History has shown that major crises often lead to fundamental shifts in economic and social behavior. The 1930’s Great Depression engendered economic protectionism and laid foundations for the Second World War, but also boosted resourcefulness, productivity, and innovation. World War II brought more women to the workforce, what some economists have identified as one of the most important economic developments of the past century. Meanwhile the 2008/2009 Global Financial Crisis heralded a new era of populism and anti-establishment sentiment fueled by widening inequality.

The current coronavirus pandemic will similarly lead to adjustments in the way we think, live, work, learn, shop, travel and entertain. This virus, however, is unlikely to completely reset behavior, but instead will ultimately add momentum to the global themes, trends and technologies that were already in place prior to the virus. What may have taken several years or decades to evolve, is likely to become reality sooner than anticipated. As Microsoft CEO Satya Nadella stated, “We’ve seen two years’ worth of digital transformation in two months.” Below we examine some of these key trends for the post-coronavirus world. These trends filter throughout various asset classes and could become the rivers and streams in the sea of asset allocation in the years ahead, in our opinion.

Our preference for equities over fixed income, large-caps relative to small-caps, and the U.S. relative to the rest of world, are in line with these thematic trends developing around the world.

The coronavirus crisis is expected to accelerate themes already in place

<table>
<thead>
<tr>
<th>DE-GLOBALIZATION</th>
<th>THE E-EVERYTHING ECONOMY</th>
<th>NEXT-GEN TECH INFRASTRUCTURE</th>
<th>LARGER PUBLIC DEBTS</th>
<th>INEQUALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Localization of supply chains, automation, robotics and 3-D printing, re-shoring and trade protectionism</td>
<td>e-commerce, e-health, e-learning, e-work, e-sports, virtual/augmented reality</td>
<td>5G, fiber optics, cloud computing, and related telecom and digital capital expenditures</td>
<td>Modern Monetary Theory, larger role of fiscal spending, big government vs. small</td>
<td>Income inequality, health inequality, digital inequality, potential greater redistribution of wealth</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HEALTHCARE INFRASTRUCTURE/INNOVATION</th>
<th>BIOSECURITY AND SMART CITIES</th>
<th>CYBERSECURITY</th>
<th>INCREASED CONSUMER/BUSINESS SAVINGS</th>
<th>ARTIFICIAL INTELLIGENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased spending per capita on medical equipment, facilities, mobile health, vaccinations, gene-editing</td>
<td>Pandemic monitoring and contact tracing, embedded in the technologies of smart cities, will accelerate the privacy debate</td>
<td>Protecting business, government, and personal data has become even more important given new trends in telework, health monitoring and contact tracing</td>
<td>Increased savings rates, deleveraging expands from consumer sector to business sector</td>
<td>Big data, predictive health analytics, contact tracing, potential drug/vaccine discovery</td>
</tr>
</tbody>
</table>

Source: Chief Investment Office as of May 1, 2020.

1 See Collaborative Fund, “How This All Happened,” November 2018.

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<table>
<thead>
<tr>
<th>Are Not FDIC Insured</th>
<th>Are Not Bank Guaranteed</th>
<th>May Lose Value</th>
</tr>
</thead>
</table>

Please see back page for important disclosure information.
A STRONGER PUSH FOR DE-GLOBALIZATION, AUTOMATION

The shift in global supply chains from excessively lean global manufacturing chains to more localized and diverse production networks is expected to accelerate in the post-coronavirus era. Re-shoring trends and the “localization” of supply chains were already in motion prior to the coronavirus, amid U.S.-China trade tensions and increased nationalism/populism (Exhibit 1). The China supply chain shock from coronavirus, coupled with increased medical and food trade protectionism, has further exposed the weaknesses in global supply chains.

Exhibit 1: Re-shoring and “localization” trends were already in motion

Prior to coronavirus, U.S. dependency on China for critical goods, such as medical products and pharmaceutical ingredients, had been under question. In response to the coronavirus, more than 75 countries are reported to have introduced some export curbs on medical supplies, equipment or medicines this year. In the post-coronavirus environment, we expect countries will rethink their reliance on interdependent global supply chains and opt to be more self-sufficient in producing certain goods and services. Various leaders, from French President Emmanuel Macron to European Union Commission President Ursula von der Leyen, have highlighted the need to produce critical goods at home.

Exhibit 2: Trade Trends in the Time of Coronavirus

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. to restrict mask, glove exports for four months during coronavirus</td>
<td>April 8, 2020</td>
</tr>
<tr>
<td>Coronavirus has disrupted supply chains for nearly 75% of U.S. companies</td>
<td>March 11, 2020</td>
</tr>
<tr>
<td>Vietnam to halt new rice export contracts</td>
<td>March 25, 2020</td>
</tr>
<tr>
<td>EU curbs exports of protective gear for Coronavirus</td>
<td>March 15, 2020</td>
</tr>
<tr>
<td>India agrees to release Hydroxychloroquine after retaliation threat</td>
<td>April 7, 2020</td>
</tr>
<tr>
<td>This crisis has taught us that for certain goods, certain products, certain materials, their strategic character requires that we have European sovereignty</td>
<td>March 31, 2020</td>
</tr>
<tr>
<td>Japan to pay firms to leave China, relocate production elsewhere as part of coronavirus stimulus</td>
<td>April 9, 2020</td>
</tr>
</tbody>
</table>

CIO Investment Considerations:

- Increased demand for robotic, Artificial Intelligence, and 3D printing technology. Precision agriculture machinery and technology.
- U.S. equities over rest of the world, as manufacturing shifts away from low-cost emerging markets (EM) back to the U.S.
- Favor multinationals with diversified production and distribution networks vs. companies that produce in one location and ship to rest of world.
- Lower earnings, margins, as companies adjust strategy from lean production chains to greater inventories, duplicative production processes and redundancies.

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3 Switzerland University of St. Gallen, Global Trade Alert, April 2020.
4 Wall Street Journal as of April 8, 2020.
5 Axios as of March 11, 2020.
8 BBC Television as of April 7, 2020.
9 French President, Emmanuel Macron as of March 31, 2020.
10 South China Morning Post as of April 9, 2020.
The migration out of China should gain momentum, as companies develop multiple local supply chains around the world (as opposed to one cost-minimizing global supply chain with China at the center). This should help drive investment in automation, robotics and 3-D printing to make up for the potential loss of margins experienced from reduced trade efficiencies. We believe the factory of the future, notably in high-end activities like critical drugs and active ingredients, will be driven by machines, not humans, and be based closer to home (U.S.) as opposed to half-way around the world.

A FASTER ADOPTION OF THE E-EVERYTHING ECONOMY

The coronavirus pandemic is also likely to lead to a more rapid adoption of the digital economy. Many technologies that consumers and businesses had once been hesitant to adopt, have become mainstream over the course of two months (e.g., telemedicine, e-commerce, online education, mobile banking, telework, etc.). For example, remote medical care has become more widely used amid concerns about visiting physical locations, capacity constraints and industry de-regulation (Exhibit 3a).

Another industry with low online penetration prior to coronavirus: online grocery shopping in the U.S. has surged since stay-at-home orders were implemented in specific states (Exhibit 3b). According to McKinsey, the number of Chinese consumers intending to permanently shift to online grocery shopping increased by 55% in the aftermath of the virus. They note that once customers are acclimated to new digital or remote models, some could switch permanently to online commerce or increase usage.

Overall, the adoption of e-commerce was still in early innings prior to the virus, with aggregate online spending representing about 16% of total retail globally (and 12% in the U.S.).

### Exhibit 3a: U.S. Adults’ Experience with Telemedicine

<table>
<thead>
<tr>
<th>% of respondents</th>
<th>Hasn’t tried</th>
<th>Intends to try</th>
<th>Has tried</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec-19</td>
<td>80%</td>
<td>15%</td>
<td>5%</td>
</tr>
<tr>
<td>Jan-20</td>
<td>65%</td>
<td>20%</td>
<td>15%</td>
</tr>
<tr>
<td>Feb-20</td>
<td>45%</td>
<td>30%</td>
<td>25%</td>
</tr>
<tr>
<td>Mar-20</td>
<td>25%</td>
<td>40%</td>
<td>35%</td>
</tr>
</tbody>
</table>


### Exhibit 3b: E-commerce Share of Total U.S. Retail Revenue

Before coronavirus, February 2020

- Food & beverage
- Auto & parts
- Health, personal care
- Home furnishings
- Other categories
- Office supplies, equip.
- Apparel & accessories
- Toys and hobbies
- Consumer electronics
- Books, music, video

Online spending at grocery stores since coronavirus

<table>
<thead>
<tr>
<th>01-Feb</th>
<th>11-Feb</th>
<th>21-Feb</th>
<th>02-Mar</th>
<th>12-Mar</th>
<th>22-Mar</th>
<th>01-Apr</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>20%</td>
<td>40%</td>
<td>60%</td>
<td>80%</td>
<td>100%</td>
<td>120%</td>
</tr>
</tbody>
</table>

Sources: eMarketer and BofA Global Research. Data as of April 2020.

The acceleration of e-commerce, e-work and other online activities is likely to have positive spillover effects on other industries. This includes greater demand for cloud computing and 5G infrastructure to support the proliferation of online data and activity (see next page); more rapid development of virtual and augmented reality to enhance the online experience (think online shopping, remote-work, entertainment); increased spending on home improvement/home offices; and development in the e-commerce logistics space. Per the latter, we estimate that social distancing mandates will accelerate the need for contact-less deliveries (i.e. unmanned drones) (Exhibit 4).

**CIO Investment Considerations:**

Some key winners include e-commerce platforms, multi-channel retailers with strong online presence, e-health providers, online education and work platforms, leading online entertainment platforms and products, internet and gaming, social media, mobile payments, industrial commercial real estate (CRE), home improvement, delivery drones, augmented and virtual reality.
FASTER DEVELOPMENT, DEPLOYMENT OF NEXT-GEN TECH INFRASTRUCTURE

In that the massive work-at-home movement in the U.S. has put unprecedented strains on the telecommunications network (slower internet speeds, a spike in internet traffic, clogged phone portals, etc.), we can expect greater spending on 5G telecom networks, fiber optics infrastructure, and related activities on the other side. There is a structural shift in the nature of work—less office, more remote work/telecommuting. Demand for cloud-based services will also accelerate in the post-coronavirus environment, boosted by increased reliance on telecommuting, distance-learning, and more tech-driven healthcare.

CIO Investment Considerations:

- We expect greater spending on 5G telecom networks, fiber optics infrastructure, and related activities.
- As the deployment of 5G infrastructure advances, we see more demand for consumer applications such as augmented and virtual reality (AR/VR). These technologies also stand to benefit from the trend in remote work, remote education, e-travel, e-commerce, and related virtual activities.
- Corporate demand for cloud computing is also set to benefit from the explosion of online activity and data.
A LARGER ROLE FOR FISCAL POLICY, EXPANSION OF GOVERNMENT SPENDING

Fiscal budgets provide a strong defense in the war against coronavirus. The U.S. has more fiscal space to support increased public spending. Other countries will have a harder time monetizing government debt, economically (in the case of EMs) and politically (in the case of the EU). In the U.S., fiscal policy announced to date has exceeded $2.5 trillion, which is estimated to contribute to a rise in the budget deficit to 18% of gross domestic product (GDP) this year (Exhibit 7). Global fiscal stimulus as of April 2020 is in excess of $7 trillion, or 8.8% of global GDP.

Exhibit 7: U.S. Budget Deficit Is Estimated to Top 18% of GDP in 2020

Looking beyond 2020, we expect

• A structural increase in government spending and less fiscal discipline.
• Expansion in healthcare and next-gen tech infrastructure investment, along with an increased social safety net financed by fiscal spending.
• Increased adoption of Modern Monetary Theory (MMT)11—fiscal spending funded by monetary policy to support the economy. As long as central banks remain independent, unattached to the political process/decision making, and dedicated to an inflation target (e.g., 2% in the U.S.), risks of hyperinflation and abuse of “money printing” policies can be contained.

Is there such a thing as a free lunch?

• The key question on the minds of investors is whether central bank printing money to finance public spending will lead to higher inflation down the road.
• In the short run, the coronavirus disruption is a major disinflationary event. Oil prices have plunged, and growth and spending have witnessed a massive demand shock.
• Low interest rates in the developed world make financing debt manageable, as interest payments will remain low for some time. Low inflation expectations give the Federal Reserve (Fed) more room to carry out expansionary monetary policy until an inflation target is hit.
• However, the risk of higher inflation in the long run cannot be ruled out—especially if the Fed becomes more serious in hitting its inflation target.

CIO Investment Considerations:

• If we see a resurgence of inflation in the long-term on the back of more Keynesian* policies around the world, this could support real assets and inflation-indexed bonds.
• If the Fed gets more serious about hitting its inflation target, this could benefit gold.

11 Modern Monetary Theory is a macroeconomic theory and practice that describes the practical uses of fiat currency in a public monopoly from the issuing authority, normally the government’s central bank.

* Keynesian economics is named for the economist John Maynard Keynes for various macroeconomic theories about how in the short run—and especially during recessions—economic output is strongly influenced by aggregate demand (total spending in the economy).
WIDENING INEQUALITY AND GREATER REDISTRIBUTION OF WEALTH

Leading up to the crisis, the United States had been facing widening income and wealth gaps, large levels of health inequality, and a growing digital divide between those with access to technology and those without.

- 59% of U.S. adults were living paycheck to paycheck\textsuperscript{12}
- Four in ten Americans would not be able to cover a $400 emergency expense using cash or equivalents\textsuperscript{13}
- Almost 28 million non-elderly lacked health insurance, 34 million workers lacked paid sick leave, and 21 million Americans lacked adequate broadband\textsuperscript{14}

The coronavirus exacerbates income inequality in the U.S. Job losses from the shutdown of the physical economy have been skewed toward low-skill, low-wage service jobs. The share of vulnerable jobs—or the percent of total jobs predicted to be furloughed, laid-off, or otherwise unproductive during periods of high social distancing—is much higher for lower-income workers. About 80% of Americans making $25,000 or less are at risk of losing their job due to social distancing measures, versus just 2.5% of Americans making more than $70,000 (Exhibit 8a).

The crisis has also revealed significant health inequality among Americans. Less affluent Americans are more likely to have pre-existing health conditions such as diabetes and chronic lung disorder (Exhibit 8b).

Finally, the potential roll out of social contact tracing, which many governments have outlined as an important step in reopening the economy, could intensify the digital divide. One proposed method of tracing is to use smartphones to track whether users have come into contact with infected people, but about 20% of the U.S. population does not have access to a smartphone.

The skewed nature of hardship caused by the virus has led to a greater income support during the crisis, and could pave the way for a greater redistribution of wealth after the crisis.

- Tax rebates, expanded unemployment insurance, small business loan forgiveness (stimulus to date)
- Higher wages for healthcare/public service workers?
- Gen-Z coming of age in coronavirus portends a more progressive future electorate (universal basic income, Medicare for All)

\textsuperscript{12} Charles Schwab 2019 Modern Wealth Index Survey
\textsuperscript{14} Bruce Mehlman, “Politics & Policy in the Age of Pandemic,” April 10, 2020.
AN INCREASE IN HEALTHCARE INFRASTRUCTURE AND INNOVATION

The virus has exposed glaring deficiencies in the healthcare systems of the world; this, along with aging populations and the global proliferation of chronic diseases, will pull forward much needed investment in the global healthcare infrastructure.

Exhibit 9: Prior to Coronavirus, Healthcare Systems Were Unprepared For a Rapidly Aging Population


We believe there is substantial runway for global healthcare infrastructure, especially in EMs. China spends just $441 per capita on healthcare expenditures annually, while in India the figure is less than $70. Meanwhile, healthcare research and development (R&D) (both government and business R&D) should see a surge as well. While total U.S. healthcare spending is 18% of GDP, U.S. healthcare R&D is less than 1%.

Exhibit 10: Annual Healthcare Spend Per Capita, 2017


### Key sectors
- Medical equipment
- Healthcare facilities
- Remote/mobile diagnostics
- Vaccinations
- Pharmaceuticals
- Telemedicine
- Gene-editing technology
- Artificial Intelligence
- Medical robots, care-bots, telesurgery

### CIO Investment Considerations:
Increased government spend on healthcare potentially favors S&P 500 healthcare index. For investors who would look to greater exposure to the EM healthcare theme, global leaders in pharmaceuticals, diagnostic equipment, medical software/hardware, telemedicine and related medical goods and services would be of consideration.
BIO-SECURITY, SMART CITIES AND THE FUTURE OF PRIVACY

The coronavirus should also accelerate the trend to develop smart cities, as local governments seek to improve health tracking and containment capabilities for future pandemics. Similar to how 9/11 resulted in increased security checks at airports and office buildings, so might the coronavirus pandemic lead to increased health monitoring in major public spaces. As a result, we see increased demand for biosecurity hardware and activities, as well as increased use of artificial intelligence and other related technologies (Exhibit 11).

**Smart Safety and Security**
- Biosecurity and health monitoring to prevent spread of coronavirus and ensure social distancing during pandemics
- Smart phone disease surveillance, contact tracing
- Use of drone and facial recognition technology

**Smart Buildings**
- Hospitals, schools, apartments, airports, and office buildings to implement better security, sanitation and disease mitigation practices
- Enhanced health screening in public spaces—facial temperatures, vaccination history, air quality tracking
- Facial recognition technology

**Smart Mobility**
- Smart transportation—autonomous cars, trucks, ships for e-Commerce efficiency
- Preference for telework should reduce vehicle congestion; slightly offset by renewed preference for automobiles over crowded public transit

**Smart Infrastructure**
- Upgrade city infrastructure, stadiums, public transport systems for social distancing, health monitoring and sanitation purposes
- Smart ports/shipping to support cross-border e-Commerce

Within the smart cities theme, the coronavirus has also accelerated the shift to smart homes. According to a recent survey conducted by the MIT AgeLab, smart speakers, smart thermostats, smart lighting, home security systems, and other at-home consumer technologies have been in greater demand during social distancing as people spend more time at home.

**Exhibit 11: Coronavirus Home Technology Purchase Behaviors**

*In Response to the spread of coronavirus, have you purchased technologies or services for your home or yourself?*

<table>
<thead>
<tr>
<th>Technology</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment streaming service</td>
<td>16.6%</td>
</tr>
<tr>
<td>Personal assistant/smart speaker</td>
<td>12.0%</td>
</tr>
<tr>
<td>Smart thermostat</td>
<td>8.5%</td>
</tr>
<tr>
<td>Smart lighting</td>
<td>8.5%</td>
</tr>
<tr>
<td>Smart outlets/plugs</td>
<td>6.8%</td>
</tr>
<tr>
<td>Keyless entry system</td>
<td>6.5%</td>
</tr>
<tr>
<td>Wireless doorbell camera</td>
<td>8.0%</td>
</tr>
<tr>
<td>eReader</td>
<td>6.2%</td>
</tr>
<tr>
<td>Home security system</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Source: MIT AgeLab. Data as of April 2020.

Adoption of the above technologies is likely to accelerate the privacy debate. Indeed, 57% of Americans are not comfortable with tech companies sharing location data with the government to track coronavirus.15

CYBER SECURITY IN THE STAY-AT-HOME ECONOMY

Protecting business, government, and personal data has become even more important given new trends in telework, health monitoring and contact tracing.

• Cybercrime complaints registered by the Federal Bureau of Investigation (FBI) have increased 300% since the coronavirus pandemic\textsuperscript{16}

• Difficulty in attributing attacks, continues to be a challenge

• Many cities, states, and schools had underinvested in cyber leading into the crisis (Exhibit 12).

• Given the rise of smart cities, smart devices and increased tracking of personal data, we expect an increase in cyber security spending by governments and municipalities. A key risk is that the crisis has caused incredible strain on state and local governments’ budgets.

• Business cyber spending is expected to accelerate as telework shifts into the mainstream.

• Online platforms should also seek to invest heavily in cyber protection to attract and retain customers.

• By 2021 the economic cost of cybercrime is set to reach $6tn or approximately 7% of global GDP—more than the cost of climate change\textsuperscript{17}

**Exhibit 12: The Average State Allocates 1%-3% of Their Total Information Technology (IT) Budget to Cybersecurity.**

\textbf{Cybersecurity budget as a percent of total IT budget}

\begin{center}
\begin{tabular}{c|c|c|c}
\hline
\textbf{Cybersecurity budget as a percent of total IT budget} & \textbf{2016} & \textbf{2018} \\
\hline
0% & 6 & 18 \\
0-1% & 12 & 27 \\
1-2% & 12 & 30 \\
2-3% & 12 & 20 \\
3-5% & 12 & 20 \\
6-10% & 10 & 18 \\
Other & 6 & 25 \\
N/A or I don’t know & 4 & 25 \\
\hline
\end{tabular}
\end{center}

\textbf{Source: Deloitte—NASCIO Cybersecurity Study. Data as of 2019.}

\textsuperscript{16} FBI Internet Crime Complaint Center. Data as of April 16, 2020.

\textsuperscript{17} Cyber security ventures as of March 2020.
SAVINGS PSYCHE: INCREASED CONSUMER/BUSINESS SAVINGS

Consumers and businesses may err on the side of caution after the crisis, opting for protection and safety over leverage and risk in the long run. The U.S. personal savings rate was relatively high leading into the crisis, around 8% of personal disposable income, and should continue to trend upward. The long term consequence will be lower consumer spending, which will weigh on certain consumer discretionary industries.

After the prior financial crisis of 2008/09 households deleveraged, with consumer debt as a share of GDP near cycle lows in the months prior to coronavirus (Exhibit 13). Over the long term, corporate debt which has been at the center of financial market stress this time, could follow a similar pattern on the other side of this crisis. In our view, the age of corporations issuing debt to buy back shares has come to a close (Exhibit 14).

Exhibit 13: A Tale of Two Crises


Exhibit 14: Demand for U.S. Equities driven by corporate buybacks


CIO Investment Considerations:

Higher savings rates may be a problem for consumer equities. Less spending, less earnings per share (EPS) growth benefits high-quality growth names over value. Technology, healthcare, consumer discretionary and bank equities have had the largest buyback programs, which could be at risk amid political backlash.
ARTIFICIAL INTELLIGENCE IN DISEASE PREVENTION AND HEALTHCARE

Greater demand for artificial intelligence since the virus outbreak has been embedded in many of the themes discussed above. For example, re-shoring of production to the U.S., ecommerce/online advertising, smart cities, mobile banking and bio-security all portend greater demand for Artificial Intelligence (AI) in the coming years.

Applications specific to the healthcare and technology battle against coronavirus include disease tracking, medical diagnosis and treatment and vaccine discovery. In addition, governments and health organizations around the world will continue to leverage AI technologies and software to monitor outbreaks and predict future epidemics.

Exhibit 15: Artificial Intelligence Applications for Coronavirus

<table>
<thead>
<tr>
<th>Disease tracking</th>
<th>Medical diagnosis and treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Contact tracing</td>
<td>- Medical imaging</td>
</tr>
<tr>
<td>- Machine learning for epidemiological modeling</td>
<td>- Machine learning to improve testing capabilities</td>
</tr>
<tr>
<td>- Understanding the spread of information; identify and remove false online content</td>
<td>- Patient outcome prediction (to identify high-risk patients)</td>
</tr>
<tr>
<td>- Health monitoring</td>
<td>- Robotic/remote delivery of healthcare services (helping doctors/nurses to social distance)</td>
</tr>
</tbody>
</table>

**Searching for a vaccine**

- Protein structure prediction
- Research on drug repurposing
- Drug and/or vaccine discovery

**Predicting future epidemics**

- Predictive health analytics
- Infectious disease forecasting centers


Looking beyond pandemics, various other applications for AI are estimated to boost efficiencies in the healthcare system. According to consultancy firm Accenture, AI applications could result in $150 billion in annual savings for U.S. healthcare between 2017-2026 (Exhibit 16).

Exhibit 16: Top 10 AI Applications: $150B in Annual Savings for U.S. Healthcare by 2026

<table>
<thead>
<tr>
<th>Application</th>
<th>Annual Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robot-Assisted Surgery</td>
<td>$40B</td>
</tr>
<tr>
<td>Virtual Nursing Assistants</td>
<td>$20B</td>
</tr>
<tr>
<td>Administrative Workflow Assistance</td>
<td>$18B</td>
</tr>
<tr>
<td>Fraud Detection</td>
<td>$17B</td>
</tr>
<tr>
<td>Dosage Error Reduction</td>
<td>$16B</td>
</tr>
<tr>
<td>Connected Machines</td>
<td>$14B</td>
</tr>
<tr>
<td>Clinical Trial Participant Identifier</td>
<td>$13B</td>
</tr>
<tr>
<td>Preliminary Diagnosis</td>
<td>$5B</td>
</tr>
<tr>
<td>Automated Image Diagnosis</td>
<td>$3B</td>
</tr>
<tr>
<td>Cybersecurity</td>
<td>$2B</td>
</tr>
</tbody>
</table>

Source: Accenture, data as of 2017. Forecast through 2026.

CIO Investment Considerations:
Leading Artificial Intelligence disruptors, mega-cap tech companies, healthcare.
Index Definitions

S&P 500 Index: Stock market index that measures the performance of 500 large companies listed on stock exchanges in the United States.

Schwab Modern Wealth Index: was developed in partnership with Koski Research and the Schwab Center for Financial Research, the Modern Wealth Index is based on Schwab’s investing principles and composed of 60 financial behaviors and attitudes—each assigned a varying amount of points depending on their importance.

Kearney Reshoring Index: compares US domestic manufacturing gross output to the level of manufacturing imports from 14 traditional Asian low-cost countries (LCCs): China, Taiwan, Malaysia, India, Vietnam, Thailand, Indonesia, Singapore, Philippines, Bangladesh, Pakistan, Hong Kong, Sri Lanka, and Cambodia.

S&P 500 Healthcare Index: is a capitalization-weighted index. The index was developed with a base level of 10 for the 1941-43 base period. The parent index is SPXL1. This is a GICS Level 1 Sector group. Intraday values calculated by Bloomberg and not supported by S&P.

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Companies may reduce or eliminate dividend payment to shareholders. Historically, dividends make up a large percentage of stocks’ total return.

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