continue to answer the call, providing products and services needed to operate the federal government, protecting the United States from nation-state threats and responding to the coronavirus pandemic. With this heightened opportunity to serve the government in 2020 also came a greater focus on cybersecurity, the shoring up supply chains, compliance with unique contract vehicles and a mergers and acquisitions strategy focused on strong business fundamentals.

Other transaction authority contracting

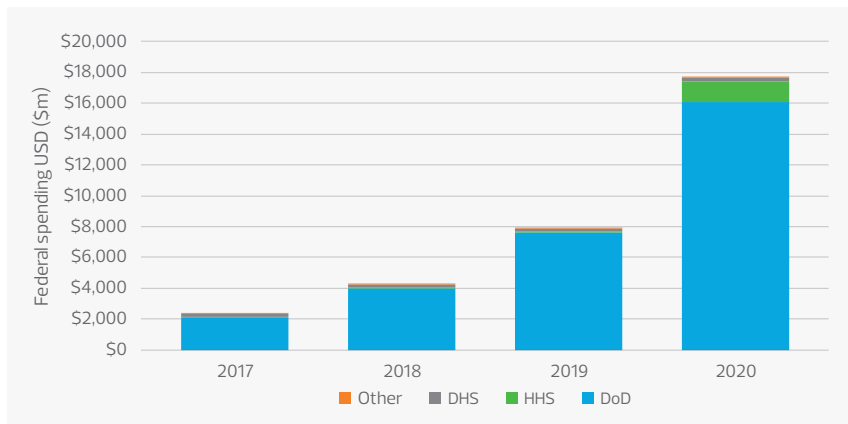
Federal government acquisition strategy continues to evolve, as critical needs require agility, innovation and affordability. Nontraditional contract vehicles, most notably other transaction authority contracts (OTAs), are in vogue with the Department of Defense, Department of Homeland Security and, most recently, the Department of Health and Human Services.



HEIGHTENED OPPORTUNITY TO SERVE THE GOVERNMENT IN 2020 ACCOMPANIED A GREATER FOCUS ON CYBERSECURITY, THE SHORING UP SUPPLY CHAINS, COMPLIANCE WITH UNIQUE CONTRACT VEHICLES AND AN M&A STRATEGY FOCUSED ON STRONG BUSINESS FUNDAMENTALS.

OTAs attempt to bring a commercial style of purchasing to federal government acquisition. OTAs are not formally subject to the typical Federal Acquisition Regulations (FAR), but can be highly customized and negotiated to include or exclude key terms as needed. The goal of OTAs is to cut contract delivery times and promote rapid cycles of technological innovation within the federal government.

Other transaction authority contracting



Source: Bloomberg Government

The DOD is the primary user of OTA contracting, as the rapid and streamlined nature of OTAs aligns with the department's need for rapid technological advancement in the defense and intelligence sectors. OTA use is expected to

continue in the defense arena—particularly as artificial intelligence and machine learning applications develop and multiply. The new Joint Artificial Intelligence Center is the official focal point of the DOD's AI strategy that seeks to promote government innovation alongside industry and academic stakeholders.

Another meaningful user of OTAs in 2020 was HHS, thanks to vaccine development as part of Operation Warp Speed.

We expect public-private partnership and nontraditional contracting methods to continue so that the U.S. government can continue to tap the nation's brightest minds and agile innovators in an economical manner.

Supply chain security and section 889

One pertinent supply chain security issue for contractors relates to compliance with section [889\(a\)\(1\)\(B\)](#) of the 2019 National Defense Authorization Act, made effective Aug. 13, 2020. This interim rule seeks to prohibit the federal government from extending or renewing contracts with an entity that "uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system." More specifically, this refers to equipment produced by certain Chinese entities deemed a threat to national security, such as Huawei Technologies Company and ZTE Corporation. Subcontractors are tasked with making a "reasonable inquiry" that their supply chains are compliant.

Contractors scrambled to comply with the interim rule and seek additional clarification, given the heavy burden associated with full compliance and the limited window provided for industry input. Although section 889's purpose and



INCREASED GOVERNMENT SPENDING BY THE BIDEN ADMINISTRATION AND REALLOCATION OF THAT SPEND TO DIFFERENT AGENCIES RELATIVE TO THE PRIOR ADMINISTRATION COMPELS STRATEGIC ACQUIRERS TO REMAIN ACTIVE.

MIDDLE MARKET INSIGHT

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intent generally garner bipartisan support, the interpretation of the guidance and waiver policies are still at play.

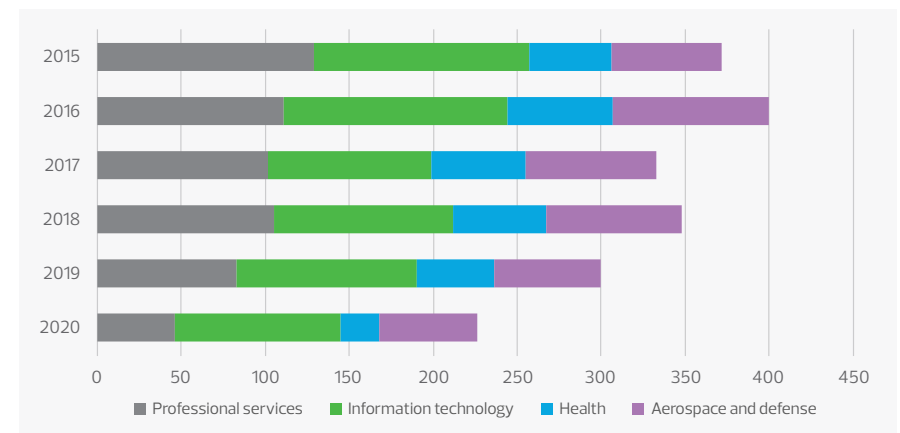
National security will remain paramount in federal contractor operations, particularly in light of the extensive cyberattack on U.S. government agencies that was widely publicized in December after taking place over much of 2020. This monumental hack emphasizes the importance of cybersecurity in conjunction with supply chain security, and it underscores the DOD's push for increased cyber hygiene through the rollout of its [Cybersecurity Maturity Model Certification](#) (CMMC) this year.

Mergers and acquisitions

Despite a freeze in transaction activity at the height of the pandemic, calendar year 2020 deal counts through mid-December were sturdy, all things considered. Diligence teams have adjusted to social distancing and virtual meetings, allowing market consolidation to continue and private equity investors to remain active.

While the fear of tax rate increases may have spurred some M&A activity in other sectors, government contractors have quite a few other attractive features that fuel the transaction environment. Most notably, government contractors provide a transparent cash flow stream to investors looking for diversification in a volatile market environment. Increased government spending under a Biden-Harris administration and reallocation of that spend to different agencies relative to the prior administration also compels strategic acquirers to remain active. We expect M&A to continue in the first quarter of 2021 as contractors continue to position for future success, aligning with agencies and capabilities in vogue.

Government contracting mergers and acquisitions by announcement date*



Source: Bloomberg Government

*Data for 2020 is through only Dec. 12, 2020

Action at the intersection of government contracting and health care took the form of some large transactions in 2020. Most notably, the spinoff of DXC's state and local health and human services business to Veritas Capital to form Gainwell Technologies, and Gainwell's subsequent acquisition of HMS in December. We expect this to continue as uncertainty around the future of health care and federal health programs continues to evolve. We also expect similar trends where government contracting overlaps with the life sciences sector and businesses poised to participate in infrastructure investment.

Launching into space

U.S. defense strategy has evolved over time from land to sea, to air, to cyber, and now to space. While the federal government continues to invest in ground vehicles, ships and aircraft platforms (albeit at a declining rate), space is a new frontier requiring attention as satellites proliferate and the newly created Space Force advocates for investment in space.

The federal government's investment in space is twofold—space exploration led by NASA and defense led by the Space Force, the latter of which is currently positioned within the Air Force. The National Space Council (NSC) seeks to integrate a variety of space programs spread across DOD agencies, the National Oceanic Atmospheric Administration, U.S. Geological Survey, Federal Aviation Administration, Federal Communications Commission and NASA. However, the existence and role of the NSC remains uncertain considering the change in administration.

NASA, via the Artemis program, seeks a moon landing in 2024 with the goal of reaching Mars thereafter. NASA requested a record \$25.2 billion in the fiscal year 2021 budget. Investment in space exploration provides the United States firm footing in zero gravity and promotes technological evolution and innovation. Lockheed Martin's acquisition of Aerojet Rocketdyne in December illustrates the industry's investment in the space market, competing with commercial businesses like SpaceX and Blue Origin.

The Space Force requested \$15.4 billion in the fiscal year 2021 budget for national security launches, global positioning systems and space-based overhead persistent infrared systems. The request is less than 10% of that requested by the Air Force in total (\$169 billion) but will grow over time. We expect the Space Force to remain in place under the Biden administration, given the Biden-Harris platform's support of technological innovation, research and development. In addition, abolishing the Space Force would require an act of Congress.

WORKFORCE SOLUTIONS

Among the variety of workforce solutions providers, a narrow focus on staffing and executive search firms shows a subsector heavily affected by pandemic-induced hiring freezes at the companies they serve. The staffing and executive search companies that were able to weather the storm in 2020 have transitioned to long-term strategic planning to establish how they can best position their services in a digital ecosystem and serve businesses that make permanent many of last year's shifts toward remote operations.

Casting a wider net

The rapid shift to [remote work](#) required immediate agility and investment in technology for businesses across the globe. This shift also unlocked the network effect, as staffing and executive search firms can now leverage a wider pool of candidates and data analysis to make higher-quality placements. De-emphasizing an employee's physical location expanded talent pools and promoted diversity in hiring practices. By having access to larger pools of candidates, employment and placement services have more options to choose from while matchmaking.

M. Keith Waddell, president and CEO of Robert Half International Inc., noted as much during the company's third-quarter earnings call: "Remote and hybrid working models will continue long after the pandemic ceases to require them. Access to talent is no longer limited to time zones and geographies."

Waddell also noted that larger firms are amenable not only to employees being off premises, but also being outside of their local market. Small and medium-sized businesses, on the other hand, have shown they are willing to embrace off-premises employees but aren't as quick to look outside of their local markets.

To maximize the increase in options, employment and placement firms will need to build or acquire technology tools that analyze talent pools efficiently. This will also involve upskilling their workforce to use available data and technology tools to best serve their clients, as opposed to leaning purely on their local relationships.

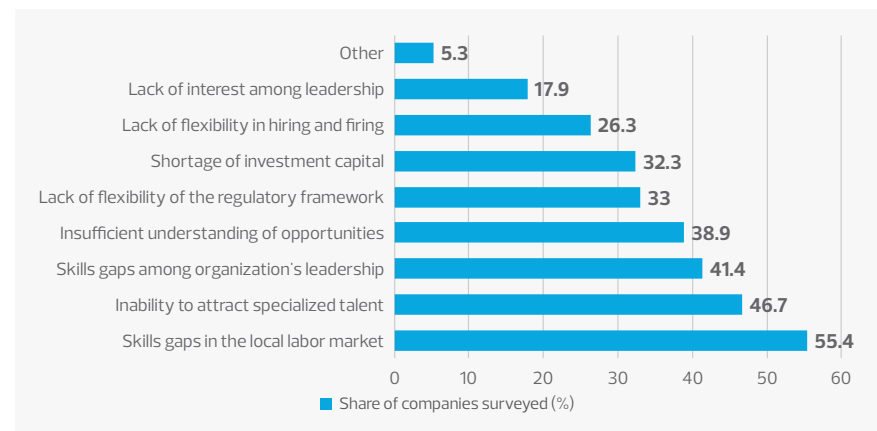
Upskilling

Workforce solutions providers, while weathering the short-term storm of high unemployment and hiring freezes, are positioning themselves for longer-term consequences. Specifically, employment and placement firms are looking for ways to upskill individuals in order to address current needs in the pandemic and longer-term needs that align with digital transformation trends.

According to the World Economic Forum's [Future of Jobs Survey 2020](#), the top five positions with decreasing demand include data entry clerks, administrative and executive secretaries, accounting and payroll clerks, accountants and auditors, and factory/assembly workers. The top five positions with increasing demand, on the other hand, are data scientists, AI and machine learning specialists, big data specialists, digital marketing and strategy specialists, and process automation specialists. Businesses are faced with the task of upskilling the former to the latter.

The World Economic Forum surveyed employers to determine the perceived barriers to adoption of new technologies—55.4% of respondents identified skills gaps in the local labor market as the primary barrier.

Perceived barriers to the adoption of new technologies



Source: Future of Jobs Survey 2020, World Economic Forum

MIDDLE MARKET INSIGHT

To maximize increased candidate pools that are less constrained by geographic location, employment and placement firms will need to build or acquire technology tools that analyze talent pools efficiently.

ManpowerGroup Inc., for example, is addressing this issue by leveraging data to identify adjacent skills, assess, coach and upskill via its MyPath program. As Manpower Chairman and CEO Jonas Prising explained on the company's third-quarter earnings call, this initiative has afforded the company the ability to "shift and reskill people from declining to high demand sectors during this pandemic."

Not only is Manpower upskilling its job candidates, the company is also upskilling its talent agents to be expert in data-driven assessment and recruitment. This results in improvements in reassignment rates, utilization rates and client satisfaction rates. Data-driven assessment and recruitment is a prime application for AI, given the amount of data these firms collect around candidates, companies, jobs and people.

Serving state and local governments

Workforce solutions providers are beginning to see heightened [opportunities serving the public sector](#), specifically state and local governments. State and local governments have been inundated with needs from their constituents since the pandemic began and are struggling to address those needs, given lower tax income and growing budget deficits. Specifically, states are attempting to continue normal operations despite lockdown restrictions while juggling increased volumes of unemployment claims, housing assistance needs, reeling school systems and phones ringing off the hook at call centers. These needs provide opportunities for support services related to hiring (both permanent and temporary), processing support, technical support and other business services that workforce solutions providers are looking to bundle.

RHI's Waddell noted in the third-quarter earnings call that there is likely "bulge demand" for these services to state and local governments related to COVID-19 disruptions. However, he believes "their processes could use some optimization" that "lives past this bulge period." ■

COMPANIES THAT ARE NIMBLE AND OPTIMIZE DIGITAL STRATEGIES CAN CAPITALIZE ON DEMAND AND STRONGER ECONOMIC CONDITIONS.



INDUSTRY OUTLOOK:

CONSUMER PRODUCTS

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



IN THE EARLY PART of the year, most consumer products companies will feel a hangover from the pandemic-induced recession of 2020. However, as the economy begins to accelerate in the second half of the year, significant opportunity exists across the entire consumer ecosystem. From retail and restaurant to food and beverage and apparel sectors, those middle market businesses that remain nimble and optimize their digital strategy to follow changing consumer habits, forecast opportunities, and drive marketing and sales will emerge from the recession well positioned to capitalize on pent up consumer demand and stronger economic conditions.

KEY TAKEAWAYS

- Retail bankruptcies will continue, but this strategy could address debt burden and provide access to growth capital.
- The fallout from a decline in traffic coupled with significant margin pressures will likely mean significant reorganization in the restaurant sector.
- Digital commerce remains imperative for consumer products sectors.
- Rapid shifts in consumer preferences provide further fuel for mergers and acquisitions in the beauty industry.
- Innovation is key for food and beverage companies regarding products, packaging and safety measures.
- Across the entire consumer products industry, digital transformation continues to be an important strategic effort.

INNOVATION IN PROCESSING BOTH PLANT-BASED AND CELL-BASED PROTEINS CONTINUES TO DEVELOP AS THE NEED FOR SUSTAINABLE FOOD CHOICES GROWS IN IMPORTANCE.

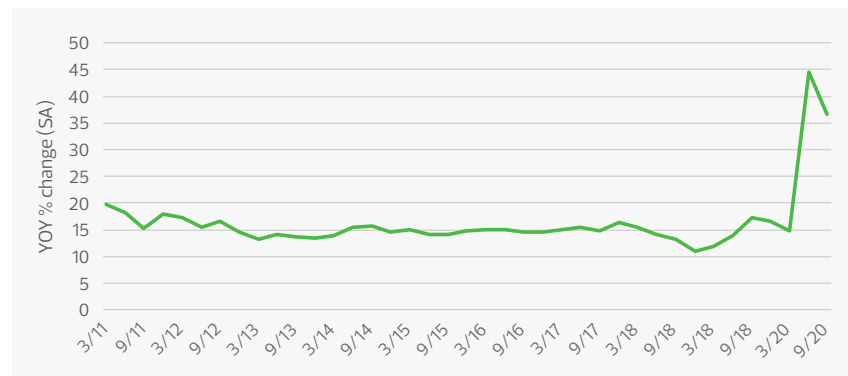


RETAIL AND RESTAURANT

Retail's New Year's resolution

As we finally turn the calendar to 2021, the [retail](#) industry faces its most important New Year's resolution in recent history. Retail e-commerce sales spiked during the COVID-19 pandemic, climbing to greater than 30% growth in 2020. While the overall pace of online sales growth will slow in 2021, e-commerce's overall share of retail sales will be significantly greater in the year ahead and beyond, reaching levels that many in the industry didn't forecast until 2023 or later. The New Year's resolution for every retailer should be to adjust their strategy and operating models to position themselves for success in the post-pandemic consumer ecosystem.

Retail e-commerce sales



Source: Bloomberg; RSM US LLP

Evolution of digital retail

In addition to the simple increase in online sales, the consumer ecosystem will also see the evolution of digital retail away from simple commerce to experiential online retail. The concept of experiential retail that has been focused on brick and mortar to date will find its way into the digital strategies of retailers in the United States in the next six to 12 months. The technologies that enable virtual experiences such as livestreaming and augmented reality are becoming cheaper and easier for retailers to adopt. According to a study by Bain & Company, Chinese consumers expected their use of livestreaming or short video to increase by more than 25% in 2020. These concepts are already more widely used and well received by consumers in Asia, which has been at the forefront of digital retail.

Margin compression continues

The post-pandemic shopping patterns of consumers will be critical to retailers because of the adaptations necessary to capture sales through different channels. There's also a secondary relevance to changing retail channels: Sales through nontraditional brick and mortar have proven to be much more costly, having a significant impact on margins.

Beyond the direct costs associated with picking, packing and shipping, sales through new channels may require a new marketing strategy, which could come at the cost of incremental investment. The adaptations made by retailers thus far during the pandemic have been to keep lights on and drive sales, but the focus in 2021 will turn to profitability. The importance of this focus was highlighted by Doug McMillon, Walmart's president and CEO, on the retailer's Q3 2021 earnings call in December.

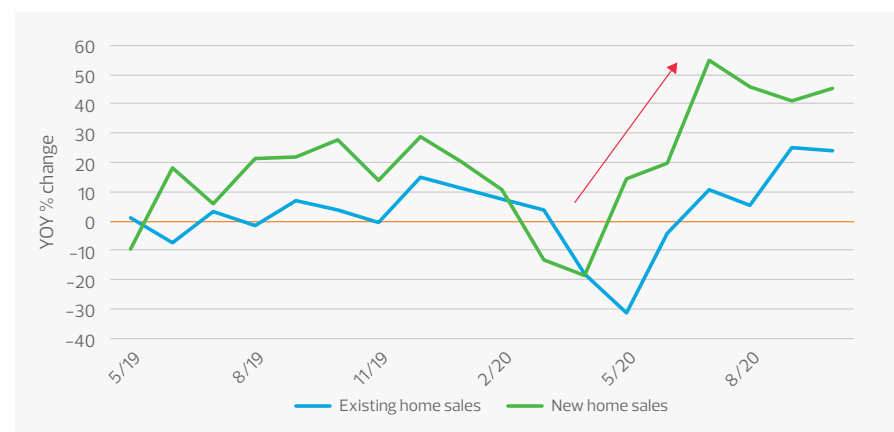
McMillon stressed that “the ability to leverage cost to pick efficiently, obviously getting things into one box, as much as possible, getting shipping efficiencies, all those kinds of things are going to generate sustainable businesses as it relates to e-commerce as a channel over time.” Many middle market retailers have not been built to accomplish scale and efficiency as it relates to these critical activities that help to protect profitability through digital channels.

The rich get richer

Prior to the pandemic, the housing market in the United States was strong. However, after the immediate short-term shock created by the COVID-19 pandemic, the housing market has taken off and far exceeded pre-pandemic levels. With mortgage rates remaining at historic lows, and optimism likely to improve as the pandemic slows with the rollout of the vaccine, home sales are likely to continue their ascent in the spring of 2021.

More importantly, on a year-over-year percentage basis, new home sales have far outpaced existing home sales. This is particularly relevant in the retail sector, as new homes, usually fueled by first-time homebuyers, create significant opportunity for home furnishings and home improvement retailers. With the continued strength in new home sales, these sectors will likely continue to see strong top-line results in the short and intermediate term.

U.S. home sales

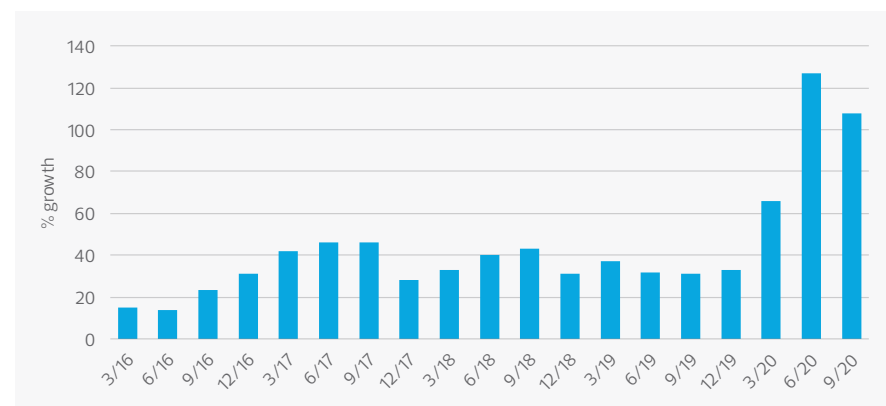


Source: Bloomberg

Another sector that benefitted from changing consumer behaviors during the pandemic was the retail food sector. Both grocery and convenience stores saw very strong sales performance, as consumers shifted to preparing and eating more food at home during the pandemic.

While the balance between food at home and food away from home may shift as we move out of the pandemic, there is one COVID-19 trend in the ecosystem that will likely survive. In 2019, online sales represented only approximately 6% of sales, which lagged behind overall retail sales. The growth in online sales in the grocery sector, which had remained relatively steady for years, accelerated significantly beginning in March.

Grocery online sales growth



Source: Bloomberg

The convenience of at-home delivery and curbside pickup that so many have become accustomed to during the pandemic has removed some of the hesitation that may have existed. In addition to the convenience, consumers realized that many other fears that existed as they relate to purchasing groceries online, such as the inability to choose your own produce, may have been unfounded. As a result, middle market grocers who may not be as far along in their [digital transformation](#) journey as big box competitors such as Kroger will focus their operational strategies around adjusting their model to meet the changed preferences of the post-pandemic consumer. According to a survey conducted by Coresight Research in August of 2020, 36.4% of online grocery shoppers don't expect to change their new habits when the pandemic ends. To that end, we believe that investment in digital transformation will increase dramatically across the entire ecosystem as we get further into 2021, particularly in the middle market.

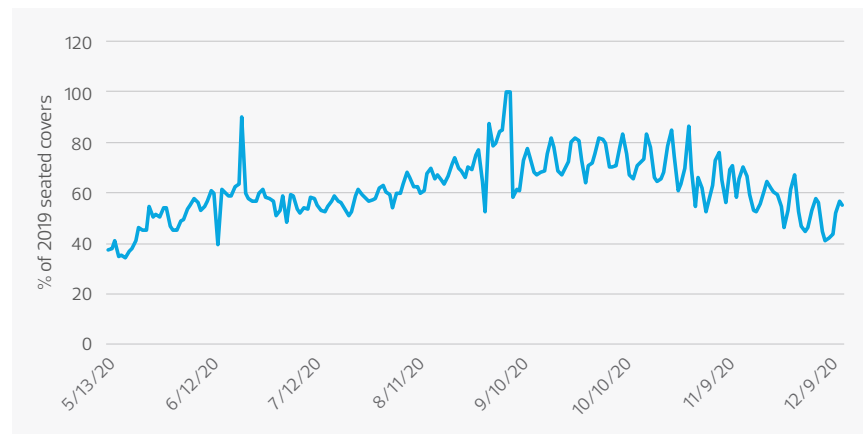
ONE OF THE MOST SIGNIFICANT OPERATIONAL DECISIONS FOR MANY IN THE CASUAL DINING SPACE WILL BE DECIDING WHETHER OR NOT TO EXPAND OR ADOPT A LARGE OFF-PREMISES MODEL.



The poor get poorer—restaurants struggle

After stimulus from the CARES Act and outdoor dining created a bridge for most of the [restaurant](#) sector throughout the summer and early fall, the bridge finally ended in the fall of 2020. In our fall 2020 edition of [The Real Economy: Industry Outlook](#), we highlighted a trend in the data that showed diners may be slowly returning to restaurants to dine in and pointed out that making diners comfortable in the winter months would be the next challenge. Unfortunately, the worst case scenario played out, as the virus surged across the United States and the trend began to reverse.

Seated diners—open restaurants only



Source: Open Table

MIDDLE MARKET INSIGHT

Moving into the second half of 2021, the focus will shift to necessary investments in technology and changes in operating models to improve profitability and thrive in the post pandemic ecosystem.

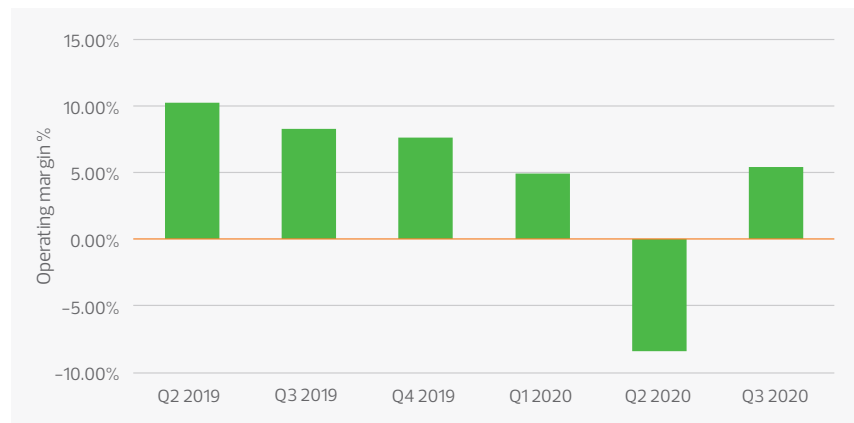
In addition to the worsening pandemic, a failure by Congress to agree on a second stimulus bill and an additional round of PPP until late December, coupled with colder temperatures, has wreaked havoc on the restaurant sector. As 2020 came to a close, many restaurants closed their doors. Some closures were permanent. Others were a temporary closure for the winter months, or what the industry is calling “hibernation,” in yet another creative attempt in the ecosystem to survive the pandemic.

Restaurants on the other side

Despite the vaccine promise, things are not likely to change for the sector in Q1. With the exception of quick serve, which stands to gain from the continued pandemic battle, many restaurants will emerge from hibernation in early spring with hopes that pent up demand will help propel them into recovery. The critical period for most family dining chains will be the spring, as the second half of 2021 will likely see significant improvement as the country moves through the vaccination effort toward herd immunity. During this time, many operators will have to make critical decisions about the future operating model in light of changes in consumer preferences.

In the late first quarter and into the second quarter of 2021, expect restaurants to be focused on driving top-line sales to stabilize operations as they emerge from hibernation. Moving into the second half of 2021, the focus will shift to necessary investments in technology and changes in operating models to improve profitability and thrive in the post pandemic ecosystem.

Restaurant operating margins



Source: Bloomberg

One of the most significant operational decisions for many in the casual dining space will be deciding whether or not to expand or adopt a large off-premises model. The transition for asset-light, quick-serve restaurants is much easier than it is for some of their casual peers, who have a physical footprint and operating model that is designed to accommodate on-premises dining as the primary sales channel.

The entire consumer ecosystem is becoming increasingly dependent upon the ability to access and interpret data to analyze, predict customer habits, and to drive marketing and sales strategies. In the intermediate to long term, the restaurant sector will also follow suit, regardless of the segment.

Significant opportunity in 2021

While the first half of 2021 will continue to bring challenges for retailers and restaurants alike, the second half of the year presents a very significant opportunity. The RSM economic forecast for the second and third quarter of 2021 suggests significant acceleration of GDP. This growth will be fueled in large part by increased consumer spending as the vaccine becomes more

widely available and a combination of a deceleration of the pandemic leading to improvements in the job market and in consumer sentiment.

In order to capitalize on the significant opportunity created by an improving economy and pent up demand throughout the consumer ecosystem, retailers and restaurant operators should focus on three key areas as they refine their channel strategy to react to changed consumer habits that will survive the pandemic.

- 1. Solve the labor equation:** The second round of stimulus passed in December extended the unemployment benefit. What it did not do is provide aid to the states. The likely result is further layoffs and cut backs to public services such as transportation. Understanding the labor needs of the business, and then finding qualified employees will be more important than ever.
- 2. Invest in technology:** For those that adapted quickly to allow for purchases through new and different channels, it was often done as quickly as possible to allow for survival in a difficult cash flow situation. On a longer-term basis, technology solutions, together with the associated operating models, need to be right-sized to allow for profitability, not just sales generation.
- 3. Optimize supply chain:** Technology and operations on the customer-facing side is one piece of the profitability equation. Equally as important is managing the supply chain and refocusing on inventory management and logistics to match up with sales through these new channels.

FOOD AND BEVERAGE

Ingredient revolution

Consumers' eating behaviors continue to evolve due to the pandemic. Simple, natural and, now, immunity-boosting ingredients continue to be an important component of their buying decisions. According to Innova Market Insights October 2020 research, six out of 10 global consumers look for food and beverages that support immune health. As many consumers feel that various factors are out of their control when it comes to the pandemic, choosing foods with immunity boosting properties is one way they feel they can make a difference. Larger CPG companies are taking notice of consumers' ingredient choices and highlighting the benefits in their products such as the probiotics in yogurt and turmeric in herbal teas.

MIDDLE MARKET INSIGHT

Middle market food and beverage manufacturers will benefit from a tailored digital strategy to optimize costs and operations and keep these rising costs under control.

The plant-based movement grew significantly during the pandemic even with closed or minimally operating restaurants. Consumers continue to want sustainable proteins with additional nutrients and have tried these items as they cook at home. Plant-based beverage options, once soy only, are now readily available from a variety of sources such as almond, oat, pea and hemp. Meat alternatives exploded. According to IRI, sales of alternative meat products grew 54% year over year from 2019 to 2020. Innovation in processing both plant-based and cell-based proteins continues to develop as the need for sustainable food choices grows in importance.

The shift to eating at home has created a focus on overall wellness. The consumer still wants to eat a balanced diet with the occasional indulgence of their favorite treat or take-out entrée that they can't make at home. Salty snacks and chocolate candies both doubled in growth year over year according to IRI data from 2019 to 2020. We expect cooking at home to continue as it can be less expensive than eating out and has become a habit more than a necessity.

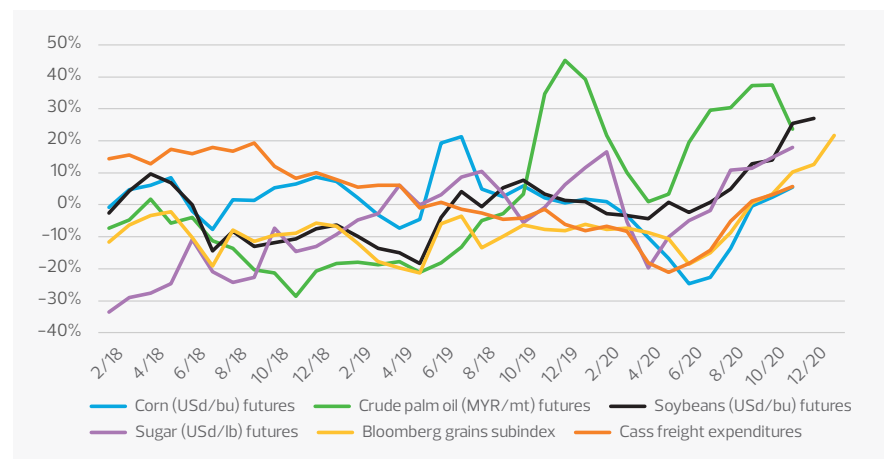
Increasing costs

The resiliency of [food and beverage](#) manufacturers and distributors was remarkable in 2020. These businesses overcame supply chain disruptions, created omnichannel solutions and reevaluated processes to protect their employees and cut costs. Business decisions that once took several months were often made in days to meet customer demand. Regardless, the companies which could quickly adapt had strong results.

However, 2021 will not be without its challenges, even with the increasing availability of the vaccine. Many middle market food manufacturers and processors are struggling to find labor to meet heightened demand. While unemployment remains high, the labor supply has been disrupted during the pandemic due to increased unemployment benefits, health and safety concerns, and family demands. In order to attract talent, businesses have had to offer increased wages and attractive fringe benefits, all putting

pressure on their bottom line. Commodity costs and futures are also on the rise as seen below. Finally, with the rise in e-commerce and the subsequent strain on trucking capacity, manufacturers are expecting higher shipping costs. Middle market food and beverage manufacturers will benefit from a tailored digital strategy to optimize costs and operations and keep these rising costs under control.

Year-over-year change in food and beverage input costs



Source: Bloomberg; Cass Information Systems

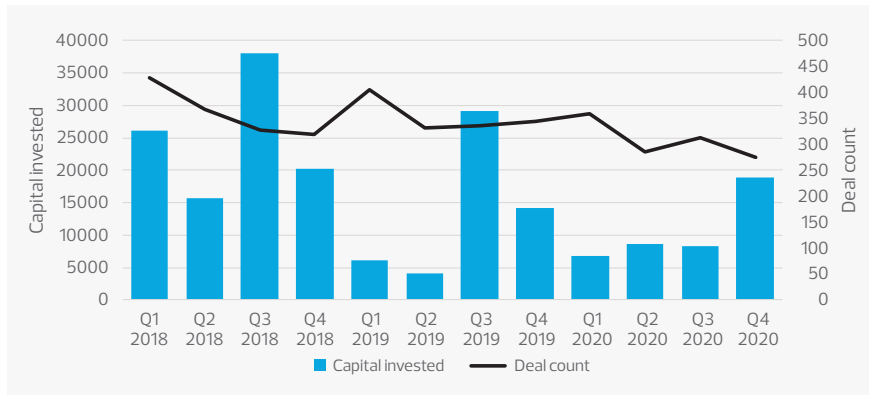
Mergers and acquisitions

Food and beverage deal activity remained relatively quiet due to disruption from the pandemic. There was an uptick in capital invested in the fourth quarter prompted by stronger balance sheets and potential future capital gains rates. In 2021, it is anticipated that the M&A landscape will be smaller with add-on acquisitions that provide additional market share or entrance into new segments rather than multibillion-dollar, debt-heavy mergers. For many larger middle market companies, the opportunity to divest nonperforming brands will aid in reducing costs. Much of the activity will also be to better keep up with consumer preferences. For example, McCormick recently purchased Cholula Hot Sauce and FONIA International, a natural flavor company to tap into the growing demand for at home cooking and healthier eating.



OVERALL CONSUMER ATTITUDES ARE NOW PRIORITIZING PRACTICALITY, COMFORT AND VALUE OVER FASHION.

U.S. food and beverage mergers and acquisitions activity



Source: Pitchbook

FASHION, BEAUTY AND HOME

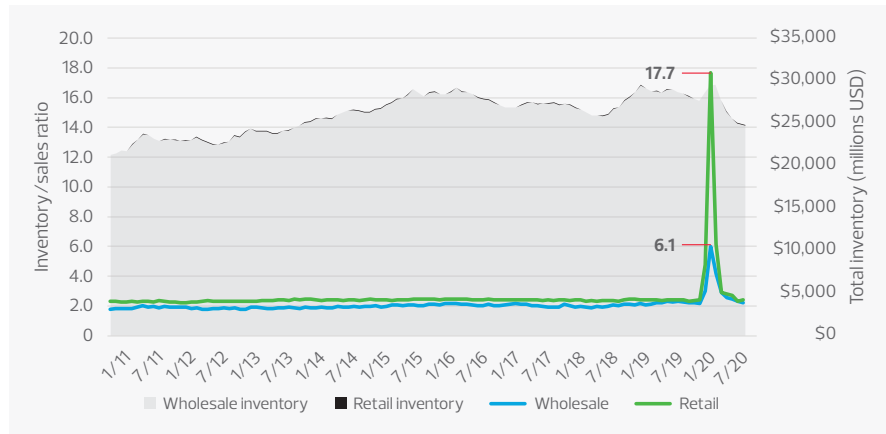
Delivering more with less in apparel

With encouraging hopes of widespread vaccinations in 2021, apparel companies have reason for optimism after a volatile 2020. However, while there may be certain categories poised for immediate growth, apparel businesses should brace for a slower recovery. Overall apparel sales are expected to trend below pre-crisis levels until sometime in 2022 or 2023; companies should turn their attention to protecting market share and improving profitability to drive more value out of a smaller consumption pie.

Although U.S. consumer spending on clothing and footwear purchases peaked in 2019, the amount consumers have dedicated to apparel and fashion purchases has been on the decline for the last 30 years. Apparel purchases fell to less than 2.5% of total consumer spending in 2020 compared to 5.3% in 2019. With restricted mobility, many consumers' wardrobes have outsized their lifestyles, indicating that spending on apparel is expected to remain muted even as consumers return, on a limited basis, to restaurants, work and events. Overall consumer attitudes are now prioritizing practicality, comfort and value over fashion. Continued COVID-19 outbreaks, delays in the broad rollout of vaccines and new work from home patterns will also slow the recovery to pre-pandemic levels.

Coming out of the 2008 recession, many apparel companies used discounting strategies to capture pent up demand and to grow top-line revenue and market share at the cost of profitability. In the expected slower growth environment, companies in this sector should be focused on maximizing profits on sales. A common factor eroding margin dates back to the 2008 recovery, when apparel companies offered broad selections of SKUs and styles to avoid missing out on trends and cater to broad demographics. Unsold merchandise was sold at heavy discounts through off-price and discount channels. Discounting came to a peak at the onset of the pandemic as apparel companies looked to free up cash flow locked in inventory. However, in the second half of the year, apparel companies were able to right-size inventory levels, bringing total apparel inventory to the lowest level since December 2013. Likewise, inventory-to-sales ratios were brought back in line to pre-pandemic levels for both wholesalers and retailers from their Q2 2020 peaks of 6.1 and 17.7, respectively, despite sales levels that remain depressed.

Apparel inventory to sales ratio and levels



Source: U.S. Census Bureau

Inventory discipline is only half the story for profitability as less inventory means less revenue opportunity. Apparel companies should be investing in technology and customer relationship resources to take a demand-focused approach to planning. This is particularly important for middle market apparel companies that may be spreading their bets across smaller product offerings while also protecting market share. Taking a data-driven approach to bring together marketing strategies with product planning will allow companies to invest in hero products and build out complimentary offerings to keep inventory levels manageable and reduce discounting, without missing out on opportunities.

Digital acceleration

For many companies in the [fashion, beauty and home furnishings sectors](#), e-commerce has gone from a long-term growth strategy to a means of survival during the pandemic. With significantly reduced foot traffic at malls and department stores, which were key sales channels for these sectors prior to the pandemic, smart business owners quickly pivoted to reach customers through digital means. E-commerce is likely to remain crucial as the spread of the coronavirus will continue to keep consumers at home and widespread vaccinations aren't anticipated until sometime later this year. Companies in these sectors should be investing in e-commerce strategies and tools that will allow them to integrate high-touch human experience through digital channels to continue to compete even in a post-COVID-19 world.

MIDDLE MARKET INSIGHT

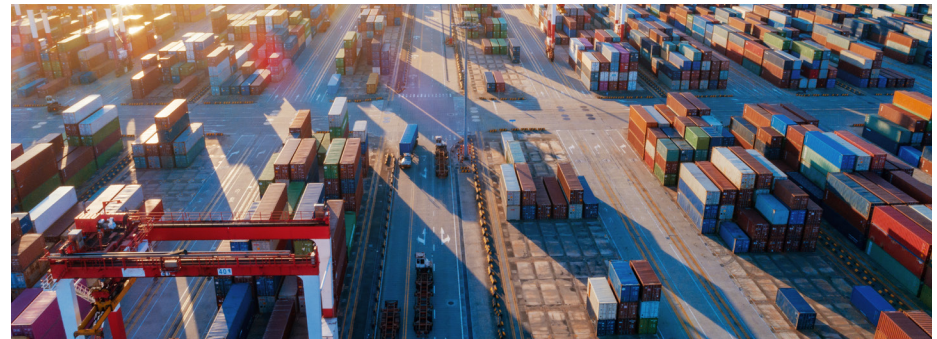
In 2021, it is anticipated that the mergers and acquisitions landscape will be smaller with add-on acquisitions that provide additional market share or entrance into new segments rather than multibillion-dollar, debt-heavy mergers.

Online marketplaces like Amazon and Wayfair provided the easiest means of getting products to consumers at the start of the pandemic as many companies had already been selling to them, and they had logistics infrastructure to scale quickly that many producers lacked. However, as the pandemic continued, fashion, beauty and home companies that invested in their own e-commerce platforms saw better growth overall. According to data compiled by the U.S. Census Bureau, e-commerce year-over-year growth through the third quarter of 2020 increased 33.5% and 49.1% for clothing and accessories, and home furnishings, respectively, compared to nonstore retailers (a proxy for purely e-commerce players like Amazon and Wayfair) which only had 27.6%.

Investing in e-commerce platforms allows fashion, beauty and home companies to harvest valuable consumer data while avoiding margin-eroding marketing and logistic fees that come along with selling through third-party online marketplaces. Most importantly, it allows a company to control its online customer experience, a critical aspect for the high-touch nature of the products sold in these sectors. While many companies have embraced digital technologies such as customer service chat bots and product recommendations, those investments that create a personal touch will have the most impact on converting sales and building customer loyalty. Beauty companies, which long relied on the counter experience, have embraced digital sampling and online application demonstrations. Home furnishing and apparel companies have used augmented reality to preview how apparel may look with complementary products or how pieces work together in a room. Live online shopping assistants are providing a level of customer service customers would hope to see in stores while also increasing conversion rates across all sectors.

As consumer behaviors evolve in a post-pandemic world, these online experiences will continue to play an important role in how consumers interact with brands and make purchasing decisions. Businesses will need to continue to make these investments a priority and tailor them for those new behaviors, including directing consumers back to physical locations for those who prefer that channel.

AS THE GLOBAL ECONOMY AND SUPPLY CHAINS REBOUND, MANY COMPANIES IN THIS SECTOR WILL STILL FACE THE SAME ISSUES THEY SAW AT THE START OF THE PANDEMIC.



Sourcing beyond China

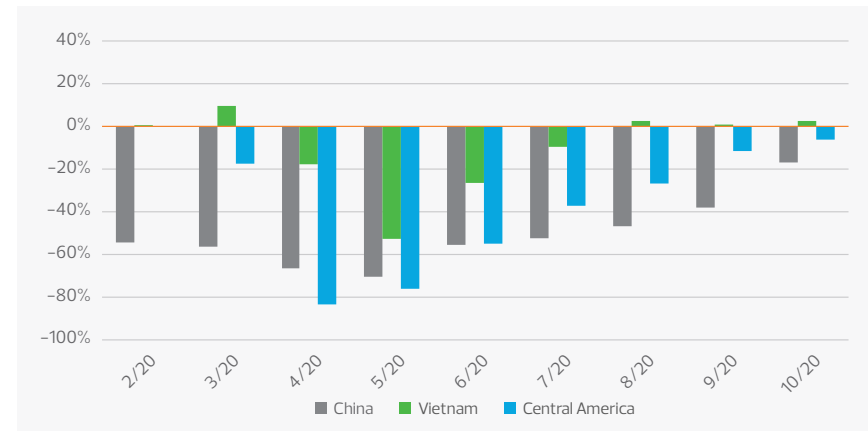
From tariff exposure early in the year to supply chain disruption caused by the COVID-19 pandemic, 2020 highlighted the risks associated with the apparel and textile supply chains' overdependence on China. As the global economy and supply chains rebound, many companies in this sector will still face the same issues they saw at the start of the pandemic.

While the Trump administration has left office, it won't mean the immediate release of section 301 tariffs placed on many U.S. imports from China. Biden has generally favored free trade, but his administration will likely use the relief of tariffs as part of a larger trade deal focused on intellectual property protections and human rights. Trade talks with China may be a second step for the Biden administration to strengthen ties with other allies in the region or possibly for entering into the Trans-Pacific Partnership. On top of tariffs, labor costs continue to rise in Chinese-apparel producing regions, making other apparel-producing countries more attractive. Finally, as more light is shed on the forced labor of ethnic minorities in the China's Xinjiang Uighur Autonomous Region (XUAR), apparel and textile companies will need to consider further economic penalties for finished products and materials sourced in that region on top of damage to their own brands' reputations.

MIDDLE MARKET INSIGHT

While many companies have embraced digital technologies such as customer service chat bots and product recommendations, those investments that create a personal touch will have the most impact on converting sales and building customer loyalty.

Year-over-year change in U.S. cotton apparel imports



Source: Office of Textiles and Apparel

While China remains an important part of the overall apparel supply chain, it's been surpassed by Vietnam as the largest exporter of cotton apparel to the United States. Companies that have moved on or diversified away from Chinese production stand to benefit from any new trade treaties with other Asian manufacturing economies. Those that moved production to Central America have been able to source and adapt to consumer behaviors quicker without the shipping-container disruptions that have plagued many ports on the West Coast.

Companies that may have moved production should consider corporate social responsibility risks within their supply chain. Many countries that may be attractive alternatives with low labor costs might have labor treatment issues of their own, and cotton grown in the XUAR is being exported to other Asian

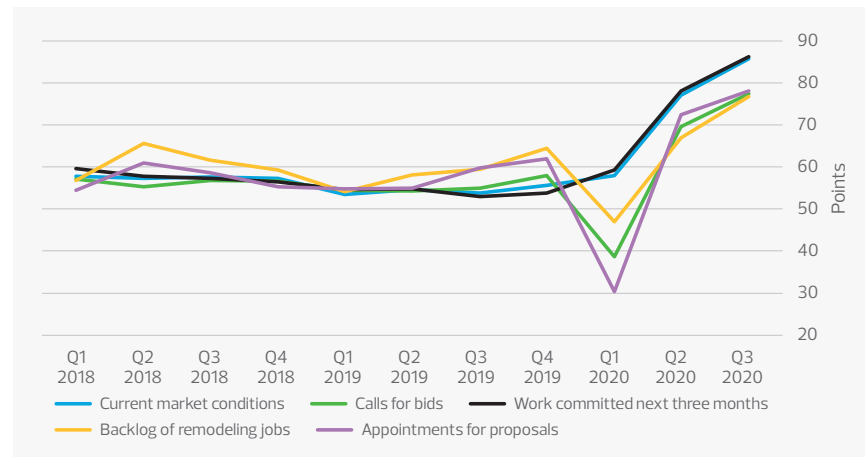
countries like India and Vietnam. Cotton produced in the region makes up 20% of the global market. With emerging technologies like blockchain improving transparency in sourcing, apparel companies should work with vendors to understand sourcing and verify where possible.

Home furnishings strength

It's no secret that home furnishings businesses benefited during the pandemic from consumers' homebound behaviors. As consumers sheltered in place and practiced social distancing, they redirected spending that would have otherwise been earmarked for travel and experiences into their homes, making them more livable and functional. While hope that vaccinations will allow consumers to return to some pre-pandemic behaviors and spend more time away from home, home furnishings will still have tailwinds heading into 2021.

Consumers enter 2021 with strong balance sheets. According to the Bureau of Economic Analysis, U.S. household savings rate was 12.9% at the end of November 2020 exceeding the pre-crisis, five-year average of 7.4%.

Homebuilder repair and remodeling confidence indexes



Source: National Association of Home Builders


In addition to increased savings, new home activity should provide demand for home furnishings products. During the pandemic, many consumers in the professional class migrated to the suburbs, lured by historically low interest rates and telecommuting, lessening the importance of proximity to physical offices. The shift put pressure on existing home inventory, which was already

low prior to the pandemic. Through November 2020, new home sales exceeded that of the same period in 2019 by 19.2% according to the U.S. Census Bureau. Additionally, of those home sales, an increasing percentage are being sold under construction or built to order, meaning they are unfurnished and aren't ready to be lived in for months. A flurry of cash-out refinancing activity fueled by those low interest rates helped drive remodeling activity as well. The National Association of Home Builders' remodeling market index, which tracks both current and future indicators and sentiment among builders, reached all-time highs in Q3 2020 on the strength in calls for bids and work commitments over the next three months and backlogs.

Beauty spurs acquisitions

The beauty sector, which has been resilient during past recessions, found itself hit hard during the COVID-19 recession as consumers sheltered in place. With consumers spending more time at home, they looked to alternative purchases to fill the role of affordable indulgences that cosmetics played in past economic downturns. However, the industry responded by accelerating innovation in areas from customer experience to packaging and ingredients to meet the needs of a beauty and personal care consumer with different priorities. With post-pandemic behavior on the horizon in 2021 and consumer behavior set to shift again, large beauty players will be positioning themselves to right-size their brand portfolios to align with preferences. Many of these large companies right-sized their debt-heavy balance sheets during the pandemic and will look to acquire proven middle market brands to accomplish this.

Merger and acquisition activity already roared back at the end of 2020, led by the venture capital and private equity communities anticipating what the new beauty and personal care landscape will look like and where strategic acquisitions may take place. The fourth quarter of 2020 saw over \$2 billion in capital deployed in beauty and personal care companies. Deal activity shows that PE firms and strategic acquirers invested in companies with innovative sales models that bring the personal touch of the beauty counter and salon experience to consumers in their own homes, and those that offered customizable or functional product lines that could be tailored for specific customers or offered health and wellness benefits. ■



THE UNCERTAINTY OF THE PAST YEAR IS GIVING WAY TO OPTIMISM AS FINANCIAL SERVICES FIRMS LOOK TO CAPITALIZE ON IMPROVING ECONOMIC CONDITIONS.

INDUSTRY OUTLOOK:

FINANCIAL SERVICES



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

THE FINANCIAL SERVICES INDUSTRY is emerging from a year of whipsaw change that few could have predicted. But that uncertainty is giving way to optimism as the distribution of the coronavirus vaccine and an improving economy bring a sense of hope, and stability. Banks, faced with unrelenting pressure on their margins, can see some relief in sight, while the capital markets are looking to a year of reduced volatility and improving financial conditions. The private equity industry is looking to continue its robust recovery, with middle market firms poised to play an important part. Then there is the ever-accelerating pace of technological change. Making those investments is how savvy specialty finance firms are staying current with ever-changing regulations. The race to keep up with technology is leaving many financial services asking a question: Just what is a fintech company? Amid all of these trends, there is still the overhang of the coronavirus. And the potential for a pandemic to happen again has prompted the private and public sector to search for an approach to insurance that won't leave businesses vulnerable. Such private-public partnerships have succeeded before, and they can again.

KEY TAKEAWAYS

- **FINANCIAL INSTITUTIONS:** As the economy improves, so will banks' bottom lines.
- **CAPITAL MARKETS:** After a year of dramatic change, volatility will ease.
- **ASSET MANAGEMENT:** Middle market private equity firms are poised for a strong year.
- **SPECIALTY FINANCE:** How consumer lenders can keep up with an ever-changing regulatory environment.
- **FINTECH:** The lines are continuing to blur between fintech companies and their traditional counterparts.
- **INSURANCE:** The search for an effective way to provide pandemic insurance continues.

FINANCIAL INSTITUTIONS

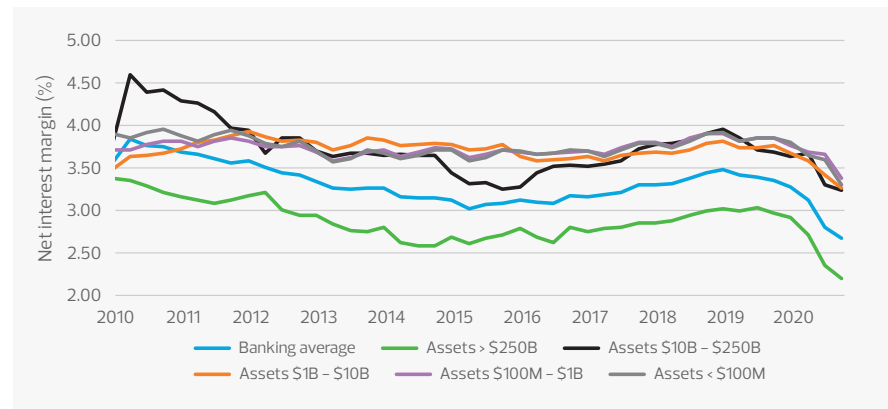
Banks leave the pain of 2020 behind

Banks are looking ahead to 2021 with the hope that the human and economic toll of 2020 can be left in the past.

Few could have expected such a difficult year for banks; after all, they were coming off a record year for earnings in 2019, and the future seemed bright. But then in March, they were confronted by a global health pandemic that sent the economy into a tailspin, prompting the Federal Reserve to cut the federal funds rate twice, to zero, and Congress to step in with a fiscal aid package.

The effects of these cuts fell squarely on the banks, which depend on interest earned from loans for a majority of their income. The result was that their net interest margins were compressed to record lows, according to the Federal Deposit Insurance Corporation.

Net interest margin by bank asset size



Source: Federal Deposit Insurance Corporation; RSM US LLP

But in late December, President Trump signed a \$900 billion fiscal aid package to provide direct fiscal aid to households and businesses equal to 4.25% of gross domestic product. This package, the second-largest economic aid measure in the nation's history, was expected to give a much-needed boost of fiscal relief to the economy, just as the novel coronavirus was surging again.

"We expect the aid package will bolster U.S. growth conditions in the first half of 2021, likely preventing another economic downturn, which our forecast had previously implied," RSM US Chief Economist Joseph Brusuelas stated.

MIDDLE MARKET INSIGHT

With the economy improving, interest rates are likely to increase modestly and the yield curve will steepen along the midrange to the longer end.

Because of the coronavirus relief package, the continuing distribution of a vaccine and the growing prospects of further stimulus given Democratic control in Washington, D.C., RSM revised its forecast for first-quarter growth in 2021 to 2.5%, up from 1.1%, and an increase in second-quarter growth to 8.7% from 4.6%.

Further, as the economy continues to recover, all signs point to robust growth in the second half of the year. RSM forecasts year-over-year growth in gross domestic product for 2021 of roughly 5.4%, with risk to the upside. After the traumatic events of 2020, it's hard to think about there being a possibility that things could be better than forecast, but it's certainly an option.

Now, with economic conditions improving, we are likely to see some modest inflation and a steepening of the yield curve along the midrange to the longer end. Looking at the Fed's five-year, five-year forward rate, a key measure of future inflation, we can see this steepening.

2020 Federal Reserve five-year, five-year forward rate



Source: Federal Reserve; RSM US LLP

ALONG WITH RISING RATES, IMPROVING ECONOMIC CONDITIONS WILL LEAD TO A POSITIVE IMPACT ON LOAN PORTFOLIOS AS BANKS RETURN TO NORMAL LENDING—NOT STIMULUS LENDING.



In addition, RSM's projection for the closely watched 10-year Treasury yield, which bottomed out in August at 0.51%, shows the rate approaching 1.3% by the end of 2021. Already, in the early days of the new year, [the yield pushed past 1%](#).

Along with the rising rates, improving economic conditions will lead to a positive impact on loan portfolios as banks return to normal lending—not [stimulus lending](#)—and see the benefits of a strong growth cycle easing credit concerns. This, in turn, will lead to fewer credit losses.

Rising rates, new lending and fewer credit losses are enough to spur optimism in any banker.

The takeaway

While 2020 was characterized by stimulus funding, low interest rates and credit concerns, 2021 will most likely see a recovery and a revival of the U.S. economy. Banks will be positioned to capitalize on the momentum and help drive economic growth while also seeing the benefit to their financials.

CAPITAL MARKETS

Volatility in capital markets easing as financial conditions improve

After enduring a first half of 2020 that had record volatility, capital markets closed the year strongly, boosted by historically low interest rates, improving financial conditions and a stronger-than-expected economic rebound. The gains were broadly shared by trading firms, underwriters and advisers.

It is in this light that 2021, while still a year of recovery, will most likely see some downside risk to the profitability of capital markets organizations as volatility continues to ease, rates move off their historic lows and financial conditions improve.

Volatility

While volatility rose in 2020 as the pandemic set in, it subsided in the later stages of 2020 thanks in part to the prospect of multiple vaccines being distributed, and the hope that both a global and domestic economic recovery will continue to accelerate. The strong trading revenues earned by capital markets participants in 2020 are not likely to be replicated in 2021. But should a speed bump appear in either the economic recovery or the rollout of vaccines, short periods of volatility could allow traders an opportunity to capitalize on market movements.

CBOE Volatility Index in 2020



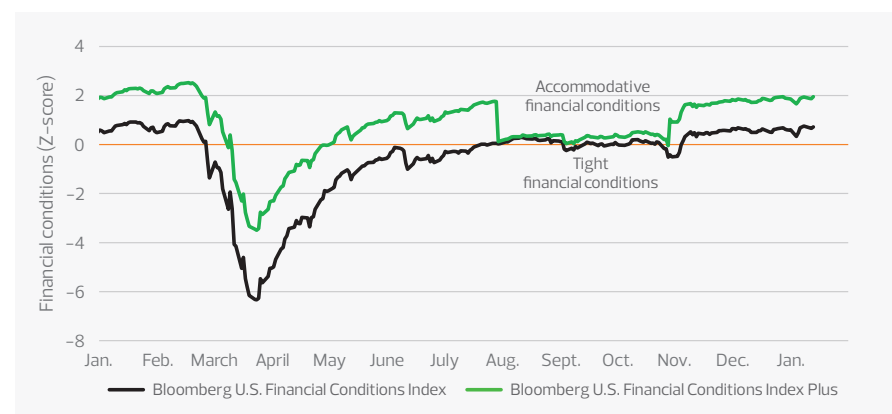
Source: Bloomberg; RSM US LLP

Underwriting

Whether it was in debt markets or equity markets, underwriters had a strong year in 2020.

With financial conditions improving off the yearly lows and support from the Fed and the U.S. Treasury blunting the steepest economic decline in generations, a combination of confidence in the markets and cheap credit had companies and municipalities lining up looking for liquidity to help them navigate the crisis.

U.S. financial conditions in 2020–21



Source: Bloomberg; RSM US LLP

According to Bloomberg, investment-grade corporate borrowers issued roughly \$1.75 trillion of debt last year while municipalities issued approximately \$457 billion in long-term debt obligations. While the beginning of the year is likely to see some spillover origination activity, this level of activity is unlikely to be replicated as rates, buoyed by confidence in the vaccine and a recovering economy, [begin to rise](#) and the need for cash subsidies.

Equity markets had a flood of activity as businesses used traditional and nontraditional means—such as special purpose acquisition companies (SPACs) and direct listings—to gain access to capital. SPACs, once derided, became one of the largest components of public offering activities in 2020. SPACs raised a record \$79.2 billion in 2020, which exceeded all prior years of SPAC issuance activity, according to Bloomberg. More important, SPAC issuances made up 44% of 2020's \$179 billion of initial public offering volume, Bloomberg data shows. The interest in SPACs is likely to continue in 2021 and beyond as equity

MIDDLE MARKET INSIGHT

Special purpose acquisition companies raised a record \$79.2 billion in 2020, which exceeded all prior years of SPAC issuance activity, according to Bloomberg.

markets continue their rise on the hopes of vaccine adoption and economic recovery. If the past year has shown anything, it's that nontraditional ways of raising capital have found a place in the market.

Advisory services

The first half of 2020 was highly stressful for capital market organizations that generate fees associated with investment banking advisory activities as challenges tied to business closures and the toll of the novel coronavirus all but shut off deal flow. But as businesses reopened and the economic recovery got underway in the second half of 2020, deal activity increased significantly.

In the fourth quarter alone, deal volume in the United States increased by more than 78% compared to the same period the previous year and increased by more than 50% quarter over quarter, according to Bloomberg.

As the economy continues to recover, advisory services for capital market participants may prove to be the brightest spot in the new year.

The takeaway

With momentum poised to carry over into 2021, capital markets organizations are in position to benefit from what are likely to be robust markets amid an improving economy.

ASSET MANAGEMENT

Middle market private equity firms poised for a strong year

Middle market deal activity recovered from the second to the third quarter last year as quarterly deal activity grew from \$57 billion to \$81 billion, and amounted to \$234 billion year to date. Deal output was soft compared to pre-pandemic levels when a reading as low as \$80 billion was observed in the third quarter of 2016. Still, this is far better than some predicted amid the initial COVID-19 lockdowns in March and April that sidelined in-person meetings.



EXPECT MORE DEAL ACTIVITY IN 2021 RESULTING FROM LOW INTEREST RATES, CENTRAL BANK STIMULUS AND OVERALL IMPROVED ECONOMIC CONDITIONS.

MIDDLE MARKET INSIGHT

Middle market private equity managers played a significant role in the rebound of mergers and acquisition and are expected to continue to do so in 2021.

Middle market investment managers played a significant role in the rebound of mergers and acquisitions and are expected to continue to do so. Middle market deals as a percentage of all 2020 private equity buyout deals swelled to 70.2%, a six-year high, according to PitchBook data.

There was a seismic shift in the upper middle market deal-making category—\$500 million to \$1 billion—which decreased to only 12% of all middle market deals, 5 percentage points lower than any similar reading over the past 11 years. This implies that managers were less willing to write large checks that were commonplace before the pandemic. By comparison, upper middle market deals represented 13% and 22% of all deals in 2008 and 2009, during the financial crisis. And the median deal size was \$157 million in 2020, down from \$200 million in 2019.

This trend toward smaller check sizes was further evidenced in the third-quarter data with a surge in add-on acquisitions. Middle market add-ons amounted to \$150.3 billion of all deal value, or 64%, which is the largest reading by far over the past 14 years. Add-on acquisitions are attractive in a bearish economy, because they tend to be less risky since an investment has already been effectuated. In addition, many portfolio companies—especially those in retail, hospitality and real estate—have suffered financially, which leads them to refocus on existing rather than new investments.

Initial estimates for M&A transactions in the final two weeks of 2020 show a record level of deal output over comparable periods, suggesting that U.S. investment managers were planning for possible tax policy changes. What's ahead remains a question mark but could come together with Democrats gaining control of the Senate following the two runoff elections in Georgia.

As we look ahead to 2021, we expect more deal activity resulting from low interest rates, [central bank stimulus](#) and overall improved economic conditions. In addition, private equity firms are sitting on significant amounts of cash, which will be necessary for struggling companies needing another dose of capital.

The takeaway

It is still difficult to gauge the ultimate cumulative economic losses caused by the pandemic. But what's clear is that private equity will play a big role in what we expect will be a U.S. economic recovery in the second half of 2021.

SPECIALTY FINANCE

The challenge of collecting consumer debt

The ability to collect on consumer debt is important to the profitability of any lending institution or debt collection firm, and these companies must invest heavily in infrastructure and resources to ensure they have an effective collections function.

The regulatory environment is continually changing. For example, in October, the Consumer Financial Protection Bureau (CFPB) set new guidelines on communications between lenders and borrowers—which required a considerable investment by lenders and debt collection agencies.

MIDDLE MARKET INSIGHT

Companies must invest in understanding who their customers are in order to develop an effective collections approach.

Then there was the COVID-19 pandemic, which only added to the challenges for specialty finance companies as they adapted to remote work environments.

Now, with the Biden administration preparing to take over, specialty finance companies face the prospect of more vigorous oversight and enforcement actions. RSM has identified three trends defining the future of collections.

Personalization

Collecting on consumer debt does not lend itself to a one-size-fits-all approach. Customer preferences and demands vary dramatically. Understanding that customers have different preferences for how they engage with their creditors is key to developing a collection approach that is effective and accepted by the borrower. Successful collection companies are able to identify the mode of communication that works best for each customer segment, deliver tailored messages to their customers and communicate in a manner that sets the right tone.

Engaging borrowers throughout the lending cycle, from origination to payoff, with personalized communications is essential. Companies must invest in understanding who their customers are in order to develop an effective collections approach. Even in a digital environment, companies that make these investments are able to reintroduce the human element to the collections process and prove more effective.

Scalability

Investments in technology-driven collection functions can more easily be adapted to changing markets and product offerings than a traditional brick-and-mortar operation. Code-driven collections systems can be adapted to new regulations and expanded without the same investment in staffing and physical space. This allows financial services companies to nimbly respond to changes in the competitive landscape. Many companies that are successful have invested in the development of their own technology-driven collections functions or have partnered with fintech firms that have the technology expertise.

Artificial intelligence

Technology-driven solutions provide a wealth of data on customers and their payment behaviors to enable the development of a personalized approach. There are many solutions developed by fintech companies that assist in predicting customer delinquencies using combinations of historical data, easily accessible demographic information and behavioral influencers (such as call notes). Collection strategies can then be developed to communicate with borrowers before they reach the later stages of delinquency. Companies can also use the data to intelligently prioritize their collection efforts. The result is a targeted, more efficient collections process that brings in more revenue.

The takeaway

Collecting on consumer debt will always be challenging. Companies that invest in technology will create a nimble collections function that can respond to an ever-changing and complex regulatory environment, while remaining profitable.

FINTECH**The blurring lines between fintechs and their traditional counterparts**

As traditional financial services firms continue to embrace new technologies and as digital-first finance companies enter the market, investors are asking a question: Is every company a fintech company?

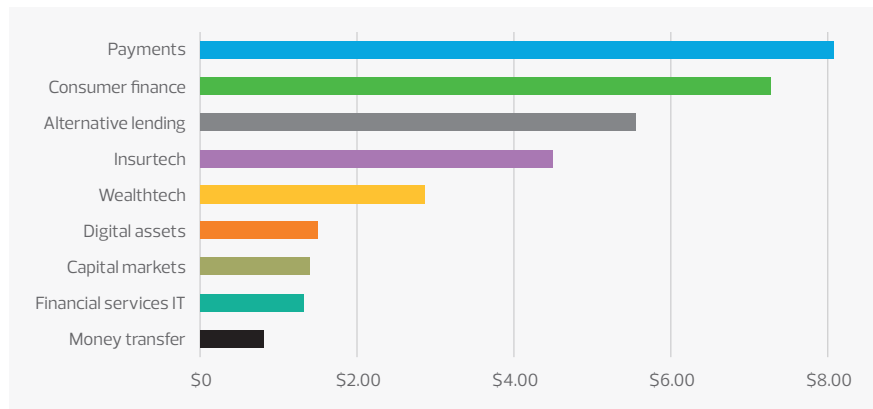
The industry may still be a long way from that, but the lines are continuing to blur between fintech companies and their traditional counterparts. Helping to push along this digital evolution are two trends: embedded finance and banking as a service, or BaaS.

- **Embedded finance** refers to nonfinancial companies integrating a financial product—such as a loan, a payment plan or a credit card—into their service offerings.
- **Banking as a service** allows any platform business, like Facebook, to provide the full suite of traditional banking products, such as loans, credit cards and deposits, by partnering with a fintech company and a licensed bank.

Both have recently experienced rapid growth—fueled in no small part by the pandemic—as consumers and businesses have [moved away from cash](#) and embraced online shopping.

Global investment in fintech has grown and, as of December, has captured 14% of all venture capital investments. In deal value, \$41.2 billion has been invested in fintech companies, with 73% of the capital going to later-stage startups, according to PitchBook. When looking at the investment in fintech by segments, investment in payments has led the way.

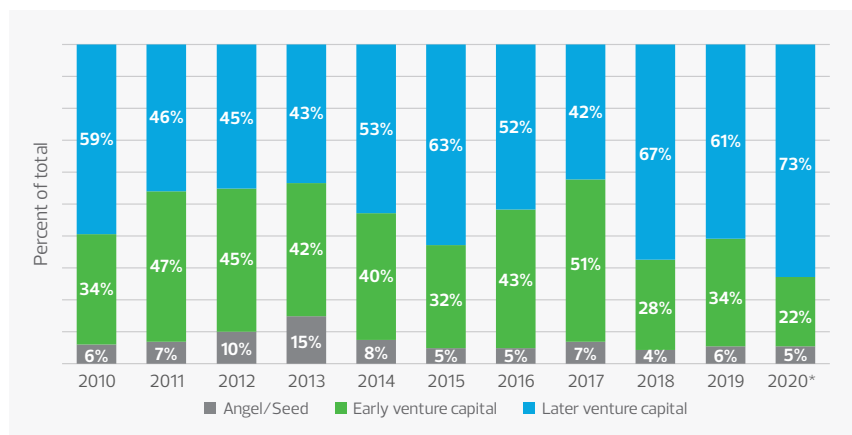
Venture capital investment in U.S. fintechs by segment (\$B)



Source: PitchBook; RSM US LLP

* As of Dec. 31, 2020

Fintech investment by company stage



Source: PitchBook; RSM US LLP

* As of Dec. 31, 2020

MIDDLE MARKET INSIGHT

Platform businesses are ready to embrace new business models, and application programming interface-driven technology allows a service to be easily added.

How have embedded finance and banking as a service experienced such a rise? Three recent examples illustrate why they have won over consumers and businesses:

- Credit when you need it:** In June 2020, Amazon partnered with Goldman Sachs to provide credit lines of up to \$1 million to merchants selling on the Amazon platform—an example of embedded finance. Through the partnership, Amazon offers a streamlined Amazon Marketplace seller experience as the line of credit surfaces at checkout—when it is needed. The approval process is fully digital and done in real time. Interest rates are in line with the market, and repayment options are reasonable. The growth of credit when you need it is also evident in the rise of buy now, pay later (BNPL) options among online vendors. According to Bloomberg, BNPL has gained popularity among millennials and Gen Z, who prefer the flexibility of paying in installments, and is expected to grow at a 40% annual compounded rate through 2023.
- A smart credit card:** In October, Venmo announced its first credit card, which will be equipped with a quick response, or QR, code to select customers. The card will offer rewards programs based on individual spending patterns—offering 3% on the category that the customer spends the most on, 2% on the second category and 1% on all other purchases. No longer will cardholders need to use the right card to max out traditional credit card companies' cash-back rewards.
- A bank account fit for 2021:** In November, Google announced a revamp of its Google Pay app for both Android and iOS. The revamp builds on the app's functionality—customers can still pay for services and goods and request or send payments to friends. Starting this year, Google will partner with 11 banks, including Citibank and Stanford Federal Credit Union, to offer a digital-only bank account with no minimum balance requirements, no monthly fees and no overdraft charges. The app also allows customers to link to their current banks. The result is a bank account that leverages data—allowing customers to split bills easily, make or request payments from friends or businesses, provide real-time financial health information and even tailor offers based on preferences.



LEADERS IN BUSINESS AND GOVERNMENT HAVE BEEN LOOKING FOR WAYS TO MITIGATE THE RISK OF FUTURE PANDEMICS. IT'S A CHALLENGING TASK, BUT THERE IS PRECEDENT FOR SUCH PUBLIC-PRIVATE COLLABORATION.

The takeaway

Embedding a financial product seamlessly and at the time of need is redefining what we think of as a fintech company. In turn, platform businesses are ready to embrace new business models, and application programming interface-driven technology allows the service to be easily added. Because the trends allow platform businesses to employ a choose-your-adventure approach to deliver more value, we expect it to continue.

INSURANCE

Insuring the uninsurable to protect a recovering economy

As COVID-19 vaccines are administered and the global economy begins to show signs of recovery, leaders in business and government have been looking for ways to mitigate the risk of future pandemics. In the traditional insurance model, the losses of the few are paid for by the premiums of the many. But global pandemic risk is uninsurable by nature; this is because risk diversification, a core tenet of the insurance business, is not possible. For this reason, a government backstop is necessary to support the insurance industry and to build resilience in businesses going forward.

A first attempt

In May 2020, Rep. Carolyn Maloney of New York proposed legislation for the Pandemic Risk Insurance Act (PRIA), which would establish the Pandemic Risk Reinsurance Program within the Department of the Treasury.

The program would provide compensation to insurers up to a \$750 billion cap if they incur losses as a result of coverage related to pandemics on or after Jan. 1, 2021.

In November, the Subcommittee on Housing, Community Development and Insurance held formal hearings to discuss insuring against pandemic risk and the proposed PRIA bill with senior executives in the insurance industry. It was clear from the testimony that there has yet to be a consensus on the insurance solution. There is, however, broad agreement that the economic impact of the pandemic, estimated at approximately \$1 trillion per month, cannot be borne by the property and casualty insurance industry, which would only have enough capital to sustain a month or two of losses.

The PRIA bill died in the previous session of Congress, and managing future pandemic risk remains an outstanding issue for the government and the insurance industry to address.

Collaboration is critical

But this is not the first time that the insurance industry and the government have been at an impasse. In previous cases, they have found solutions to these issues:

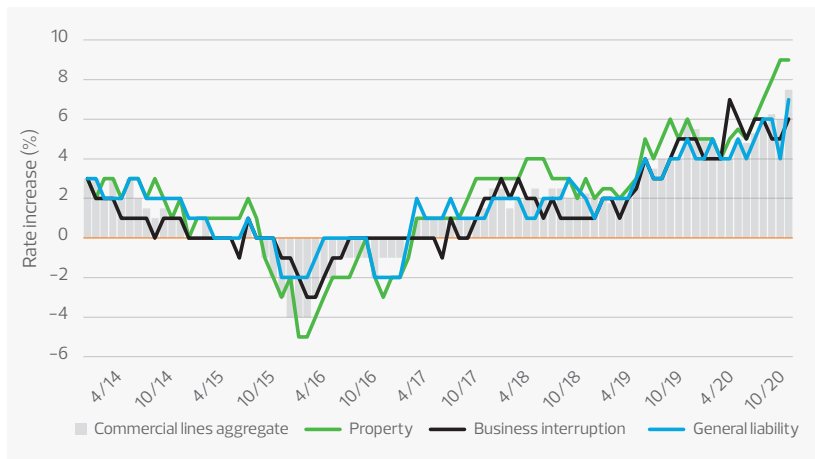
- The **Terrorism Risk Insurance Act (TRIA)** was passed following 9/11 to address an insurance coverage gap in the real estate industry when property insurers began excluding coverage for acts of terrorism.
- The **National Flood Insurance Program (NFIP)** expanded quite rapidly following the events of Hurricane Katrina and Hurricane Sandy to provide flood coverage to regions that are underserved by the private markets.

- The **Federal Crop Insurance Program (FCIP)** was established to provide economic stability to farmers through a sound system of crop insurance products, backstopped by the federal government.

Mind the coverage gap

Without a way for the private sector or the government to address pandemic risk, businesses renewing their commercial insurance programs going into 2021 are experiencing significant price increases, but in some cases are receiving much less coverage.

Commercial lines markets have continued to harden during the pandemic



Source: MarketScout; Bloomberg; RSM US LLP

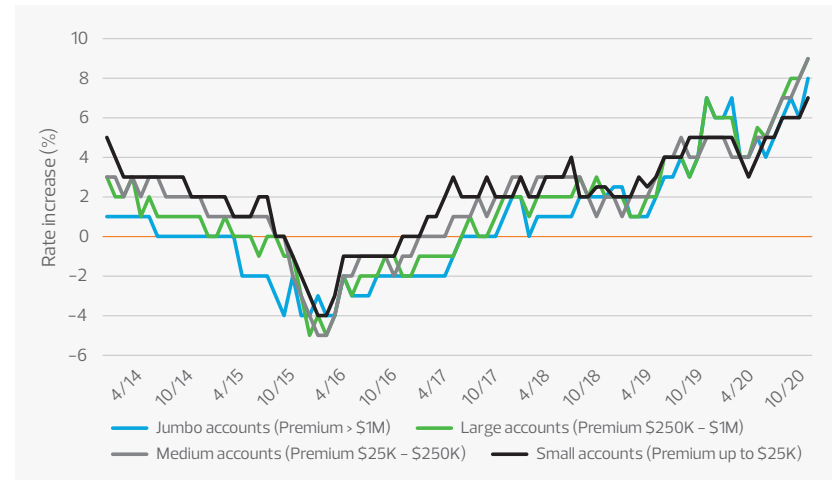
Commercial insurance markets have hardened steadily over the past five years because of underlying claim trends, which have only been amplified by the pandemic. Many commercial insurance carriers are implementing broader infectious disease exclusions in their policies, and in extreme cases, they are outright declining to renew policyholders in certain higher-risk industries.

The ripple effect of being underinsured or uninsured can be crippling to a business where insurance is required for financing activities, for example. Middle market businesses are not immune to these trends and are often hit harder compared to larger counterparts because they lack the capital to self-insure against the coverage gap and to provide liquidity in a time of crisis.

MIDDLE MARKET INSIGHT

Middle market businesses often lack the capital to self-insure against the coverage gap and to provide liquidity in a time of crisis.

The middle market is not immune to price increases as they affect all sizes of accounts



Source: MarketScout; Bloomberg; RSM US LLP

The takeaway

A public-private program could offer cost-effective access to insurance against pandemic risks that would be uninsurable in the private insurance market. It would allow the insurance industry to deliver a great customer experience and stability to the economic recovery while gaining greater control over the risk on their balance sheets. The solution will require a novel, creative and innovative approach from both government and the insurance industry. ■



FROM PATIENT NEEDS AND PRICING TO COVID-19 RECOVERY CHALLENGES, 2021 COULD BE A YEAR OF FITS AND STARTS FOR HEALTH CARE ORGANIZATIONS.

INDUSTRY OUTLOOK: **HEALTH CARE**

BY JESSIKA GARIS, LORI KALIC, RICK KES
AND MATT WOLF



WHILE THE ANNOUNCEMENT of a COVID-19 vaccine and its disbursement at the end of 2020 was certainly a light at the end of the tunnel for the public and the embattled health care industry, hospitals and health care systems know the journey to recovery is far from over. Communities continue to see virus surges and hospitals face capacity concerns. Health care organizations must take a realistic look toward the future and begin preparing for what could be several challenging months before the pandemic's impact is behind us. From addressing patient care and pricing needs to understanding regulatory challenges and new investment and acquisition opportunities, 2021 could be a year of fits and starts. Those organizations that plan for change and remain nimble will lead the way.

KEY TAKEAWAYS

- Resilience, persistence and agility will be key to recovery for health care providers.
- The need for price transparency has taken on increased importance for organizations.
- Health care technology investment and deals continue to provide opportunities.
- No Surprises Act could reduce total patient responsibility for care and reduce total provider revenues.
- Cybersecurity and data protection continue to be a point of concern.



IN AN ERA OF RISING HEALTH CARE COSTS AND DIVERSE CONSUMER BUYING PREFERENCES, THE NEED FOR PRICE TRANSPARENCY HAS TAKEN ON INCREASING IMPORTANCE.

RECOVERY

Is there a light at the end of the tunnel?

The health care industry's response to COVID 19 has been one of resilience, persistence and commitment, especially by front-line caregivers. The pandemic has significantly shifted industry trends and accelerated the pace of change. As a result, leadership is being forced to reevaluate strategic plans to determine and evaluate how best to deliver care going forward.

Kaufman Hall's December 2020 National Hospital Flash Report indicates that operationally, and financially, November was a challenging month for hospitals and health systems nationwide. Margins and volumes fell, revenues flattened, and expenses rose as states moved to retighten social distancing guidelines. Margins have been down consistently since the start of the pandemic, but have fluctuated from month to month. Even with mass vaccine distribution on the horizon, the report predicts that "October's downturn likely will continue as COVID-19 rates rise throughout the fall and winter. Hospital and health system leaders are bracing for difficult months ahead, as the combined forces of the pandemic and seasonal flu drive many individuals, and local and state governments to recommit to stricter preventive measures, causing many to delay nonurgent procedures and outpatient care. The result will exacerbate volume declines and could further destabilize hospitals financially, with a potential return to the significant losses seen in March and April."

Median change January – October 2020 from January – October 2019

Margin	
Operating margin (without CARES)	-6.0%
Operating margin (with CARES)	-1.7%
Volume	
Adjusted discharges	-11.0%
Operating room minutes	-12.0%
Emergency department minutes	-16.0%
Revenue	
Gross inpatient revenue	-2.0%
Gross outpatient revenue	-7.0%
Expenses	
Total expenses per adjusted discharge	14.0%

Source: Kaufman Hall November 2020 National Hospital Flash Report

To date, Department of Health and Human Services (HHS) has distributed approximately \$109 billion of the \$175 billion allocated to the Provider Relief Fund (CARES Act) as of mid-November, according to data released by the department. In an effort to provide additional relief, Congress voted, in December, to appropriate additional dollars to the provider relief package and changed the rules (yet again) with respect to how lost revenue is recognized.

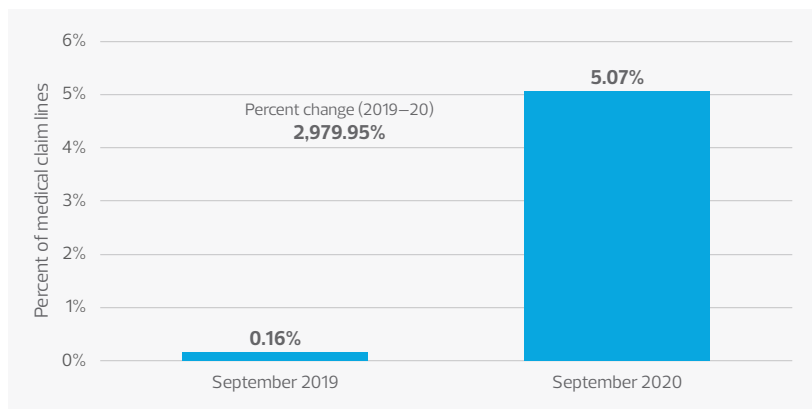


WE EXPECT PRIVATE EQUITY INVESTORS WILL CONTINUE TO SHOW MODERATE GROWTH IN CAPITAL DEPLOYED AND STRONG GROWTH IN DEAL COUNT IN THE NEAR TERM.

Understanding the financial reporting and compliance requirements associated with CARES funding will continue to be important in 2021.

While it is unclear what impact and lasting influence the pandemic will have on delivery of care from a financial perspective, one thing is certain, telemedicine is not going away and has arguably had the most profound impact to the health care industry in 2020. With claims up 3,000% year to date over the same period the prior year, it is clear that continued investment in [telemedicine](#) and related technology will be important.

Volume of claim lines—2019 vs. 2020



Source: Fair Health, Monthly Telehealth Regional Tracker

Health Catalyst reports that with the shift to telehealth, providers are entering a new business landscape as COVID-19 has broken down barriers between traditional providers and more modern telehealth and disruptive care delivery companies. In the article titled, *Six Strategies to Navigate COVID-19 Financial Recovery for Health Systems*, Health Catalyst reports that health care's new competitors fall into three main buckets:

- 1. Telehealth-only providers:** Companies like MDLive and Teladoc use real physicians and offer a variety of specialties and focus a significant portion of their business on working with insurance providers and self-funded health plans to provide subscriptions.
- 2. Direct primary care:** The direct primary care companies include Go Forward, Crossover Health and One Medical. Go Forward is similar to a modern subscription concierge practice. Crossover Health partners with employers like Apple, Microsoft and Amazon to deliver care directly to employees. One Medical is a modern concierge practice that charges an annual fee and bills fee for service.
- 3. Large corporations:** Amazon, Walmart and CVS Health are entering the health care space. Amazon offers a virtual care program for their employees as well as in-home deliveries and more. They announced a partnership with Crossover Health in July to pilot employee health clinics near large centers. Walmart has opened care clinics and a virtual care system and CVS continues to build their hubs.

"Teledoc, Doctor on Demand, Go Forward and Crossover Health have business models that overlook coding, CPT codes and modifiers, and other procedures traditional organizations must follow ... Amazon, Walmart and CVS Health have traditional, straightforward pricing and are redirecting care away from the traditional system into their own care delivery system," according to the article.

As large corporations and other providers increase competition for patients, they will compete with traditional provider organizations for patients. According to a survey, 79% of primary care physicians have experienced some form of burnout and four out of five employed physicians say their health systems employers are not doing anything to combat it. With a loss of clinicians, comes loss of revenue. The disruptive care delivery companies are introducing new models of care that appeals to clinicians because they "offer less hassle," with no coding and documenting for quality measures and the like. There's often less stress due to lower patient volumes, and with a lot of the concierge practices and even telehealth, clinicians can somewhat choose how much volume they want, as well as more flexibility.

The [pandemic](#) is not over, and no one can anticipate what the next 12 to 24 months will bring and how it will affect health care providers. Leadership and front-line caregivers will need to continue to be resilient, persistent and quick to respond.

PRICE TRANSPARENCY

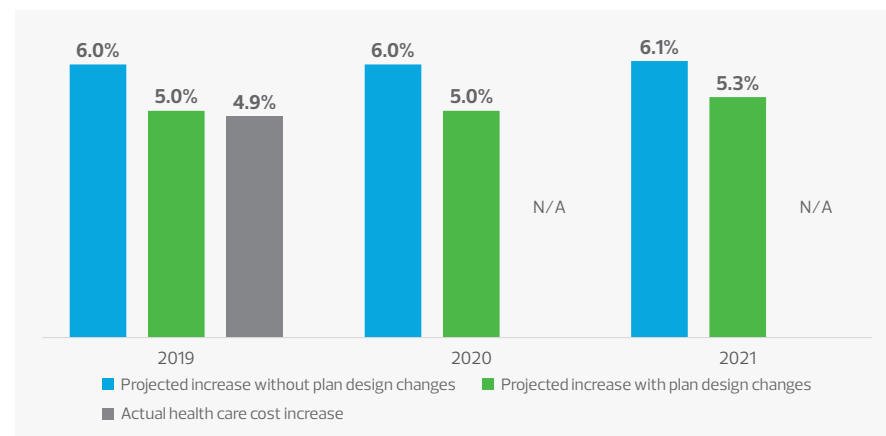
Price transparency: Why this, why now?

On Nov. 15, 2019, Centers for Medicare and Medicaid Services finalized rules requiring all hospitals to make publicly available and produce annually a machine-readable file of standard charges that includes gross charges, negotiated charges, a self-pay walk-in rate, and minimum and maximum negotiated charge for all services. In addition, CMS defined a list of 300 services whose discounted cash prices, payer-specific negotiated charges, and de-identified minimum and maximum negotiated charges must be made publicly available in a searchable, consumer-friendly format.

CMS will be monitoring compliance with methods that include evaluation of complaints made by individuals or entities, review of analysis of noncompliance by individuals or entities, and audits of hospitals' websites. If a hospital is noncompliant, CMS may take steps ranging from a written warning notice to imposition of penalties up to \$300 per day and publicizing it.

In an era of rising health care costs and diverse consumer buying preferences, the need for price transparency has taken on increasing importance. There are many factors driving this demand with expenditures being one of them. U.S. health care expenditures and rates of inflation continue to lead the world and dominate federal expenditures. U.S. health care spending grew 4% to \$3.8 trillion in 2019, which equates to \$11,582 per person, according to an analysis by CMS' Office of the Actuary released Dec. 16, 2020. This compares to 4.7% growth in 2018 and is similar to industry averages of 4.5% annual rates. The Society for Human Resource Management (SHRM) reports that "large employers project that their health benefits costs will rise 5.3% in 2021, although COVID-19 expenses are fueling uncertainty about overall expenses. The group's 2021 Large Employers' Health Strategy and Plan Design Survey was conducted in May and June 2020, and it captured responses from 122 large employers offering coverage to more than 9.2 million employees and dependents. Seventy-seven percent of the respondents each has more than 10,000 employees."

Large employers' median health care cost increases for 2019–21



Source: Business Group on Health, 2021 Large Employers' Health Care Strategy and Plan Design Survey

SHRM reports that premiums and employees' out-of-pocket costs are estimated to reach \$14,769 per employee, up \$197 from 2019. Total costs are projected to rise to an average of just over \$15,500 in 2021. The pricing transparency rules are meant to provide patients the information they need to make educated care decisions and reduce cost. President Donald Trump, whose administration proposed the rules, is quoted as saying, "We believe the American people have a right to know the price of services before they go to visit a doctor."

The American Hospital Association, Association of American Medical Colleges, Children's Hospital Association and Federation of American Hospitals have issued statements on behalf of hospital systems indicating that they believe these rules will increase confusion because they do not achieve the goal of providing patients with out-of-pocket cost information, accelerates anticompetitive behavior among health insurers, and stymies innovation in value-based care delivery models.

While the [pricing transparency](#) rules may be a step in the right direction, we remain skeptical that these rules alone will enable patients to know the prices of services before receiving treatment. Pricing in the health care ecosystem will likely remain opaque until we have greater data interoperability between payers, providers and patients.

According to an article published by Healthcare Financial Management Association (HFMA), written by Kevin Shears and Chris Sukenik, the new rules and general market trends have six important implications for providers:

1. **Increased pricing visibility will expose substantial price variations among providers.** This creates a need for hospitals and health systems to focus on defining and communicating their consumer value proposition. News stories will likely present providers in a negative light across major metro markets. Health systems will need to focus on sharpening and delivering on their value propositions for consumers, including individuals and employers.
2. **Health systems will need to deploy strategic pricing to maintain and strengthen their market position.** Health systems will have to develop a more nuanced pricing strategy to address the issue of significant price variability among providers in their area and ensure continued success in an increasingly value-focused market.
3. **Providers will experience unit rate compression, and most of this rate movement will be price declines.** With the veil of negotiated rates lifted, health plans will be able to show how their payment rates compare with those of competing health plans in the market. As a result, health systems with rates above the market average will be under pressure to accept lower prices during negotiations and will likely experience unit rate compression.

4. **Providers should prepare for expanded efforts to implement reference pricing.** Given the impact of COVID-19 on the economy, employers will grow increasingly willing to pursue reference-pricing strategies as part of business recovery plans to control health care costs.
5. **Highly profitable commercial volume and market share will shift, likely from higher-priced organizations to lower-priced ones.** With commercial lives shrinking as a share of population in most markets nationally, largely because of the COVID-19 crisis, the competition for commercial lives has become more intense. Market shifts in commercial volume from higher-priced to lower-priced health systems will deteriorate the financial performance of health systems on the wrong side of the volume shifts.
6. **Centers of excellence strategies will become an important vector for volume growth.** Publicly available pricing data will accelerate the development and adoption of COE programs. The organizations that win with COE strategies will likely do so by engaging clinical leadership to quickly gain experience in developing bundled payments, developing the foundational cost and quality analytics to demonstrate and communicate results, aligning benefit design with the COE program, and cultivating strong business relationships with leading employers and health plans.

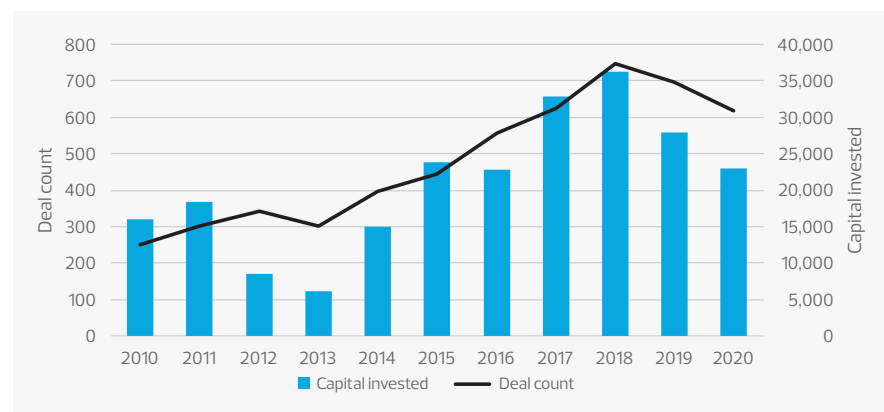
These new rules have significant and far-reaching implications for all health care systems, and after initial implementation, ongoing monitoring and analysis of these six areas will continue to be critical as organizations evaluate and make decisions about their delivery models and related pricing.

DEAL FLOW

Solid health care provider deal flow will persist as healthtech grows

2020 has been a solid year for health care services investment from both financial buyers, e.g., private equity, and strategic or corporate buyers. Despite the global pandemic putting a halt to most deal flow during the summer, 2020 capped off a 10-year run, post-global financial crisis that saw \$822 billion invested into health care service providers across 11,054 deals, according to PitchBook data. Private equity-backed deals accounted for 28% of dollars invested (\$231 billion), and 48% of total deal volume (5,355 deals). Corporate deal activity, such as CVS acquiring Aetna, accounted for the balance.

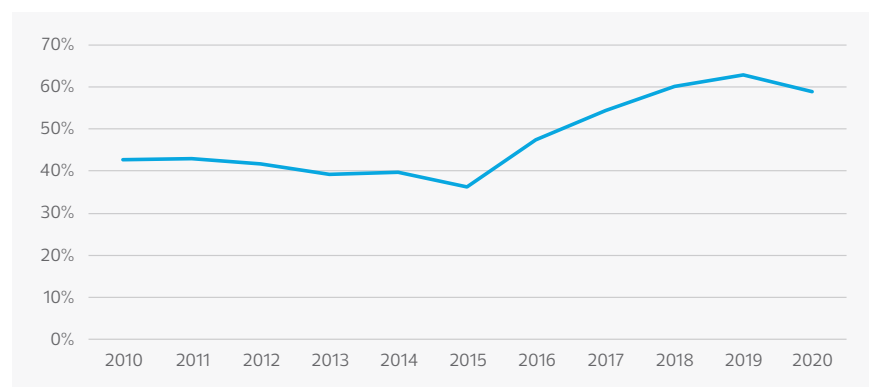
Private equity investment in health care service providers remains strong



Source: Pitchbook

Since the end of the global financial crisis, private equity's deal activity within health care service providers has increased in total, and private equity's proportion of deal flow relative to corporate activity has increased from approximately 40% to 60% over time. We expect private equity investors will continue to show moderate growth in capital deployed and strong growth in deal count in the near term.

Private equity deal count is increasing as a proportion of total deal flow



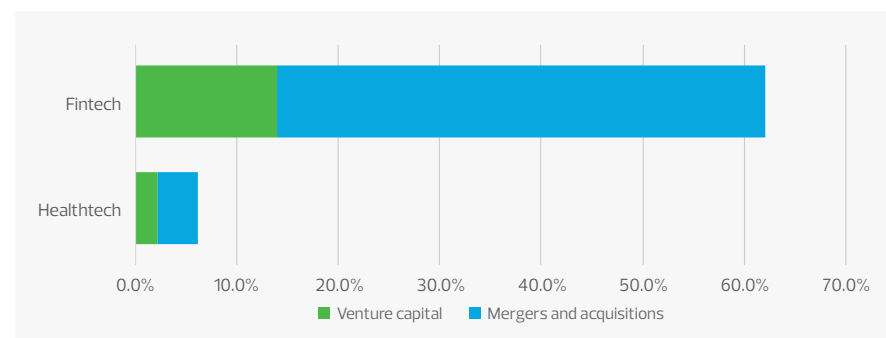
Source: Pitchbook

Consolidation has led many private equity investors to move downstream and evaluate smaller deals as they search for opportunities to bring synergies and value to more providers. Particularly in the aftermath of the COVID-19-related public health emergency, many independent providers experienced financially lean periods and have become motivated sellers.

The pandemic also pulled forward interest in health care technology as millions of patients and thousands of physicians used virtual health services for the first time. So while the opportunity for investment in physical service providers will eventually decline as the sector consolidates, the door will open to health care technology investment.

Historically, health care has underinvested in (nonmedical) innovation relative to other sectors, particularly financial services, which is also highly regulated. Health care venture capital and corporate mergers and acquisitions investment in health tech post-global financial crisis represented 6% of annual sector revenue compared to the 62% the financial services sector had similarly invested in fintech. Patients are demanding the same customized, on-demand experience for their health care that they receive in most other aspects of their lives. Companies and investors that can deliver that experience will be positioned to capture significant long-term tailwinds.

Investment activity post-financial crisis as a portion of sector revenue



Source: Pitchbook; RSM US LLP

As of this writing, we are uncertain how the regulatory environment may change with the Biden administration. Vice President Kamala Harris and incoming Health and Human Services Secretary Xavier Becerra have histories of health care mergers and acquisitions scrutiny during their separate tenures as attorneys general of California. Time will tell what effect the administration may have on the overall health care M&A environment.

REGULATORY

Legislative and regulatory outlook for health care

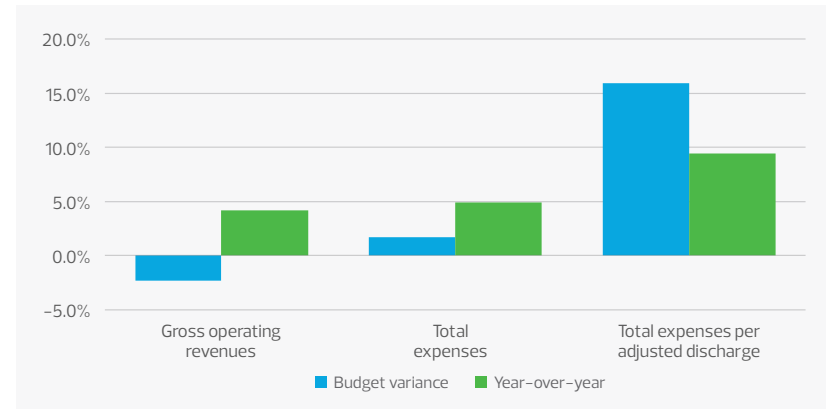
Health care has long been an industry heavily affected by legislation and regulation. As we look forward to the first quarter of 2021 and beyond, we continue to expect that to be true. In 2020, the industry saw nearly \$200 billion in stimulus payments to help provide some relief from the financial effects of the pandemic. However, with the speed of the rollout, it did present challenges to many of our clients when determining how to meet the terms and conditions of the Provider Relief Fund grant. With the passage of the Consolidated Appropriations Act, 2021, some of those challenges subsided.

What did the Consolidated Appropriations Act, 2021 (the Act) do and how will it affect 2021 for the health care ecosystem? From a challenges perspective the Act mainly provided two things: one, the Act, yet again, changed the calculation of “lost revenue;” however, in this round the changes are largely beneficial to allow for an actual budget calculation rather than a strict year over year methodology. Two, it provided an opportunity for providers that are parent organizations with subsidiaries that received targeted distributions to allocate those distributions to other eligible health care providers within the organization. The Act also provided for many of what is referred to as the “Medicare extenders.” An example of this would be eliminating the Disproportionate Share Hospital cuts.

For many recipients of the Provider Relief Funds, the change to the determination of lost revenue and the flexibility to allocate targeted distributions as well as the Medicare extenders will allow them to enter 2021 with a bit more financial certainty. Many providers found themselves in a predicament when the calculation of lost revenue was defined for calendar year 2019 versus calendar year 2020. Through November 2020, many providers had growth in revenues rather than reductions. Many factors contributed to growth in 2020 by providers. However, despite the growth, the providers were not growing as fast as they had budgeted, which then provided profitability concerns as the budgeted revenues drove decisions around expenditures, many of which were fixed.

As shown in the chart, while the average provider grew revenue year over year (adjusted for Provider Relief Funding), they experienced a shortfall relative to the budget of 2.3%. Given the operational leverage typically present in providers, which was exacerbated by prohibitions on nonemergent or elective procedures, this caused expenses per adjusted discharge to exceed budget by 15.9% on average.

Operational leverage created significant expense overruns



Source: Kaufman Hall

In addition to the stability provided by the Provider Relief Fund, many health care providers with large investment balances saw a year of growth within their investment portfolios as well as increased philanthropic activities. With the stability and more financial certainty, we expect most health care providers to continue with the majority of their planned expenditures.

The \$1.4 trillion government funding bill, which was passed alongside the Act, also included legislation aimed to protect patients from so-called “surprise billing” for emergency services and other instances in which a patient is unknowingly treated by an out-of-network provider. The No Surprises Act would cap patients’ out-of-pocket responsibility for emergency care to what they would pay for in-network services. Providers are also unable to bill out of network for planned procedures unless the patient gives explicit consent. Billing disputes for covered procedures would be handled in arbitration. One key change is the No Surprises Act forbids arbiters to consider Medicare and Medicaid rates or the provider’s billed charges when ruling for the amount the insurer should pay the provider. The patient cannot pay more than the in-network rate and is not involved in the arbitration process.

The No Surprises Act will likely reduce total patient responsibility for care and may reduce total revenues for certain providers. Payers will not be able to reference the generally low rates of Medicare or Medicaid in arbitration, but nor will they have to disclose pharmacy benefit manager relationships and rebate structures, which previously proposed bills called for. It remains to be seen whether this legislation will fundamentally change how care is provided and the viability of certain provider business models, or if it is simply step one of a much



THE 2020 NETDILIGENCE CYBER CLAIMS STUDY INDICATES THAT ATTACKERS ARE SHIFTING THEIR PREFERENCE TO SMALL AND MIDSIZED ORGANIZATIONS, WHICH EXPLAINS THE INCREASE IN BREACH REPORTS WITHIN THE HEALTH CARE INDUSTRY OVER THE PAST FIVE MONTHS.

larger change to the regulatory and legislative environment. However, we also note the pandemic has caused some to consider their physical footprint versus their digital presence.

CYBERSECURITY

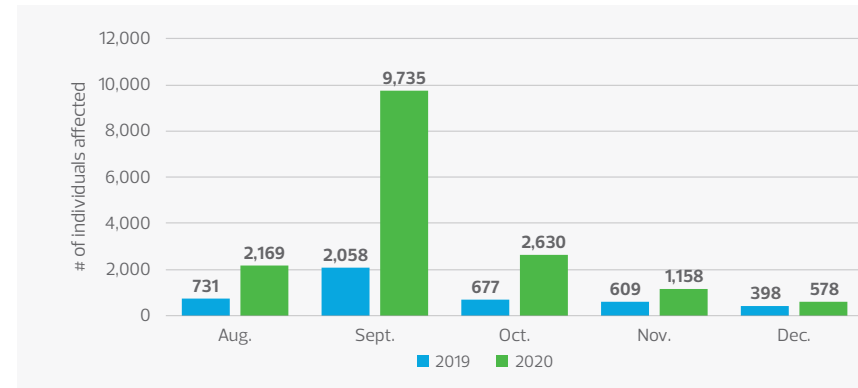
Reported breaches continue to rise

Cybersecurity and data protection continue to be a point of concern within the health care industry. Over the last few quarters in 2020, we have seen an increase in the number of [hacking incidents](#) as attackers continue to leverage the pandemic for their own benefit. Although many organizations claim to have a sophisticated cybersecurity program, attackers continue to gain access to patient financial and medical information. If proper protocols are in place, why do the attacks continue? RSM security and privacy risk professionals state two ways cybercriminals break into health care organizations:

1. **Remote workers exposing the organization to phishing emails, ransomware and vulnerable storage locations**
2. **Third-party vendors and partners transferring the organization's data insecurely from system to system**

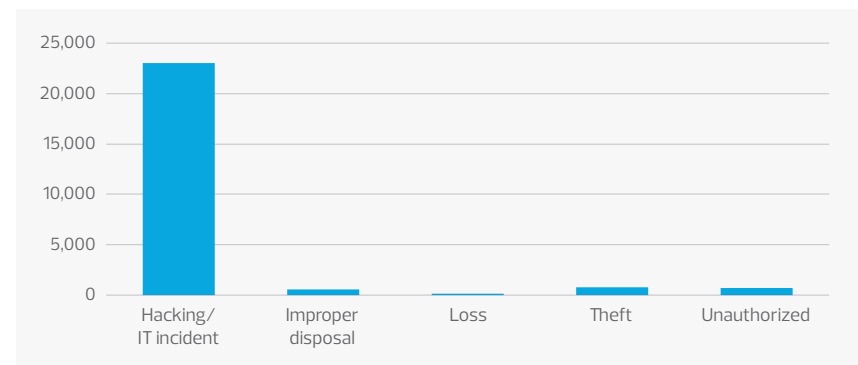
As a result, there has been a significant increase in the number of individuals affected by health care data breaches within the past five months. For example, in the month of September 2020, there were over 9 million individuals affected by 87 data breaches (an increase of 373% compared to September 2019) reported to the Office of Civil Rights. Further, 68% of the total breaches reported to the OCR during 2020 were related to a hacking/information technology incident affecting 23 million individuals.

Office of Civil Rights reported breaches (in thousands)



Source: The Office of Civil Rights

Number of individuals affected in 2020 by breach type (in thousands)

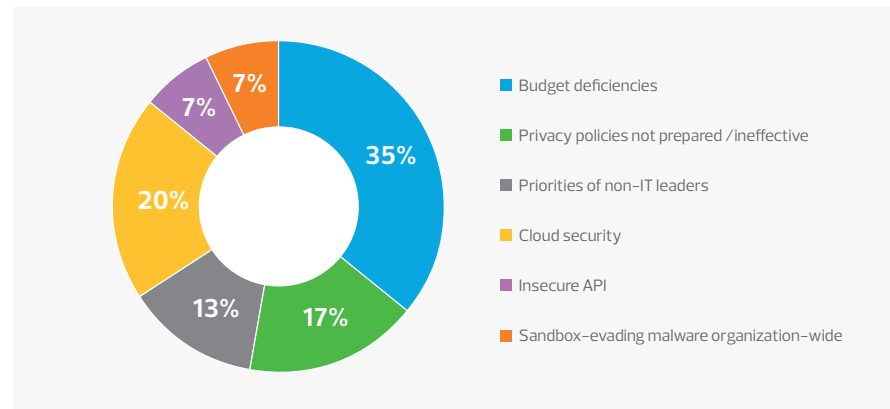


Source: The Office of Civil Rights

The 2020 NetDiligence Cyber Claims Study indicates that attackers are shifting their preference to small and midsized organizations, which explains the increase in breach reports within the health care industry over the past five months. This shift in focus leaves the health care industry vulnerable to exploitations during a time where most organizations are cutting their IT budgets and resources in response to the pandemic.

According to Black Book Research, 88% of providers revealed that lack of budget was the major obstacle to properly securing and protecting health information, up from 68% in 2019. Eighty-two percent of hospital chief information officers in inpatient facilities under 150 staffed beds and 90% of practice administrators collectively state they are not even close to spending an adequate amount on protecting patient records from a data breach.

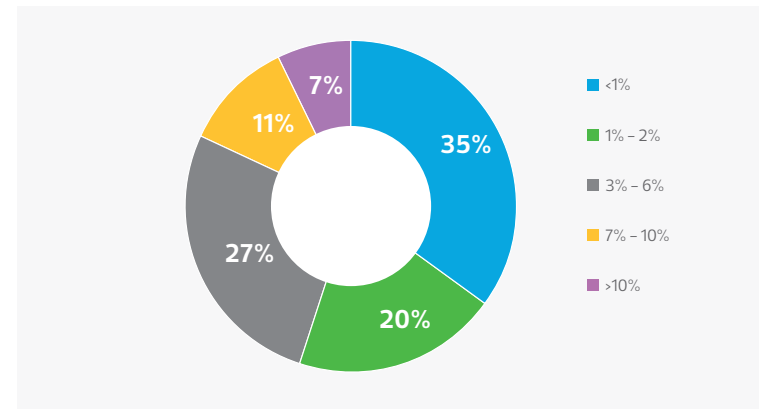
CIO/CISO reported challenges to health care security in Q4 2019



Source: Black Book Research

According to the [2020 NetDiligence Cyber Claims Study](#), a data breach on average costs small to midsize organizations \$276,000 (per claim) in lost business income and \$26,000 in recovery expenses alone. It is important for health care organizations to evaluate their exposure to cyberrisks. Reduced IT budgets and resources are contributing to an increase in attacks and incident costs. While most large organizations would seem to be the prime target for attackers, small to midsize organizations have experienced the most attacks, contributing to over 98% of the study's claims. It is no longer a matter of "if" but "when" health care organizations will be the target of a cyberattack, and to ignore such a risk will prove to be extremely costly.

Health care organizations' total IT budget allocation projections for cybersecurity 2020



Source: Black Book Research

In assessing the overall cost/benefit of investing in a robust cybersecurity program, health care organizations should evaluate the costs to address a breach, which includes the following:

- 1. Cyber incident costs:** costs associated with investigating the incident (averaging about \$123,000 per claim)
- 2. Service costs:** costs associated with hiring breach counsel, forensics, notifications, credit monitoring and public relations (averaging about \$78,000 per claim)
- 3. Legal costs:** costs associated with lawsuit defense, lawsuit settlement, regulatory action defense and regulatory fines (averaging about \$401,000 per claim)

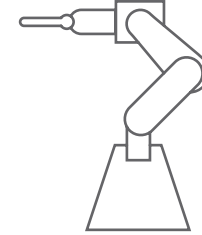
In the coming months, we expect these costs and the reported number of attacks to continue to rise. As a result, health care organizations must be diligent and increase their focus on data security over patient information and the systems they use to treat them. ■

SUPPLY CHAIN
DIGITIZATION AND
SUSTAINABILITY
INITIATIVES ARE
TWO KEY AREAS
OF OPPORTUNITY
FOR INDUSTRIAL
COMPANIES.



INDUSTRY OUTLOOK: **INDUSTRIALS**

BY JASON ALEXANDER, SHRUTI GUPTA
AND ANNE SLATTERY

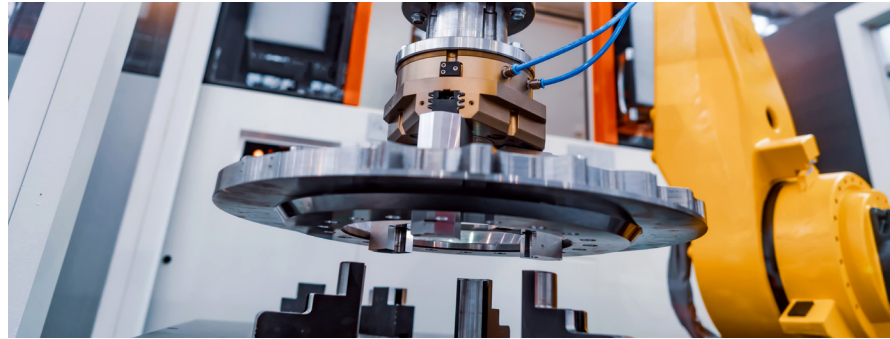


MANUFACTURING COMPANIES may no longer be in crisis mode as they were earlier in the pandemic, but middle market leaders now find themselves exploring how best to remain flexible and resourceful in the long term. At the heart of this effort is the digitization of supply chains. Looking ahead in 2021, we expect the shift from traditional, linear supply chains toward more network-driven systems will accelerate as businesses seek to balance efficiency and growth for the future.

The renewed importance of the energy transition—especially under the Biden administration—will be another priority area for companies looking for growth opportunities. In this report, we examine why climate- and sustainability-related initiatives are crucial not just for energy companies but for the industrial space as a whole.

KEY TAKEAWAYS

- New technological developments and their convergence, increasing amounts of data, and the widespread adoption of connected devices all provide impetus for disruption and incredible opportunities for managing supply chains differently.
- While many manufacturers may have expressed a desire to reshore sourcing and/or manufacturing, the calls for manufacturers to completely abandon China may be premature.
- We expect the emphasis on green initiatives to accelerate—especially for the auto, power and construction sectors—given the Biden administration's expected focus on climate change.
- While the pandemic was initially expected to hinder energy company investment in new technologies that underpin the energy transition, time has proven the opposite.



MANUFACTURERS ARE NOW REEVALUATING AND, IN MOST CASES, ACCELERATING DIGITAL TRANSFORMATION IN EVERY AREA OF THEIR VALUE CHAIN, FROM RESEARCH AND DEVELOPMENT TO PRODUCTION. BUT ULTIMATELY, THE GREATEST IMPACT WILL BE ON THEIR SUPPLY CHAIN.

Supply chains: Looking beyond COVID-19

New technological developments and their convergence, increasing amounts of data, and the widespread adoption of connected devices all provide impetus for disruption and incredible opportunities for managing supply chains differently. As manufacturers move forward, they must evaluate how best to take advantage of these tools and technologies to create greater interconnectivity in their supply chains and take advantage of growth opportunities, or risk their competitive position in the future of manufacturing.

As we begin 2021, the [manufacturing industry](#) is at one of its most pivotal moments in recent history as companies navigate the continuing impact of the COVID-19 pandemic on their operations. Most leadership teams have now shifted their focus away from immediate crisis response and toward long-term success and sustainability, and it has become clear that the agility, innovation and resourcefulness that companies demonstrated at the start of the crisis will need to become the standard. The companies that most aggressively adapt and evolve their operating model will be able to turn their response to this crisis into a strategic advantage.

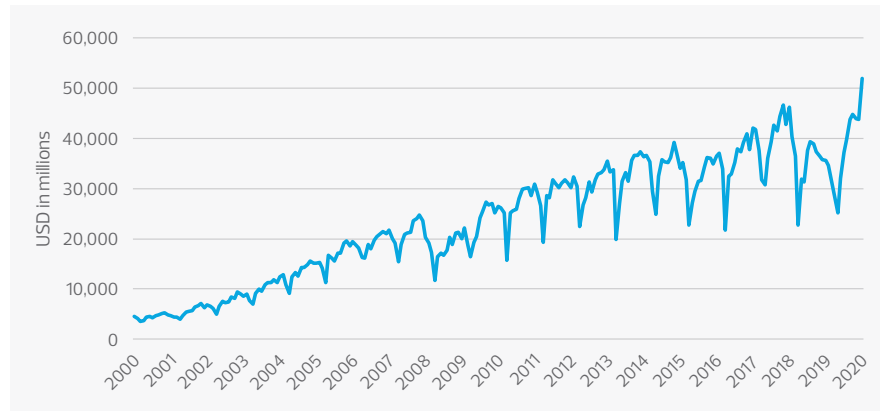
Businesses have adopted priorities that include offering remote work options, creating a safe environment for employees, protecting their client base and enhancing business continuity plans in the event of a resurgence of the virus. Also in the wake of 2020, customer expectations—and how those expectations have changed—have become paramount. What customers are increasingly placing value on—tailor-made or “bespoke” products and a streamlined buying experience, along with more awareness of upstream

risks related to human labor issues, intellectual property violations and sustainability, to name a few—will require companies to evolve to meet these shifting requirements.

Manufacturers are now reevaluating and, in most cases, accelerating digital transformation in every area of their value chain, from research and development to production. But ultimately, the greatest impact will be on their supply chain. Manufacturers were already facing supply chain challenges prior to COVID-19, including tariffs and rising labor costs in China (which has come to be known as “the world’s factory” and accounted for around 28% of the world’s manufacturing output in 2018, according to United Nations data). With recent advances in automation reducing some of the cost benefits that have long made overseas suppliers so attractive, the appeal of supply chain globalization for many companies had lessened even before 2020. A [Gartner Inc. survey](#) of 260 global supply chain leaders in February and March 2020 “found that 33% had moved sourcing and manufacturing activities out of China or plan to do so in the next two to three years.” Results of a survey conducted in June 2020 by industrial sourcing platform Thomas indicated a continuation of this trend; 69% of companies surveyed stated they were “likely” to “extremely likely” to reshore, compared to only 54% in February, Thomas found.

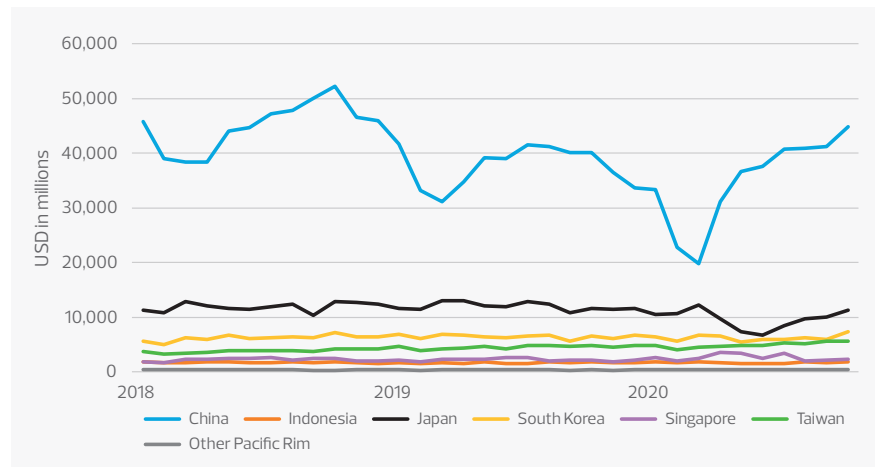
However, relocating or augmenting supply chains that have been built up over a generation is a complex and difficult process and current data does not support large shifts as of yet. Chinese exports to the United States continue to rise (as we show on the following page) and the share of Chinese imports to the United States still dwarfs all of those from other Southeast Asia countries (shown in the second figure).

China exports to the United States



Source: RSM US LLP; Bloomberg

China and Southeast Asia exports to the United States



Source: RSM US LLP; U.S. Census Bureau; Bloomberg

Therefore, while many manufacturers may have expressed a desire to reshore sourcing and/or manufacturing, the calls for manufacturers to completely abandon China may be premature. Multinational companies which sell to the Chinese market will stay and even expand as businesses continue to want access to the growing Chinese consumer base, as well as the fact that China continues to be the preeminent global provider of intermediate materials and components. We do expect that as middle market manufacturers seek to more

MIDDLE MARKET INSIGHT

We do expect that as middle market manufacturers seek to more effectively manage risk while seeking growth, the digitization of supply chains will accelerate, furthering the shift from traditional linear structures to more open, network-driven systems.

effectively manage risk while seeking growth, the digitization of supply chains will accelerate, furthering the shift from traditional linear structures to more open, network-driven systems.

Supply chains built to last

What will this look like for manufacturers? The most nimble of manufacturers will move toward a digital supply chain operating model that provides real-time visibility, automation and control. Such models will enable manufacturers to anticipate and respond to supply and demand challenges more effectively, ultimately minimizing the impacts of those challenges.

Continuing digitization will allow traditional supply chain elements to transform more easily into seamless, increasingly integrated supply chain networks that allow manufacturers to better anticipate market changes and realign themselves to respond swiftly to any disruptions throughout those networks. These network-driven systems, commonly referred to as digital supply networks (DSNs), represent processes, organization structures and technologies that give companies clearer visibility into suppliers' and consumers' supply chains and how all of these supply chains connect. They leverage cloud-based platforms and control tower setups to connect, scale and ultimately integrate data from multiple sources. The resulting DSNs comprise a seamless integration of talent, information, financial and physical supply chains.

The path forward

Designing a more resilient and efficient supply chain while addressing increasingly complex customer demands requires all stakeholders and partners to work together. There are still barriers to doing so, including the lack of interoperable systems between companies, data privacy concerns, upstream data collection challenges and high adoption costs, but organizations will need to reevaluate the complex trade-offs between cost and customer responsiveness.

WHILE THE ATTENTION ON SUSTAINABILITY IS DEFINITELY ELEVATED WITHIN THE ENERGY SECTOR, THE BROADER INDUSTRIAL SECTOR SHOULD ALSO TAKE NOTE OF THE URGENCY AROUND CLIMATE- AND SUSTAINABILITY-RELATED MARKET DEMANDS.



These changes will also have a significant impact on manufacturers' workforce. A skills gap has been plaguing the manufacturing industry over the past decade and the ability to adopt and use new technologies and effectively leverage data and analytics will require employees with different skill sets, including significant digital acumen.

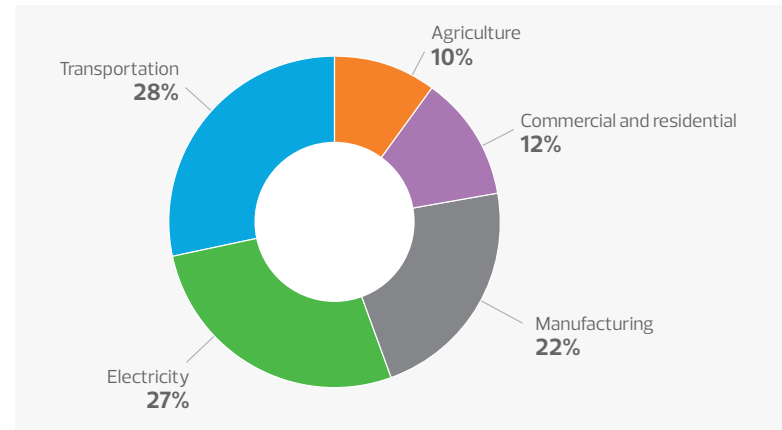
Manufacturers must position themselves for an unfamiliar future. The most successful companies will be those that can adjust their operating models to integrate advanced technologies in ways that allow their supply chains to adapt more easily to future disruptions.

Green is the new black

Sustainability and the effects of climate change continue to garner a lot of attention among businesses today. While this attention is definitely elevated within the energy sector, the broader industrial sector should also take note of the urgency around climate- and sustainability-related market demands. Climate activists, scientists and global bodies have flagged climate change as a critical issue and assert that in order to limit global warming to no more than 1.5 degrees Celsius, we will need to achieve net-zero emissions by 2050. While individuals and countries should all focus on environmental goals and apply energy efficient processes to reduce their carbon footprint, there are also business opportunities for industrial companies. We highlight below some of the opportunities that an increasingly climate-conscious world brings to the industrial sector.

In the U.S. industrial space, emphasis on green initiatives has gradually increased in the past decade. We expect this will accelerate—especially for the auto, power and construction sectors—given the Biden administration's

Total U.S. greenhouse gas emissions by economic sector in 2018



Source: Inventory of U.S. Greenhouse Gas Emissions and Sinks; U.S. Environmental Protection Agency
Percentages may not add up to 100% due to independent rounding

[expected focus on climate change](#). In addition to policies that accelerate electric vehicle adoption, Biden's campaign promises included modernizing the electric grid and transitioning the country to a renewable power infrastructure. His platform also focused on reducing emissions from buildings, which would boost demand for low-voltage electrical equipment. States and cities may be encouraged to adopt energy efficient codes for buildings and the private sector may be incentivized to retrofit 4 million commercial buildings and 2 million homes, per Biden's proposals. This provides an opportunity for companies that develop connected lighting and energy solutions, energy efficient HVAC equipment makers, and electric equipment manufacturers and suppliers that can help lower energy consumption.

MIDDLE MARKET INSIGHT

Ambitious emission goals among larger companies indicate a tremendous opportunity for middle market companies to incorporate environmental and sustainability measures in their own operations to increase their competitiveness.

The airline industry in 2009 ambitiously committed itself to reducing its emissions by half of 2005 levels by 2050. More recently, in 2020, the U.S. Environmental Protection Agency finalized greenhouse gas emission standards for commercial airplanes to align with international aviation emissions standards. While this maintains the competitiveness of domestically manufactured aircrafts, it also highlights the rising environmental consciousness in the industrial business.

Various governments, investors and corporations across the globe are increasingly signing up for the United Nations' [Race to Zero](#) campaign, which aims for net-zero emissions by 2050. While Europe is far ahead of the United States in terms of climate control policies and mandates (which has accelerated electric vehicle investments), emerging economies such as India and China also rank high in transition to lower-carbon energy, according to [Climatescope 2020](#), a Bloomberg survey for clean energy stakeholders that ranks economies based on power sector fundamentals, opportunities and experience. Companies operating in international markets should keep this shift toward lower-carbon energy in mind while designing products and competitive strategies.

Large industrial conglomerates are looking to their suppliers, mostly small and midsize companies, to help them meet their environmental and sustainability targets through energy efficient components and reduced emissions. Many U.S. companies have adopted the standards put forth by the Greenhouse Gas Protocol, which divides emissions into three categories. Many have previously targeted a reduction of GHGP Scope 1 and Scope 2 emissions (Scope 1 refers to emissions from activities under the control of an organization while Scope 2 relates to emissions from the generation of electricity consumed by the organization), and more recently companies have been increasingly setting all-encompassing targets that address Scope 3 emissions (which account for emissions related to supply chains and customers).

Numerous companies including Ford, General Motors, American Airlines, Schneider Electric and multiple energy companies have committed to net-zero emissions sometime between 2040 and 2050. Others have announced sustainability targets such as pledging to source 100% renewable electricity (3M), including environmental sustainability as a performance metric for executive compensation (Northrop Grumman), collaborating with customers to develop products that reduce emissions (Cummins), and earmarking significant portions of their research and development budgets for technology that protects the environment (Bosch). Some industrial companies have set targets to increase reusability and recyclability of products and/or waste based on circular economy principles.

While these are only a few examples, such goals indicate a tremendous opportunity for middle market companies to incorporate environmental and sustainability measures in their own operations to increase their competitiveness. This shift also highlights the incentive for midsize companies to design, re-design, and develop products and services that address this need to meet such green targets.

Regardless of whether the Biden government can succeed in its climate change agenda, U.S. industrial businesses will need to pay attention to climate friendly mandates from their customers and investors domestically and internationally in order to thrive in the future.

Energy transition expected to accelerate in 2021

While it is crucial that the industrial sector as a whole prioritizes environmental and sustainability initiatives into 2021 and beyond, these shifts will have especially important implications for energy companies.

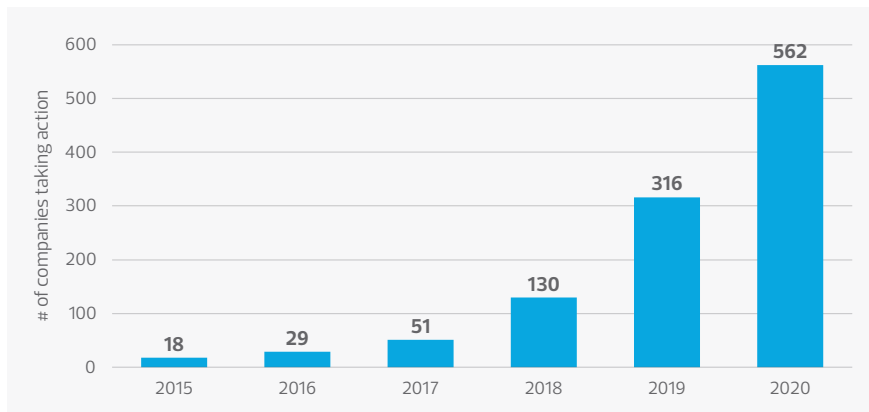
The energy industry is emerging from a year of unprecedented volatility during which we saw the "largest single-year drop in global oil demand" (10%) on record, according to a December report from research company Rystad Energy. That decline was driven by the pandemic-induced lockdowns, decreases in road and air traffic, and overall slowdown of economic activity. These are just a few of the major shifts—along with increased investment in decarbonization and digital technologies—that will continue to shape energy industry trends and the overall outlook in 2021.



WHILE THE PANDEMIC WAS INITIALLY EXPECTED TO HINDER ENERGY COMPANY INVESTMENT IN NEW TECHNOLOGIES THAT UNDERPIN THE ENERGY TRANSITION, TIME HAS PROVEN THE OPPOSITE.

The energy transition has been in motion for decades, but the events of the past year have accelerated the pace of change. While the pandemic was initially expected to hinder energy company investment in new technologies that underpin the energy transition, time has proven the opposite; companies have in fact continued to invest in technologies or enhanced processes that drive the energy transition. Company commitments, across a range of industries, to reduce greenhouse gas emissions increased 78% in 2020 to 562 companies compared to 316 in 2019, according to research performed by the Science Based Targets initiative (SBTi), a partnership between several nonprofits and the U.N. Global Compact.

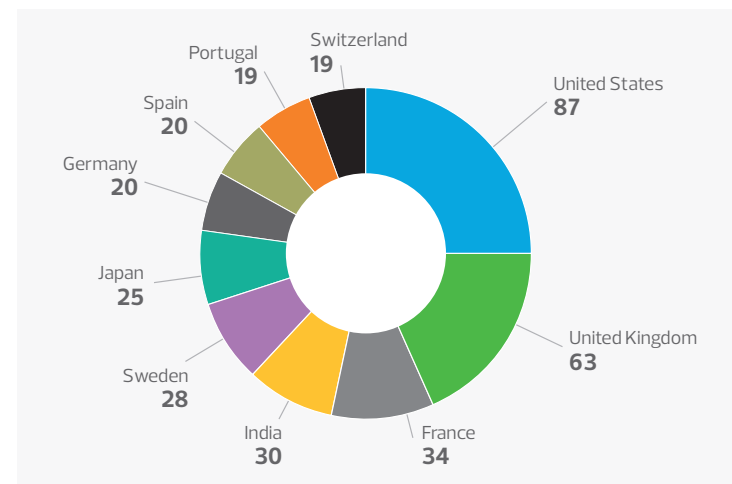
Companies making commitments to reduce greenhouse gases



Source: Science Based Targets initiative (sciencebasedtargets.org)

The 10 countries with the most companies taking action in 2020 are broken down as follows, with the United States in the lead at 87 companies.

Top 10 countries with new company commitments in 2020



Source: Science Based Targets initiative (sciencebasedtargets.org)

This transition toward more sustainable energy sources is clearly an industrywide (and beyond) priority, but the ways in which organizations achieve their goals will vary depending on their size, position on the value chain and strategy. Transition efforts range from adhering to policy and prescribed emission limits to investing in new technologies such as carbon capture or

SETTING REASONABLE, SHORT-TERM GOALS THAT REDUCE THE FOOTPRINT OF THE EXISTING PORTFOLIO IS A LOGICAL APPROACH TO ACHIEVING CLEAN ENERGY OBJECTIVES WHILE PROTECTING THE BUSINESS.



diversifying the portfolio into renewables. Large multinational companies have the ability to set aggressive net-zero targets, pivot from their fossil fuel-heavy portfolios with diversification into renewables, and outlay capital for research and development in areas such as carbon capture and storage, advanced biofuels, natural gas technology, and fuel cell technology. Research performed by S&P Global Market Intelligence found that 21 of the 30 biggest utilities in the United States, 11 of the 30 biggest metals and mining companies in the world, and 11 of the 30 largest oil and gas companies in Europe and North America have set net-zero targets they aim to achieve by the middle of the century.

But where does this leave independent companies and middle market players? Most middle market energy companies, at least in the short term, are focused on viability, cash flow and profitability. Without the deep pockets of larger organizations and on the heels of a tumultuous 2020, these companies will need to balance protecting their core business with positioning themselves for success in the race to net zero.

To do this, middle market organizations should take advantage of the fact that many efforts toward clean energy go hand in hand with more efficient operations and support the goal of improving the bottom line. The electrification of field equipment, installation of vapor recovery units to recover vented gas, reduced flaring, and water recycling are just a few of the ways that operators are reducing emissions and costs at the same time, as [noted in this white paper](#) from energy-focused private equity firm Kimmeridge. Setting reasonable, short-term goals that reduce the footprint of the existing portfolio is a logical approach to achieving clean energy objectives while protecting the business.

MIDDLE MARKET INSIGHT

On the heels of a tumultuous 2020, midsize companies will need to balance protecting their core business with positioning themselves for success in the race to net zero. To do this, organizations should take advantage of the fact that many efforts toward clean energy go hand in hand with more efficient operations and support the goal of improving the bottom line.

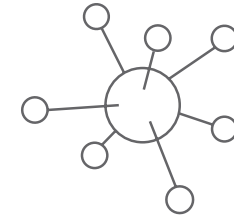
The Biden administration's aggressive clean energy platform will be another stimulus for the energy transition push in 2021. The new administration plans to revisit former President Donald Trump's regulatory rollbacks for the industry, impose aggressive methane emission limits for oil and gas operators, and require public companies to disclose climate risks and the greenhouse gas emissions in their operations and supply chains, according to Biden's platform. These changes will require energy companies to stay highly attuned to new developments and to understand the implications of policy changes in order to ensure compliance. As reporting requirements change, energy companies should revisit their methods of measuring and tracking emission data to ensure their methods are accurate and accepted by the EPA. Being prepared and nimble will be the name of the game as companies navigate the ever-changing energy landscape into 2021. ■



LIFE SCIENCES COMPANIES WILL NEED TO DETERMINE HOW TO POSITION THEMSELVES IN A REBOUNDED ECONOMY WITH HEIGHTED EXPECTATIONS FOR RAPID INNOVATION, A NEW BIDEN ADMINISTRATION AND GREATER COMPETITION FOR INVESTMENT FROM RECOVERING INDUSTRIES.

INDUSTRY OUTLOOK: **LIFE SCIENCES**

BY ADAM LOHR AND STEVE KEMLER

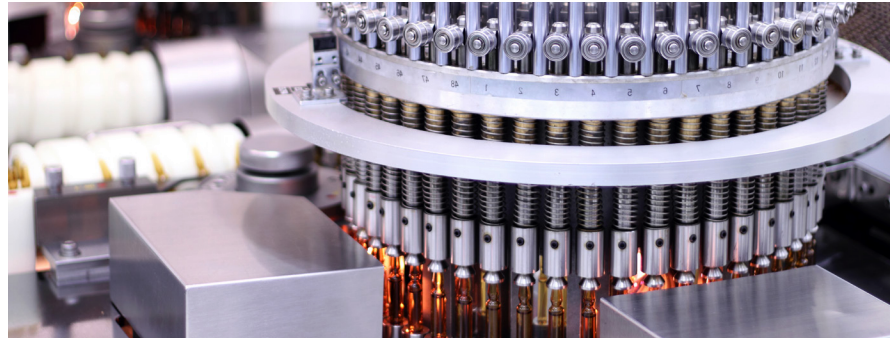


AFTER A STRONG YEAR of rapid scientific innovation in the face of a global crisis, the life sciences industry must now determine how best to position itself in a rebounding economy amid heightened expectations and a new presidential administration. There will continue to be pandemic-related struggles ahead, and we anticipate some moderation in deal valuations and the number of transactions this year in life sciences as other industries recover and compete for capital.

Nevertheless, we expect 2021 to be another strong year for life sciences. In this report, we examine recent investment trends and how the industry can continue building on its impressive 2020 progress in clinical trials and drug development.

KEY TAKEAWAYS

- We believe that life sciences as a whole—and biotechnology in particular—will continue to outperform average levels throughout 2021.
- There are a number of policy decisions we expect will heavily affect the industry under a Biden administration, including drug pricing policy, health care reform and the anticipated normalization of trade relations.
- Over the previous three years, 60% of life sciences initial public offerings have been among biotech companies, with that proportion increasing to 75% in 2020.
- The clinical trial industry should continue its focus on being more patient-centric to improve patient retention and expand the population of patients able to participate in trials.



GIVEN THE CONTINUED IMPORTANCE OF THE LIFE SCIENCES INDUSTRY IN ADDRESSING THE PANDEMIC, WE ANTICIPATE THAT 2021 WILL REMAIN AN ABOVE-AVERAGE YEAR IN TERMS OF DEAL FLOW, INNOVATION AND PUBLIC SENTIMENT.

Major catalysts in the first half of 2021

The life sciences ecosystem has favorable tail winds coming out of 2020 and, given the continued importance of the industry in addressing the COVID-19 pandemic, we anticipate that 2021 will remain an above-average year in terms of deal flow, innovation and public sentiment. We do anticipate some moderation in valuations and the number of transactions this year as other industries recover, but we believe that life sciences as a whole—and biotechnology in particular—will continue to outperform average levels throughout 2021.

We expect medical device companies will have significant upside once the pandemic subsides and health systems return to normal operations. Pharmaceutical companies will be bolstered by the likely delay of major drug pricing policies as the Biden administration faces a narrowed House majority, a split Senate, and many pressing economic and COVID-19-related matters to address in its first 100 days. In the clinical trials space, we are encouraged by the broad resumption of non-COVID-19 trials, and optimistic about [advances in remote/virtual trials](#) that have taken a massive step forward during the global pandemic lockdowns.

As devastating as 2020 was, it gave the life sciences ecosystem an opportunity to showcase what can be accomplished when it functions at its best and receives full support from regulators and the community. Collaboration, adaptation and innovation were at the core of the industry's development of diagnostics, therapies and vaccines to address COVID-19; the securing of supply chains to prevent drug shortages and maintain the flow of lifesaving medical supplies; and the ongoing support of clinical trials and drug development focused on the future health of our communities.

Life sciences companies will also need to determine how to position themselves in a rebounding economy with heightened expectations for rapid innovation, a new Biden administration and greater competition for investment from recovering industries.

Biden policy impacts

According to the Center for Responsive Politics, Joe Biden received 3.5 times more political contributions from life sciences interests during his candidacy as incumbent President Donald Trump. What's more is that 1.8 times as much money from life sciences interests flowed to Democratic candidates in congressional races as compared to Republican candidates, per the CRP. While the political nuance of such contributions is beyond the scope of this outlook, we believe it is a strong indication that the industry favors the policy and economic implications of the new Biden administration. Government decisions that will heavily affect the industry in the near future include:

- Changes in key leadership positions including at the Food and Drug Administration, Centers for Disease Control, Health and Human Services, and the Federal Trade Commission. These individuals will help shape the rate of play for life sciences companies, affect the public perception of pandemic-related efforts, and set the tone for drug approval and deal flow.
- The anticipated normalization of trade and international relations with our allies, which would reduce volatility and stabilize supply chain concerns.
- Accommodative fiscal and monetary policy that will likely include additional fiscal stimulus and sustained near-zero interest rates. This will encourage investment in private and public markets, which life sciences has been a major beneficiary of during this recession. With the broader economy

expected to recover somewhat in mid-2021, there will be increased competition between industries for investor dollars, but we believe that life sciences—particularly biotechnology, diagnostics and medical supplies—will receive an outsized piece of the pie.

- Health care reform and drug pricing will be major policy targets as Biden seeks to shore up the Affordable Care Act, and governments and insurance systems are faced with decreased budgets and the mounting economic cost of the pandemic. Governments will be looking to health care providers and drug companies to reduce the cost of care to a wider swath of the population that has lost employer coverage.

As of this writing in January, nearly 600 drugs (almost all branded) have already experienced an average price increase of 4.2% in 2021, according to GoodRx. While this is in line with previous years, the industry will come under increased scrutiny given sustained unemployment and financial difficulties throughout the United States. We anticipate that early policy decisions will be focused on the economy, COVID-19 and the ACA, and major drug pricing provisions such as the “most favored nation” clause proposed by Trump will likely be dropped in favor of more moderate policies with a better chance to pass a divided Congress.

Drug development technology and vaccination efforts

As much as the world wants to move past 2020, the reality is that many pandemic-related challenges will persist through 2021. As of this writing, Pfizer/BioNTech and Moderna have received emergency use authorization (EUA) for their COVID-19 vaccines, and tens of millions of doses are being distributed across the country. Through December 2020, 4.5 million American's had received their first dose, as tracked by the [CDC COVID-19 data tracker](#), which is far fewer than initial projections.

This slow roll out has been affected by production capacity, disparate distribution protocols for each state, logistical complications, and varying levels of willingness to get the vaccine by different demographics and regions. These challenges are not unexpected, and as the United States and other developed countries expand their vaccination efforts, we expect to see a persistent decrease in infection rates, the relaxation of lockdowns, and a boost in employment and economic activity. As we noted in November following the news of positive efficacy results for the Pfizer/BioNTech vaccine, such innovations will bring us closer to unlocking [nearly \\$4 trillion in impaired economic activity](#) in the United States.

Through the rapid development of COVID-19 diagnostics, therapies and vaccines, the world has seen it is possible to bring safe and effective drugs to market in months not years—a feat only achieved because of capital injections and political and regulatory support that would have been unimaginable a year ago. This shows what can be accomplished when government, community and industry interests align. We hope that the pandemic signals a structural shift in how investments and regulations are made in life sciences and health care.

While this shift will likely take years, there is an immediate need for the industry to collaborate with the Biden administration and international partners regarding the increased use of technology and analytics in the identification, development and delivery of next-generation therapies. This will mark a continued shift from pure physical sciences to a digital hybrid based upon an unprecedented amount of data collected clinically and by patients. Key technologies will include artificial intelligence, machine learning, the gene editing tool CRISPR and other gene editing techniques, telehealth, digital clinical trials, and the expansion of the Internet of Medical Things, which is expected to grow at a compound annual growth rate of 27% through 2027 globally, according to Acumen Research and Consulting.

A record year in capital markets

While the full value provided by the life sciences industry is immeasurable, it is clear that the halo effect of the industry's COVID-19-related efforts, as well as the future potential they bring to the economy, have encouraged a surge of funding to the industry in 2020. The question now is whether this financing momentum will carry through 2021 and serve as a further catalyst of the industry's growth.

Across all investment types, biotechnology companies received the majority of investor attention in terms of the number of transactions and the amount of capital raised. From our analysis of investment data collected by PitchBook and Bloomberg, 44% of all corporate life sciences investments were in biotech targets in 2020, up from the previous three-year average of 34%. Pharmaceutical companies accounted for 60% of corporate life sciences investment in 2020. Over the previous three years, 60% of life sciences initial public offerings have been among biotech companies, with that proportion increasing to 75% in 2020.

This focus on biotech has been several years in the making as the technologies become more affordable and accessible to both developers and patients, and are seen as crucial components of drug portfolios that are looking to diversify, specifically with regard to oncology and immunotherapies. The attention in 2020 was primarily driven by biotech's role in addressing the pandemic, but given historic trends and the fact that the sector has gained significant mainstream attention, we believe that biotechnology will continue to drive innovation and investment in the life sciences ecosystem for the foreseeable future.

Private and venture investment peaks in 2020

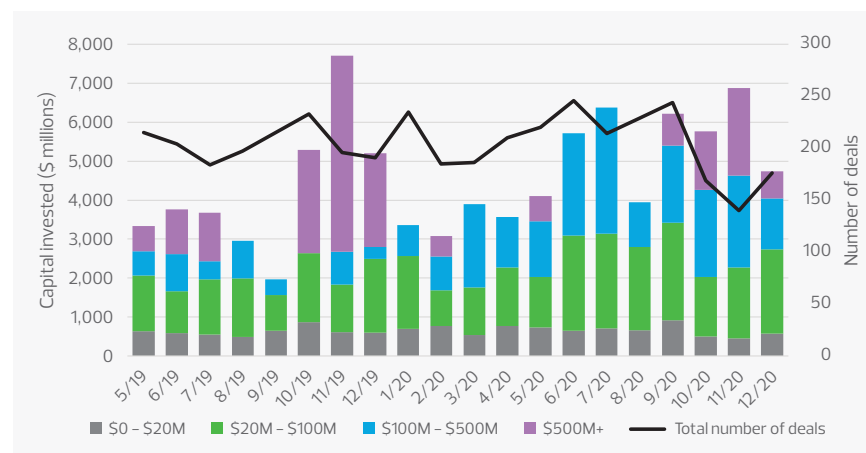
Serving as the growth engine for the ecosystem, capital raised through private equity and venture capital investment reached record highs throughout the pandemic with a specific focus on biotechnology, diagnostics and drug discovery companies. Overall, private equity and VC investment increased 20% last year over 2019. The nature of private investments mirrors the broader K-shaped recovery taking place in the United States, whereby the lower arm of deals under \$20 million represented 76% of the deals, but only 13% of capital raised. Investments at this level are typically seen and early VC rounds, but during the pandemic we have seen an increase in the number of companies that needed quick add-on rounds to support operations as trials and development milestones were temporally delayed.

The upper arm of late-stage companies and those with significant prior financing rounds benefited from increased valuations and attention from investors looking to put dry powder to work. When focusing on investments in the core middle market of life sciences, we see that the number of deals, valuations and median size of deals between \$20 million and \$500 million continues to increase rapidly, and peaked again in 2020.

MIDDLE MARKET INSIGHT

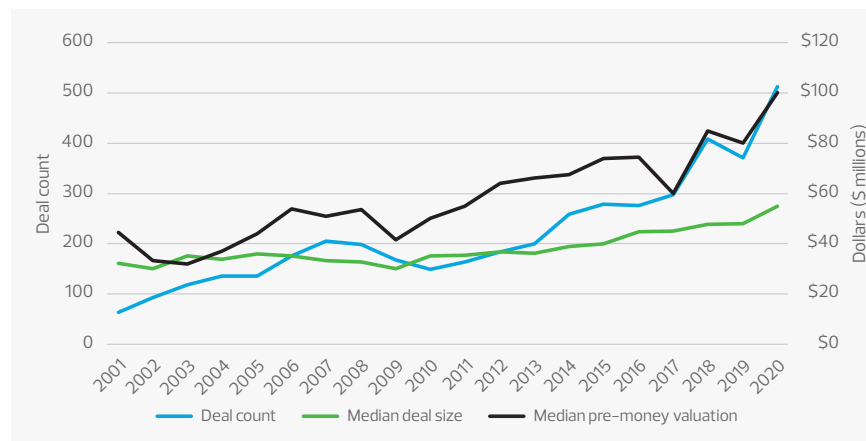
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Private equity and venture capital investment in life sciences companies

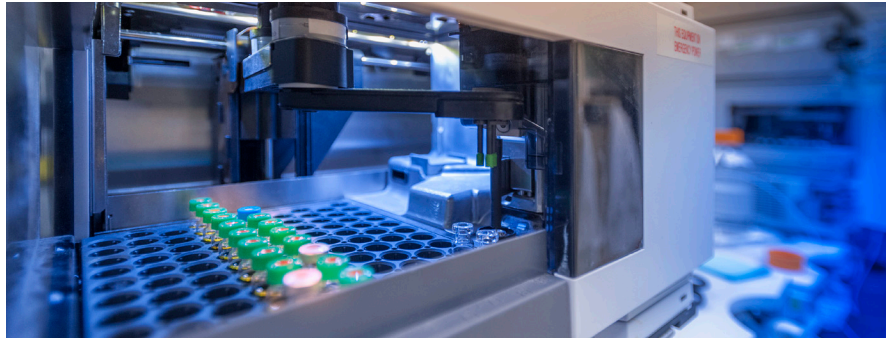


Source: PitchBook; RSM US LLP

Private equity and venture capital investment in life sciences—deal size \$20M to \$500M



Source: PitchBook; RSM US LLP



WITH A BIDEN ADMINISTRATION, WE ANTICIPATE NORMALIZATION IN INTERNATIONAL RELATIONS AND A DE-ESCALATION OF TRADE TENSIONS, BUT THE CALLS FOR MORE ROBUST DOMESTIC LIFE SCIENCE CAPABILITIES WILL PERSIST THROUGH THE NEAR TERM.

U.S. corporate mergers and acquisitions remains highly active

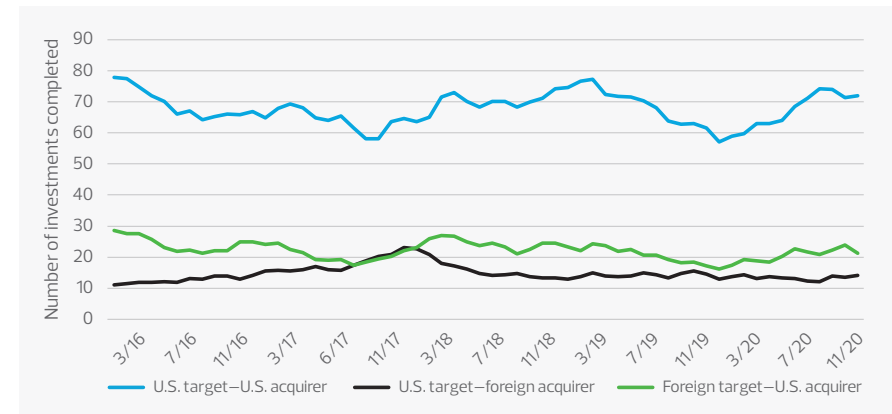
The United States remains the global leader in life sciences in terms of research, development and market share, but other developed countries across Europe and Asia play a critical role in supporting the U.S. ecosystem. China and India have established themselves as key centers for manufacturing generics and active pharmaceutical ingredients (API), and are quickly developing their own domestic research and development capabilities. Our allies across the Atlantic also continue to generate many breakthrough technologies and have proven to be a valuable source of partnerships and acquisition targets for U.S. companies.

As we wrote about in [Pharmaceutical Outsourcing](#), a rise in nationalism across the globe, strained trade relations and economic disruption from the pandemic have put significant pressure on distributed supply chains and increased calls to reduce reliance on our international partners. With a Biden administration, we anticipate normalization in international relations and a de-escalation of trade tensions, but the calls for more robust domestic life sciences capabilities, from research through production and distribution, will persist through the near term.

Middle market companies are leaders in the industry's digital transformation, as they are the ones developing and testing new techniques and technologies, which then makes them prime targets for acquisition. Our analysis of Bloomberg data on corporate M&A deals between 2016 and 2020 shows that 90% of acquisitions of biotech and pharma companies in the United States involved deals less than \$200 million.

Given the capital available to large U.S. drug and medical device companies, we believe that corporate investment in domestic and foreign entities will continue at increasing rates as established companies seek to diversify aging product portfolios and drive innovation through the acquisition of small and middle market companies pursuing breakthrough technologies. Foreign investment has tapered off in recent years, and we expect this to persist until Europe emerges from the pandemic-driven recession and finds clarity in the wake of Brexit.

Life sciences mergers and acquisitions between U.S. and foreign entities—180-day moving average (all targets are life sciences companies)



Source: Bloomberg

WITH THE RAPID ADOPTION OF REMOTE MONITORING, TELEHEALTH AND VIRTUAL TRIALS CATALYZED BY THE PANDEMIC, THE BIOPHARMA AND CRO INDUSTRIES SHOULD LEVERAGE WHAT THEY LEARNED IN 2020 AND NEVER LOOK BACK.

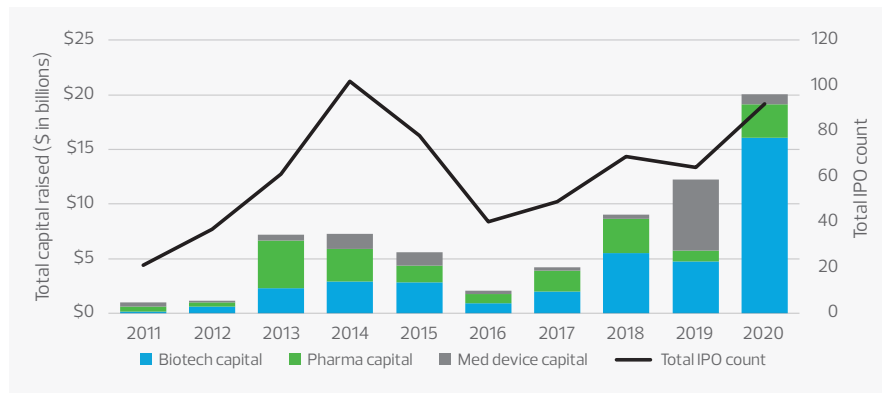


Public capital surges in 2020

The life sciences industry has generated over 40% of all non-special purpose acquisition company (SPAC) IPOs in the United States since 2018, and 2020 shattered previous records in terms of offerings and capital raised. Typically thought of as a defensive industry, institutional and retail investors took note of the spotlight placed on life sciences by the pandemic, and gave increased recognition to growth potential that rivals the tech market.

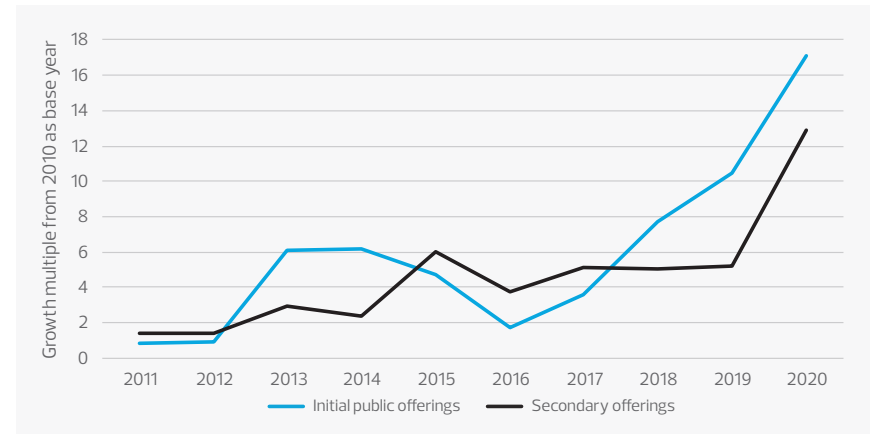
In 2020, existing public life sciences companies raised three times as much capital through secondary offerings as was raised through new IPOs. We expect that the rate of IPOs will moderate in 2021, and will continue to be focused on biotechnology and drug discovery.

Life sciences initial public offering performance by sector



Source: Bloomberg

Life sciences capital raised in public markets (normalized to 2010)



Source: Bloomberg

MIDDLE MARKET INSIGHT

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Out of the crucible of 2020, better clinical trials emerge

The global pandemic caused [substantial disruption to clinical trials](#) in 2020. In April of 2020, despite the beginning of hundreds of new clinical trials related to COVID-19, total new patient enrollments were down 59% compared to the same period in 2019, [according to Medidata](#). As vaccine distribution gets underway and provides some sense of hope for the future, the life sciences industry will need to decide what its future will look like. Will the industry return to the pre-pandemic model in which trials are extremely hands-on, require endless trips to study sites and are disruptive to patients' lives? Will study patients be willing to give up the convenience of telehealth and remote patient monitoring? Or will we build on the changes of 2020 so that trials remain more patient-centric, accessible and inclusive?

In a July article in *British Medical Journal*, Simon Erridge of the Imperial College London described this environment as "the greatest global disruption to clinical research since the Second World War." This left many study sponsors facing the prospect of a lost year of research unless they and the clinical research organizations (CROs) conducting the trials quickly adapted. A survey from CRO ERT in the spring showed that 79% of clinical study professionals were most concerned about the ability to screen new patients, and 25% said the primary issue over the next six to 12 months would be patient recruitment and enrollment. In that same survey, 75% of participants identified telehealth and remote patient monitoring to be most important tools needed to move to virtual trials.

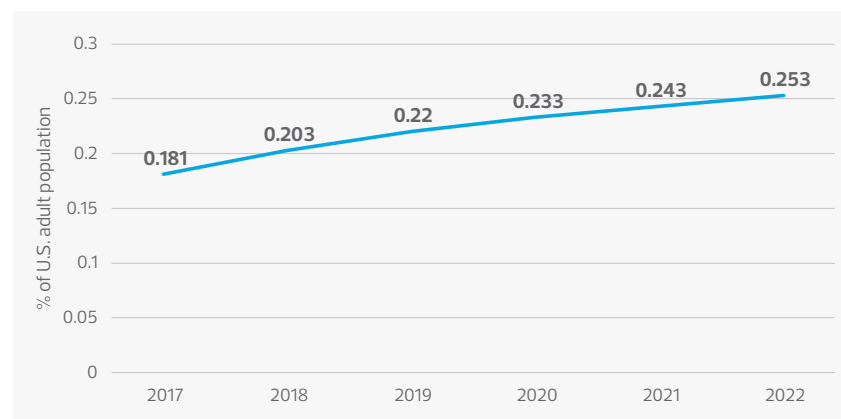
The unprecedented disruption to clinical trials necessitated rapid change in a field that previously experienced mostly incremental changes spanning many years. According to surveys conducted by Medidata and published in September 2020, 15.3% of sites reported switching to remote lab collections, 15.3% adopted at-home visits by study staff, and a remarkable 40% began using virtual patient visits to bring clinicians into trial subjects' homes.

This rapid adoption stands in stark contrast to the pace of change prior to 2020: In a 2019 [statement](#) by then-commissioner of the U.S. Food and Drug Administration Scott Gottlieb, for instance, he urged study sponsors and research organizations to embrace new technology and approaches to reduce cost and risks. In 2018, Center for Drug Evaluation and Research (CDER) director [Janet Woodcock described innovation in new therapies](#) "converging on the clinical research enterprise, which is at best a sickly link in this chain." As recently as November 2019, Life Sciences Leader [referred to virtual trials as a "recent" innovation](#) that biopharma companies should consider adopting.

Trials at the intersection of medicine and consumer technology

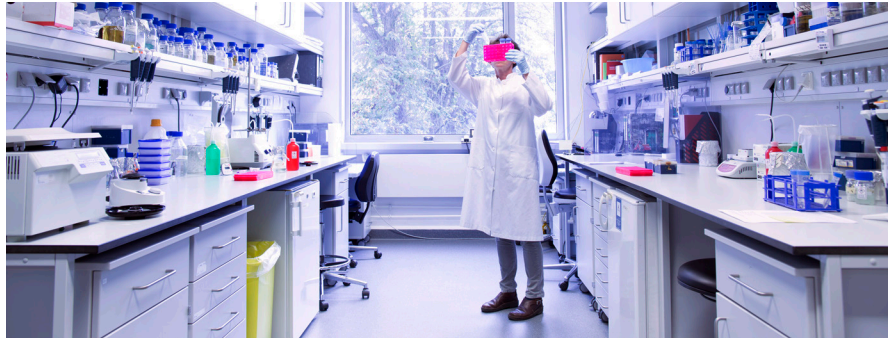
Critical upheavals in clinical trials would not have been possible without a corresponding adoption of supporting technologies. Some of these have been building over time and others saw rapid adoption because of the pandemic. The most basic requirement in order to conduct trials virtually is that patients must have access to smartphones or broadband internet. Approximately 88% of Americans currently have a smartphone and that is expected to near 90% by 2023 according to data from Ovum.

U.S. wearables adoption is steadily increasing



Source: IDTechEx and University of Illinois Chicago

In addition to smartphones, smart watches and fitness trackers (collectively referred to as wearables) have also enabled new approaches to clinical trials and are the most familiar to consumers when it comes to remote patient monitoring tools. Apple has led the charge in the adoption of wearables for clinical research. From 2017 to 2019, Apple conducted a trial with Stanford to research the feasibility of using the Apple Watch to support heart research. [According to Stanford professor Mintu Turakhia](#), "the study's findings have the potential to help patients and clinicians understand how devices like the Apple Watch can play a role in detecting conditions such as atrial fibrillation, a deadly and often undiagnosed disease. The virtual design of this study also provides a strong foundation upon which future research can be conducted to explore the health implications of wearable technology."



CRITICAL UPHEAVALS IN CLINICAL TRIALS WOULD NOT HAVE BEEN POSSIBLE WITHOUT A CORRESPONDING ADOPTION OF SUPPORTING TECHNOLOGIES. SOME OF THESE HAVE BEEN BUILDING OVER TIME AND OTHERS SAW RAPID ADOPTION BECAUSE OF THE PANDEMIC.

Building on this research, Apple has joined forces with Johnson and Johnson to conduct an additional three-year, 150,000-patient study using more advanced electrocardiogram features in newer Apple Watches. The goal of the study is to research atrial fibrillation in adults over 65 and identify causes of adverse outcomes. According to J&J, this will be the largest randomized cardiovascular study in history.

These consumer trends laid the groundwork for the two biggest technical components required for hybrid and virtual trials—telehealth and improved clinical trial technology. Telehealth saw remarkable adoption in 2020 as patients and providers alike worked to allow people continued access to care while minimizing exposure risks to COVID-19. Insurance providers saw a nearly 3000% increase in claims for telehealth visits in 2020. This change was driven by temporary waivers of HIPAA penalties that allowed doctors to leverage technologies at hand, like FaceTime and Zoom, but given the success and rapid adoption by patients, it is hard to see people giving up the convenience of telehealth anytime soon.


MIDDLE MARKET INSIGHT

The industry should build on the successes of 2020 to continue to drive investment, make trials more diverse and patient-centric, and develop new therapies at a pace we once thought was impossible.

These changes require biopharma companies and CROs to rethink the tools and systems they use to manage trials and ensure that they support collecting data directly from patients, performing routine trial activities like gathering consent electronically, and supporting telehealth visits

With the rapid adoption of remote monitoring, telehealth and virtual trials catalyzed by the pandemic, the biopharma and CRO industries should leverage what they learned in 2020 and never look back. The benefits of virtual trials offer concrete benefits for both the sponsors of trials and the patients involved in them. Using the lessons of the past year, the clinical trial industry should continue its focus on being more patient-centric to improve patient retention, expand the population of patients able to participate in trials and bring therapies to market faster.

2020 was a year of remarkable successes in the life sciences industry. It was one of the few beacons of light in an otherwise dark year. Decades of groundwork allowed biopharma companies to develop COVID-19 vaccine candidates with unimaginable speed. Regulators, drug developers and CROs came together to perform—in just a few months—trials that normally take years. Capital markets recognized this with record investments. As we start 2021 with new vaccines to tame the pandemic being administered around the globe, the industry should build on the successes of 2020 to continue to drive investment, make trials more diverse and patient-centric, and develop new therapies at a pace we once thought was impossible. ■



THE GROUNDWORK
HAS BEEN LAID FOR
A SECTOR-WIDE
RECOVERY ACROSS
REAL ESTATE.

INDUSTRY OUTLOOK:

REAL ESTATE AND CONSTRUCTION



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

FROM SUBURBAN MIGRATION to the impact of e-commerce on retail, the real estate market is rife with change and opportunity for savvy participants set to pivot and meet evolving needs. Meanwhile, construction is positioned to benefit from a boom in housing, the renovation of industrial space and impending infrastructure spending under a new administration.

KEY TAKEAWAYS

- Hospitality is pivoting with new footprints, shifts in service and stepped-up safety protocols
- Senior living, hard hit by the pandemic, eyes a turnaround amid vaccine distribution
- Pandemic acceleration of e-commerce is resulting in significant shifts to retail space
- Traditional office space, although pressured, is poised for survival
- Single-family housing remains hot amid low interest rates, changing consumer preferences
- Construction likely to see boost in projects amid infrastructure buildout

REAL ESTATE

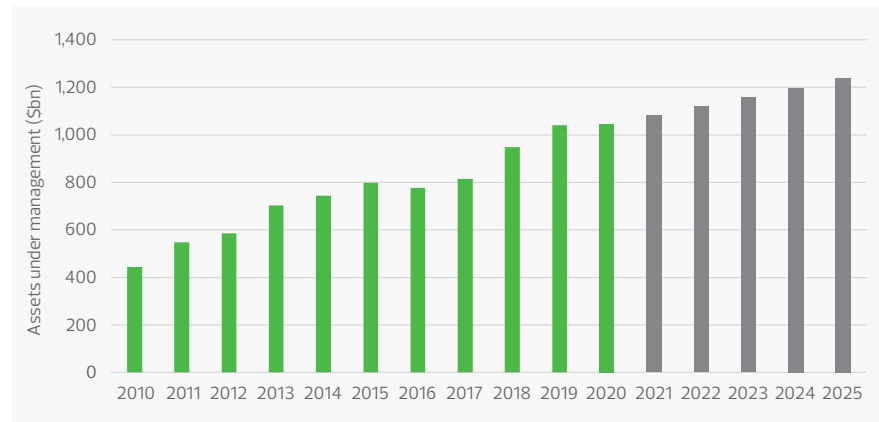
Recovery, imagination and resilience

The groundwork has been laid for a sector-wide recovery in 2021 across real estate, which was heavily affected by the global pandemic. Investors are on a hunt for yield against a backdrop of lower interest rates and stagnating gross domestic product growth, among other factors creating demand.

THE CONTINUED DEPENDENCE OF AIRLINES ON LEISURE TRAVEL IS A STRONG SIGNAL OF MUTED GO-FORWARD BUSINESS TRAVEL DEMAND.



Private real estate assets under management and forecast, 2010–25



Source: Preqin

Hospitality gets a shot in the arm

Those still questioning future demand for travel in a post-COVID-19 world need look no further than home rental company Airbnb's debut in the public markets. With the stock trading nearly double its offering price in early December, enthusiasm hasn't waned and demonstrates that companies that are able to nimbly adapt to shifting consumer preferences can win in an increasingly complex operating environment. Hospitality-focused investors have also pivoted their strategies: tailoring offerings, restructuring operations and investing in technology in an effort to make it through to 2022 when the pandemic is expected to be largely in the rearview mirror.

According to a joint report by STR and Tourism Economics, the [hospitality industry](#) forecast for 2021 remains bleak and full recovery in revenue per available room, or RevPAR, is unlikely until 2024.

Although the new year brings new resolutions for consumers, with travel at the top of many to-do lists, the properties positioned well in 2020 will continue to be the beneficiaries through the majority of 2021 as [pent-up demand for travel is unleashed](#). "Even with the encouraging vaccine news, this pandemic and the subsequent economic impact will continue to limit hotel demand generators into the second half of next year," said Amanda Hite, president of STR, in the report. "Business demand won't return at a substantial level until caseloads are better contained, and in the meantime, recovery is going to be primarily driven by lower-tier hotels in the leisure-driven markets with outdoor offerings." Along with the promise of the vaccine is the reality of more detours ahead: vaccine rollout has been slower than expected, and estimates through December indicate that only 4 million, or 20%, of an expected 20 million U.S. citizens were vaccinated through Dec. 31, 2020.

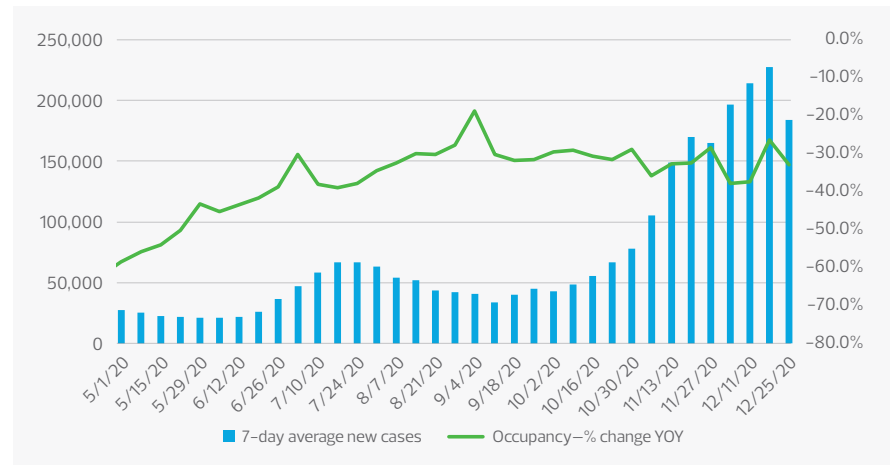
The continued dependence of airlines on leisure travel is a strong signal of muted go-forward business travel demand, and it raises the question of whether the category will ever return to pre-pandemic levels. December brought weaker-than-expected demand for all types of travel, resulting in a reduction of domestic routes and projected first-quarter cuts of 40% year over year. Meanwhile, the pandemic has forced long-time business travelers to settle for virtual meetings, and recent trends in airline ticket transactions and fares point to a recovery anchored by younger, cost-driven leisure travelers.

Survival strategies

Most financial strategists would agree there are only two ways to improve a company's bottom line—cut costs or drive up revenues. The focus by many properties on staff reductions and alternative service measures, coupled with nominal investments in technology, are prudent first steps in stopping operational free fall. [Hotel operators are also making smart moves](#) to support new cleanliness protocols, touchless technology for check-in, and mobile phone use for key entry and front-desk requests; these are cost-effective changes that may provide permanent cost savings when the pandemic ends.

Food and beverage sales are another major revenue source for hotels, and at many properties, food service is now a shell of its former self. Restaurant dining has been largely replaced by intimate dinners in guest rooms, with butler pantries providing safe handoff for room service orders. In an effort to control costs and food waste, many properties are limiting service hours to dinnertime and tightening menus to a few popular items. While some guests will be dismayed by the lack of room service breakfast options that have been a mainstay in the hotel arena, operators are now required to pick their battles for the best interest of the properties as a whole.

Occupancy recovery stalls amid rising COVID-19 case load



Source: STR; Bloomberg News and Johns Hopkins

MIDDLE MARKET INSIGHT

Hospitality-focused investors are pivoting their strategies by tailoring offerings, restructuring operations and investing in technology in an effort to make it through to 2022 when the pandemic is expected to be largely in the rearview mirror.

With average occupancy looming around 40% in the United States, vacant properties cannot break even without support to the top line. The enactment of an extension to the unemployment provision of the CARES Act under H.R. 133 is a start, with several enhancements set to directly benefit the hospitality sector. But in the absence of desperately needed continued fiscal stimulus for the hotel industry, operators need to drive up sales using technology and data analytics for more targeted marketing. At the end of the day, hospitality's prescription for a full recovery includes increased traveler confidence, aided by the deployment and distribution of a vaccine globally, which is easier said than done.

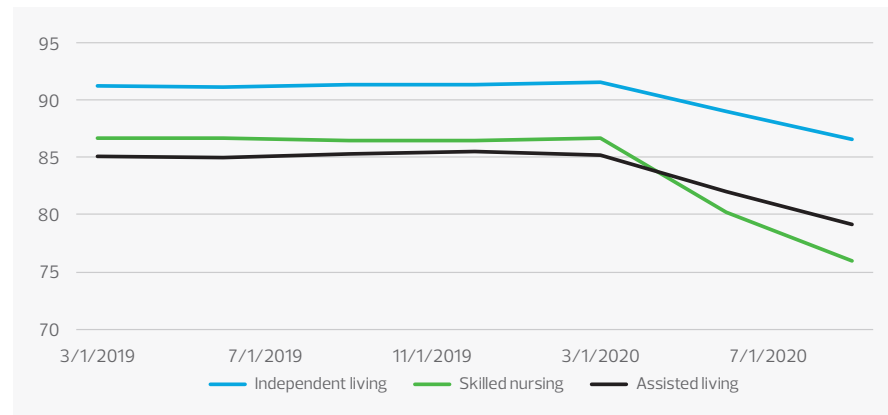
Senior living

A coronavirus vaccine on the verge of broad distribution cannot come soon enough for U.S. operators of facilities that house the nation's elderly.

Senior housing of all kinds—including independent and assisted living facilities, as well as those offering skilled nursing—have been hit hard by the pandemic, both in human and economic terms. With a particularly vulnerable population, senior facilities have had higher rates of mortality during the crisis; more than 106,000, or 38%, of the U.S. deaths attributed to the coronavirus were linked to nursing homes as of Dec. 4, according to *The New York Times*.

To protect their workers and residents, operators paid more for medical staff and equipment. On top of this, most properties stopped taking in new tenants, causing occupancy rates to plunge. Occupancy at independent living and assisted living facilities has dropped below 90% and 80%, respectively, and skilled nursing facility occupancy has fallen by more than 10 percentage points this year.

Senior living occupancy continues to decline



Source: NIC; Bloomberg

But there is a [light at the end of the tunnel](#). Both health care workers and the elderly have been identified as groups that will be early recipients of the vaccine. "We believe that a safe and effective vaccine will provide important fuel for our recovery. And again we are grateful that senior living is being prioritized," said Cindy Baier, CEO of Brookdale Senior Living on the company's third-quarter 2020 earnings call. Many property operators have already been proactive in connecting with state governments and local pharmacies to get their spot in line as the vaccine is distributed. This will lead to unlocking demand that has been pent up over the past year as the sector looks ripe for gains in 2021.

REAL ESTATE RE-IMAGINE

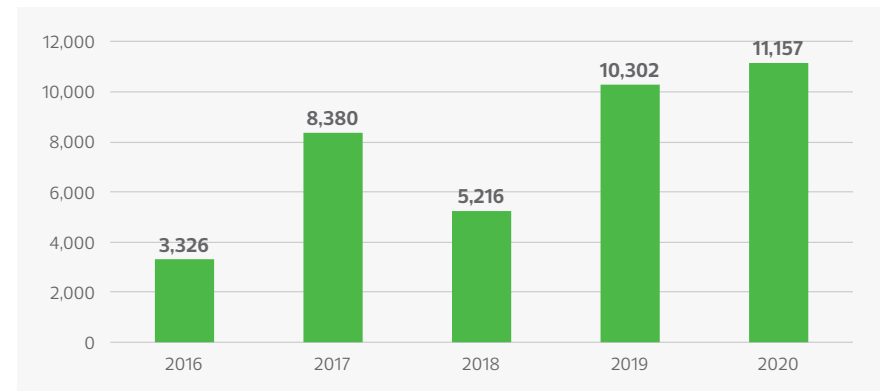
A focus on transforming preferences

Retail's new normal

Retail had been undergoing a technological transformation for years, but the pandemic sharply accelerated the shift from brick-and-mortar sales to e-commerce. Prior to the outbreak, retailers had progressively put more attention on the omnichannel customer experience due to the growing popularity of online sales. The greater emphasis on e-commerce led to a stream of store closures. But the pandemic put that trend in overdrive; more than 40 major retailers, including well-known names like J.Crew, GNC and Lord & Taylor,

declared bankruptcy last year. As a result, more than 11,000 stores have been slated for closure totaling 150 million square feet of retail space. And these figures are conservative; they are limited to public announcements prompted by material events and do not account for the pandemic's impact on small businesses, which is driving totals even higher. As of Aug. 31, 2020, nearly 164,000 businesses were closed that had been marked open in early March, according to Yelp, representing close to 100,000 permanent closures.

Store closures announced per year (as of Dec. 1, 2020)



Source: CoStar Advisory Services

However, it's not all doom and gloom. While one might think e-commerce's rise would have resulted in significant downsizing of the retail space, the national retail vacancy rate is still just two percentage points below its 2010 peak. The reason? Retailers are shifting away from selling merchandise in stores and offering experiences such as escape rooms, gyms, movie theaters and highly curated showrooms for online merchandise instead. But experiential retailers, too, are facing pandemic-induced headwinds. Extended stay-at-home protocols have pushed more people to set up their own home gyms with treadmills and Peloton bikes. How many of these users, having had a long taste of commute-free workouts, will choose to retain their gym memberships when the economy recovers? Movie theaters may also have a rocky recovery. Movie studios are ramping up their direct-to-consumer efforts, giving Netflix and Amazon Prime subscribers the ability to stream new releases. WarnerMedia's film division recently announced that it would release all of its 2021 movies on HBO Max the same day they hit theaters. The smell of popcorn may not be enough to lure skittish customers back to seats in public movie houses.



“We believe that a safe and effective vaccine will provide important fuel for our recovery. And again we are grateful that senior living is being prioritized.”

Cindy Baier, CEO, Brookdale Senior Living

MIDDLE MARKET INSIGHT

Those retailers that have grown their online presence, coupling it with smaller, appropriately configured storefronts and improved in-store experiences, have done well.

To be sure, those retailers that have [grown their online presence](#), coupling it with smaller, appropriately configured storefronts and improved in-store experiences, have done well. Target, for instance, has expanded its e-commerce business while continuing to sign leases and build out slimmed-down footprints ranging from 20,000 to 60,000 square feet in and around urban areas, compared to their larger 130,000-square-foot suburban stores. Another category that has performed well is necessity retail, which includes pharmacies, grocery chains and discount stores like Dollar Tree. These businesses have continued to expand their footprints to meet demand in lower-income and lower-density areas. These examples show how the retail sector is evolving to better serve the interests of the 21st century consumer.

The future of office space

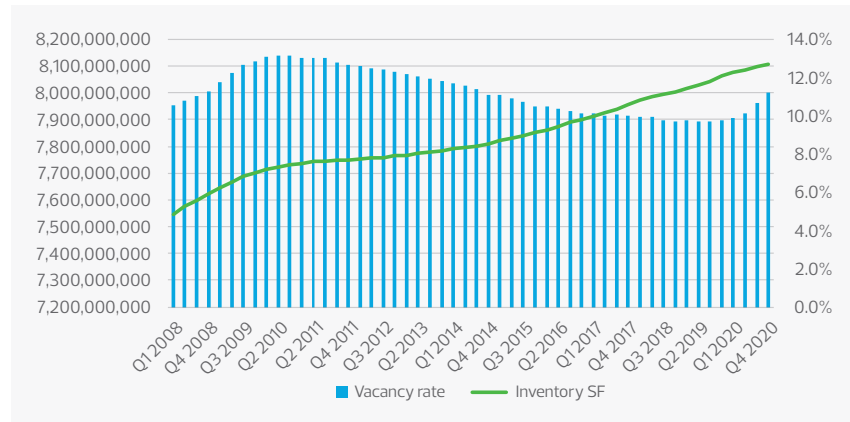
Commercial office space owners, operators and tenants are experiencing a shift in their center of gravity; a year into the pandemic, the office sector hasn't yet found its balance. The long-term trend of migration to secondary markets, along with the lure of lower-cost living and improved quality of life in areas such as the Sunbelt, persists. This migration is contributing to pressure on office space in major metro areas. Overall prospects for the sector won't be clear until

the virus is eradicated and normalized working patterns emerge. The long-term outlook for most markets isn't straightforward—the shifting norms and preferences experienced in 2020 remain structural in nature.

A rebound in demand is expected in 2021 as office users return to physical spaces. Desires at the top of the wish list for office tenants include more flexible space options, shorter leases to support their increasingly mobile workforce and access to new markets to source talent. While some firms will embrace policies that include remote work and increased flexibility, others may choose to leave their existing real estate footprints behind altogether to chase talent. Consider investment bank Goldman Sachs, which has been scouting offices outside of New York—in South Florida—to relocate its asset management business. Meanwhile, a slew of companies has already made the move outside of Silicon Valley, as big names like Oracle and Hewlett Packard relocate to Texas, a state benefiting from recent migration patterns.

In addition to competition from the new supply of offices equipped with the latest and greatest touchless technologies, air ventilation and state-of-the-art amenities, legacy landlords must also contend with the sublet market, which has picked up as companies look to cut costs and shore up balance sheets. CoStar reports a staggering 180 million square feet of sublet additions through 2020's fourth quarter, representing a 43% increase from a year earlier. New supply, as well as sublet supply, has been concentrated in tech hubs like Austin and San Francisco in addition to the sublet space, due largely to the ease with which the tech sector has implemented remote work. Among those companies subletting space in major cities such as New York and Chicago are Facebook, Groupon, AT&T and Marathon Petroleum.

Office vacancies tick up amid new deliveries



Source: CoStar

Investors searching for the next demand generator have taken note of life sciences, which has heated up amid the search for a coronavirus vaccine. Many attractive investment markets have insufficient office space to meet the current demands of biotech and pharmaceutical companies. The transaction appetite speaks for itself: Blackstone Group's \$3.5 billion life sciences real estate portfolio purchase in December near the MIT campus and recapitalization of the firm's BioMed Realty Trust for \$14.6 billion prove that the large players are betting on the space.

While much is in flux, there is still a significant role for traditional office space. Take Google, which has continued to expand campuses in New York, Atlanta and Chicago—all core markets and part of the company's larger diversity and inclusion strategy. The depth and diversity of talent pools in these markets can't easily be replicated elsewhere, and continued strength of pricing of office assets in those markets reflects that premium.

While the appeal of the city life has been temporarily curtailed by the pandemic, people—including office workers—will eventually return to enjoy the vibrancy and culture of cities.

Housing and industrial resilience

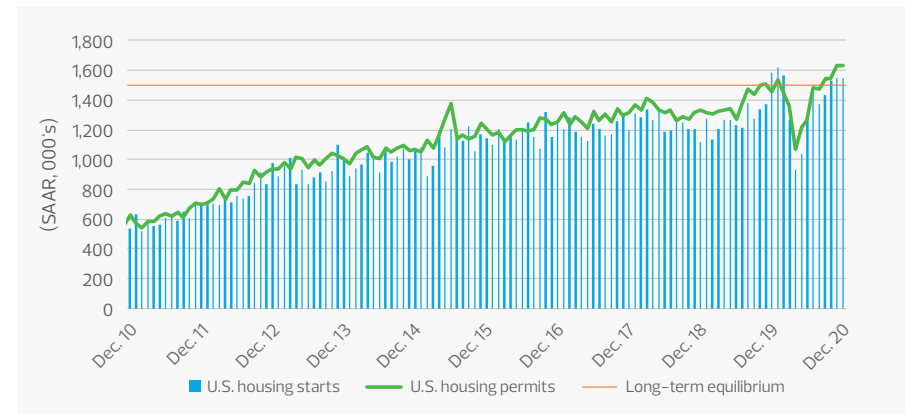
While sectors such as office and retail struggled in 2020, housing has seen a boom, and industrial space remains incredibly attractive. Building out infrastructure necessary to support the shifting landscape of homeowner and consumer preferences will be critical to further growth.

MIDDLE MARKET INSIGHT

At the top of the wish list for office tenants are more flexible space options, shorter leases to support their increasingly mobile workforce and access to new markets to source talent.

Single-family housing remains one of the hottest sectors of the economy, despite an initial drop from the coronavirus pandemic in March and April of 2020. Behind the surge in the single-family housing market are historically low interest rates, growing demand from millennials—many of whom had put off homeownership—and the push of city dwellers out of urban centers into sprawling suburban homes. The homebuilder confidence index has risen to all-time highs in recent months, and with it, housing starts and permits have both risen above their 1.5 million long-term equilibrium.

Housing is booming



Source: U.S. Census

This year it is highly unlikely that single-family housing will derail. Existing home inventories remain depleted and home sales continue to rise, creating the need for new supply, which spells continued growth for homebuilders. Even so, buyers face some challenges including a dearth of new plots of land for building and challenges maintaining affordable homes, especially with the price of lumber again rising, despite tariff reductions to 9% from 20% on Canadian lumber.

SIGNIFICANT INFRASTRUCTURE AND INVESTMENT IS REQUIRED TO SUPPORT THE ROBUST BUILDOUT OF NEW HOMES AND ADVANCED DISTRIBUTION NETWORKS.

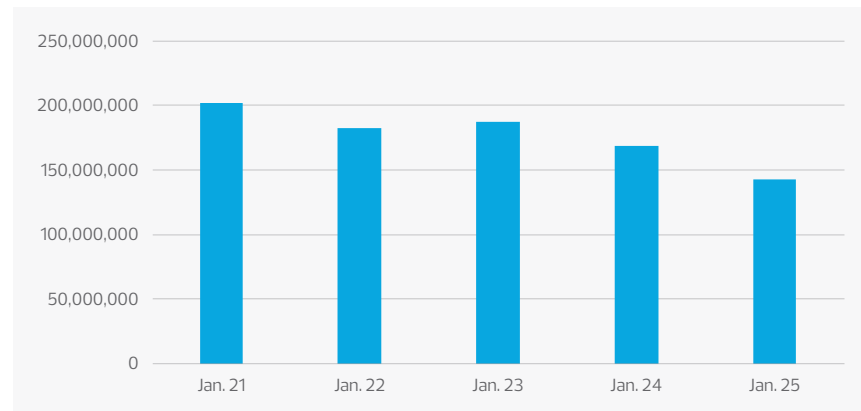


In addition to changing preferences in location, customers have made permanent changes to how they shop. Rising e-commerce trends have unleashed demand for additional warehousing. More resilient and robust distribution networks are paramount for the survival of consumer products' retailers. Real estate private equity groups continue to pour capital into the warehouse asset class, having purchased millions of square feet of space across the country. The next five years are expected to see continued net positive absorption with over 880 million square feet yet to be filled.

MIDDLE MARKET INSIGHT

Housing and industrial are bright spots in an otherwise challenging climate across sectors and will continue to benefit from shifting consumer preferences and resilient market fundamentals. Further investment in infrastructure will support residential and industrial market development.

E-commerce to drive industrial absorption



Source: CoStar

The development of new last-mile warehousing space presents opportunities for the construction industry, as projected square footage will either be net new or repurposed existing space, both of which require remodeling. This trend shows no signs of abating amid the sustained popularity of e-commerce, which has accelerated during the pandemic.

Significant infrastructure investment is required to support the robust buildout of new homes and the enhanced distribution networks to supply them with goods and services. In particular, the roadways that crisscross the nation—known as 12E infrastructure—will be vital to supporting economic growth ([see 2021 forecast from RSM Chief Economist Joe Brusuelas](#)). The incoming Biden administration is proposing a \$2 trillion infrastructure package, including \$50 billion in the first year that is focused on roadways. This would match 2020 spending; however, it would be less than what was spent in the three years prior.

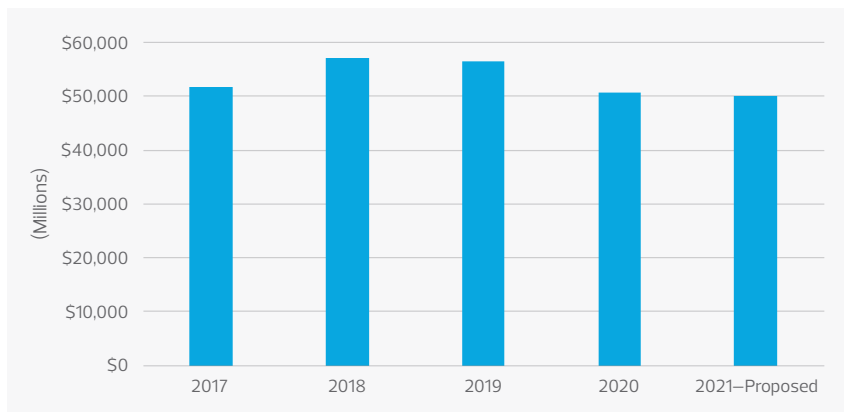


THE ECONOMIC BOOM SET TO FOLLOW THE CONSTRUCTION SECTOR'S CONTRACTION IS LIKELY TO LAST MULTIPLE YEARS DUE TO PENT UP CONSUMER DEMAND, LOW INTEREST RATES AND CONTINUED STIMULUS BY THE GOVERNMENT.

In addition, the Fixing America's Surface Transportation, or FAST Act, was included in a continuing resolution late last year that adds \$13.6 billion to the Highway Trust Fund. At a minimum, this will allow for necessary road repairs that support the sectors of real estate fueling the recovery.

Looking ahead this year, it is expected that car travel will continue to be the most popular mode of transportation—though its use will still be below pre-pandemic levels due to its ability to support social distancing, even after vaccines are widely distributed. Therefore, it is critical that infrastructure funding remains strong.

U.S. transportation awards—highways



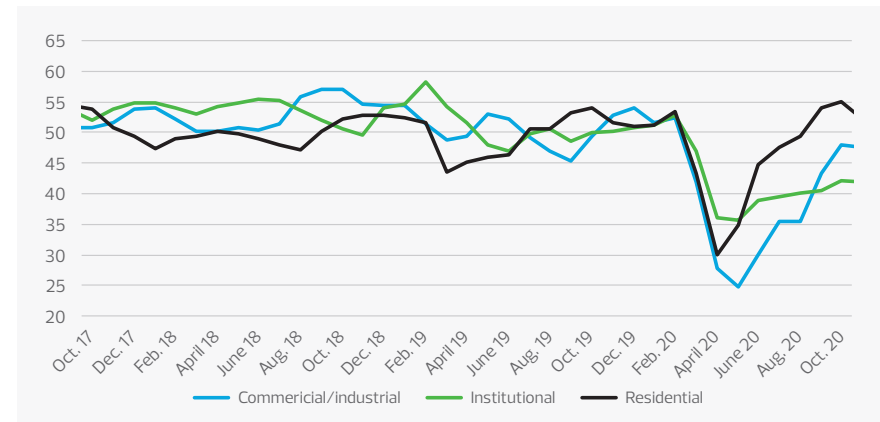
Source: American Road and Transportation

CONSTRUCTION

Survive to thrive

The primary resolution for many contractors this year is simple: survive the first six to nine months at which time the outlook becomes bullish on recovery for the sector.

Architecture Billings Index



Source: American Institute of Architects

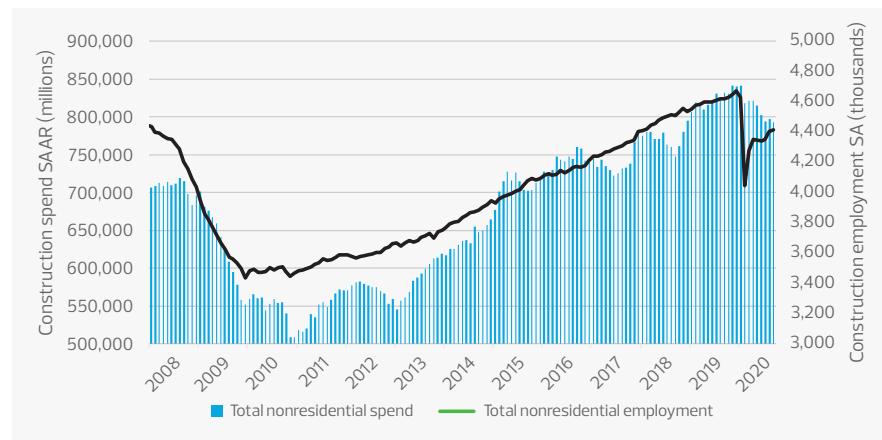
The first half of 2021 continues to pose challenges. The Architecture Billings Index, typically a nine-to-12 month leading indicator of construction work, fell off last April, signaling severe contraction for the industry. Since then, all three

of the index's indicators (commercial/industrial, institutional and residential) have shown positive movement toward the equilibrium level of 50, with [residential leading the charge](#). Low mortgage rates, a K-shaped recovery that has prevented significant decline in wealth for middle and upper-middle class consumers, and the need for greater space as pandemic life becomes more focused on the home have served as tailwinds.

Navigating the first half of 2021 will be critical for many contractors, in particular those without significant backlog or strong balance sheets to weather the storm. With 2019 financial data from the Construction Financial Management Association showing an average contractor has only 21.4 days of cash on hand, contractors that cannot continually replenish their backlogs won't be able to maintain their operations. The postponement and cancellation of projects have resulted in more competition for work, driving down contract values and margins.

General contractors have reason to proceed with caution as potential subcontractor defaults are now more likely. Proper controls around preapproval and credit check processes are essential protections for contractors looking to ensure their partners have the wherewithal to complete the subcontracted work. Additionally, the health of the surety market will inform future bids and pipeline. While surety providers have seen loss rates creep up throughout 2020, there has been no meaningful pull back on credit or tightening of financial metrics for contractors; this is welcome good news.

Nonresidential spend and employment



Source: U.S. Census Bureau; Bureau of Labor Statistics

Although contractors face headwinds, long-term strategic goals shouldn't necessarily be deferred. The pre-pandemic era saw a lack of skilled labor in the sector; now, with a softer market, contractors can preemptively look to fill talent gaps that position them to more fully participate in the recovery. The economic boom set to follow the sector's contraction is likely to last multiple years due to pent up consumer demand, low interest rates and continued stimulus by the government. This, along with the Biden administration's focus on infrastructure, should help to propel construction during the second half of 2021.

Transportation infrastructure, the elephant in the room

Prior to Joe Biden's presidential campaign, which included a promise to restore America's crumbling infrastructure, Presidents Donald Trump and Barack Obama had unsuccessfully attempted to pass sweeping bills on infrastructure spending.

As mentioned earlier, the nation's infrastructure is the most commonly used form of transportation, and has gained in popularity amid the pandemic, which has wreaked havoc on air and railway transportation, the second- and third-most used transportation modes within the United States.

It is no surprise that airports have been devastated by the pandemic; even with the wide distribution of vaccines, it will likely be another two years before air traffic is restored to 2019 levels according to a survey conducted by the International Air Transport Association in October 2020.

Amid the reduction in flight revenue, airport infrastructure spending is also set to decline. One report from the American Road & Transportation Builders Association anticipates a 17% reduction in construction in 2021 compared to 2020, with growth in spending not projected to begin until 2023. Even passage of the \$900 billion stimulus package in late December—which provided \$2 billion for airports—the recovery is likely to be slow and elongated, leading to a continued focus on cost cutting and reduction in allocated infrastructure spend.

Despite all of this, it would be imprudent for airports with sufficient capital and the ability to reconfigure their spaces not to do so. Low interest rates, coupled with reduced project volume, is allowing work to be done more efficiently, making now a good time to invest in these existing assets, provided developers can tolerate the risks and significant volume reductions for the foreseeable future.

A RENEWED FOCUS ON PUBLIC TRANSPORTATION IN THE UNITED STATES IS NEEDED TO IMPROVE THE USER EXPERIENCE AND BOOST RIDERSHIP.



U.S. public transportation is the country's Achilles' heel, mainly because it is not big enough, doesn't go where people need it and doesn't operate as frequently as customers desire. Even prior to the pandemic, American ridership was low, compared to Europe.

Spending on railways has been largely focused on massive overhauls rather than improving connectivity and user experience. The average railway contract has increased over 300% from the year 2000 to 2020, according to data from the American Road & Transportation Builders Association. This increase is approximately four times the next highest category (highway), which saw an increase of 81% over the same period.

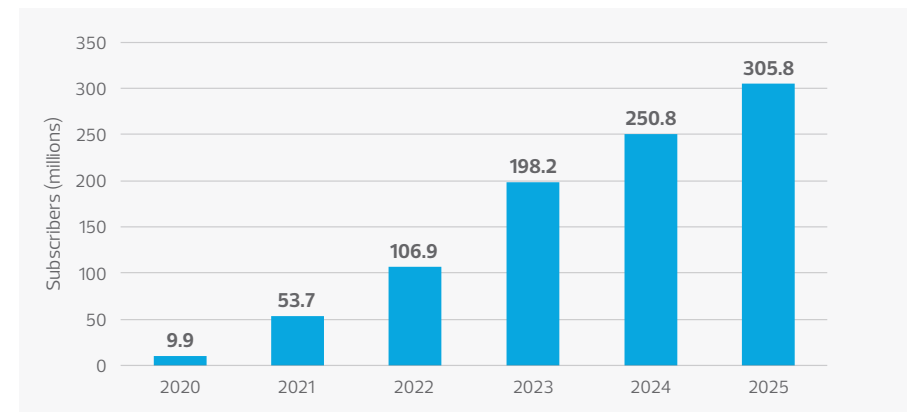
While on the surface this trend is seemingly good news for construction companies, the number of railway contracts awarded has declined steady since 2017 from a record 254 to just 144 in 2020; fewer awards with larger individual dollar amounts typically carry greater risks for the contractor.

Meanwhile, with public transportation decimated by the pandemic, and set for slow recovery, future tax contracts dependent on ridership volumes, and tied to tax revenue are also expected to suffer. Even with funds being allocated to Amtrak and local governments for project funding, revenue shortfalls will likely slow down the public spending train.

Nontransportation-focused infrastructure

Significant components of the new administration's proposed infrastructure plan are tied to nontransportation initiatives, most notably, the expansion of digital broadband and the establishment of 5G capabilities. A significant infrastructure bill early in 2021 addressing these areas will help to modernize America's infrastructure and could lead to multidecade reinvigoration of the economy.

U.S. 5G mobility subscribers



Source: Ovum, Bloomberg—amounts represent estimated subscribers



RESILIENCE, RE-IMAGINATION AND RECOVERY WILL BE THE PRIMARY THEMES FOR REAL ESTATE AND CONSTRUCTION THROUGHOUT 2021 AS THE LONG-TERM OUTLOOK SHOWS LIGHT AT THE END OF THE TUNNEL.

MIDDLE MARKET INSIGHT

A significant infrastructure bill early in 2021 addressing aging roadways will help to modernize America's infrastructure and could lead to multidecade reinvigoration of the economy, with direct benefit to the construction sector.

Demand for connectivity has been driven by the pandemic and is set to continue beyond 2021. While some Americans were able to quickly shift to remote work, others had to boost internet connectivity to support working and schooling from home, moving to broadband service from dial-up as evidenced by user gains experienced by leading broadband providers Charter and Comcast, whose combined usage rose 70% from the first quarter of 2020 to the third quarter.

Another anticipated development in internet connectivity is the expansion of 5G. Its rollout is predicated on the deployment of new transmission infrastructure that includes thousands of cell towers and antenna deployed on utility poles and other urban infrastructure. Much of this infrastructure construction was placed on hold as a result of the pandemic due to challenges with labor and resources; with multiple vaccine candidates now in the works, there will be a resumption of 5G infrastructure development in 2021 and beyond.

Looking ahead for real estate and construction

Resilience, re-imagination and recovery will be the primary themes for real estate and construction throughout 2021 as the long-term outlook shows light at the end of the tunnel. The perfect storm brought on by the pandemic has accelerated many digital trends, prompting nimble property managers and developers to adapt, repurpose and realign their space offerings to keep up with shifting consumer preferences.

Concurrent with those changes are many fresh opportunities for the construction sector, which will benefit from significant shifts in commercial property, a sustained boom in housing and impending buildout of U.S. infrastructure under a new administration in Washington. ■



TECHNOLOGY, MEDIA AND TELECOM COMPANIES ARE DEVELOPING A MORE CONNECTED, EFFICIENT FUTURE AND EXPERIENCING SIGNIFICANT GROWTH OPPORTUNITIES.



INDUSTRY OUTLOOK:

TECHNOLOGY, MEDIA AND TELECOM

BY VICTOR KAO, DAVIS NORDELL, KURT SHENK AND DAVID STUART



THE TECHNOLOGY, media and telecom sectors continue to surge forward and investors are eager to grab a piece of these growing markets. A new administration and a recent high-profile breach are generating new cybersecurity investments, video gaming and esports interest is soaring due to the pandemic and expanding platform capabilities, and accelerated connectivity capabilities are on the horizon with expanded 5G infrastructure and high-speed satellite internet. Significant opportunities are available for companies that are prepared and ready to capitalize.

KEY TAKEAWAYS

- Recent data breaches increase momentum for cybersecurity providers
- Capital opportunities remain plentiful for technology companies
- Roblox direct listing IPO likely for early 2021 after potentially well-timed delays
- The appetite for investments in video games and esports continues to build with no end in sight
- After a year of reduced 5G CAPEX spending, a significant rebound is projected for 2021
- Initial Starlink results and expansion plans could signal a bright future for high-speed rural internet



MORE THAN ONE IN FIVE PRIVATE EQUITY DEALS IN 2020 WAS IN THE INFORMATION TECHNOLOGY SECTOR, REPRESENTING THE GREATEST PERCENTAGE IN THE LAST DECADE AND AN INCREASE FROM 17.5% IN 2019.

TECHNOLOGY

Recent widespread breach provides tail winds for cybersecurity companies

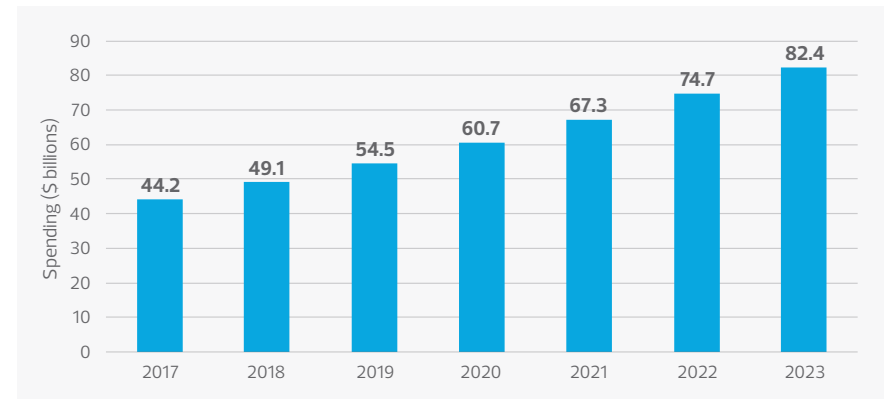
The coordinated [cyberattack](#) on thousands of companies and multiple U.S. government agencies in December 2020, coupled with President Biden's cybersecurity agenda in a year beginning with a continuing COVID-19 pandemic, should provide nice tail winds for the cybersecurity industry. Fairly sophisticated hackers perpetuated the hack—once they were in the front door through a network management tool, they were able to gain access to—and install harmful malware within—numerous organizations.

To date, approximately 80% of cybersecurity workloads are on-premises, but the recent hack was a cloud hack, where only 20% of cybersecurity workloads are focused today. Cybersecurity companies will continue to migrate their solutions to the cloud in 2021 to help their clients mitigate against breach risks.

MIDDLE MARKET INSIGHT

Cybersecurity companies such as Palo Alto will pursue a buy-and-build strategy to obtain cloud solutions, which will cause increased consolidation within the industry. Middle market tech companies with a market cap of \$0.5 billion to \$3 billion could be targets for the next deal in this space.

Security services spending forecast



Source: IDC; Bloomberg Intelligence

Access to capital remains high for the technology sector

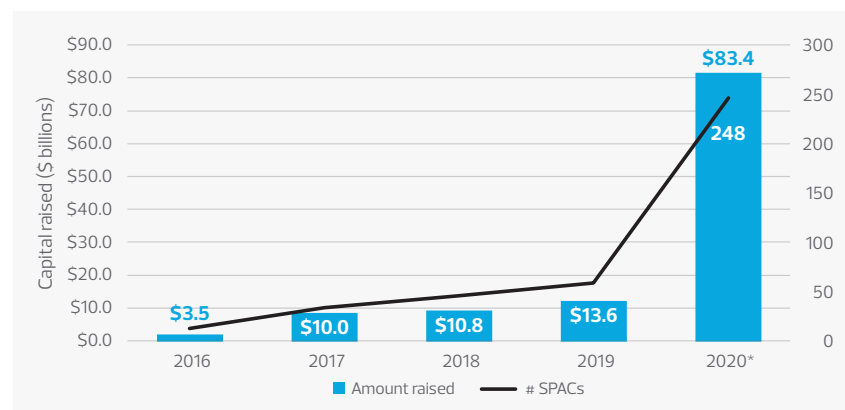
There are no two ways about it, the technology sector is hot, and a wide range of organizations want to get involved. The amount of money invested in the industry continues to climb, and companies have an increasing amount of avenues to make deals and generate capital, especially in the following:

- **Venture capital:** In 2020, venture capital firms deployed approximately \$150 billion in capital, posting a record for the last decade according to PitchBook. Venture capital-backed technology companies have been resilient in 2020, amidst the COVID-19 pandemic, with particular technology verticals such as cybersecurity and health tech that received

tail winds as a result of the pandemic. Late-stage investing (series C and beyond) performed particularly well in 2020, and we anticipate that will continue into the new year. According to CB Insights, there are 515 unicorns globally, many of which will be prime target for exits in the coming year. Some unicorns will choose to exit through [IPOs](#), where they hope to achieve success similar to the exits we saw from companies like Snowflake, Airbnb and DoorDash in 2020.

- **Private equity:** [Private equity](#) has had an increased appetite for doing deals in the information technology sector. According to PitchBook, more than one in five private equity deals in 2020 was in the information technology sector, representing the greatest percentage in the last decade and an increase from 17.5% in 2019. Thoma Bravo continued to be very active in the technology sector, completing over three dozen deals during 2020, four of which were deals in excess of \$2 billion. We expect an increasing number of private equity groups to be active in the information technology sector, as the asset class continues to perform well during the COVID-19 pandemic.
- **Mergers and acquisitions:** The largest cloud M&A deal in 2020 was the Salesforce acquisition of Slack at a purchase price which was approximately 25 times forward revenue. In 2021, we expect there to be increased regulation by the U.S. Department of Justice over the acquisitions of middle market technology companies. 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. According to Bloomberg, a record number of M&A deals were announced in the last two weeks of December, and we expect that the technology sector will continue to be a target for M&A in the first quarter of 2021.
- **Special purpose acquisition companies (SPACs), IPOs and direct listings:** [SPAC IPOs](#) were the most popular IPO vehicle in 2020. Many of the SPAC IPO registrations are expected to target technology companies in 2021. We also expect more direct listings in 2021. The success of the Palantir and Asana direct listings will have far-reaching implications for the future of how technology companies will look to debut as public companies. In addition, many technology companies will continue to choose an exit through a traditional IPO. Some companies that are reportedly eyeing a 2021 IPO are Robinhood, ZipRecruiter, Instacart, UiPath, Roblox and Bumble.

SPAC IPO registrations



Source: SPAC Research

*Data through Dec. 23, 2020

MEDIA

Roblox IPO will set new wave of video gaming IPOs and trends for 2021

The highly anticipated Roblox IPO was postponed twice in 2020—but for good reasons—and is likely to debut a direct listing IPO in early 2021. Who's to blame them for a delay, especially after seeing Airbnb shares more than double on day one, and DoorDash nearly meeting that milestone by spiking 86%?

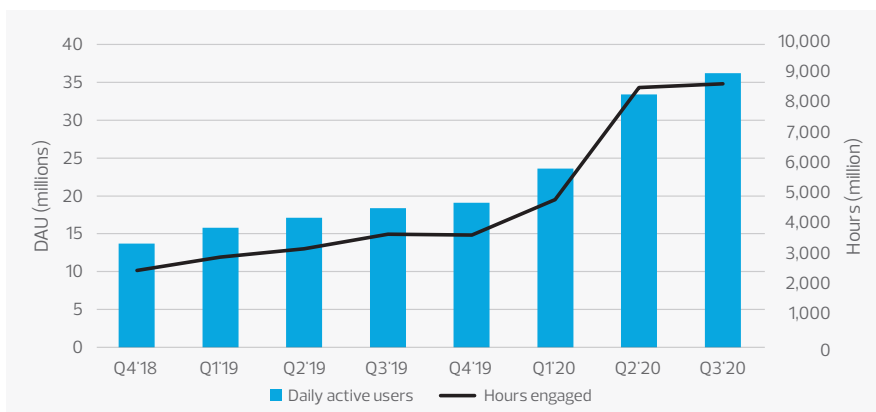
After recent explosive IPO hits, Roblox management concluded that they could be leaving money on the table if they pulled the IPO trigger too quickly. Earlier in 2020, analysts forecasted that if Roblox went public, it could easily reach an \$8 billion valuation, twice what investors valued the company in private fundraising rounds according to PitchBook. However, the “wait and see until 2021” strategy could garner even larger investments at a higher valuation, which could fuel a series of [video gaming](#) IPOs in the near term.

In fact, in early January, Roblox raised \$520 million in Series H funding at a purchase price of \$45 per share, putting the gaming platform at a \$29.5 billion valuation. To put that in perspective, Fortnite creator Epic Games is valued at only \$17.5 billion.



THE PANDEMIC CREATED A TIDAL WAVE OF NEW AND MORE FREQUENT GAMERS TO PUSH THE INDUSTRY TO \$175 BILLION IN REVENUE, REPRESENTING AN ASTOUNDING 20% YEAR-OVER-YEAR INCREASE.

Roblox daily active users vs. hours engaged

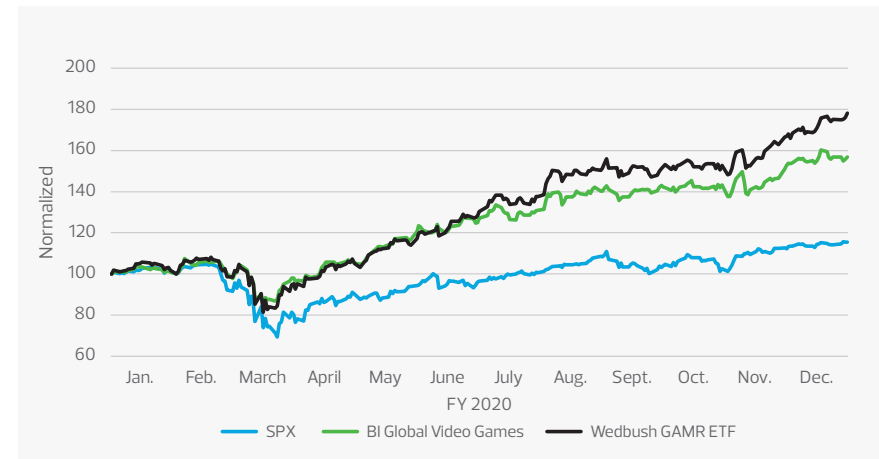


Source: Roblox S-1 Filing; RSM US LLP

Unless you have kids, it's hard to understand the phenomena behind the Roblox craze or what it really is. The online gaming platform has literally created its own marketplace in which even kids themselves can develop games using pre-fabricated blocks (rather than code), and easily share or distribute them among friends. In other words, it's so easy a kid can do it. If these kids are as wildly successful as "Adopt Me!" (a virtual pet adoption game which has tallied 11.6 billion play hours since inception) not only will your child's education fund be taken care of, but they can pay off your home and start preparing your early retirement plans. Note to parents: start your kids in Roblox programming classes.

While most games within the platform are essentially free, Roblox earns a majority of its revenues by having consumers purchase Robux (its own virtual currency) which are then used to enhance their gaming experience. One could argue whether purchasing "skins" or articles of clothing for your avatar is enhancing, but it's a small price to pay to avoid being labeled as a "newbie," "noob," or "n00b" in the gaming world (i.e., a new player or beginner).

Video gaming index vs. S&P 500 in 2020



Source: Bloomberg; RSM US LLP

Gaming during the pandemic

According to Newzoo, video gaming and esports were originally forecasted to bring in \$159 billion in global revenues for 2020. However, the pandemic created a tidal wave of new and more frequent gamers to push the industry to \$175 billion in revenue, representing an astounding 20% year-over-year increase.

As the quarantine started to unfold, many resorted to gaming, and video gaming internet traffic nearly doubled according to Verizon Media. Twitch's hours watched grew 63% quarter over quarter, to 5.1 billion hours during Q2; Roblox saw similar increases, as daily active users jumped 42% and hours of engagement increased 76% quarter over quarter to 8.6 billion hours.

Despite the pandemic, the S&P 500 managed to increase nearly 16%. However, the growth in the video gaming market and indices has been even more astounding. The Bloomberg Intelligence index for global video gaming and Wedbush's video gaming exchange traded fund saw returns of nearly 60% and 80% respectively.

What's in store for 2021?

So far there's nothing in sight to slow down this freight train. Even as the pandemic lifts, video gaming has created newly minted hobbies for those who never played and opened up ecosystems and revenue channels never seen before. When Sony announced a \$250 million investment in Epic Games, giving them a mere 1.4% interest in the game development studio at a valuation of \$17.86 billion, it wasn't because the company had too much money with nowhere else to put it. Leveraging gaming platforms for virtual events such as the Marshmello and Travis Scott concert on Epic's Fortnite created surprising successes. Try fitting 33 million people in Madison Square Garden to watch a Lil Naz X concert. Roblox did it, and Sony wants a space on this old town road.

The appetite for investments in the technology industry has grown stronger than ever, and the amount of dry powder within this sector continues to increase—meaning the demand for capital investments is out there. In addition, new avenues of investments—such as SPACs—have grown in popularity. These blank-check companies are accumulating investments through IPOs and acquiring companies to reverse merge into their shell companies. Recently, SPAC fund Flying Eagle Acquisition, headed by Hollywood veteran Harry Sloan, raised \$690 million to acquire mobile gaming and tournament platform Skillz Inc. to put it in a fast-path IPO of a valuation over \$3.5 billion.

MIDDLE MARKET INSIGHT

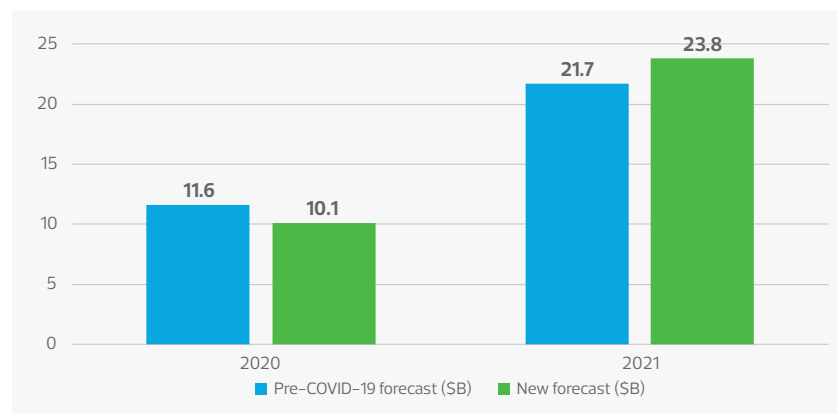
With strong opportunities in private equity, venture capital and the broader public market via [IPO](#), the momentum in 2020 within video gaming and esports will continue in 2021. With more transparency within video gaming activities in the public market, investor confidence will only increase in this relatively new market.

TELECOM

5G and the year ahead

In 2020, the COVID-19 pandemic temporarily affected [5G](#) CAPEX spending for many operators. An Analysys Mason report expects 2020 spending will be down 7% from its original forecast. However, it expects CAPEX spend will have begun to bounce back in Q4 of 2020 and to continue that momentum into 2021. A revised spending forecast for 2021 includes a 9.7% increase, with total CAPEX spending globally projected to increase to nearly \$24 billion, more than double the previous year.

5G-related network CAPEX forecast



Source: Analysys Mason

FOR ENTERPRISES, THE EMERGENCE OF 5G SERVICES IS JUST BEGINNING. 5G PROVIDES THE SPEED AND BANDWIDTH NECESSARY FOR EDGE COMPUTING, ALLOWING ORGANIZATIONS TO MOVE COMPUTATIONAL RESOURCES AWAY FROM DATA CENTERS AND CLOSER TO THE END USERS, INCREASING SPEED AND OPERATIONAL EFFICIENCY SIGNIFICANTLY.



Average 5G speed is already reportedly 10 times faster than 4G. Once the network is fully built, 5G devices will theoretically be able to reach speeds up to 100 times faster than 4G. From a consumer perspective, this means instantaneous streaming and downloading. It also gives consumers the bandwidth and ability to establish hot spots so they can enjoy high-speed internet across an array of devices. Additionally, in the years ahead, it will make augmented and virtual reality ubiquitous.

For enterprises, the emergence of 5G services is just beginning. 5G provides the speed and bandwidth necessary for edge computing. Edge computing allows organizations to move computational resources away from data centers and closer to the end users, increasing speed and operational efficiency significantly. An Ericsson study conducted in June 2019 estimates that between 2020 and 2024, the 5G revenue potential for operators will grow from \$14 billion to \$129 billion. Organizations across various industries have already begun planning and optimizing for this eventual shift. We expect this trend will continue accelerating throughout 2021 as 5G commercial service continues its ramp up.

High-speed satellite internet begins public rollout

In October 2020, SpaceX began public beta testing of Starlink, its new high-speed satellite internet service. Since rollout, access has expanded quickly to thousands across the United States, Canada and most recently the United Kingdom. Germany and Australia have also recently approved Starlink services with beta testing in these countries expected to begin soon. Additionally, the company is seeking approval in more than a dozen more countries. We expect this number will grow rapidly as the company continues to expand its network and service capability.

MIDDLE MARKET INSIGHT

The many recent failures of other low-earth satellite projects show that this is a high-risk market. However, the rewards are significant if Starlink can achieve its goal of providing high-speed, low-latency internet to anywhere in the world.

Initial Starlink results appear promising. In places like rural Montana, download speeds in excess of 200Mbps have been reported. A recent *Forbes* report details that these speeds are faster than 95% of U.S. connections, according to the speed-tester provider Ookla. Nearly 20 million Americans and a much greater number of people globally do not have access to high-speed internet. Realizing the opportunity, Starlink has already filed an application to add an additional 30,000 satellites to its currently approved 12,000-satellite constellation. Today, the constellation is nearing 1,000 satellites but that figure is expected to more than double by year-end as the company continues to ramp up satellite production and launch frequency.

Beyond consumer services, Starlink has the ability to create an entirely new market of enterprise services including high-speed connectivity for airlines, ships, remote facilities, corporate networks and broadcast services. ■

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