

QUARTERLY REVIEW

IF 4218 Third Quarter, 2021

DID YOU KNOW?

- The number of immigrants entering the U.S. declined last year for the fourth straight year, settling below 500,000 for the year, less than one-half the level of 2016. (Atlanta Journal Constitution, 7/11/21)
- Canon, the Japanese camera maker, has deployed artificial intelligence (AI) software that prevents employees from entering meeting rooms unless they are smiling. (The Week, 7/2/21)
- According to the World Wildlife Fund, South Africa is home to around one-third
 of all succulent plant species, which are today threatened by a global wave of
 succulent poaching that is severely threatening biodiversity. (New York Times,
 8/1/21)
- The pass rate was only 25 percent for the Chartered Financial Analyst Level I exam administered in May, the lowest it has ever been since testing began in 1963. (*Bloomberg BusinessWeek*, 8/2/21)
- By the end of 2020, there were 217 million 5G subscriptions worldwide, according
 to a study by Ericsson. In June, Samsung researchers achieved speeds 50 times faster than current 5G 5.23 gigabits per second, for a future
 6G network. (Automotive News Shift, 8/21)
- The koala bear population has shrunk by about 30 percent in the past three years, according to the Australian Koala Foundation. The gentle animals have been ravaged by wildfires, as well as deforestation for mining, agriculture and housing. (Bloomberg BusinessWeek, 9/27/21)
- For the first time in history, the Amazon rainforest, which is being burned away for farm land, is emitting more carbon dioxide than it is absorbing. Currently, the world's forests absorb roughly one-fifth of globally emitted carbon dioxide. (*Science News*, 7/3/21)
- Americans now spend more time on TikTok than on YouTube. At the first TikTok World marketing event at the end of September, the company
 unveiled TikTok Shopping. The hashtag #TikTokMadeMeBuyIt had 4.6 billion views since it was created. (*Tube Filter*, 7/5/21; *Women's Wear Daily*, 9/29/21)
- In 2020, there were more different songs on *Billboards'* Top 100 list than in any year since the 1960s, the last decade when singles drove the music industry. (*Vox*, 6/29/21)
- Through the first seven months of 2021, daily New York City subway ridership in the busiest stations in downtown Manhattan reached 6.3 million passengers, an 82 percent decrease from the same period in 2019. (New York Times, 9/4/21)
- Kevin Paffrath, a 29-year-old real-estate broker, now has 1.7 million YouTube subscribers as MeetKevin. He talks about the stock market and
 gives equity advice. Kevin earned \$5 million through the first three months of this year through his YouTube channel. (Wall Street Journal,
 8/27/21)
- A truck circled the Bank of America Stadium in Charlotte where the Carolina Panthers were playing in a home opener against the New Orleans Saints. The box truck was emblazoned with: "Don't Get Vaccinated." The bold "ad" included in smaller print the alleged sponsor: "Wilmore Funeral Home," whose website landing page simply says, "Get vaccinated now. If not, see you soon." (Charlotte Observer, 9/20/21)



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Assisted-Living Economy (An): Money Comes From Everywhere, And Everyone Gets Assistance

"Assisted living for Millennials" - that was how one journalist characterized the widespread subsidizing of start-up enterprises that sought to increase their market share by pricing goods and services below cost, essentially losing money with each transaction. Yet, more than that one cohort benefitted from undercost pricing for a ride-hailed taxi, food delivery or access to a scooter and so on. And just as this underwritten economy was becoming commonplace, the pandemic forced more substantial assistance programs through government, with the federal government subsidizing consumer spending to the tune of \$5 trillion. Now, as venture capital pulls away from money-losing enterprises and as government support is coming to an end, the pressure moves to corporations to increase wages and salaries sufficiently to sustain the economy's growth. The Assisted-Living Economy is counting on it. (IF 4213)

□ China Coming Out of the Pandemic

China's leadership knows how to plan. year ago, in October 2020, the Chinese government held its Fifth Plenary Session of the Nineteenth Central Committee of the Communist Party (CPC), at which the ruling party reiterated its recovery plan for coming out of the pandemic. The country would focus on two avenues of development: a plan for digital build-out, dubbed "New Infrastructure," and an initiative promoting the domestic economy, called "New Development." These dual plans included the building out of Big Data analytics, expanding applications of AI, establishing a nationwide 5G backbone and creating the Industrial Internet. In doing so, the government wished to establish the country in leadership positions in a variety of industries and to move the country past the setbacks of the global pandemic.

This year, Beijing has continued to orchestrate its plan for development of the domestic economy with a multipronged approach. First, its economic planning agency has warned businesses against the kinds of behaviors that have resulted in soaring commodity prices, especially of those commodities that undergird infrastructure build-out, such as iron ore. Next, the government is continuing to grow the consumer economy by increasing the types of jobs available through implementing emerging employment models, exploring new benefits offered and encouraging jobs in community services. These moves are designed so that households may increase consumption and therefore improve the country's per capita GDP. Third in the government's approach has been the promotion

of China's e-commerce platforms to foreign companies so that greater product assortments may be available to their customers, again, promoting consumption. To facilitate this strategy, retail platforms are building technology-driven, efficient logistics systems for shipping and warehousing.

The Chinese government plan for New Infrastructure development included 5G has technology as the backbone to roll out newer, advanced technologies. Among the smart applications targeted for development are technologies for virtual interactions (e.g., AR, VR and mixed reality), smart super-sensing and the Internet of vehicles, drones and smart driving. The build-out of 5G connections is also targeted for use in manufacturing, aviation and telehealth, as well as steel and coal production. Further, China has shifted its efforts from a regional focus to include global foreign partnerships and alliances. Its plan is to become the central player in global trade by using its coordinated Belt and Road Initiative so that the country may apply its technologies abroad and lock partner countries into a growing network of trade agreements. In this way, the government is enhancing its own growth and proceeding toward its planned "great rejuvenation." (inF 1612)

□ Coming Out of the Pandemic: Lessons Learned, Changed Habits And New Values

Beyond the illness itself and its after effects and beyond the economic dislocations that ensued, what are going to be the effects on individuals after the pandemic becomes less impactful? Habits and routines have certainly changed, especially those that developed around work schedules prior to the pandemic. Lessons learned from this unique experience include: Eliminating habits and routines opens up possibilities; time is more in one's hands than once thought; security and safety are fragile; employment and careers are uncertain; a good life can be lived less expensively than formerly thought; alternatives are everywhere; experts (CDC, Congress, doctors, police, corporate leaders, etc.) cannot always protect us; and without trust, society comes apart. These kinds of lessons learned from the pandemic experience affected individuals' perspectives, how they view and relate to the world and what they can do to make the world more livable. They have surfaced several values to help address these issues: Pragmatism; Social Engagement and Fairness; Convenience and Comfort; Versatility and Resilience; Balance and a Life of Richness; and Time, most important, Time. As society moves away from the constraints of the pandemic, the lessons learned and the values applied will affect the wide economy, markets and institutions. (inThought)

□ Here to Stay - Digital First

Over the past several decades, technologies have been incorporated into the ways companies operate and have trained individuals how to think, behave and live their lives. The first phase of the evolution from an analog to a digital world came in the 1990s, with the advancement of data compression. Research laboratories at cable companies developed six-to-one compression, which allowed for broadband transmission and the beginning of the incredible new capabilities we are living with today. By 1995, we suggested that the Internet was the Killer App, and we subsequently witnessed the dot.com boom (and bust), the birthing of e-commerce and the growth of automation software, among many capabilities. The build-out for all the hardware and software in this first phase created what we called the Gods of Technology: Microsoft, Cisco, Lucent, Dell and Intel. Yet, importantly, these capabilities were all location-based.

The second phase of the digital evolution ramped up quickly in 2012, at about the time the iPhone reached 50 percent penetration in the U.S. This took the world from location-based digital usage to a new digital age via mobility. The smartphone allowed individuals to document their lives, make purchases, stream entertainment and access the universal library of Google, among a myriad of uses, at any time, from anywhere and by anyone. The new mobile capabilities also created psychological and operational changes in users, and this was the phase in which individuals became digitally trained consumers. Algorithms directed lives, mobile payments created mountains of data and cloud computing allowed for the capability of start-ups. In this phase, again, the companies that helped to facilitate such capabilities won market share.

Now we are moving into a third phase of digital advancement, which is likely to have similar rolling impacts. This new Digital First phase is one in which digital becomes the primary way individuals and companies operate and interact, whether that be with customers, employees, suppliers, friends, family or government. For example, the incorporation of Omnichannel ways of operating is quickly becoming a requirement for businesses so that they meet customers' expectations of simplicity, speed, ease of use, access to information, products, services and entertainment – when, where and how they want them. Individuals and companies are increasingly incorporating and interacting with such technologies as QR codes, augmented and virtual realities, and robotic process automation (RPA) software. These types of technological developments have encouraged virtual capabilities, rather than physical interactions, to become primary. The shift from analog to digital, which is now entering phase three, was accelerated when the global pandemic made operating via digital technology a necessity. The pandemic may be coming to an end, but the shift to digital as the primary way of connecting, selling, communicating

and being is just beginning. This dynamic will have vast implications in terms of responsibilities – socially, governmentally, interpersonally and generationally. (**Personal Briefing**)

□ "Keys To The Kingdom": Entering a Post-Cold-War Era, Featuring Less Security and Even Less Freedom

Two escalations in cyber-threat capabilities have moved the world into a different post-Cold War environment, one in which online conflicts that can damage economies and yield physical harm have become part of daily routines and one in which current smartphone security has become anachronistic. First, zero-day bugs, which are errors in software programs that enable hackers to circumvent all security systems, have elevated system risks for corporations and government agencies. The term "zero day" is intended to explain that by the time outsiders discover a bug in a target's software, the target has no days left to fix it. Second, a more recent zero-click surveillance software, called Pegasus, can circumvent nearly all security and encryption on a smartphone and embed itself in a target phone "over the air." With these two entrants into the realm of cyber-hacking, the threat environment has moved to a much higher level of risk and damage. These kinds of cyber-security changes reveal that traditional methods of keeping cybersystems secure - much like home security systems - might be able to keep out the amateur, but they have much more trouble keeping out the pros, especially when the pros are state-backed. In a networked world, security comes down to the weakest link. (IF 4215)

Mental Illness - The Post-Infection Phase of The Pandemic: Effects and Implications

Since 2008 and the onset of the Great Recession, we have been writing about the cumulative effects of anxiety, depression, stress and tension on individuals. For many, these have never ended. Beginning with the lockdowns implemented to mitigate the spread of COVID-19, we have monitored the effects of such an environment and a deadly disease on the mind. The human brain, we noted, does not like uncertainty such as that created by the pandemic, and so individuals listened to many perspectives being espoused publicly in order to ease their own uncertainty and the stress created by the situation. As the months of the pandemic wore on, the insecurities provoked by COVID-19 created a kind of chronic trauma accompanied by other extremely stressful events, such as an economic recession, environmental disasters and societal protests and violence. Indeed, the mental state of individuals has essentially suffered a "collective trauma."

Most Americans living through the pandemic – infected or not – have suffered some symptoms of anxiety, depression, loneliness, mental confusion, paranoia, fear or hopelessness, all exacerbated by isolation and a sense of being at risk of dying or, at least, of becoming very sick. Even children and adolescents, most of whom have avoided infection, have had issues with stresses to their minds. As the disease phase of the pandemic starts coming to an end, these symptoms of mental illness started by COVID-19 and the pandemic environment will likely linger after the infection phase has passed, similar to the psychological stresses caused by the Great Recession, which were still present a decade later.

The effects and implications of the mentalillness issues and collective trauma of the pandemic are many. Schools have new costs attached to their annual budgets because of this new kind of problem. Employee burnout as well as mental stresses will alter office dynamics. Potential increases in violence are already playing out across the U.S., and studies have suggested that the presence of dual diagnoses (e.g., mental illness and socioeconomic stress or mental illness and substance abuse disorder) were more likely to result in violence used in an effort to solve individuals' problems. People, especially women, have gained weight and have indulged in too much alcohol during the pandemic, creating a different kind of stress on their minds; some treatment programs are already beginning to see a bump in enrollment. These multitudes of factors, and more, will have real impacts on the healthcare system, the workplace and on society in general, for an extended period after the physical effects of the virus have lessened. (inF 1611)

□ New Ways of Selling Create Omnichannel Customer Connections

In 2016, we wrote about the development of multichannel and multifaceted retail touchpoints that had developed into what the industry had begun to call "omnichannel" retailing. This type of retailing included the ability to order online from within stores, the option to buy online with the ability to return goods to stores, goods shipped from store inventory, orders placed online and picked up in-store and shopping the oldfashioned way - completely in-store. Then, in 2020 we noted that omnichannel ways of operating had moved beyond the retail sector to many other areas of the economy, hastened by the onset of the pandemic and its shelter-in-place orders and social distancing requirements. Companies, organizations and artists responded by creating omnichannel Connectivity and Experiences, thus aligning with the digitally trained consumers' expectations of access to information, products, services and entertainment, when, where and how the consumers wanted them.

New omnichannel ways of connecting and selling are continuing to grow in assorted marketplaces. Independent farmers who have traditionally sold their wares at farmers' markets are now utilizing new online marketplaces to sell directly to consumers while satisfying the consumers' desire for healthful food options. Retailers are expanding alliances or outright purchasing new technology companies so that they may integrate digital capabilities such as augmented reality, artificial intelligence, virtual reality and personalized suggestions via customer data and design tools. The pandemic ramped up consumers' desire for contactless checkout options, resulting in increased use of PayPal, Venmo and other digital payment methods, not only online but also at cash registers in stores. Meanwhile, QR codes have now become ubiquitous for touchless connections to menus and websites and even as payment options. Such touchless facilitation has appealed to the digitally trained consumers' desire for ease and speed. In real estate, the new "instant buyers," or iBuyers, have created a digital way to purchase homes directly from sellers for a fast flip, some even helping the homeowner purchase their next home before selling their current home. iBuyers use technology to offer sellers the speed, ease, simplicity, convenience and transparency prized by digitally trained consumers.

As businesses continue to develop digital methods of selling to complement their in-person offerings, they have created new efficiencies of operations and are satisfying consumers' desires for access to what they want, when they want it, in a timely and painless manner. Yet new security challenges are also growing, such as "item not received" fraud, payment fraud and "boxing" by which a consumer returns the box received for credit but has enclosed a different item than what they received. While some will chalk up these types of problems to the cost of doing business, several retailers and logistics providers are attempting to put tools in place to combat the malfeasance. Ultimately, new opportunities will continue to grow for digital-security systems as well as the technologies needed to facilitate deeper selling connections with end customers. (inF 1614)

□ Space, Back Here on Earth

In late 2018, we started discussing a context that we called "Changing Places (and Spaces)," in which retailers and other businesses with physical real estate were changing the size, configuration and utilization of their spaces and offering new kinds of experiences in order to align with the needs of the digitally trained consumer. In essence, they were rethinking how they needed to change their available space to remain viable, sustainable businesses. By August 2020, we updated that context as the global pandemic was making some indoor gatherings impossible and others risky. Countries, cities and companies were rethinking

how to best utilize spaces available to them in order to keep citizens, employees and customers safe and to create sustainability both in the short and long term.

Changing consumer values and priorities, as well as what we have called the New Economy, are today creating declining demand for certain kinds and locations of real estate, while the need for more physical space in other industries and sectors is growing so rapidly that companies can't find the desired locations to expand quickly enough. Since 2017, there have been 60 new retail-to-industrial conversion projects while for the entirety of the last decade, there were only 94 such projects. Conversions in the pipeline include transforming malls into fulfillment and distribution centers. New construction projects are underway for warehouse facilities and packaging facilities, many thanks to the increase in online shopping. Malls are also shifting from pure retail space to combinations of retail and office, school and ghost-kitchen spaces. While some offices are relocating inside defunct or high-vacancy malls, several large office campuses are reimagining their real estate by converting it to lab facilities. And an assortment of retailers with large footprints are opening and planning new small-format stores.

The forces of change are producing a rethinking of how to utilize spaces to align with current consumer and corporate demand. This ongoing shift includes

the development of experiential spaces such as gyms, bistros, sports facilities and other amenities in malls, department stores and even individual retail flagships. The global pandemic, which created new challenges for office real estate and greater tailwinds for online commerce, further strengthened this dynamic. Changes in the uses of real estate, its demand and the value of certain kinds of properties are continuing to evolve. (inF 1613)

■ Where To Place Your Attention

While the partisan divide is a driving force in American politics today, we believe our clients are best served by staying focused on insightful facts and events, especially those that may slip under their "attention radar." The global foreign strategy behind the myriad international deals and alliances crafted by China is moving not only China but also those on the other side of the deals to the center of global trade and to the core of international relations. Placing attention on such multifaceted global, economic and political actions and the resulting alliances serves to highlight international areas where growth and prosperity are likely to spring from and provides an early spotlight on where investment and business opportunities may grow. (8/19/21)

