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Dynamic Opportunities

ECONOMY/GENERAL

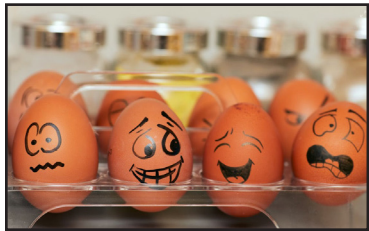
As society continues to move into uncharted territory, with so many significant changes happening at once and with so many different kinds of effects happening from those changes, individuals (and investors) feel bereft of a grounding point, a place where they can count on reliability and stability. Without that firm foundation and without a clear context from which to take action, they are left with simply reacting to each new change or extreme behavior. Typically, that reaction is emotional and quick to change. Despite the market volatility that comes along with this uncertainty, our recent intelligence suggests that there are numerous dynamics and implications operating today which offer opportunities, including: EVs in China, the Resourceful Consumer, Investing for Digital First, Advanced Logistics, Audio Communications and Entertainment and Drones.



Volatile Emotions Drive The Economy

ECONOMY/GENERAL

Historically, money supply, interest rates, new products and the contraction and expansion of consumer demand are the factors which have driven different sectors and even entire economies. But now, these four most dangerous words may apply: this time is different. A confluence of events has produced an environment where fast and severe shifts in society's emotions have become drivers of the economy.



A global pandemic lasting longer than most expected, record breaking speed of vaccine development, widespread social unrest, sudden inflation, bonds and equities markets moving in historic fashion and a war in Europe - these are some of the events which have driven quick and powerful emotional reactions. And those emotions have driven the economy, sectors and markets. Understanding such emotional reactions to different events will help us understand where the consumer and economy are going next.

New Labor Getting Things Done

ECONOMY/GENERAL

Articles continue to proliferate about the "labor shortage" and the rising economic costs associated with the higher pay and increased benefits that have resulted. The shortage is little understood because the causes are complex and include: Deaths; Retirements; Family Needs; Upskilling; Immigration; Side Hustles; Gambling; New Businesses; Health Issues; Changed Habits; and the Search for a Better Life. The pressures exerted by these causes have led to the absence of available workers. At the same time, businesses have increasingly added robots and complex automation software to their operations, steadily shrinking the size of the workforce needed, with entire stores and factories operating without and requiring only enough trained employees to maintain the software and repair the robots. What happens when workers' reluctance to accept jobs crosses with the technology that eliminates those jobs? The historical tension between capital and labor will become more strained. As the job market continues to contract, some system will need to be created that grants money to individual consumers so their spending can continue to support the economy - that is, a system that enables consumers to have enough money to buy all the things the robots make and to access all the services the automation offers.



It's Not the Cryptos

ECONOMY/GENERAL

A lot of money is being made and lost in the trading of cryptocurrencies - cryptos, for short - and their value being volatile is an understatement. Several societal contexts - the lack of trust in government, the popularity of online games that have



proprietary currencies, the rapid increase in gifters, hackers and money launderers, the recent increase of society-approved gambling, the recent addition of “side hustles” as a way to make additional money and a large amount of money searching for higher returns - lend support to the appeal of cryptocurrencies. The critical aspect of this appeal of an alternative form of money is that the risks of a constant, albeit volatile, increase in value is taking place in a society that favors crisis management over preventive management. China and other countries have banned cryptocurrencies, but the U.S. regulatory environment has focused mostly on enforcing existing securities laws and when U.S. regulators enter into a disaster already underway (e.g., Black Monday,

1987), they tend to fashion extreme reactions directed at the effects of the disaster rather than at the causes. Are cryptocurrencies a bubble or the beginning of a different future? It's both.

Matters of Risk

ECONOMY/GENERAL

Risks lurk across the entire horizon of life, from climate risks, which the U.S. Secretary of Defense Lloyd Austin recently said was one of the nation's existential threats, to cyber warfare, which Russia and China cyberattacks revealed the U.S. to be highly vulnerable to outside intrusions; from investing, which revealed that amateurs can scald hedge fund professionals, to real estate, which has overheated residential markets while stymieing commercial markets; and from healthcare systems, which proved to be wildly unprepared for the pandemic, to crypto-everything, which has shown assets can jump up from anywhere...at least until they fall down again. Things have gotten so volatile in so many areas that determining actual risks, often hidden behind dramatic moves, has gotten more difficult. We look at COVID-19 infections, health, investment markets, energy and other areas of mounting uncertainty.



A Lot Resting on Assets

ECONOMY/GENERAL

Pervasive low bond yields, creating ten to twenty trillion dollars of negative yielding sovereign government bonds over the past few years, drove investors in that important asset category to assume greater traditional risk. We noted two and a half years ago that institutional and family office money was flooding into startup private companies in any form available. Since the pandemic, and with the advent of free trading platforms such as Robinhood, individuals have acquired the feverish appetite for stocks. While business news has been existing on the fumes of the GameStop gambit, wider and larger interest needs to be placed on market distortions, because runs of cash into equities for companies losing money and into options to make more money faster have become commonplace. More recently, cash has been pursuing assets, many of which have acted like GameStop and skyrocketed in price and perceived value. Risks have escalated but FOMO, or the “fear of missing out” on another big return has made concern about risks seemingly vanish. A perspective that assets only increase in value has spread well beyond the equities market and is driving prices higher for things as widespread as sneakers, wine, sports cards, and, of course, Bitcoin. Following the strong prior flows to equities from bonds, a scramble to own assets with savings resulted from service spending contraction, has moved the economy's dependence of equities, which we characterized as “A Lot Is Resting on Equities” to something more like “A Lot Is Resting on Assets”.

Hustling in the New Economy

ECONOMY/GENERAL

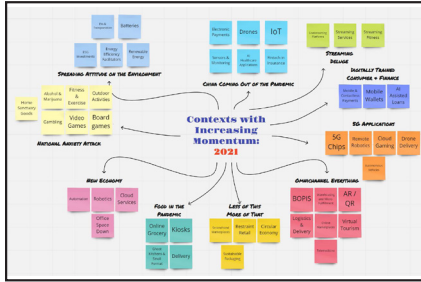
The New Economy facilitated and made necessary the growth of freelance and gig work and now, along with the Economic Pandemic, is facilitating the rise of a hustling class. Even when the pandemic passes, the need to hustle will remain for many individuals because the New Economy, which started before the pandemic, is unlikely to change. The rise of the gig economy benefitted freelance platforms, sites that offer easy website creation, and the companies utilizing those gig workers, among others. The beneficiaries of the hustle will be the digital platforms that allow people to earn a primary or secondary income at home, whether by trading, gambling, or selling goods, offering services,

providing content, or exposing themselves. A new entrepreneurial class and economic force has gained traction in the past ten months and it is likely to grow from here.

Contexts with Increasing Momentum: 2022

ECONOMY/GENERAL

This is an examination of the contexts which we believe will have the most momentum in 2022, as well as the implications and applications that are likely to have increased tailwinds due to those dynamics.



Update: Americans Go Outdoors

SOCIAL & CONSUMER

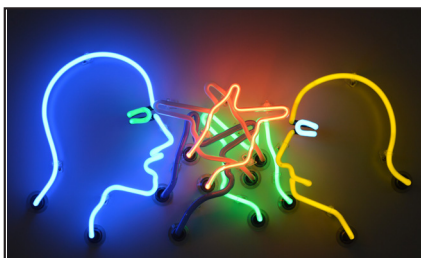
A recent University of Colorado Boulder study, published in the journal PLOS One, found that people who were exposed to more green space during the first year of the COVID-19 pandemic reported significantly less depression and anxiety. In the midst of lockdowns and with the fear of being indoors with others changing their behaviors, more than seven million more Americans participated in outdoor activities in 2020 than in 2019. Now, lockdowns have ended, indoor gatherings are increasing and many Americans are attempting to get back to some prepandemic normal. But that will not signal the end of the momentum behind people spending more time outdoors and more money on outdoor activities, because the pandemic wasn't the original driver of the behavior. Some of our previously identified dynamics, including the Consumer Value Hierarchy, Anxiety Becomes Normal, From a Better Living to a Better Life and A Different Adulthood, along with current facts and events, suggest that the desire to spend more time outside and participate in outdoor sports and activities will continue even when the COVID-19 pandemic is largely behind us.



Busted Trust & Truth Decay

SOCIAL & CONSUMER

Pistanthrophobia - now there's a mouthful. It roughly means the fear of trusting someone with a past history. So, the five-letter word trust - not so good for Wordle - has a very large word for those developing a lack of trust in someone. That could well be a diagnosis for today's society. Who can you trust? Why should you not trust them? The issue of trust has become significant, not only because it is the "glue" that holds society together but also because it has created collateral damage of the decline of truth. The large issue of trust is creating changes in politics, business, interpersonal relations and personal identity.



Mental Health: Effects and Implications

SOCIAL & CONSUMER

Since the lockdown started, we have monitored the effects of COVID-19 and the pandemic environment on the mind. As the disease phase of the pandemic starts coming to an end, we need to consider the mental illness phase of the pandemic. First, the mental problems started by encounters with COVID-19 and with the pandemic environment will linger after the infection has passed. Second, the pandemic made existing mental issues more pronounced and made people who did not endure the infection deal with new kinds of stresses that can unbalance the mind. Third, children and adolescents, most of whom avoided the infection, have



had issues with stresses to their minds. Fourth, schools have new costs attached to their annual budgets because of this new kind of problem. Fifth, employee burnout as well as mental stresses will alter office dynamics. Sixth, increases in violence can be seen as an outcome of the pandemic. Seventh, people have gained weight and have drunk too much alcohol during the pandemic, creating a different kind of stress on their minds. This multitude of factors will have real impacts on the health care system, the workplace, on society in general, for an extended period after the physical effects of the virus have lessened.

Lessons and Values Coming Out of the Pandemic

SOCIAL & CONSUMER

The uncertainty that surrounded the year under COVID-19 is slowly morphing into the uncertainty of understanding how individuals might act without the kinds of restrictions and restraints endured during the pandemic. The pandemic-induced restricted behavior granted many individuals the time to reconsider how they have been living their lives. Such rethinking took some curious twists and resulted in some unanticipated decisions. With the recognition that practices will continue to shift for quite a while, and the staying power of those shifts is uncertain, there are numerous observations which are likely to impact questions related to Inflation, Consumer Spending and Savings and Physical Interactions. There is also intelligence regarding consumer Values related to Money, Happiness and Relationships. While these observations are current and preliminary, they are worthy examining to generate a valid context for the important next stages following the Pandemic.

The Next Grand Narrative: Repair & Enhance

SOCIAL & CONSUMER

The post-WWII driving force was growth – at almost all costs – which led to bigger houses, bigger cars, bigger corporations, bigger governments, bigger bodies and bigger debt. Following that period of strong economic growth, family formation and a baby boom, many developed economies, but primarily the U.S., entered a period of asset inflation and income stagnation. Despite that stagnation, societal norms and expectations have been centered around the assumption that standards of living would increase, enabled by corporate and government stability and support.

In recent years, these expectations have been not fulfilled for many families and that reality has resulted in a decline in family formation, birth rate, marriages, and real family incomes. It is also resulting in changes to how we measure success and achievement - both at work and outside of work. These changing priorities and evolving approaches to life, work and corporate practices create an emerging perspective, or New Grand Narrative, which we have called, "Repair and Enhance".



The Luxury Market

SOCIAL & CONSUMER

The retail industry has spent almost a decade scrambling to restructure in the face of lower barriers to entry, technological advances, changing consumer preferences and the rise of online shopping. This topic explores the many active change dynamics that are impacting the luxury market and some of the implications which suggest the current state of luxury, what is necessary for success and what new iterations will develop from here.



The Pandemic and a Better Life

SOCIAL & CONSUMER

Since the end of the Great Recession, the aftereffects of which never ended for many, more and more Americans have been moving slowly toward embracing what we have called a Better Life, and away from the idea that a rapid, ever-increasing standard of living should be the goal. This is partially due to the growing recognition and acceptance that for some in the New Economy, the American Dream, or the idea that each generation will do better economically than

the previous, may no longer be achievable. People are using this current health and economic crisis to rethink what fundamental issues are important to them; to rethink how, when and where they want to live and work; how they want to spend their money; and to focus on the things that will improve their, and the country's, overall well-being in the short and the long term.

Weaponizing the Rule of Law

INTERNATIONAL

We are living at a time of several military conflicts where traditional arms and weapons are being used. In addition to the Russia/Ukraine war, less publicized wars are raging in Yemen, Myanmar, Sudan and Guatemala, among others. There are also less obvious wars ongoing which are utilizing new weapons of conflict.

One of the sacred precepts of democracies and civil society is the Rule of Law. While never iron clad, and certainly not applied evenly across society, the notion that agreed upon lawful acts are to be adhered to has created guardrails for society. In the recent

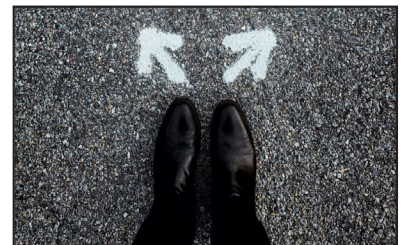
past, we have seen those guardrails come into question and in an increasing number of cases, governments and institutions have pursued weapons which have not been agreed upon. Finance has become a new weapon along with multiple forms of sanctions. Countries have added some unusual areas to their arsenals, including finance, food, cyber and ships on the high seas. These and other new kinds of weapons, such as leaked documents from the Supreme Court, will be discussed, including our recent question: What Constitutes an Act of War?



Uncharted Territory and Volatility

INTERNATIONAL

The global pandemic in early 2020 elicited reactions depicting that situation as "Uncharted Territory." In short order, a series of new developments created a basket of additional dramatic changes and, most importantly, reactions to those changes. Financial markets have experienced extraordinary action. Logistics based on just-in-time commerce has shown its underbelly. The weaponization of finance has elevated to unprecedented actions. And the live-streamed war in Europe has created faster reactions than any in history. Reactions to these extraordinary actions has generated extreme volatility, resulting in dramatic shifts in consumer purchasing, work practices, housing supply and demand and inflation. While many are perceiving the environment as one of normal cycles (e.g., economic, interest rates, inflation, consumer) the intelligence suggests the cycles are NOT normal and will continue to exhibit extreme volatility and unexpected reactions for some time.



Ukraine and Globalization: Where to Place our Attention

INTERNATIONAL

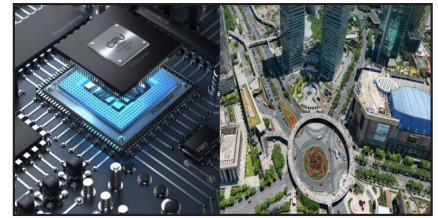
The Russian invasion of Ukraine has presented the first live-streamed war with rapid flows of information. This calls for quick responses, as digital information tends to do. We will explore significant Events and Facts rather than the plethora of Opinion and Commentary. The quick reaction to this unusual conflict witnessed in real-time has raised the issue of a potential "Cold War 2.0," pitting autocratic-led countries against democratic countries. The development of this reaction could lead to a reversal of globalization which has been the norm for several decades. We will explore this possibility and its implications.



China Coming Out of the Pandemic

INTERNATIONAL

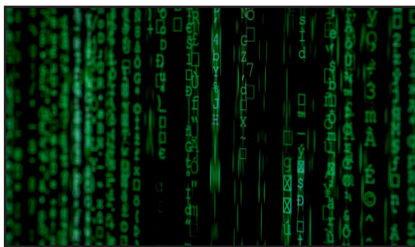
While much current attention is being placed on an escalating conflict between the U.S. government and Beijing, China is aggressively pursuing a national strategy to both stimulate growth from the first economic downturn in decades as well as establish a leadership role for a new set of business and economic realities. A combination of monetary, tax and fiscal responses are intended to bring the Chinese economy out of a first half 2020 seven percent economic decline caused by the pandemic. In addition, the country is funding and coordinating public/private investments in a series of new capabilities. The vision is to take leadership roles in AI, Robotics, electric vehicles, 5G, Big Data analytics, advanced and distant medicine and hyper efficient logistics. The goals are to establish a series of “new infrastructures” and thus to lead over the next several years in a transformed business environment.



Investing For Digital First

TECHNOLOGY

Digital First is driven by the behavior patterns of digitally trained consumers, and it is forcing changes in existing business models. Digital Throughout is driven by the market necessity to achieve greater efficiency. This is leading to most consumer-facing companies, via investments and mergers and acquisitions (M&A), becoming tech companies that also market products and services.



Attack of the Drones: The Sequel

TECHNOLOGY

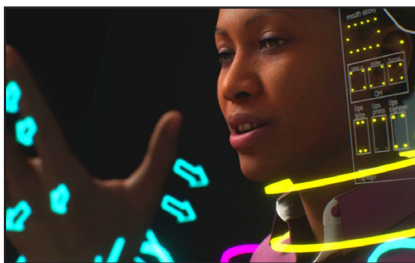
The drone market, already estimated to be \$28.5 billion last year, is about to grow significantly due to the many uses and relatively low cost of drones, as well as improvements in artificial intelligence (AI) and guiding software. The market for drone detection and defense will grow along with it.



Who Needs Real People

TECHNOLOGY

Technological advancements, including deep learning and natural language processing (NLP), are leading to a world where friends, entertainers and employees can be created and programmed to serve myriad purposes, moving automation and robotics into fields and aspects of social life that have heretofore been dominated by humans. While the move to workforce automation has been ongoing for some time, these amazing advancements are leading to a new world of possibilities, where the question for individuals, employers and marketers may soon become “Who needs real people?”



AR Technologies Bridge The Physical and Digital Worlds

TECHNOLOGY

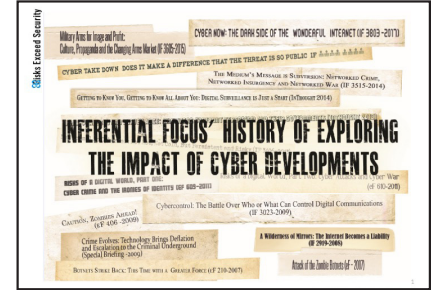
The year 2021 was one in which the development of AR gained momentum as a solution to the increased consumer desires for contactless commerce stemming from the global pandemic. The technology also offers companies avenues to align with the Digitally Trained Consumers' desire for convenience, speed, access to information and novelty, which means that this new way of operating will keep its momentum going after the pandemic has passed. As the year progressed, further new developments by tech companies opened up developers' platforms for use by outside AR software developers, thereby

clearing the way to create new AR products. Meanwhile, several of the tech companies focused on augmented reality are on the verge of introducing new hardware products, such as smart glasses, which can bring expanded experiences to users bridging the physical and digital spheres.

Risks Exceed Security and All Hell Could Break Loose

TECHNOLOGY

Escalations in two cyber-threat capabilities have moved the world into a different post-Cold War environment: one in which online conflicts that can damage economies and yield physical harm have become part of daily routines and one in which current smartphone security has become anachronistic. First, zero-day bugs, which are errors in software programs that enable hackers to circumvent all security systems, has elevated system risks for corporations and government agencies. Second, a more recent zero-click surveillance software, called Pegasus, can circumvent nearly all security and encryption on a smartphone and embed itself in a target phone “over the air.” With these two entrants into the realm of cyber-hacking, the threat environment has moved to a much higher level of risk and damage.



Beyond escalating online and wireless risks, digital technology is altering the ways physical conflicts evolve. Drones have equalized battlefield conflicts because of the low-cost of deployment, making asymmetric war even more asymmetric. However, riskier yet are drone swarms, which are adding a new kind of weapon of mass destruction, for which, at present, defense systems are lacking.

The Next Internet - Taking Steps to the Metaverse

TECHNOLOGY

The digital industry is heavily imbibing the latest liquor: the metaverse. Being called the Next Internet, this aspirational entity seeks the convergence of the virtual and real worlds and the utilization of all digital technologies to parallel real-world experiences with virtual experiences. Definitions and descriptions of such a metaverse vary widely and seem to be getting developed on the fly. But they do share a desire to combine gaming, social media, e-commerce, communications, employment, entertainment, data and as much of daily life as can be squeezed into one site. A metaverse seeks to circumvent proprietary “garden walls” and open the digital world for all entities and

individuals. This Next Internet promises a stable virtual realm where users can do an amazing array of activities in the middle of today’s confused and uncertain physical realm, where individuals are limited in their capabilities, and that could well be the reason for its current allure.

A World of Robotic Overlords

TECHNOLOGY

The practice of taking control away from humans and giving it to a “more accurate” machine and its artificial-intelligence software has become an aspect of automated managerial software. This software is slowly but surely displacing human supervisors and managers - that is, institutional decision-makers. Use of embodied computers in robots and software bots has become common in manufacturing and in the industrial Internet of Things. Deployment of such software makes sense in terms of efficiency, and it is hoped, in terms of productivity. But it has also started to invade the realm of monitoring, tracking and decision-making. Institutions have already become comfortable turning over decision-making to software. Yet some pushback has started; first, with lawsuits being filed on behalf of individuals who feel their autonomy is being breached, and second, with state legislatures and foreign governments passing laws that require such software to be more transparent and that regulate algorithmic bias.



Here to Stay: Digital First

TECHNOLOGY

Over the past decade, digital technologies have been incorporated into the ways companies operate and have trained individuals how to think, behave and live their lives. That shift from analog to digital was accelerated when the global pandemic made operating via digital technology a necessity. The pandemic may be coming to an end, but the shift to digital as the primary way of connecting, selling, communicating and being is just beginning.



5G Applications

TECHNOLOGY

Similar to the changes that came with the development and spread of digital broadband, 5G capabilities will usher in new applications. With faster digital speeds and reduced latency, some of those applications will include: Smart Factories; Distant Medical Treatment; Autonomous Vehicles; Advanced Facial Recognition; Advanced Virtual Reality; Video Gaming; Distant Controlled Robots; Ultra High Definition TV; Smart Agriculture and Internet of Things. All of these applications will create multiple ripple effects, especially in Manufacturing; Entertainment; Medicine and Agriculture.

Auto Industry Restructuring

INDUSTRY

The auto industry is embarking on a major overhaul of its products, suppliers, employment needs and business models as it embraces EVs, implements omnichannel retailing and attempts to build autonomous vehicles. With technologies rapidly advancing and fundamental issues of profit margins, supply chains, sales methods and competitors unresolved, this major industry is certain to experience restructuring greater than any industry before it.



Advanced Logistics

INDUSTRY

Over the last few years, retailers, grocery stores, and logistics providers have experimented with different modes of distribution to align with changing consumer expectations for faster delivery speed and easier pickup options. As those expectations continue to increase, so will spending on advanced logistics technologies, including warehouse and delivery robots, supply-chain software with artificial intelligence, drones, and autonomous trucks. Reducing delivery times, while at the same time increasing operational efficiencies, are becoming necessary to compete in an omnichannel environment.

The Rise of EVs: Implications

INDUSTRY

The auto industry is embarking on a major overhaul of its products, suppliers, employment needs and business models. Given the current indications about accelerating climate change, which is driving the shift to EVs, the speed and intensity of this change is likely to accelerate. With the technology rapidly advancing and fundamental issues of profit margins, supply chains, sales methods and competitors unresolved, this major industry is certain to experience restructuring greater than any industry before it.



Society's Rethink: Work and Office Real Estate

INDUSTRY

The changing nature of work has already impacted office real estate globally, and recent facts and events suggest that for office workers, the nature of the "office" is fundamentally being rethought, with traditional full-time work in a traditional communal office unlikely to revert to pre-pandemic levels anytime soon. Many ripple effects emanate from that essential reconstruction of work including local services, real estate, urban business vitality, cultural organizations, e commerce and food consumption, to name some.



Energy: Natural Gas and Beyond

ENERGY/RESOURCES

An analysis of the Russian natural-gas strategy and the correlated Chinese responses of support was offered in January. A relook at that reality and adjustments being made by consuming countries, along with recent coalition moves by Middle Eastern countries, provides a view of the energy price strategy which should persist after a resolution to the Ukrainian war.

Update: Spreading Attitude on the Environment

ENERGY/RESOURCES

Extreme weather has been triggering extreme reactions, as more and more individuals realize that climate change is real and that humans have a need and a responsibility to take action. The result is that at the individual, investor, corporate, and governmental levels, doing something to address climate change has become a much greater priority. What is intriguing about this spreading attitude among such a large swath of society is that it could represent another step toward a new grand narrative, a context of unified purpose that over the decades can guide society forward. For the moment, both public and private institutions are feeling the pressure from individuals (as customers, as employees and as citizens) to take action.

