Scenarios for the COVID-19 Future

Arik Ben-Zvi, CEO of Breakwater Strategy Steven Weber, Professor at UC Berkeley, School of Information

Scenario Thinking and the COVID-19 Crisis

- Business leaders, political operatives, investors and citizens in America have never in this generation been so **uncertain about what the future holds**. They have likely never been so fearful.
- Those responsible for strategic planning in companies and campaigns are grappling with the fact that their **most important models have been undermined**. They cannot confidently predict even the most basic aspects of what the country and world will look like 3, 6 or 9 months from now.
- Projections can no longer be single models that vary plus or minus 10 percent. The variability is now in the shape of the curve itself from a V-shaped recovery to a Great Depression; from effective treatments arriving at scale to clinical trials failing and the search for a vaccine proving a multi-year, rather than multi-month, endeavor.
- Against the backdrop of such uncertainty, **planning seems impossible**. Cognitive biases get multiplied. Wishful thinking and/or paralysis take over. Strategic thought and action is the victim.

- **Scenario Thinking**, (sometimes also called Scenario Planning) can be a powerful tool in such circumstances.
- Scenario Thinking, which was developed by strategists at Royal Dutch/Shell Petroleum in the 1970s, is based on the proposition that even in "normal" times, organizations cannot make consistently accurate predictions about the relevant future business environment. Human bias toward assuming the future will look largely like the present is simply too powerful. It's a convenient bias, and when it fails, it fails catastrophically.
- Scenario Thinking is an antidote. It involves a structured effort to imagine different plausible futures in a disciplined way. Then it asks probing questions about what would have caused those futures to come about and what implications those futures hold for the business, the marketplace, and the political landscape of the country.
- For more about Scenario Thinking, see this <u>HBR article</u>.

How Scenario Thinking Works

Scenario Thinking exercises typically start by trying to identify two independent variables about the future that are

- a. Very important to defining what the future will look like; and
- b. Very uncertain and thus difficult to predict.

So, for example, an energy company conducting a simple Scenario Thinking exercise might identify the two most important and most uncertain variables for their business as Total Global Oil Supply and Government Policy on Climate Change.

Using these two key variables, we can construct four simple but distinct models of futures:

Oil Supply is very high and Government Policy is highly restrictive

Oil Supply is very high and Government Policy is very lenient

Oil Supply is very low and Government Policy is highly restrictive

Oil Supply is very low and Government Policy is very lenient

Using that architecture, the next phase of the Scenario Thinking exercise is to construct a plausible causal story about each of these futures, with an "outside-in" approach – focused on the technological, environmental, geo-political and demographic forces that would yield these different states. Why did this world come about?

How Scenario Thinking Works

Scenario thinkers then build out the model to explore implications of each world -

- What does that new world look and feel like?
- What surprises and discontinuities emerge that change the business environment in crucial ways?
- Where are the new threats and opportunities, and
- What would be the early signals pointing to their emergence?

The last phase of a Scenario Thinking exercise is to **probe how the organization can and should adapt** within each of these different plausible futures, and to the scenario set as a whole.

- Are there actions that make good strategic sense in all scenarios?
- Are there actions that are advantageous in one but damaging in another?
- What would we need to see happen in order to 'pull the trigger' and take those actions?

Good scenarios **provide an on-going platform for sense-making and strategic conversation**. As each day's news unfolds, we have a framework within which to talk in a disciplined way about what this or that piece of data is a signal and indicator of.

• Which direction, for example, does this new fact suggest the world is moving?

Applying Scenario Thinking to COVID-19

- Most Scenario Thinking exercises explore time horizons of 3-5 years, or sometimes 10. These time horizons are far enough out from the present that the business environment could be really different, but near enough to yield relevant questions for the organization.
- In the current climate of profound uncertainty and 'model risk', we can apply Scenario Thinking to a much shorter time horizon.
- In this exercise, we have developed simple scenarios that tell plausible stories about what the political-socialeconomic environment of late January 2021 could look like, specifically, on the day a newly elected President of the United States appears before Congress to deliver the State of the Union address.
- In doing so, we probe a number of fundamental questions:
 - What have the preceding 9 months (May December) looked like for America? How has our economy fared?
 - What are the most important factors shaping public mood and behavior?
 - What sort of election season have we just lived through?
 - Finally, what does the agenda for 2021 and beyond start to look like? What will the country be focused on achieving?

- What is the state of public health?
- What has 'confidence' and/or 'fear' come to mean?
- Who are our national heroes and villains?
- What were the defining political dynamics leading up to November 3?
- What companies, industries and public figures have earned the public's esteem or its disdain?

How to Use (and How Not to Use) Scenarios

- Scenario Thinking is NOT designed to make precise predictions or generate mathematical probabilities about the future whether in regard to market movements, election outcomes or other events.
- Indeed, the whole point of Scenario Thinking is that such predictions are rarely reliable and even less so during periods of such high uncertainty.
- Rather, Scenarios are designed to enable decision makers to imagine what different, plausible future states might look like in a highly organized, structured fashion and to use that map as a tool for strategic planning.
- We would urge those reading this deck to consider the following kinds of inquiries:
 - Is my organization prepared to thrive/survive under each of these four scenarios? If not, is there anything we can do now to enable us to do so?
 - Are we currently acting on the implicit assumption that one of these scenarios is the future toward which we are headed? Is that assumption, once made explicit and examined, a safe one do we really have sufficient evidence to back it up? If not, do we need to be hedging against the possibility that a different future is in store?
 - What strategic bets would I make if I knew that we were heading toward one of these futures? How much confidence would I need to have that we were, in fact heading toward that future in order to make that bet? What pieces of evidence would make me sufficiently confident?

Constructing COVID-19 Scenarios

To shape our scenarios, we hypothesize two independent variables that will significantly shape the future within our defined time horizon, that are **most important** and **most uncertain** at the same time.

Two stand out clearly:

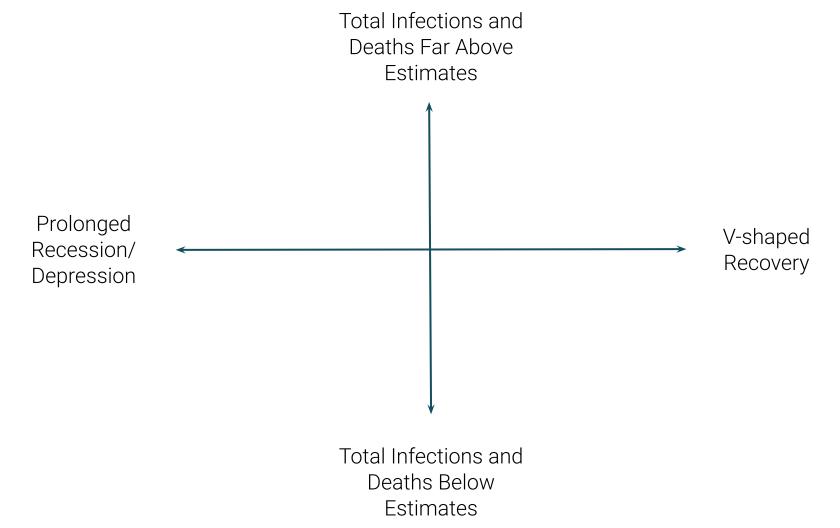
- Whether morbidity and mortality associated with COVID-19 exceeds or falls short of original projections in terms of infection and death (for the purposes of this exercise, we define the baseline projection in reference to estimates made by the White House's Coronavirus Task Force of 100,000 – 240,000 deaths);
- 2. Whether the economy is headed toward a deep, sustained recession/depression or is moving toward a V-shaped recovery (we define a recession/depression situation as one in which economic growth goes strongly negative and unemployment is above 10% and is either flat or increasing month-to-month in Q4 2020, while a V-shaped recovery is one in which unemployment is at or below 10% and dropping month-to-month in Q4 2020, and growth is recovering toward a flat line or possibly even positive).

Constructing COVID-19 Scenarios

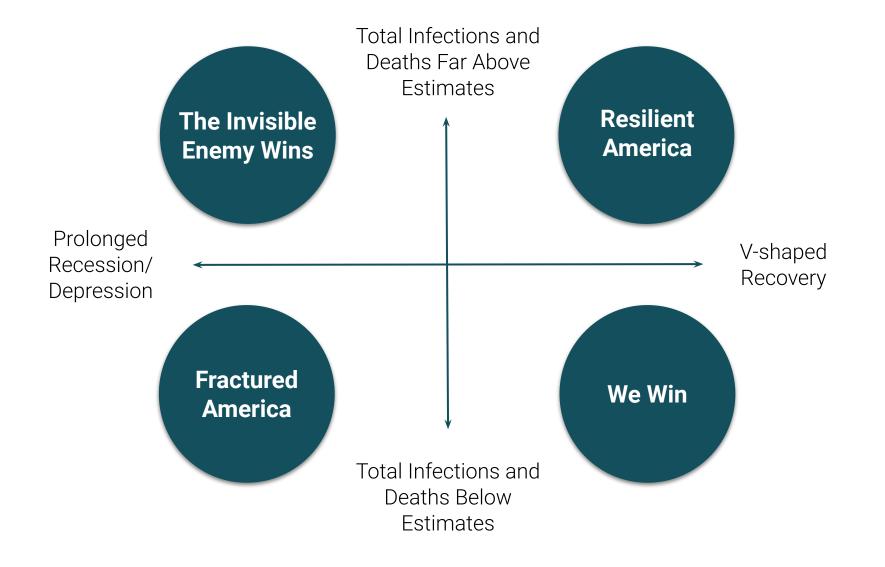
It is important to recognize that these variables are not correlated with each other.

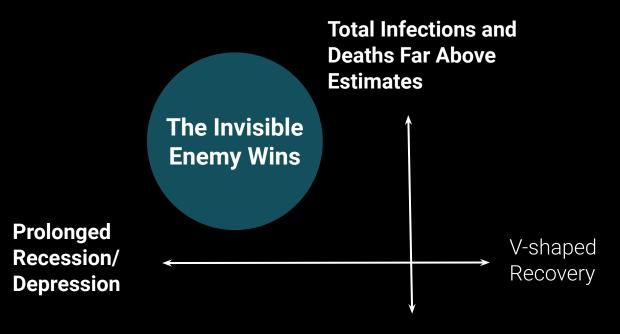
- In other words, keeping infections and deaths low will *not* automatically lead to a V-shaped recovery. Higher infection rates and deaths will not necessarily mean a prolonged recession. Those assumptions are too simplistic. It is entirely plausible that even if mitigation and treatment succeeds in holding infection and death rates down, disruptions to supply chains and the psychological damage to consumer demand along with debt loads may be so significant that the economy remains depressed for years. Conversely, its plausible that infection and death rates continue to increase, yet the economy recovers as people (and technology) adjust to a "new normal" more rapidly than anticipated.
- It's often the case that the most interesting implications of scenario thinking emerge from exploring those seemingly unconventional permutations.

Using these two variables, we construct four distinct scenarios for January 2021



The Four Scenarios





Total Infections and Deaths Below Estimates

Scenario One: The Invisible Enemy Wins

The Invisible Enemy Wins – January 2021

- It's Jan 2021. More than half a million Americans have died and possibly 60 million are infected with COVID-19. Q4 economic 'growth' was negative 8% and the trajectory is still headed downwards. Unemployment is at least 15%. Five stimulus bills and another \$2 trillion of asset purchases by the Fed seem to have barely slowed the decline.
- Across the country, Americans feel they are truly at war with the Invisible Enemy of the coronavirus **and the enemy is winning**.

"My fellow Americans, I come before you tonight at one of the most challenging moments in our nation's history. I know many of you tonight are scared, confused, in pain. We face a common enemy more cruel and cunning than any we have faced before. But as Americans have done so many times throughout our history, we will find the will and the means to triumph. I cannot tell you precisely how we will do so or how long it will take. I only know that we will persevere as long as it takes and find our strength where we have always sought it: in our ingenuity, our faith, our courage and the enduring resilience of the state of our union, which is and shall remain strong."

- President ____, January X, 2021, State of the Union Address to Congress

The Invisible Enemy Wins - What the World Looks Like

- Efforts to restart the economy in spring/summer 2020 are foiled when virus hotspots, equivalent to those experienced in NY in March/April, pop up almost immediately wherever people return to work, forcing repeated shutdowns amidst surges in infections that threaten the ability of hospitals to provide adequate care.
- **Drug makers fail to bring to market effective treatments** before the end of 2020 and trials of vaccines are inconclusive. The optimists see mid-2021 as the first possible moment for pharmaceutical interventions to matter.
- As people come to grips with the reality of an economy that will remain largely shuttered for a full year or more, **waves of companies both big and small file for bankruptcy**. Consumers default on mortgages and loans causing numerous local and regional banks to fail and shaking confidence in even the biggest, best capitalized financial institutions.
- Equity markets lose faith in the ability of government to bridge the crisis period through stimulus and the S+P 500 has fallen by at least 40% from its pre-crisis levels.
- Across the country, people and businesses bunker down in an increasingly apocalyptic mentality, hoarding cash, food, medicine and other essentials, placing increasing strain on the nation's banking, food and health care systems. As supply chains are pushed to the breaking point, some foods including fresh meat and dairy are rationed as companies struggle to find healthy workers, or workers who are willing to risk infection.
- With desperation growing among the unemployed, **civil order begins to break down marked by a surge in crime**, including looting of grocery stores and pharmacies, and attacks on Amazon and grocery delivery trucks. A number of large cities ask for the National Guard to be deployed on the streets to enforce curfews and movement restrictions.
- Reported suicides and domestic violence incidents have tripled from pre-crisis levels.

The Invisible Enemy Wins – Who are the Heroes and Villains

- The unemployed millions see the with rage, with different populations aiming their ire at different targets some focus on the government, others on capitalism, others on China, others on the Elites who failed to fix the crisis. Ironically, this dispersion of blame is a stabilizing force compared to what could happen if a single blame narrative took hold.
- The only true Heroes in the crisis are the frontline public health workers who are now the equivalent of military heroes. Medical schools and health care certificate programs report a "9/11 effect" surge in applications. Brands scramble to find ways to demonstrate their support for those who are putting their lives at risk to protect the public.
- Tech companies are viewed as partial Heroes, but not likable ones. The public acknowledges that Amazon, Netflix, Microsoft and Zoom are among the few things that are working, at least most of the time. Yet their rising share prices during a market collapse along with the staggering increases in personal wealth among their founders makes them the target of online anger. Yet no one can imagine fighting about antitrust and market power or trying to break up the companies that are keeping the economy just barely functional. Who would do it if they weren't?
- **Drug companies and the for-profit health care industry are vilified for a momentous failure** to prepare for the pandemic and to respond to it. Reports of providers, insurers, lab companies and drug makers raising prices and taking handouts for research that yields no therapies stoke public anger, leading to growing public support for Medicare for All, and perhaps even the nationalization of a large Pharma company.
- The rest of the economy just feel like passive victims trying to eke it out. All that people are asking of companies ranging from the automakers, to airlines, to media companies, to CPG companies is to survive as best they can. Few begrudge the bailouts and other government aid extended across an increasingly wide swath of industries. There are no debt hawks and bond market vigilantes in time of war.

The Invisible Enemy Wins - What the Election Looks Like

President Trump and his allies take an increasingly muscular and aggressive posture toward the "enemies" it seeks to blame for the crisis. This leads to:

- Imposing sanctions and launching investigations into China.
- Calling on police departments to crack down on lawlessness and encouraging citizens to know their Second Amendment rights.
- Attacking Democrats for being "obstructionists" standing in the way of emergency measures, including privacy vs. disease surveillance.
- Criticizing the media for not-so-secretly cheering for the pandemic to spread in order to undermine his presidency.
- Shifting targets of blame almost every day in order to wrong foot efforts to counter the narrative.

Democrats accuse Trump and his GOP allies of being a combination of Hoover, Chamberlain and Nero.

- Demands grow for investigations into the administration's failures to heed warnings about the growing pandemic; stories about Trump family investments in businesses that benefit are stock-in-trade for NPR and the NYTimes.
- Families of those who have died from Covid-19 appear in election ads accusing the President of complicity in their loved one's deaths.
- At the same time, Democratic internal divisions deepen as progressives refuse to pledge their support to VP Biden while he continues to oppose Medicare for All at a time when tens of millions of Americans are losing insurance as they lose their jobs.

Above it all hangs the specter that for the first time in U.S. history, the results of the election will be viewed as illegitimate.

- Democrats insist any state without universal mail-in voting is disenfranchising voters. Republicans insist any mail-in states are de facto fraudulent.
- The loser on Election Night declines to concede, triggering months of litigation, protests, and credible threats of violence.

The Invisible Enemy Wins – What the 2021 Agenda Looks Like

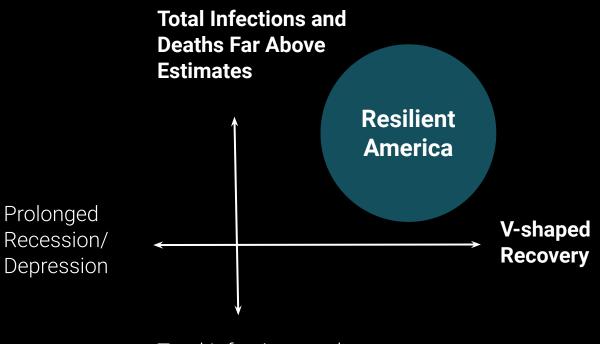
The State of the Union Speech is delivered remotely from the Oval Office, with Microsoft Teams being used to bring together the Members of Congress, President and other invited dignitaries.

In the speech, the President focuses on:

- **China:** Accelerating sanctions and decoupling of the U.S. economy from China, which is increasingly framed as the cause of the global catastrophe and the place where bad things (diseases, policies, ideas) incubate; this generation's Afghanistan.
- **Healthcare:** A laser-like focus on this 18% of GDP as failing to deliver value. Far-reaching proposals to regulate drug pricing, insurance company profits and hospital billing practices since 'they failed us when it really mattered.'
- **Technology:** Expansive ideas for the government to partner with tech and "unlock" the potential of tech to help combat the virus, at the expense of privacy and competition policy. But only for tech companies that 'play nice' with D.C.
- **Social services:** An evolution from focusing on a "safety net" for those who cannot provide for themselves due to unfortunate circumstances, to an "economic floor" that isn't called 'universal basic income' but has many of its characteristics.

The Invisible Enemy Wins – Sign-Posts That This is the World We are Headed Toward

- The May/June state-level re-openings trigger hot spots of similar severity to that experienced by NY/NJ in March/April; or worse. San Francisco or Los Angeles in September are like NY was in April.
- Over the course of June/July, markets still have not found a stable bottom and increasing defaults on corporate debt leads to the failure of numerous smaller banks and questions about Wells Fargo, Bank of America, and the like.
- By August 2020, there are still no FDA approved treatments in market that can serve as a bridge to a vaccine.
- By September 2020, there are still insufficient infection and serology testing capabilities deployed (and those that are still deliver too many false positives) to allow for a significant re-opening of the economy in absence of treatments.
- By EOY 2020, no Phase III clinical trials are showing promise, and no significant anticipatory investments in production facilities that could ramp up quickly.



Scenario Two: Resilient America

Total Infections and Deaths Below Estimates

Resilient America – January 2021

- In Jan 2021, the death toll from coronavirus has vastly exceeded the predictions of the White House Task Force. Hospitals, morgues, and crematoria are overwhelmed. But rather than buckling, America finds its war footing, driven by innovation, individual courage and a sense of national solidarity not seen since 9/11 or perhaps even WWII.
- As Americans bravely return to work and to consumption, the economy recovers and unemployment falls back below 10% with each month bringing news of job gains. Economic growth, which collapsed in 2020 Q1 and Q2, was flat in Q3 and back to growth in Q4. The American people have accepted that the coronavirus is not going to be swiftly or easily overcome as a public health crisis, but they have adapted to life under restrictions and are forging an economic recovery regardless.

"My fellow Americans, we come together tonight with sorrow in our hearts for the lives lost to coronavirus and all those who have suffered. Yet we also come together in a spirit of unshakeable optimism. America is being challenged like never before, and America has responded like never before. Our innovation is unlike anything the world has ever seen. We are literally inventing our way out of this crisis. Our courage and generosity are exceeded only by our ability to solve what appear to others as unsolvable problems. And so with loving memory of all who have perished and with awe of the character that defines this great nation, we affirm tonight, once again, that the state of our union is strong - far stronger than any disease."

- President ____, January X, 2021, State of the Union Address to Congress

Resilient America – What the World Looks Like

- COVID-19 proves to be neither seasonal, nor generally treatable. A few partial pharmaceutical interventions show limited success but aren't scalable. We suffer repeated outbreaks as economies open back up. It's really bad in 'infection pockets', which are then geographically contained through extreme but localized quarantines.
- Policymakers and the public come to accept that elevated rates of illness and death are part of our new reality. Hospitals and health care systems are scaling up to handle these influxes in a semi-orderly fashion. Hotels are re-purposed as pop-up ICU facilities.
- The notion of talking openly about the value of a life versus the value of a job is no longer a third rail or perceived as morally bankrupt; instead, it's honest. Courageous public voices say that we have to talk that way, or suffer losses in both.
- A wave of fast-twitch innovation is allowing people to experiment with activities more safely temperature scans from drones replace metal detectors as the new security screening before entering public places, surveillance to allow contact tracing is embraced quickly and swiftly shifts from voluntary to mandatory. Social shaming of 'cowards and fear-mongers' is widespread.
- A spirit of rugged defiance is taking hold people declare that they will not let the virus win. Many return to economically productive activities coupled with new precautions- going to restaurants at every other table, live football with staggered seating, and travel in airplanes with 50% load all become acts of patriotism. "I Dined Out" stickers become the new "I Voted" badges of civic responsibility. Celebrities and social media influencers compete to have the most fashion-forward masks.

Resilient America – Who are the Heroes and Villains

- Across industries, entrepreneurs and innovative companies emerge as the great Heroes of the crisis. These
 inventive people and organizations come up with a vast array of experimental, partial solutions to the problems
 posed by the pandemic from more effective face masks, to factory line modifications to keep appropriate
 distance, to ever improving home-care kits for infected patients to avoid hospitals. Only some things work, but no
 one gets blamed as long as they are seriously trying.
- Politicians who break the shibboleths and speak with brutal honesty about trade-offs between physical illness and economic/social illness gain deep and lasting respect for 'going there' and doing so in a responsible, sober fashion.
- Alongside the business Heroes, the average American consumer becomes a global hero, emerging from the isolation of quarantine more quickly and with greater defiance than their counterparts around the world. The timid are criticized as the new 'surrender monkeys' of this decade.
- Bureaucracy becomes the biggest Villain of the crisis anything that slows down invention in order to limit risk taking is a target for scorn.
- 'Move fast and do things, see if they work' is the slogan of the year. Baby boomers are honestly surprised that their generation is adopting this attitude more boldly than their children's generation.

Resilient America – What the Election Looks Like

President Trump and his allies try to take credit for and "own" the courageous response of the public by:

- Asserting that Trump's role as defiant cheerleader for America has bolstered the public's spirit and risk-taking mentality while many other countries flounder in pessimism.
- Trump talks about the pandemic consistently as a war the casualties are sacrifices to the greater national good. Like trade wars and wars against lesser countries, wars against viruses are supposedly 'easy to win', you just have to be tough enough to pay the costs.
- The GOP works to frame Democrats as cowards who refused to talk seriously about the trade-offs involved in shutdowns or to trust the American people to innovate solutions. The unofficial campaign slogan is "if Dems were in charge, unemployment would be at 30% and they'd be happy about it."

For their part, VP Biden and his allies focus on the death toll as evidence of the administration's incompetence, indifference, and fundamental moral bankruptcy. Their campaign is focused on:

- Growing evidence that the disease disproportionately harms lower income Americans, African Americans and other vulnerable populations energizes the progressive base to define the election as the ultimate fight for social justice.
- Pointing to "the people" as the actual rescuers of the nation in spite of (not because of) the Trump administration's leadership.

The overall feeling around the election is one of disgust with the profound pettiness of politics. While the American people are showing resolve and ingenuity, the parties are just rehashing the same partisan warfare they've been practicing for decades. Republicans are heartless; Democrats would rather see the country collapse than have some people win more than others. A growing group of Independents and disaffected Democrats and Republicans begin to coalesce into a Third Party with plans to start contesting elections in 2022.

Resilient America - What the 2021 Agenda Looks Like

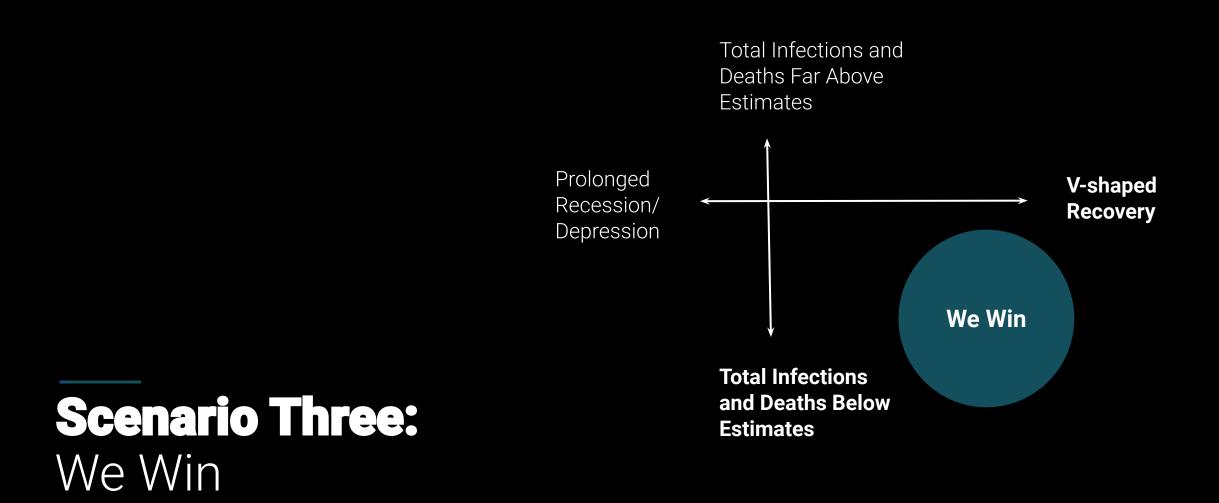
The State of the Union Speech is delivered in the Capitol Building, but attendance is restricted to individuals who have tested negative (or immune), with six feet separating attendees, most of whom wear red white and blue masks.

In the speech, the President focuses on:

- **Supercharging innovation:** An aggressive agenda is unveiled to quadruple government support for research and development, as well as rollbacks of unnecessary regulations that are viewed as slowing the deployment of risky inventions. It's a modern-day Manhattan project, distributed across the country rather than hidden in the mountains of New Mexico.
- **Demand side stimulus:** Commitments are made to continue to provide Americans with the income they need to consume, which is propping up the entire economy. Government itself steps up its purchasing of everything from advertising, to airline tickets, to agricultural products. The words 'debt' and 'deficit' don't appear, and anyone who dares to say the word 'inflation' is dismissed as out of touch.
- **Technology:** Large American tech companies including Amazon, Google and Microsoft are the enabling heroes of the recovery; government pledges to work with these companies to bolster their capacity and extend their services to more Americans. Ironically, they start to look like massively profitable public utilities that get anything they want from Washington, much like they did in the 90s.
- **Healthcare:** Significant commitments are proposed to strengthen the extended 'hospital system' including every physical care location in urgent care centers, pharmacies, community health centers, hotels, even gyms and coffee shops? 'Places of care' bear the burden of managing infected patients for the foreseeable future, and the government rewards them.

Resilient America – Sign-Posts That This is the World We are Headed Toward

- The May/June state-level re-openings trigger 2nd phase virus outbreaks, with rapid surges of acute cases that overwhelm hospitals. State and local governments reimpose even more draconian shutdowns, which are accepted peacefully by residents as necessary actions because they are geographical and time-limited.
- Over the course of June/July, equity markets are buoyed by a raft of innovations that allow a selective return to physical commercial activities to take place safely in many areas.
- By August 2020, there are no signs of effective treatment, but sports leagues are playing/broadcasting, factories are operating 24 hours a day with multiple shifts, and businesses are starting back up, all powered by experimental solutions and modes of operation. Some of these work and some fail, but the lessons are spread quickly, and infections are ring-fenced.
- By September 2020, the first month of net job gains is reported as businesses start rehiring, coupled with continued robust hiring at companies like Amazon and Walmart that have been scaling up throughout the crisis.
- By EOY 2020, the country has settled into the reality that treatments and vaccines may still be at least a year or more away, but the new normal has become sufficiently robust that optimism for the future is spreading, and Americans are proud that they are leading this new world out of the darkest days.



We Win – January 2021

- In Jan 2021, the total infections and death toll from the coronavirus pandemic have fallen short of original estimates, with fewer than 100,000 deaths. Social distancing bought just enough time to discover and deploy pharmaceutical interventions; 'the system worked.'
- The economy is recovering rapidly. Stimulus efforts were sufficient to keep companies alive so that they could rapidly rehire laid-off or furloughed employees. Unemployment falls back below 10% and each month brings reports of massive re-hires and further job gains.
- The American people see evidence everywhere that we have met the Invisible Enemy and defeated it.

"My fellow Americans, over the past year, our nation has faced a challenge unlike any we have experienced in our history. We were tested by an enemy like no other. And we have risen to the challenge in a way that would make the greatest generations proud. There's much more work to do. But it is with a heart filled with gratitude that I can stand before you tonight to report that the Invisible Enemy is in full retreat, our economy is in rapid recovery, the spirit of our nation has proven magnificent and the state of our union is strong."

 President ____, January X, 2021, State of the Union Address to Congress

We Win – What the World Looks Like

- Public health authorities are able to successfully reopen the economy while preserving sufficient social distancing and other necessary measures to keep repeated outbreaks in check.
- People confidently start returning to jobs in a staggered manner as early as May/June/July.
- Drug makers are able to demonstrate and start to bring to market effective treatments to market by the end of August 2020. A vaccine is approved for use by the end of Q1 2021.
- Social settings like bars, restaurants and gatherings start reopening after Labor Day 2020. It takes a while for people to get comfortable going back out, but those who do go out report being overcome by feelings of joy, gratitude and a sense of community. Over time it becomes a massive victory party, and return to pre-crisis normal is looking likely by summer 2021.
- Government support continues to flow so that the majority of businesses can keep employees on payroll or quickly rehire them as expectation of a robust recovery grows over the course of summer 2020.
- Consumers exuberantly re-engage in pro-growth activities including travel, entertainment, investment and shopping. Suppressed demand surges to the surface.
- Expectations are that by summer 2021, unemployment will still be around 6 % (above pre-crisis levels but low by historical norms). The stock market seems headed back to pre-crisis highs and economic prospects look bright. It feels like we are headed to a 'roaring 20s' although historians are quick to remind people how that ended last time...

We Win – Who are the Heroes and Villains

- Anyone attached to public health and science is deemed a Hero. The doctors, nurses and first responders are joined by the researchers and lab technicians. Pharma company scientists and notably, CEOs made it possible.
- But so did every citizen that followed the rules during the lockdown, and they are recognized and feel like heroes too.
 Every parent that struggled with homeschooling, every family stuck together in a small apartment... it all feels like it was worth it.
- That shared sense of heroic action parlays into substantial increases in public investment in research, public health infrastructure, and diminished calls for price controls on drugs (although Americans continue to demand that other countries pay the same market prices they pay for drugs). "We can do anything if we put our minds to it" replaces "America simply can't get things done," at least for a while.
- Tech companies are viewed with gratitude for helping the country get through the crisis and as lockdowns ease, many businesses and individuals decide they prefer certain remote practices. But it's a choice that they make freely, which makes them feel even more empowered.
- The biggest tech companies Amazon above all are now seen as critical infrastructure. This leads to both
 unprecedented public regard on the one hand, and increased calls to regulate (but not break them up) on the other. But
 regulation is less about pricing and profits, than it is about some version of 'universal service.'
- Airlines, retailers, restaurants and others that accepted federal aid are scrutinized to make sure they are hiring back up to pre-crisis levels quickly, but the scrutiny isn't terribly adversarial for most. On the other hand, any companies that use rebounding share prices to reward management not employees and customers will be viciously targeted for public shaming and that make the financial crisis attacks on bank executives seem tame.

We Win – What the Election Looks Like

President Trump and his allies claim "victory". He has led the public and empowered science-led firms to defeat the "Invisible Enemy." In their campaign, the GOP seeks to:

- Attack Democrats as having been not-so-secretly rooting for a worse catastrophe in order to make the President look bad.
- Keep up a steady drumbeat of rhetoric toward China, but without taking actions that might harm the economy or set back the markets. The war against the virus displaces the victory narrative that Trump thought he needed in a cold war against China.
- Encourage right-wing media attacks against business leaders, celebrities and other "coastal elites" who criticized the President while he was busy saving the nation.

VP Biden and the Democrats refuse to let Trump off the hook, focusing on the fact that while the crisis wasn't as devastating at it could have been, the U.S. still suffered more dead than any country in the world and experienced numerous public health failures related to testing, hospital capacity, etc. Their campaign looks to:

- Keep the slow response in February/March fresh in voters minds, along with the dead citizens and lost businesses.
- Expand the debate beyond Covid-19, refocusing on the staples of Democratic campaigns, primarily health care, income inequality and social justice.
- The progressive wing of the party emphasizes that that crisis has "laid bare" the structural weaknesses and inequalities that demand redress regarding health care, child care, job security and income.

Ultimately, the debate comes down to Trump's claims of credit for stemming deaths and initiating the economic recovery versus Biden's claim that Trump dropped the ball leading to more deaths and job losses than necessary. It is a bitter, hard-fought election, but well within the bounds of "normal" in the polarized state of American politics. As much as anything, it is a relief to Americans that we can just go to the polls and vote in November without fearing for our lives.

We Win – What the 2021 Agenda Looks Like

The State of the Union Speech is delivered to a packed Chamber and full galleries in one of the first big live events to be held in front of an audience. Pharma company execs are in the gallery and, almost unbelievably, get a standing ovation from Democrats and Republicans alike.

In the speech, the President will focus on:

- **Economic resilience:** Incentivizing businesses to develop manufacturing and production capabilities, starting with but going beyond important health care products, back to the U.S.
- **Healthcare:** Expanding funding for basic scientific research and bolstering public health infrastructure nationwide. The President even suggests that he is open to considering a universal basic health system (to replace the notion of universal basic income) if Congress can design a workable scheme.
- **Technology:** Working to ensure that tech companies are 'their best selves' as they become even more more deeply woven into our lives, protecting our security and privacy, and not abusing their now unassailable market positions to thwart competition or gouge consumers. Oversight and consultative regulation should replace FTC and DOJ investigations.
- **Reasserting global leadership:** America now has a new claim to be the 'city on the hill' and the Chinese effort to establish a soft power leadership proposition that competes with America is hopeless and not worth worrying much about.
- **Climate:** If we can combine citizen action with high science to beat coronavirus in a year, why not take on climate change as well? The door is open for the boldest proposals to be in the mix.

We Win – Sign Posts that this is the World We are Headed Toward

- The May/June state-level re-openings trigger virus outbreaks, but they are identified quickly and communities needing to shut back down do so quickly and peacefully until their "local curve" is flattened; meanwhile stories about pharma R&D getting closer every day maintain an optimistic feeling.
- Over the course of June/July, markets stabilize; volatility declines overall while increasing in the life sciences sector as clinical trials succeed (and fail).
- By autumn 2020, a number of treatments secure FDA approval while manufacturing capability scales up at unprecedented speed to meet demand; a pharma company builds a bio-reactor facility in 15 days.
- By October 2020, rapid, accurate infection and serology testing is widely available in local venues like supermarkets and schools, pointing toward a near full-scale reopening of the economy.
- By EOY 2020, multiple vaccines are in Phase III clinical trials with promising indications that they will be approved for market by early 2021. Public-private partnerships are building the massive manufacturing scale that will be required to produce and distribute billions of doses as quickly as possible, at the scale of a global war mobilization effort.



Fractured America – January 2021

- In Jan 2021, the total infections and death toll from the coronavirus pandemic have fallen short of original estimates, with fewer than 100,000 total deaths associated with coronavirus.
- However, the economy is mired in a deep recession that some call a depression, with unemployment well above 10%; each month brings news of further job losses across the country with no end in sight. Economic growth is negative, and both monetary and fiscal stimulus are visibly not working.
- The American people see that the coronavirus has been contained, but it has come at the cost of national prosperity and the basic financial security of tens of millions of our citizens. Government debt has doubled, the Fed's balance sheet has quintupled, and none of that has made a difference.

"My fellow Americans, we are tonight called to remember the words of President Lincoln who warned us that a 'house divided cannot stand.' We come together in full awareness that our house is divided. The virus didn't cause those divisions, but it has come and gone and we are left with only the divisions, made much worse. It must be the task of every American to heal those divisions just as we healed from the viral disease. We must find a way to relearn the habits of tolerance and common purpose, or risk losing the nation we love. My fellow Americans, the state of our union is strong – but not nearly as strong as it must be. It is up to us all to rebuild it to its former glory."

- President ____, January X, 2021, State of the Union Address to Congress

Fractured America – What the World Looks Like

- Public health authorities dominate decisions, and are determined to hold the line and keep in place strict social distancing guidelines for as long as necessary. No effective near-term treatments emerge, necessitating continued closures through the summer and into the fall or 2020.
- Total infections and deaths remain low, but at the cost of economic and social shutdown. The impact to the economy is unprecedented, leading more and more to conclude that the health for wealth bargain is unbalanced and indifferent to the economic pain of working Americans.
- Feelings about the continued lock downs split along party lines, with the President and Republican governors clashing with public health experts and Democrats. Grassroots conservatives take to the streets in ever growing numbers to protest "elites" imposing economic hardships on the workers from the comfort of their home offices.
- Increasing incidents of protests grow more and more unruly and even violent, which causes rifts between states that have lifted/relaxed their restrictions and those that keep theirs in place with growing demands to "close borders" even between states; while within states, rural area leaders push for relaxation against urban leaders demanding the continuation of restrictions.
- It's Republican vs. Democrat, Urban vs. Rural, Poor vs. Rich, White vs. Minority... and it feels like people's lives not just their livelihoods and self-respect are on the line.

Fractured America – Who Are the Heroes and Villains

- Who you perceive as a Hero or Villain depends almost entirely on where you sit in the political/cultural divide.
- Democrats view public health workers, scientists and researchers as Heroes, along with tech companies that are enabling continued social distancing practices and "essential" workers at grocery stores, delivery services and others that are making stay-at-home practices possible.
- Republicans view many of these same institutions as Villains (necessary villains at best, but still villains) who have overstated the threats of the virus to benefit their own narrow world-view and parochial interests at the expense of the country and as part of a deliberate campaign to undermine Trump.
- The GOP's Heroes are the businesses that defy shut-down orders and local and state officials that push through re-openings over the objections of public health experts "Open, Baby, Open" is the rallying cry of the right.
- Companies and brands are increasingly put in the impossible situation of having to take sides complying (or rejecting) public health directives is the definitive political act. "We're following the law" is no refuge.

Fractured America – What The Election Looks Like

President Trump moves aggressively to make the campaign as confrontational as possible by:

- Making the entire theme of the campaign that VP Biden and Democrats are "too soft" for any aspect of the crisis too soft to re-open the economy, too soft to take on China, too soft to take risks with experimental treatments.
- Restarting his rallies, which are met by protests led by nurses, doctors, and public health workers who insist that he is a de facto murderer. On numerous occasions the confrontations between protestors and rally attendees turns violent.
- Above all, the GOP goes after every "out-of-touch" celebrity, CEO and journalist who criticizes calls to re-open the economy from their privileged positions at jobs that can be done from home.

VP Biden and Democrats match or even exceed the aggressiveness of the GOP campaign by:

- Making their campaign all about the tens of millions of unemployed, which they blame entirely on the Trump administration's failure to contain the virus in Feb/March when we had the chance.
- Vilifying Republicans for supporting corporate bailouts while opposing more generous relief to the unemployed, hospitals and states/cities that are heading toward bankruptcy.
- To comply with public health directives, Democrats primarily campaign online, as their operations are bombarded by cyber attacks of every kind, which provoke retaliatory cyber attacks on GOP infrastructure. Are the Russians involved? No one knows, but everyone suspects that the answer is yes

Above all, the election is defined by its sheer ugliness. Congress and state legislatures descend into chaotic battles over mail-in voting. Citizens in many places have no idea if their vote was counted. It is, by far, the most violent, vicious campaign since the Civil War. The parties no longer view each other as stupid, immoral or dangerous – they view each other as implacable enemies with little or no common ground to stand on.

Fractured America – What The The 2021 Agenda Looks Like

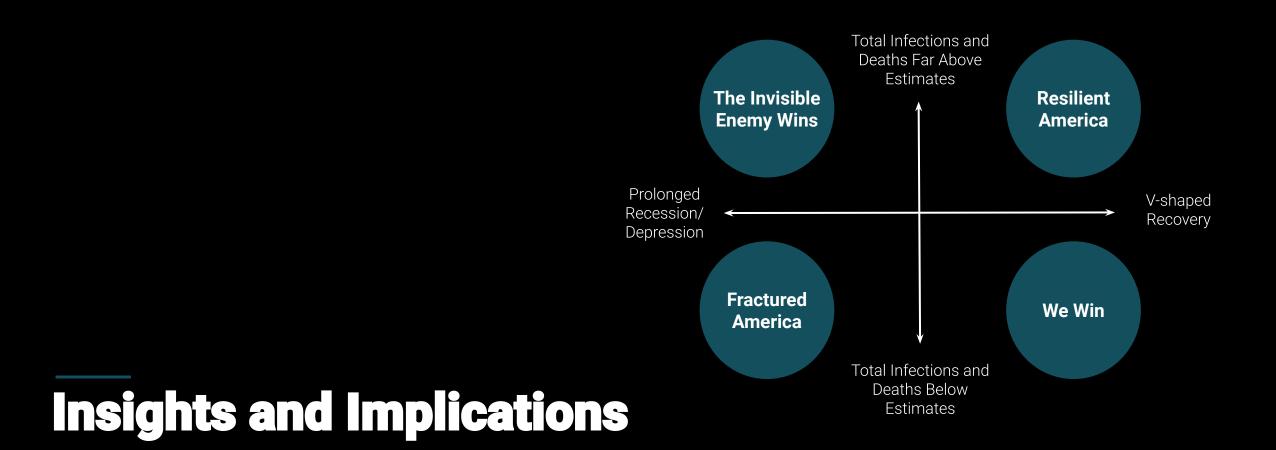
The State of the Union Speech is delivered in the Capitol Building, but the gallery is only half full. Most members of the opposition party boycott the event, not reconciled to the legitimacy of the elected president, while others insist that they are staying away as health precaution.

In the speech, the President focuses on:

- Attacking the other side: Much of the speech rehashes the arguments of the election campaign, with the President continuing to criticize the other party for standing in the way of common sense, giving in to their worst partisan instincts, crushing the economy for no good reason, and burdening the next generation(s) with useless debt. 'I won't negotiate with terrorists' replaces 'let's find some common ground.'
- **Re-writing History:** The President (of either party) will claim that 'I was right all along' and the other side was wrong, period, full stop. He will question the concept of a 'loyal opposition' and hint, or more strongly indicate, federal judicial action against leaders on the other side.
- **Rally round the Flag:** The President will argue that the Chinese won. This virus, intentionally or otherwise, was their response to the trade war, and we fell right into the trap of destroying our own economy from within. When venomous emotions against the other party are exhausted, the same energy will be turned toward Beijing.

Fractured America – Sign-Posts that this is the World We are Headed Toward

- The May/June state-level re-openings trigger virus outbreaks, but efforts to reimpose lock downs trigger mass protests organized and led by conservative grassroots groups.
- Over the course of June/July, the the country largely divides between re-opened Red states and still shut-down Blue states, with "Purple" states the scene of fierce battles at all levels of government. Gun sales double in those states.
- By August 2020, an ambiguous picture on treatments and progress toward vaccines is fueling both sides' narratives, with Republicans insisting that treatments should be on the market if the FDA would only allow them, while Democrats insist that the science doesn't yet support widespread use of unproven cures that could be the next thalidomide.
- By September 2020, the the economy is hit by a growing wave of bankruptcies, foreclosures and bank failures, sparking new market lows. Jerome Powell repeats that the Fed will do whatever it takes, but markets have concluded that there is no meaningful ammunition left. Each new monetary stimulus has measurably less impact.
- By EOY 2020, it's common to see the headline Great Depression 2.0. Consumer spending falls by 35%; the 10 yr Treasury trades consistently below zero; the S+P 500 is near 1000.



Our Key Takeaways

Every individual and organization will find their own versions of what is most interesting and important in these scenarios. These are some of our most important insights:

Big Change is Coming for Big Pharma

For over 30 years, U.S. pharma companies have been stuck in a tired debate about price and access. This is likely to change. In some scenarios, pharma will emerge from the crisis as disease-conquering heroes. In other scenarios, pharma will be seen as incompetent and greedy. It's not just about the science of discovering therapies or a vaccine, but also about scaling up production and managing pricing without triggering a massive global backlash. In all scenarios, the dialogue is likely to change - either erasing calls for cost controls for a generation (because who would dare reign in the companies that just saved the world), or accelerating those calls and possibly opening the door to even more aggressive government intervention. If you are an investor in this category, figure out now what sign posts you think matter most and be prepared to take an aggressive position (long or short).

Toward a New Social Covenant for Tech

Tech's role in our economy and society grows in all our scenarios. This will push us past the particular "techlash" debates about privacy, security and misinformation from 2019 into even more fundamental issues. Last year's antitrust arguments and calls to "break 'em up" are now history – but new varieties of both could emerge. If big tech is so visibly indispensable, then it might be re-conceptualized as a utility – not necessarily in terms of pricing, but perhaps under something like a "universal service" model. Policymakers and tech executives alike will be less hesitant to talk openly about the capabilities tech can offer - including surveillance (which is no longer a dirty word in some scenarios) – and how those can be harnessed for the public good. Under most scenarios, we expect tech companies and governments to be less adversarial and more collaborative. Tech leaders and investors should prepare for a future that shares similarities to the past experience of the Defense industry leaders, telecom and power companies and other industries that live symbiotically with government.

Our Key Takeaways Continued

Emergence of a New Elite

For decades, the "elite" in the U.S. has been dominated by strategists, consultants, pundits – people steeped in theory, lauded for TED-Talking about issues, rather than doing things with their own two hands. This crisis may change that as social status flows toward the 'doers'. Doctors, factory managers, farmers, 3D printing engineers, tech product managers who ship product – those who can accomplish outcomes with their direct labor may become a new kind of elite with much higher status. The next wave of leaders and influencers may come from their ranks, rather than from the worlds of culture, law or academia. Vocational degrees could very well lose their stigma, liberal arts degrees their luster.

From Efficiency to Resilience

The fragility of highly efficient global supply chains has been laid bare. Everyone wants more resilience, but who will pay for it? On-shoring is great politics, but it wouldn't have helped anyone in the U.S. if the one and only factory for an essential supply was shut-down in NY rather than being shut-down in Shanghai. What we now see will be needed in almost all our scenarios is distributed supply from diverse sources. The "problem" that was revealed wasn't China, it was sole-sourcing from anywhere, foreign or domestic. Expect supply chains to remain global, and to become much more distributed with economies around the Pacific Rim, Africa and (especially) Latin America benefiting as businesses diversify their operations. For the U.S., domestic manufacturing can never meet all of our needs, but many government and political leaders would rest easier knowing some of the factories we most rely upon are at least in our hemisphere.

Our Key Takeaways Continued

Don't Call it a Net, Call it a Foundation

The social safety net has always been imagined as a last resort for those who have fallen below some line. Under most of our scenarios, that view may evolve toward a more robust belief that every citizen requires a set of core benefits that are paid for collectively because they benefit us collectively. Some individual risk is turned back into social risk. An infectious homeless American not only suffers as a single individual, but puts whole neighborhoods at risk. An unemployed worker not only faces personal economic ruin, but cannot drive economic demand that others need to be employed. Ideas like Universal Basic Income, Universal Health Care and Universal Child Care won't be adopted wholesale, but the rigid opposition to this kind of far-reaching experimentation with new forms of socialized risk management will yield to policy creativity on both left and right. Taxes will have to go up to pay for all this, but that will happen anyway. The real focus will be on how to improve productivity in order to work through the massive debt load we've just taken on for the future.

Where Were the Robots?

Economists have been predicting the automation of vast sectors of our economy for years. But when we actually needed robots to take on critical functions, they weren't able to do so quickly and at scale. As the economy recovers, human labor will be cheap and there will be even greater stigma to replacing out-of-work people with machines. All this may slow down the automation trend for a while, even as it provides an A1 talking point for automation enthusiasts. The imperative of the coming years will be to prepare society and the economy for this transition, with important lessons to be learned about what happens when millions of people lose their jobs suddenly. The robots are (eventually) coming, but we may just have bought ourselves a little bit more time to slow down the transition five or so years, and figure it out. The imperative is to use that time wisely.

Final Key Takeaway

The Biggest Election Issue May be...the Election

Under multiple scenarios, the biggest fight in the election may be about the legitimacy of the election itself. This could be a problem without a solution. The two political parties are already likely preparing for a battle that will spill beyond the ballot box to include the courts (and possibly the streets). For the rest of us, the economic and market consequences of an inconclusive or 'illegitimate' election and subsequent constitutional crisis must be taken into account. And for anyone who cares about the sustainability of democracy, complacency is not an option. When a legitimate election cannot be held, democracy is in real peril. It's worth asking ourselves quite seriously and repeatedly as the next months unfold, what is the battle, what is the war, and what do we really need to win?



The Questions to Ask

- In early May, there is no way to confidently predict where the country is headed in this crisis. Anyone who tells you otherwise is succumbing to wishful thinking. We don't know how many will be sickened and die; we don't know how the economy will fare. We do know that these two questions, and the intersections between them, as processed by people's intellects and emotions, will come to define key parameters of life in this country for the foreseeable future.
- The Scenarios sketched out here show four distinct, plausible ways in which this complex equation may play out over the coming 9 months.
- If you intend to use this tool to shape your internal sense-making and strategic decision making, we would encourage you to focus on these kinds of structured discussions:
 - What's robust? In other words, are there certain phenomena that seem to be present in ALL or most of these scenarios? If so, then it's probably a good idea to start preparing for that. And/Or to ask yourself, what is stopping me from doing so?
 - What's the scale of variation relevant to you? In one scenario, your organization could be lauded as a national hero and on its way toward an abundant future. In another scenario, it could be on a path toward bankruptcy, government investigations or both. If those extreme scenarios are both plausible, it's critical to invest in efforts to figure out as quickly as possible where the future is heading and adapt your posture accordingly. What would you need to know, and how could you get to know it earliest and most efficiently, to place your bet on operating in one or another of these worlds?
 - What signposts should you pay most attention to? We have offered here our take on certain potential signposts and early indicators that will tell us which future we are likely headed toward. These aren't perfect and they aren't customized for a particular organization or sector, but every organization should have their own clear and logical hypotheses about what will constitute signals and what is simply noise, as you try to figure out where the world is headed and what to do next.

About the Authors



Arik Ben-Zvi, CEO of Breakwater Strategy

Arik is the President, CEO and founder of Breakwater Strategy, a boutique strategic communications firm specializing in helping clients navigate the complex conversations of today's turbulent environment.

Over the course of a his nearly twenty years of professional experience, Arik has helped dozens of clients secure key business objectives, including landmark legislative and regulatory outcomes, successful navigation of potentially damaging crises, and measurable improvements to reputation among consumers, opinion leaders, investors and employees.

Contact: arik@breakwaterstrategy.com



Steven Weber, Professor at UC Berkeley, School of Information

Steven Weber works at the intersection of technology markets, intellectual property regimes, and international politics. His research, teaching, and advisory work focus on the political economy of knowledge intensive industries, with special attention to health care, information technology, software, and global political economy issues relating to competitiveness. He is also a frequent contributor to scholarly and public debates on international politics and US foreign policy. One of the world's most expert practitioners of scenario planning, Weber has worked with over a hundred companies and government organizations to develop this discipline as a strategy planning tool.

Contact: <u>stevew@ischool.berkeley.edu</u>

