

# 3 | RIVERS CAPITAL

*“Unlocking The Hidden Value of Small Companies”*

**3RC Strategy Report Series:  
Update and Covid-19 Impacts**

*April 2021*

# Introduction

---

In mid-2019, 3RC concluded Phase I of *Thematic Lens* development with the summary of all previous *Strategy Reports*, and the discussion of *Areas of Interest* and *Sub-Verticals* we intended to explore in future inbound and outbound sourcing efforts. This marked the beginning of Phase II of *Thematic Lens* development with the intention of locating specific and actionable investment opportunities within the identified *Areas of Interest* by focusing in on specific *Sub-Verticals*.

As some of you may already know, we had authored a detailed report related to Urgent Care and what we saw as an opportunity for Urgent Care 2.0. But with the COVID-19 pandemic defining 2020 in its disruption of all aspects of American life and the effect on Urgent Care specifically we decided to shelve that strategy and instead pressure test and update all previously-established conclusions of Phase I rather than continue with Phase II research in such an unpredictable environment. This document is the result of those efforts.

Specifically, 3RC stress tested the *Factual Drivers and Manifestations* related to each of the four 3RC *Factors of Influence*. Chapter I will evaluate the validity of the *Factual Drivers* for each *Factor of Influence* in a COVID-affected world, and Chapter II will do the same for the validity of the *Manifestations* of each *Factual Driver*.

We then conclude with a summary of our findings and elaborate on our plans to dig further into specific *Areas of Interest* in hopes of uncovering compelling segments and to commence our outbound sourcing process.

As you will see we changed the title of one *Factor of Influence* described as “*Lower Domestic Energy Prices*” to “*Domestic Power Transformation*”. We felt this was a more appropriate title considering we had very little interest in energy production and much of our writing surrounded the transmission of power and the evolution of the energy grid. We do feel that with more efficient use of energy, the hopeful emergence of alternative sources of power and the ever-increasing technology to find and extract carbon-based fuels will ultimately keep a cap on pricing to a point. However, in the current political backdrop it is challenging to predict that energy prices will not rise in the nearer term.

# Summary of Thematic Matrix

Factor of Influence	Factual Drivers	Manifestations	Areas of Interest
1. Modernization of Things	Increasing necessity for technological innovation to fuel growth	<ul style="list-style-type: none"> <li>Overall productivity growth fueled by embedding technology into existing systems</li> </ul>	<ul style="list-style-type: none"> <li>Technology infrastructure maintenance and installation services</li> <li>Technology infrastructure suppliers</li> </ul>
	Advancements in the Internet of Things (IoT) and Artificial Intelligence (AI)	<ul style="list-style-type: none"> <li>Improvements in the Industrial base through use of the Internet of Things (“IoT”) and Artificial Intelligence (“AI”) for predictive maintenance and advanced problem solving</li> </ul>	<ul style="list-style-type: none"> <li>Building and facility automation services</li> <li>Security implications and applications</li> <li>Advanced machinery automation providers</li> </ul>
	Modernization of infrastructure within the United States	<ul style="list-style-type: none"> <li>Increased infrastructure budgets and improvements in technology help to maintain and rebuild aging civil and energy infrastructure in the U.S.</li> </ul>	<ul style="list-style-type: none"> <li>Energy efficiency products and services</li> <li>Specialty materials</li> <li>Specialty infrastructure contractors</li> </ul>
2. Domestic Power Transformation	The dawn of United States energy independence	<ul style="list-style-type: none"> <li>Increased energy production domestically</li> <li>Increased demand for energy storage in the United States</li> <li>Increased supply of inexpensive by-products</li> </ul>	<ul style="list-style-type: none"> <li>Energy storage systems</li> <li>Renewables and the smart grid</li> <li>Backup power</li> <li>Logistics and maintenance</li> <li>Export logistics</li> </ul>
	The evolution of the U.S. energy grid	<ul style="list-style-type: none"> <li>Increasingly efficient charging processes and technology</li> <li>Necessity for power protection and maintenance</li> </ul>	<ul style="list-style-type: none"> <li>Logistics and warehousing</li> <li>Downstream handling</li> <li>Smart energy products</li> <li>Energy efficiency services</li> </ul>
3. Escalating Conflicts	There are several conflict zones internationally where military presence will likely be required to maintain peace	<ul style="list-style-type: none"> <li>Increased defense spending</li> <li>Border protection</li> </ul>	<ul style="list-style-type: none"> <li>Aerospace &amp; Defense</li> <li>Security Services</li> </ul>
	Increased terrorism and violent crime in the U.S.	<ul style="list-style-type: none"> <li>Increased demand for asset storage and transportation protection</li> <li>Increased demand for Infrastructure refurbishment and protection</li> </ul>	<ul style="list-style-type: none"> <li>Specialized/value-added storage/warehousing &amp; transportation</li> <li>Energy/Civil/Transportation Infrastructure</li> <li>Risk management services</li> <li>Protection products &amp; services</li> </ul>
	Illegal immigrants make up 3.5% of the U.S. population (approximately 11.1 million people as of 2014)	<ul style="list-style-type: none"> <li>Continued reduction of immigrant workforce leading to a unskilled -labor shortage</li> <li>Advances in agricultural technology</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural automation</li> <li>Lighting system design and implementation</li> </ul>
4. Shifting Demographics	The Aging Baby Boomer population	<ul style="list-style-type: none"> <li>Rising demand for health products and services</li> </ul>	<ul style="list-style-type: none"> <li>Elderly and disabled services</li> <li>Home care providers</li> <li>Behavioral Health</li> <li>Nursing care facilities</li> </ul>
	Millennials enter peak spending years	<ul style="list-style-type: none"> <li>Heightened demand for pet care services</li> <li>Changing consumer preferences</li> </ul>	<ul style="list-style-type: none"> <li>Pet grooming and boarding</li> <li>Intelligent vending &amp; logistics</li> <li>E-commerce</li> </ul>

---

# Pressure Test: Factual Drivers

# Modernization of Things – Stress Test

Factual Drivers		
A. Innovation will fuel growth opportunities	B. IoT and AI becomes pervasive in everyday life	C. Modernization of civil and energy infrastructure
<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• We have become more reliant on technological innovation to maintain quality of life and fuel economic growth.</li> <li>• The U.S. may not return to complete pre-coronavirus normalcy for years, making the following technological innovations essential for businesses:               <ul style="list-style-type: none"> <li>○ Modernizing supply chains</li> <li>○ Developing e-commerce capabilities</li> <li>○ Utilizing exclusively digital advertising</li> <li>○ Connecting employees in a WFH environment</li> <li>○ Implementing on-site safety and monitoring technology</li> <li>○ Extending data collection capabilities to identify changing consumer preferences</li> </ul> </li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• No foreseeable negatives is likely to challenge this factual driver’s validity.</li> </ul>	<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• COVID-19 has accelerated the adoption of AI software in industries which already extensively utilize AI.</li> <li>• The reliance and utilization of AI modeling shows its status as a trusted tool.</li> <li>• As the amount of data multiplies, IoT and AI advancements will provide the backbone to collect and analyze.</li> <li>• The Internet of Things will continue to proliferate as more and more everyday parts of our lives are connected to each other, especially as the average American spends more time at home.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• Industries which utilize little to no AI will prolong adoption in the wake of tightened finances and will create bifurcation within all industries.</li> <li>• AI is only as good as its underlying data and will always be reliant on its collection.</li> <li>• The prominence of AI does not ensure its effective corporate use in solving business problems.</li> </ul>	<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• The economic fallout COVID-19 will likely become the impetus to a long overdue infrastructure stimulus that will be in the trillions of dollars.               <ul style="list-style-type: none"> <li>○ In the U.S., about 38% of bridges are in disrepair, 20% of roads are in poor condition, and from 2015 to 2019, there were 4.8 derailments for every 100 miles of railroad – largely due to broken rails or welds.</li> </ul> </li> <li>• With more Americans inside and working from home, it is also the ideal time to modernize U.S. infrastructure and stimulate the economy while doing so.</li> <li>• Energy infrastructure must modernize to accommodate the inevitable rise of renewable energy domestically and America’s new energy independence.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• In a budgetary sense, stimulating the economy through infrastructure spending is unsustainable in the long run.</li> <li>• Government spending of this magnitude would likely require higher taxes that could negatively affect other parts of the economy.</li> </ul>

# Domestic Power Transformation – Stress Test

## Factual Drivers

### A. The dawn of United States energy independence

#### Supportive

- In 2019, U.S. energy production was higher than U.S. energy consumption for the first time since 1957; marking the United States energy independent – something we predicted in 2015.
  - This translates, among other things, to increased foreign policy flexibility in dealing with oil-producing countries in the future.
- Ancillary industries such as auto, chemicals, and steel, fueled by cheaper power, will usher in a new era of U.S. industrialization.

#### Unsupportive

- The effect of COVID-19 on this trend is twofold: business shutdowns and changes to normal routines have led to reduced energy demand; simultaneously, domestic production has been seriously disrupted – especially for oil.
- The new administration’s anti-fracking and fossil fuel stance threatens American energy independence and will ultimately increase the cost of energy in the United States.
- Two new oil and gas fields discovered by Saudi Aramco, thought to be particularly vast, will add to pricing pressure on domestic producers as supply apparently is higher than ever recorded in history.

### B. The evolution of the U.S. energy grid

#### Supportive

- Even through COVID-19’s winter wave, the U.S. energy grid has held up reliably except in typically warmer climates.
- But in the case of a prolonged economic shutdown, supply chain disruptions, deferred equipment maintenance, and reliability issues are likely.
- The new administration will push for increases in the use of clean or renewable energies.
  - The current energy infrastructure is not set up ideally to optimize the use of renewables and as they become a larger percentage of the overall energy production the grid will need to be modernized or rolling blackouts and brown outs will be inevitable.

#### Unsupportive

- The degree and nature of the grid evolution will be dependent on domestic energy policies.

# Escalating Conflicts – Stress Test

## Factual Drivers

### A. Multitude of conflicts domestically and globally

#### Supportive

- This trend will continue internationally and may also become a factor domestically in enforcing COVID-19 containment measures, especially in virus hotspots.
- For already-fragile international regions hit strongly by the pandemic, resulting economic and health crises could result in additional conflict zones.
- Russia and China feeling emboldened by current geopolitical climate translates to renewed conflict areas such as the South China Sea.
- Police reform in the U.S. will continue to ignite domestic conflicts and tension, especially in major cities.

#### Unsupportive

- Conflicts escalating to the point where major civil unrest make investment opportunity infeasible.

### B. Increased terrorism and violent crime in the U.S.

#### Supportive

- Terrorist groups have made efforts to exploit the pandemic in carrying out terrorist attacks, and the International Crisis Group has stated COVID-19 will harm counterterrorist efforts worldwide.
- Social unrest over police brutality has led to violent protester-police clashes in cities across the country.
  - Most notably in Portland, New York, Chicago, and Minneapolis.
- Some police departments have purposefully decreased arrest rates to avoid the spreading of the virus in jails, while jails in certain counties have released convicts to reduce populations thus increasing the number of criminals on the street.

#### Unsupportive

- If not contained, total lawlessness means lack of investment opportunity anywhere.

# Shifting Demographics – Stress Test

## Factual Drivers

### A. The Aging Baby Boomer population

#### Supportive

- COVID-19 has brought an acute awareness to healthcare and wellbeing, while at the same time limiting access to healthcare to a society under stress, not eating well and not going to the gym.
- Strong performance in the stock market coupled with the unattractiveness of returning to work is leading to more retirements and disposition of operating assets.

#### Unsupportive

- Older members of the Baby Boomer generation are older and are in greater risk of mortality due to COVID.
- Future plans for universal healthcare would present an uncertain environment for healthcare providers and related investment opportunities.

### B. Millennials enter peak spending years

#### Supportive

- Interest rates remain at all-time lows, making Millennial home purchases more sensible than ever for those who can afford it
  - As previously discussed, home purchases are the impetus to peak life-time spending as the cohort begins to build families.
- Spending will increase, and become more concentrated in essentials such as food, housing, health, and education.
  - Additionally, as previously noted, Millennials are still likely to spend the same as previous cohorts during peak-spending but may vary, thus creating potential opportunities that have not yet been identified.

#### Unsupportive

- Especially for younger Millennials, the job market remains particularly harsh as hiring freezes and layoffs persist across the U.S. economy, thus likely delaying entry into peak spending.
- The pandemic will also affect the personal lives of the Millennial generation and may lead to the deferment of important life milestones like moving, getting married, having children, or seeking career changes, all due to financial insecurity and general uncertainty.
  - But those able to overcome these delays will enter peak spending years sooner.
- Asset values are extremely elevated, favoring Baby Boomer wealth at the expense of Millennials. Though Millennials may be entering peak spending years they are doing so with unprecedented levels of student loan debt and are entering a housing market that is hotter than at any time since 2007.

# Factual Drivers Scorecard

Factor	Driver	Discussion	Action
1. Modernization of Things	A. Increasing necessity for technological innovation to fuel growth	Technological advancement as a means of fueling growth is more important now than ever before in a post-COVID world. This means enterprises of all sizes are currently in a position where they must technologically innovate in expedited fashion in order to survive. It is unforeseeable that this driver will ever be challenged.	PROCEED
	B. Advancements in the Internet of Things (IoT) and Artificial Intelligence (AI)	AI is now seen as a common use tool in the business world, and COVID has further sped up the adoption process in numerous industries. Meanwhile, the Internet of Things has also expanded to create additional smart objects. This trend is not expected to slow either; only accelerate.	PROCEED
	C. Modernization of infrastructure within the United States	Currently, government spending on infrastructure looks to be a sensible way to stimulate the economy, and the timing is ideal too, as U.S. bridges, roads, and railroads are in dire need of repair. But in a budgetary sense, this spending is not sustainable, and potentially less so after the massive COVID-related stimulus to date and is also subject to politically-driven delays.	PROCEED
2. Domestic Power Transformation	A. Dawn of United States energy independence	A year ago, seemingly marked the start of United States energy independence. Now the coronavirus impact on energy demand, the new administration, and the discovery of new Saudi Arabian oil fields have culminated to present a unique challenge to this long-sought energy goal.	CAUTION
	B. Evolution of the U.S. energy grid	Grid evolution is long overdue, and with additional strain brought by COVID, an expedited grid evolution may become necessary. But the degree and nature of such an evolution is also budget and politically-dependent.	PROCEED W/ CAUTION

# Factual Drivers Final Scorecard

Factor	Drivers	Discussion	Action
3. Escalating Conflicts	A. Multitude of conflicts globally	Global conflicts both violent and non-violent continue to persist throughout the world and are unlikely to halt anytime soon. Domestically, the demand for police reform has continued to ignite conflicts in America's cities.	PROCEED
	B. Increased terrorism and violent crime in the U.S.	Terrorist groups continue to pose a threat to the United States and have even made efforts to exploit the pandemic in carrying out attacks globally, according to the International Crisis Group. Meanwhile, violent crime persists domestically, and social unrest over policing continues.	PROCEED
4. Shifting Demographics	A. The Aging Baby Boomer population	From a mortality rate perspective, COVID has affected the older portion of the Baby Boomer cohort, though it has led to an overall increased healthcare spending from this generational cohort. This should continue as the group ages further, and healthcare remains expensive in the United States.	PROCEED
	B. Millennials enter peak spending years	Though the job market remains tough for Millennials, spending will still increase as members of the generation age - though it may become more concentrated in essentials. Meanwhile, all-time low interest rates make now the perfect time to buy a home for those in the generation who are able.	PROCEED

---

# Pressure Test: Manifestations

# Modernization of Things

## Manifestations

A. Embedded technology into existing systems	B. Improvements in the Industrial base through use of IoT and AI	C. Required budgeting to maintain and rebuild aging infrastructure in the U.S.
<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• Modernizing existing systems will continue to be important, especially those related to supply chains.</li> <li>• Developing new systems will also be essential in adapting to the increasingly digital nature of business that COVID-19 has only accelerated.</li> <li>• Enterprises that prioritize development and adoption of technological infrastructure are advantaged.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• This trend is limited by the law of diminishing returns.</li> </ul>	<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• Especially amid concerns of worker safety, the industrial base will accelerate in its technology-centered modernization, replacing man with machine at a faster rate than ever before.</li> <li>• AI and IoT are merging in maintenance and safety systems, allowing for on-the-fly system correction and immediate issue communication.</li> <li>• Extensive supply chain disruption resulting from the pandemic will also accelerate the modernization of the industrial base and logistics.               <ul style="list-style-type: none"> <li>◦ Especially in its ability to handle predictive maintenance, advanced problem solving and asset management.</li> </ul> </li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• Intimately linked AI and IoT systems lead to security vulnerabilities, privacy issues, high reboot costs, and promote over-reliance on man less systems.</li> <li>• AI evolves and more tasks fall into the category of things that can be easily automated, entire job industries could disappear.</li> </ul>	<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• Infrastructure budgets are likely to increase in the near term, as the time is ideal for this much-needed modernization.</li> <li>• General technological improvements that have occurred since the original building of most U.S. infrastructure could allow the modernization process to occur at a faster-than-expected pace.</li> <li>• Maintenance budgets at the state level are sure to remain intact due to their essential nature.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• Changes in federal, state, and local tax bases may not support the packages necessary to completely rehab the civil infrastructure.</li> <li>• This manifestation prioritizes being politically proactive, yet often budgetary decisions are slow and reactionary.</li> </ul>

# Domestic Power Transformation

## Manifestations

### A. Increased energy production domestically

#### Supportive

- OPEC oil price wars have led to skyrocketing demand for the storage of crude oil in recent years.
- Despite short term COVID-related shock, energy production domestically is likely to increase through the foreseeable future.
- The plastics and chemicals sectors, despite short term setbacks, are expected to rebound and grow favorably in the U.S. over the next five years.

#### Unsupportive

- In the short term, COVID-19 will continue to disrupt energy production in the United States, especially in the case of oil, which has already been volatile in price throughout 2020.
- Also in the short term, energy storage projects are facing widespread delays, primarily due to cancelled shipments of project components, personnel travel restrictions, ceasing direct customer contact, closed government permitting agencies, and reduced end user demand.
- Current administration has already taken steps to limit domestic production.

### B. Increased charging efficiency and power protection

#### Supportive

- In 2011, there were 3,400 public EV charging stations in the U.S., and by 2018 there were 61,100 – this buildout represents the impressive state of the charging station market.
  - This trend is sure to continue as well, especially due to Tesla’s efforts.
- The U.S. grid and its “evolution” will be reliant a smooth and efficient transmission of “clean” energy, as policies push for more production from this source.
- Increased needs for protection of energy production and transmission assets as the debate over the source of energy production continues to simmer.

#### Unsupportive

- COVID-19 has deferred required power grid equipment maintenance across the United States.
  - The longer such maintenance is prolonged, the greater chance of outages; however, it is unclear when this issue will reach its tipping point.

# Escalating Conflicts

Manifestations	
A. Increased defense & border protection spending	B. Increased demand for asset protection
<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• Between 2016 and 2019, U.S. military spending increased \$50 billion, from \$669 billion to \$719 billion.</li> <li>• Border security has increased for the foreseeable future as all non-essential travel has been limited in containing the pandemic.</li> <li>• While the 2020 election result will likely change the current immigration policy, the increased need for border protection is likely to be a significant objective.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• Due to the fiscal response to COVID-19 from Congress and the Fed, defense budgets may tighten in the future to support additional spending on the pandemic and infrastructure.</li> </ul>	<p><b><u>Supportive</u></b></p> <ul style="list-style-type: none"> <li>• In line with the theme of modernizing U.S. infrastructure, increased demand for infrastructure refurbishment and protection remains sensible.</li> <li>• Buildings are now being designed and constructed with the dangers of communicable disease and social unrest protections.</li> <li>• Need for increased inventory storage as reduced product demand and supply chain disruptions persist in many sectors.</li> </ul> <p><b><u>Unsupportive</u></b></p> <ul style="list-style-type: none"> <li>• On the transportation protection side, demand may be reduced at individual, government, and institutional levels as lockdown orders persist and economic activity remains restricted.</li> </ul>

# Shifting Demographics

## Manifestations

### A. Rising demand for health products and services

#### Positives

- Demand has not only risen for non-hospital clinic services but accelerated in the wake of a national health crisis.
- The aging Baby Boomers have created and continue to support holistic and preventative healthcare, including anti-aging and cosmetic treatments.
- The pandemic has changed preferences when it comes to routine healthcare, especially in choosing to opt for telehealth appointments as opposed to on-site visits or getting care outside of the hospital system.
- Mental healthcare could become more of a focus as daily routines continue to be disrupted and financial insecurity persists.

#### Negatives

- Potential administration healthcare policies could dramatically change the economic landscape.

### B. Changing consumer preferences & timing

#### Positives

- COVID-19 will accelerate or start the following consumer trends:
  - Buying online as opposed to on-site
  - Opting for grocery delivery and curbside pickup
  - Shift to value and essential goods
  - Additional research before buying, especially for significant purchases
  - Preferences reflective of a general “homebody” economy
  - For the lowest income Americans with pets, demand for pet care services will flatten; however, those whose discretionary spending ability remains intact could see elevated demand as additional time is available to spend with pets at home in a restricted activity environment

#### Negatives

- COVID-19 will decelerate or start the decline of following consumer activities:
  - Will be years before travel and tourism gets back to pre-COVID levels
  - COVID’s accelerates the move of retail to brick-mortar to online
  - Fashion, apparel and luxury sales will continue to struggle until the pandemic is completely contained
  - In general, consumer spending, the backbone of the US economy will likely be muted until the pandemic ends.

# Manifestations Final Scorecard

Factor	Manifestations	Discussion	Action
1. Modernization of Things	A. Embedding technology into existing systems	Like its parent Factual Driver, this Manifestation remains as valid as ever. Modernizing existing systems related to supply chains will be particularly important. The development of new and novel systems will also be essential in adapting to the increasingly digital nature of business - COVID has only accelerated this trend.	PROCEED
	B. Improvements in the Industrial base through use of IoT and AI	COVID has only accelerated the rate at which man is being replaced by machine in today's industrial base. AI and IoT capabilities and systems are increasingly merging in their maintenance and problem-solving abilities as well. This allows for on-the-fly system correction and immediate issue communication.	PROCEED
	C. Required budgeting to maintain and rebuild aging infrastructure in the U.S.	Maintenance budgets at the state level are sure to at least remain intact given their essential nature. Federal budgets should increase as the time is ideal to begin this much-needed modernization process. However, this manifestation also prioritizes being politically proactive; budgetary decisions are known to be slow and reactionary.	PROCEED W/ CAUTION
2. Domestic Power Transformation	A. Increased energy production domestically	In the short term, COVID has disrupted domestic energy production and has led to important energy storage projects facing widespread delay. While we are hopeful that the U.S. will maintain its energy independence, energy production is sure to face stiff headwinds in the current political backdrop. With this dependent variable in flux at the moment we intend to proceed with caution until things become clearer.	CAUTION
	B. Increased charging efficiency and power protection	The 2010s buildout of EV charging stations in the U.S. represents the validity of this Manifestation's first half. Its second half is validated by the fact that COVID has made power protection and maintenance more of a necessity than ever as maintenance continues being deferred.	PROCEED

# Manifestations Final Scorecard

Factor	Manifestations	Discussion	Action
3. Escalating Conflicts	A. Increased defense & border protection spending	With continued threats both overseas and domestically, regardless of administration, the country will be forced to maintain its status the status of its military in an increasing antagonistic environment. Coupled the increasing demand for personal and civil protection anything to do with safety or protection will be in a favorable demand environment. Border security has also increased for the foreseeable future, especially in limiting non-essential travel.	PROCEED w/ CAUTION
	B. Increased demand for asset protection	In many sectors, there is a need for additional inventory storage as reduced product demand and supply chain disruptions persist. New buildings constructed are being designed with the dangers of communicable disease in mind. But the slow down in the movement of goods caused by COVID and the corresponding supply issues it caused; the overall flow as been reduced. The effect of this could be long lasting and will likely create disruption (likely in the form of embedding technology) in the logistics industry	PROCEED
4. Shifting Demographics	A. Rising demand for health products and services	Demand has not only risen but accelerated in the wake of a national health crisis. Mental healthcare is likely to become more of a priority for all generations as daily routines continue to face disruption and financial insecurity persists. Nursing staffing levels are at historical lows while the U.S. is on the path to having 25% of its population over 65. To reduce costs insurance companies and hospitals are repatriating their efforts to reduce costs and make the delivery of care more convenient.	PROCEED
	B. Changing consumer preferences	COVID has certainly altered consumer preferences; most importantly the pandemic has accelerated the trend of buying online as opposed to on-site. One major observation has been that millennials are spending more money on their pets at their age than any previous cohort. Thus, making the pet care product and services markets resilient, especially considering people have been forced to be at home more with their pets than ever before. Lastly, Millennials have now entered what would be peak spending. Unfortunately, and as predicted the cohort is likely to be further delayed. We also see bifurcation occurring, where some more fortunate Millennials are on track with tradition spending patterns while others may never get there at all.	PROCEED

---

# Summary

# Report Card

Results of our analysis are summarized below. (Key: Green = Proceed / Light Green = Proceed with Caution / Yellow = Caution)

Test	Modernization			Power Transformation		Escalating Conflicts		Shifting Demographics	
<b>Factual Drivers</b>	Innovation	IoT/AI	Infrastructure	Energy Independence	Energy Grid	Global Conflicts Brewing	Domestic Violence	Baby Boomers	Peak Spending
<b>Manifestation</b>	Embedded Tech	Automated Industrial Base	Budgeting	Fuels Industrial Growth	Greater Energy Efficiency	Defense Spending	Asset Protection	Increased HC Spending	New Preferences

## Key Takeaways:

Modernization - We will continue our efforts along this theme, with particular focus on opportunities where embedded technology is or could be disruptive and more specifically, where IoT and AI are part of the solution. While the modernization of the infrastructure is still very much a theme of interest, the political back drop and the current fiscal position of the federal government will make any bill both fiscally and politically challenging.

Power Transformation - While we ended up being right about the U.S. becoming energy independent, inevitable volatility along the way and that the supply demand dynamic that would weigh down energy prices overall, apparently there isn't as much greenfield of opportunity at this current juncture. But within this theme we still think that the requirement for improved energy grid infrastructure is as required if not more required than transportation infrastructure to handle the inevitable increased supply of "clean" energy sources. Regardless, we will not prioritize and will proceed lightly within this theme in the near term.

Escalating Conflicts - Unfortunately, we were spot on with this one as COVID became a global calamity, with its only bright side being that in general border conflicts were down. We hope we are wrong but with more people and fewer resources, conflicts are in our nature and the short relatively peaceful period likely only increased already elevated tensions. While we all but abandoned defense as a pure play due to ultimate customer concentration inherent in the segment, we still see opportunities for other segments that supply or service the defense industry and part of a broader collection of markets. 2020 brought to our attention how vulnerable we are and brought self protection to the forefront of people's consciousness.

Shift Demographics - The supply of people requiring increased medical attention will increase in the country daily for the next 10-15 years. The disintermediation of care away from hospitals was significantly reducing costs while improving care for patients prior to the election. While the current administration discussed a universal healthcare system, we are dubious it will ultimately become a priority and if it does will likely lead to more disintermediation of care not less. Granted the effect on procedural costs and billing are unknown, so until then we intend to proceed.

# Conclusion

We hope that this update is insightful and informative of our intended interests and activities. COVID-19, like it did for many of us required that we take stock and re-evaluate. While we had a relatively successful year, our strategy work had to be delayed in such an uncertain environment. Therefore, we took much of the last quarter of the year to re-evaluate our themes and prepare to commence with Phase II of our Strategy Report Series, which ultimately will result in actionable opportunities for you explore with us.

We have deployed several internal and external resources to assist us in doing a deep-dive into one of our eight Areas of Interest that stem from our four main themes. For your recollection they are:



The next step in our process will be to finally drill down into each Area of Interest to uncover the most attractive segments. After reviewing all of the information available to us and triangulating the current and likely near to mid-term future of commerce we have concluded that our first deep dive will be focused on Industrial Automation.

COVID-19 has only exacerbated the need for automation in our everyday lives and conversely the same is occurring throughout manufacturing and the supply chain. The embedding of IoT, AI, and sensor and monitoring technology all are driving efficiencies and growth without the reliance on unreliably available and costly labor.

You should expect to see a full strategy report on a specific Industrial Automation segment in Q2 2021. We expect our outbound efforts to significantly supplement our research as we hope to be gaining insights from actual targets within the segment. Within the strategy report we will outline a clear and concise reasoning behind the segment, what our specific growth strategy will be, specifics on how we intend to execute and what we see as the upside and potential risks.

# Industrial Automation & Next Steps



**Definition:** Automation or automatic control is the use of various systems for operating industrial equipment, processes in factories, monitoring and controlling smart buildings and communications networks, and steering and stabilization of ships, aircraft and other applications and vehicles with minimal or reduced human intervention. Some processes have been completely automated, while others are still at the forefront of their automation evolution.

Automation covers applications ranging from a household thermostat, to a large industrial control system with tens of thousands of input measurements and output control signals. In control complexity it can range from simple on-off control to multi-variable high-level algorithms.

Automation has been achieved by various means including mechanical, hydraulic, pneumatic, electrical, electronic devices, and computers, usually in combination. Complicated systems, such as modern factories, airplanes and ships typically use all of these combined techniques. Automation benefits include labor savings, lower electricity and material costs, and improvements to quality, accuracy and precision.

**Next Steps:** To advance the Industrial Automation Area of Interest we have engaged the help of an outside operating executive to develop and shepherd the effort. This executive, Jon Kirchner, has 25 years of C-level executive experience in industrial technology and solutions, aerospace, systems integration, manufacturing, data analytics, and over the last 10 years specific expertise in Industrial IoT and digital industry. He has done this with PE-backed, early-stage and publicly-traded companies. Mr. Kirchner had presented 3RC with an investment thesis in this very Area of Interest in late 2020 making the timing and the collaboration opportunity a great fit.

The Industrial Automation space is very large and has numerous vectors of opportunity, but not all vectors will be a fit for or attractive to 3RC. In order to narrow and prioritize our focus we have also engaged an outside research firm - enabled by direction and management from 3RC and Mr. Kirchner - to quantitatively identify relevant sectors and sub-sectors within this Area of Interest. From this research will come clarity regarding which sectors will present the most attractive dynamics and fit-attributes for 3RC opportunity, strategy-creation, deal-sourcing and ultimately, investment.

We look forward to sharing our work with you soon.