Quarterly Market Outlook & Strategy

May You Live in Interesting Times

Fourth Quarter of 2020

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Executive Summary

- In the fourth quarter we observed a potential shift in several multiyear asset performance trends. In particular: international stocks, small cap stocks, natural resources, value stocks, and real estate sprung to life over the past three months after languishing in absolute and/or relative terms for years. Conversely, US bonds lost ground.
- We wrote last quarter about the rising likelihood of such a shift, saying: *We think a baton pass is coming, one that will again favor international markets, value stocks and commodities. These asset classes benefit from environments of rising inflation and US dollar depreciation.* That being said, these 'resurgent' segments of the global markets have a *long* way to go if they're to recoup their multiyear underperformance of US large cap growth stocks and US bonds.
- It's a truism to say that 2020 was a year like no other. The only thing more unbelievable than 2020 is that 2021 already looks set to match it in terms of human and political drama.
- Instability begets instability – at least over the short run. Therefore, it's never been more crucial that we all make the honest effort to slow down and attempt to understand what's brought our beloved country so close to the brink. Matt Stoller provides us with a great starting point here;[1] we think it's well worth your time.
- We've had a year to come to grips with COVID-19. Early on, it was clear it would affect us in profound ways. We had very little idea how and when it would end. Happily, as of this writing, it looks like 2021 will see us close the curtain on COVID. It will not disappear, but we'll have achieved effective mitigation. How did we manage this and what does it mean?
- In this letter, we offer perspective on these questions, as well as our insights about which societal shifts are likely to stick around in the post-COVID world. In addition to placing historical context around the rapid development of the vaccine, we explore the future of hybrid work arrangements, the role of biotechnology in the economy, and the secular shift towards e-commerce.
- Paladin is staying the course with our strategy of constructing portfolios that are robust to a weak-USD, rising inflation scenario. We made substantial progress with this transition in Q4, further building our client allocations to global value stocks, international equity, commodities, and precious metals. We continue to avoid US bonds, which offer terrible risk/reward skew.

[1] Stoller, Matt. "A Simple Thing Biden Can Do to Reset America." *BIG*

A word on the tragedy in Washington

It's a truism to say that 2020 was a year like no other. The only thing more unbelievable than 2020 is that 2021 already looks set to match it in terms of human and political drama. Instability begets instability – at least over the short run. Market modelers call this 'volatility clustering'. In real life, you don't need a model to tell you how that works. Events of the type we saw on January 6th tend to have a knock-on effect. Dramatic events beget other equally dramatic responses.

Thus far, these "equal and opposite reactions" include the banning of the former President from major social media platforms and another attempt by the legislature to permanently bar him from office. The first in particular is a doozy; it amounts to the removal of an influential figure from public discourse at the behest of corporate executives. That's not to minimize the former President's destructive actions and their possible ramifications, but it does provide a stark illustration of how private power has crept up amid rising industry concentration and changes to our communications media.

For years, Paladin has been writing about America's dangerous levels of wealth and power concentration. This in combination with increasingly widespread mistrust of 'mainstream' information sources – accelerated by the polarizing nature of the same social media platforms – has proven to be a deadly potion. The destroyer in chief knowingly manipulated these circumstances in a bid to increase his own influence, and in doing so, laid bare the cracks in the foundations of the republic. But make no mistake: those cracks, while now wider and more visible than ever, have been subtly and gradually corroding our democracy for decades.

Dealing with the underlying problems that allowed this pathogen to infect the *body politic* is becoming ever more urgent. Matt Stoller provides us with a great starting point here; we think it's well worth your time. Indeed, it's never been more crucial that we all make the honest effort to understand what's brought our beloved country so close to the brink.

Closing the curtain on COVID

We've had a year to come to grips with COVID-19. Early on, it was clear it would affect us in profound ways. We had very little idea how and when it would end. Happily, as of this writing, it looks like 2021 may see us close the curtain on COVID, at least in the sense of effectively mitigating and containing the spread of the virus.

There is little question that the approved vaccines represent a major advance towards rolling back the pandemic. The trial data (aggregating across both the Pfizer and Moderna trials) included a combined ~65k participants, about half of which received placebos and half vaccines. Subsequently, there were 347 COVID cases observed in the placebo half, and 19 in the half that was vaccinated. There were 33 'severe' COVID-19 cases identified in the placebo group, and one in the vaccinated group.[2] Judged on the criteria of *preventing and reducing the severity of COVID-19 infection*, these are considered to be very good results, both in absolute terms and relative to previous vaccine trials. For context, the annual flu vaccine is about half as effective at reducing the risk of illness. The FDA's minimum efficacy threshold for the COVID-19 vaccine trials was ~50% (these results showed >90% efficacy).[3]

And yet, public skepticism towards these vaccines is *higher* than is usually the case. People fear that the vaccine will produce side effects, worrying that development was rushed or used unproven biotechnology. It's likely that *all* expert guidance about COVID-19, including assurances about the vaccine, is now stigmatized because of botched and politicized communication when the first wave of the disease hit us. It's also possible that the public is conflating broader concerns about the corrosive long-term health effects of industrial chemicals – explored here by economist Jeremy Grantham – with vaccine ingredients. This all amounts to a stark and unfortunate reminder of the lack of faith in the good will of our institutions. Our politicians, corporations, and public health organizations have a lot of work to do to earn that trust back.

In the meantime, we can at least identify what we know and what we don't know about this vaccine, since this issue has immense and immediate implications for the health and safety of our country. We know that the vaccine greatly reduced the risk of COVID-19 infection – and that short-term side effects were modest-to-manageable – for the diverse population vaccinated in trials. However, we don't yet know whether such side effects are safe for those who are terminally ill or severely immunocompromised. We also can't be *certain* about the potential for longer-term side effects, since mRNA vaccines are a relatively new technology and have never been administered broadly. Lastly, we're not sure that the vaccines reduce *transmission risk* for COVID-19, as it is difficult to test that directly for ethical reasons. But it would be strange and out of step with history if a vaccine reduced a virus's ability to infect but not to spread.

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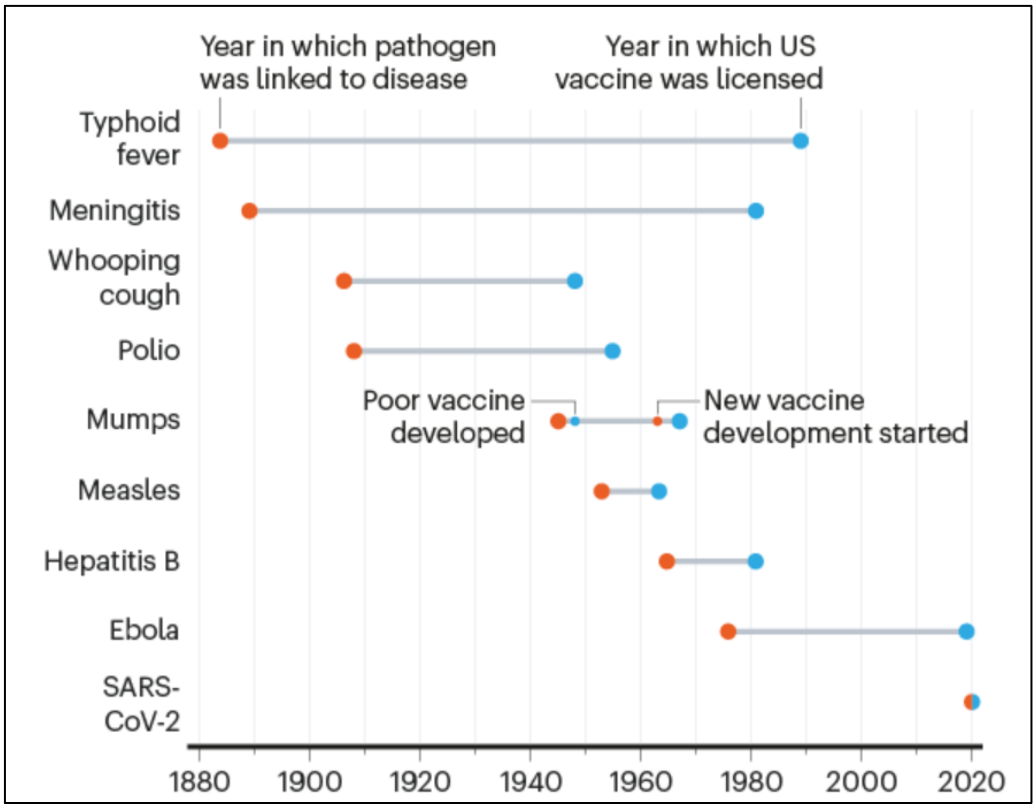
[2] U.S. Food and Drug Administration. "Moderna/Pfizer COVID-19 Vaccine Frequently Asked Questions." https://www.fda.gov/emergency-preparedness-and-response/coronavirus-disease-2019-covid-19/covid-19-vaccines

[3] Health Affairs. "An Overview Of Vaccine Development, Approval, And Regulation, With Implications For COVID-19." https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.01620

It’s difficult to overstate just how rapid the vaccine development has been. Vaccines for most diseases take decades to be developed, if ever. The fastest on record before COVID was a blazing four years for Mumps in the 60s, but that vaccine was not particularly effective. As of this writing we now have three highly effective vaccines fully authorized for use across a number of countries in the West and a further five authorized for use in other parts of the world. For a sense of how astounding this really is, have a look at the chart below.

Vaccine Development Timelines for Selected Infectious Diseases



Source: Nature

This achievement is due to a number of factors coming together successfully. Some are pure luck, like the fact that this virus does not mutate rapidly or effectively hide from the immune system. Others seem at least partly circumstantial. For example, COVID is part of a broader family of viruses with which we already had some familiarity. In a general sense, we’ve been studying coronaviruses for half a century. More recently SARS and MERS gave us a preview of what something like COVID might do, and gave us an opportunity to study similar viruses in advance of COVID’s emergence.

But we (humans) also did a number of things right. International data-sharing allowed COVID's genome to be mapped just 10 days after the first officially reported case. And critically, a massive amount of funding was made available. Testing vaccine candidates is usually the main bottleneck in developing new medicines. This funding allowed for multiple large-scale trials to be run in parallel. Finally, long running research into mRNA technology came to fruition at just the right time.

Unfortunately, vaccine development doesn't represent the definitive ending we all long for. We're highly unlikely to eradicate COVID. Eradication has only been achieved once, for smallpox, under significantly different circumstances. No, COVID is here to stay. What we can look forward to is probably better described as *effective mitigation*; a point in time when it ceases to be the overwhelming, all-consuming issue it is today. A time when we can go back to something like 'normal'.

Effective mitigation is within our grasp. The vaccines appear to be highly effective in preventing the disease (if not the transmission). With 70-90% of the population inoculated, we may achieve something like herd immunity. Despite an unusual amount of public skepticism, most Americans are willing to get the shot. Meanwhile, trial and error has improved treatment and survivability for those who *do* experience severe symptoms.

In the very long term, nature itself may be on our side. Viruses have a habit of becoming less lethal over time. It's in their interest. Killing your host is just bad business for a germ. For example, the Spanish (H1N1) Flu didn't disappear. It adapted over time to become the still serious (but less apocalyptic) seasonal flu that we experience to this very day. It's strange to contemplate, but this slow process of accommodation between parasite and host can continue to play out over geologic timescales. Fragments of virus are often co-opted by our genome; transforming from alien invaders to permanent residents with productive roles to play. Fully 8% of our genome is thought to be of ancient viral origin.

What is normal anyway?

Pandemics have a way of changing things. In Europe, the Black Death of the 14th century is 'credited' by some historians with no less than ending feudalism, after annihilating 30-60% of the population. This is no Black Death, but it seems certain it will leave its own uniquely indelible mark.

In an immediate, first hand sense, it's interesting to consider whether any of the changes we've accepted over the past year are likely to stick around once the immediate threat has passed. Will we be forever antisocial? Will the economy be permanently reshaped to accommodate our strange new consumption patterns? Asking around is no help. People tend to over-extrapolate the recent trend in their personal lives as well as in markets.

One possible framework would be to consider whether or not a particular change is A) in keeping with normal human impulses and therefore sustainable and B) whether or not we were moving in that direction *pre*-COVID, suggesting the presence of other supporting dynamics, and rendering COVID more a catalyst than a cause. Extreme social distancing and full-time face masks fail both those tests, and must certainly go away for all or most of the population. Large gatherings for concerts, sports events and the like will certainly return once allowed. The appeal is simply too great, especially for young people.

However, there are a few other changes that look set to stick around, such as:

1. Hygiene as a slightly more central part of life
2. Hybrid work arrangements as the default
3. Secular shift towards e-commerce
4. Acceleration of the hollowing out of the labor market
5. Real estate shifts
6. Biotech as a key economic driver

Hygiene as a slightly more central part of life

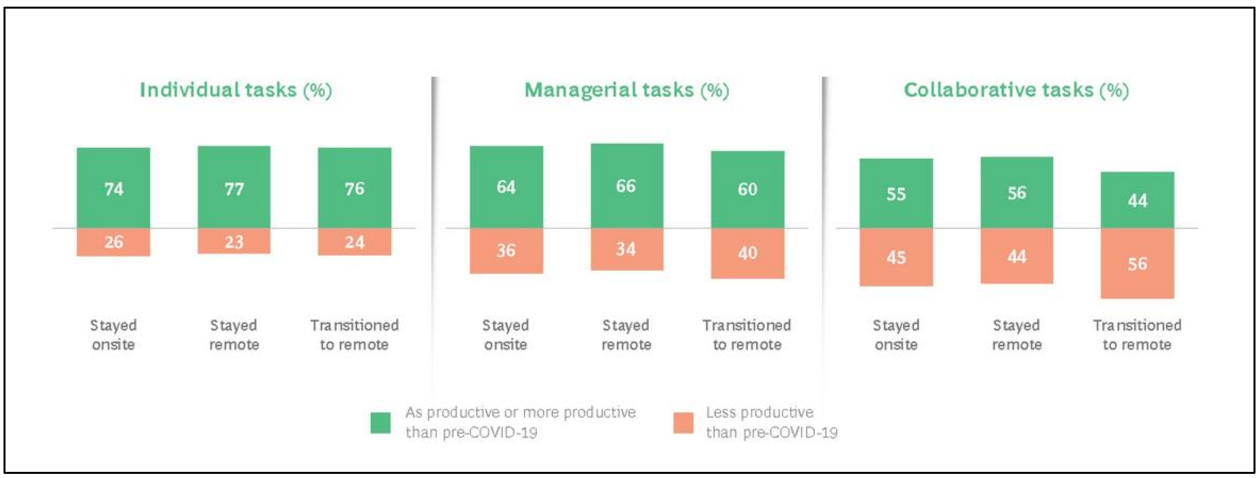
Before germ-theory became well accepted, there was a time in the 19th century when spitting in public was not considered unsanitary and where sharing cups with strangers would not raise an eyebrow. That changed permanently after major tuberculosis outbreaks that spurred public health campaigns directly targeting these behaviors. Yet handshakes, which people avoided for a time, obviously made a comeback. Similarly, it did not take residents of Hong Kong long to strip off their masks once SARS had been decisively contained.

Yet it seems possible or even likely that mask wearing for those with the sniffles might stick around, simply as a gesture of courtesy towards others and general civic-mindedness. Enhanced disinfecting of public spaces may also stay in place. The fact that many of these practices are already the norm in ascendent Asian cultures will tend to reinforce the trend.

Hybrid work arrangements as the default

Much has been said about this. There's no point in beating a dead horse too badly. What's interesting is that Bill Gates outlined this all for us as early as 1995 in and around his book [The Road Ahead]. It took 25 years for technology and society to reach the point where we were ready for a distributed workforce, and a major crisis to catalyze the change. Now that it's been experienced, there are several factors that could keep the shift in place post-COVID. The elimination of a commute keeps more money in worker's pockets and gives them a better work/life balance. While not without complications, remote work can reasonably be expected to help even the playing field between men and women by reducing the career penalty paid by those who cannot work traditional office hours. It could also be a small but meaningful help in the fight against climate change by [decreasing our carbon footprint]. All of that, and with a neutral or even positive impact on productivity, at least for non-collaborative tasks.

Impact of Shift to Remote Working on Self-reported Productivity



Source: Boston Consulting Group, Survey: What 12,000 Employees Have to Say About the Future of Remote Work

Employers, are naturally more reluctant, partly because it's difficult to supervise what you can't see. But business owners will see benefits as well. Office rents will fall, as will the amount of required space, resulting in lower overhead and greater profits. There is also a tantalizing possibility that once employers abandon location as a primary qualification for employment, income disparities between urban and rural areas could start to moderate, helping to revitalize some of the long-neglected parts of the country.

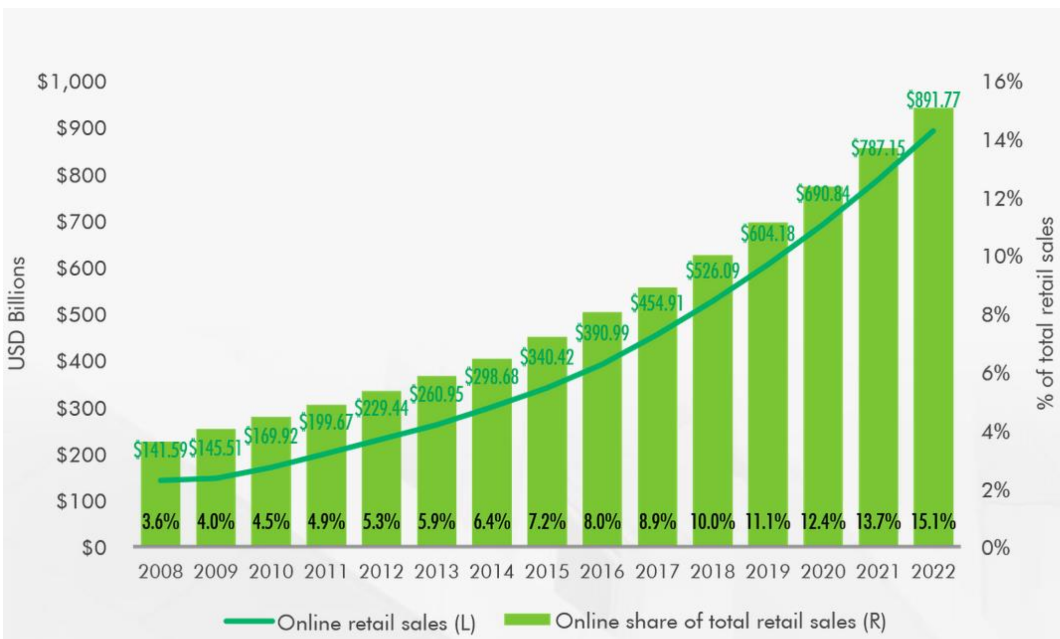
Of course, there is a consensus that most types of knowledge-based work require *some* in-person interaction, and certain types require quite a lot (Paladin would be one of those! 😊).

There's no one-size fits all, and the vast majority of workers do want some in-person time at a physical location, but the default of in-person all the time is likely gone.

Secular shift towards eCommerce

Many younger folks do the *majority* of their non-food retail spending online. They represent the future. Speaking personally, I would be pleased if I never set foot in another mall, department store or big-box for the remainder of my life. With respect to simple commoditized goods, if you can get something delivered for comparable cost to in person shopping, why wouldn't you? COVID has cemented this trend by forcing behavior change amongst the most reluctant online shoppers. Those who take an interest in these things, like Walmart's CEO Doug McMillon, believe most of the abrupt shift to online shopping we saw in 2020 will stick around.

eCommerce Growth, Realized and Forecast



Source: CBRE

No one knows exactly what the ceiling for e-commerce penetration is. Some suggest 50%, with major differences by product category. Whatever it may ultimately be, there is probably scope for at least a doubling from here. Is this sustainable? It depends. eCommerce is not clearly better or worse for the environment than traditional retailing. If customers are incentivized to forego same-day delivery and packaging practices improve, eCommerce could have a smaller environmental impact, but that may take some outside pressure to achieve.

Currently, the eCommerce market is extremely concentrated. Amazon represented an astonishing 37% of online shopping in the US in 2019 and more than half of the growth in online retailing that year. Amazon's PR department would probably point out that they act as a platform for many small sellers, but the reality is they hold all the power in those relationships and ultimately seek to squeeze small vendors in a variety of ways. Concentration of this type is always dangerous.

Acceleration of the hollowing out of the labor market

The shift to eCommerce tends to eliminate more jobs than it creates, and the industries that COVID has most severely crippled – dining, brick & mortar retailing, live entertainment and tourism – are major employers of lower income Americans. Or maybe that should be phrased in the past tense. Stimulus efforts have been helpful but insufficient to these Americans employed and insured, and a huge number of small businesses have gone under – for good. This suggests that these jobs may not come back quickly. Downward pressure on wages for those with less education or out of favor skill-sets is aggravating inequality and increasing the perception of many that 'the system' does not serve them. As the events of January 6th illustrate, this is toxic for an open, democratic society. If artificial intelligence is as successful in eliminating white collar jobs as COVID and globalization have been for blue collar ones, then we've only just seen the beginning.

Real estate shifts

A major rebasing of demand for office space (downward) has already had a significant negative impact on prevailing rents and that's expected to persist, even as the economy begins to recover through the second half of this year. CBRE estimates that remote working may decrease demands for office space by -15%. That may be too modest a prediction, but the decline in the number of in-person workers is expected to be offset (to some extent) by a requirement for them not to be so densely packed in. Gone are the days when workers could be packed in like chickens on a factory farm.

As employers get more comfortable with their hybrid models, they will commit to smaller spaces, exacerbating what is already a surplus of new supply coming on the market. Leases may protect most property owners for the time being. Most large tenants have continued paying the rent throughout, after some initial wobbles in the spring.

Similarly, the changes in habits of retail shoppers may be the *coup de grâce* for many malls, already in serious decline pre-COVID. It's also clearly net negative for small retailers and their landlords in city centers. However, outside of large cities that serve as destinations for commuters, the impact could be overstated. Most small-town retail centers were progressively decimated by malls in the 80s and a shift to big-box out of town retailers like Walmart in 90s. Downtowns are increasingly reserved for higher-end, boutique-style retail, dining, and entertainment. That will continue. To the extent that these changes free up space previously used for offices and stores, it could ease shortages in other categories like housing - a silver lining for sure.

Biotech as a key economic driver in the US

COVID acted as a demonstrator for mRNA technology, which has the potential to revolutionize vaccinology because it allows candidate vaccines to be chemically synthesized in just days. It's a more flexible, nimble approach to development. It also simplifies manufacturing. A single factory can make mRNA for multiple diseases, which in theory, should reduce costs of a range of future vaccines. But mRNA isn't the only thing cooking. CRISPER-Cass9 and the thorough mapping of the human genome in 2003 are starting to bear fruit, though there remains a lively and healthy debate around the complicated ethical questions that arise from genetic modification.

Major global challenges tend to marshal vast resources, encourage public-private partnerships, accelerate new science and generate both international cooperation and competition. They also tend to generate a long tail of economic benefits from innovations that result from these activities. NASA is purported to have spun off over 2,000 innovations for commercial use over the years as a side effect of the space race (not including Tang™). It will be interesting to see if the global response to COVID generates any tertiary benefits of that kind. Biotech is still a relatively small part of US GDP, but it already accounts for a significant proportion of growth and that should probably accelerate from here.

Dramatic solutions to big challenges?

There is no quick fix for what ails us (socially and economically) but we can be hopeful that as problems become more severe and obvious, they tend, over time to build support for solutions. There is a nascent consensus that some combination of anti-trust enforcement, income redistribution, and a more pro-labor, less *laissez faire* approach to trade will play a role. These measures may not make us richer in a conventional economic sense, but they will at least make us *stable*.

There is also a strong case for major new infrastructure spending. Civil engineers estimate that the US has deferred infrastructure spending needs of at least $2 trillion. There is a saying that there is 'no such thing as a blue bridge or a red bridge'. This could be a keystone bipartisan win for the new administration.

Speaking of dramatic 'solutions', the muzzling of the former President by the major tech companies was entirely unprecedented. Twitter, Facebook and YouTube (Google) all blocked him from their platforms. Even Amazon piled on by shutting down Parler through Amazon Web Services. Reasonable people can disagree about whether this was necessary or appropriate or whether it was in the best interest of the country. What they did was legal, but it highlights the astonishing power these tech giants have over information and therefore public opinion. That certainly invites scrutiny.

There is a case to be made that the scrutiny will result in the platforms being broken up more quickly, their power and willingness to work in concert being so obviously alarming to law makers. Another possibility is that they will be rewarded for their willingness to moderate their forums and censure in some cases. Limiting extremist content and conversations online is a game of whack-a-mole, doomed to failure in a competitive, fragmented social media environment. But a concentrated group of large players, insulated from real competition, could reach a kind of understanding with the government, solving the problem of online radicalization by extralegal means. If that sounds alarming, perhaps it should. But we have to be honest that breaking up social media could make extremism worse rather than better by encouraging users to move into ever more niche echo-chambers, of which Parler is (or was?) a great example.

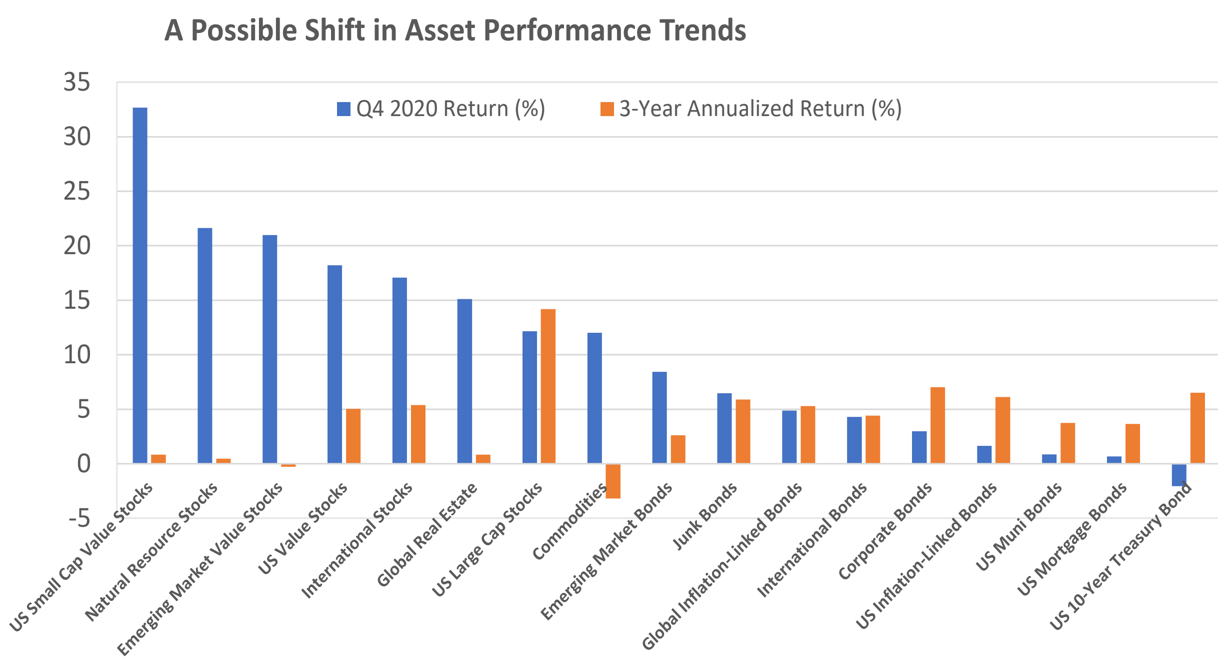
Whether the suggestion of converting large internet companies to *de facto* public utilities provokes relief or outrage, most will agree that our country has reached dangerous levels of political fragmentation. Controlling the spread of misinformation is one of many possible steps we can take to remedy this, but it can be tricky to identify the dividing line between free speech and widespread lies that put the safety of others at risk. Excessive concentration of wealth and power is so interwoven with the erosion of shared facts that many will balk at using the heavy hands of corporations to censor misinformation.

At its core, this debate hinges on a search for some optimal tradeoff between 'freedom' and 'safety'. It also reflects personal views on the relative importance of addressing immediate, acute threats to democracy (the January 6th attack on the capital) versus factors that are slower-acting, but just as pernicious (features of our economic and political systems that feed inequality over time).

We're not claiming to have the answer here, obviously. But the first step is understanding the debate you're engaging in. 'Debate' may even be too adversarial in its connotation; these should be honest, good-faith conversations designed to to seek truth and find possible areas of compromise with those who have different opinions. It's vital that we move the tone of the national conversation away from defensive partisanship and towards empathy, curiosity, and compromise. The fate of our democracy is literally at stake.

Paladin Investment Strategy

For now, the financial markets seem to be focused on the economic implications of a widely distributed COVID vaccine. In the fourth quarter we observed a potential shift in several multiyear asset performance trends. In particular: international stocks, small cap stocks, natural resources, value stocks, and real estate sprung to life over the past three months after languishing in absolute and/or relative terms for years. Conversely, US bonds lost ground.



We wrote to you last quarter about the rising likelihood of such a shift: *"We think a baton pass is coming, one that will again favor international markets, value stocks and commodities. These asset classes benefit from environments of rising inflation and US dollar depreciation."* As a result, Paladin's clients experienced strong risk-adjusted returns in 4Q 2020, driven by investments in energy, base metals, US and emerging market value stocks, and regional equity investments in Asia and Latin America.

In addition to favorable news on the COVID vaccine front, the pickup in these areas was driven by a reduction in political uncertainty, economic recovery overseas, and a continuation of incredibly expansionary fiscal and monetary policy globally (but especially in the US). Reduced trading liquidity and constrained supply across the commodity complex (following several years of low prices and lack of interest from investors) resulted in sharp price recoveries in energy and industrial metals as investors and physical commodity buyers began to return to the marketplace. Paladin's investment in Freeport McMoran (FCX), the world's largest copper miner, was a particularly strong performer during the quarter. In addition to the factors listed above, copper benefits as a major input for vehicle electrification, wind turbines, and solar panels.

That being said, and as the prior chart shows, these segments of the global markets have a long way to go if they're to recoup their multiyear underperformance of US large cap growth stocks and US bonds. The diversified portfolio has likely only just begun its recovery vis-à-vis the passive, US-focused 60/40 portfolio.

That's not to say the road ahead is easy for global value investors like ourselves. As explained in the prior section, much of the COVID-induced reduction in mobility could be here to stay on a long-term, structural basis. We're also likely to see a more concerted (and necessary) effort at the federal level to curb fossil fuel usage following the Democrats' sweep. Reduced demand for energy could, all else equal, put pressure on oil prices and lower the cost of extraction for other raw materials, a force for deflation/disinflation.

On the other hand, the transition to renewables will have to be balanced with the practical, immediate energy needs of the global economy, particularly if we're to embark on a massive clean energy infrastructure buildout (which will require traditional fuels). Moreover, cyclical factors, including a vaccine-induced released of pent-up demand, fiscal stimulus, and constrained supply are likely to create a weaker US dollar and inflationary pressures on a medium-term (1-3 year) horizon, at the very least. The irony remains that valuations remain relatively-to-very cheap for the very segments that we expect to benefit most.

Therefore, Paladin is staying the course with our strategy of constructing portfolios that are robust to a weak-USD, rising inflation scenario. We made substantial progress with this transition in Q4, further building our client allocations to global value stocks, international equity, commodities, and precious metals. We continue to avoid US bonds, which offer terrible risk/reward skew. Our client portfolios are now close to neutral-risk allocations (i.e., equity-like exposure) vis-à-vis their respective portfolio benchmarks.