Mesirow

Capital Markets Brief

1Q2021 Review

We end this first quarter of 2021 striving to maintain a disciplined balance in a volatile world. While we celebrate the remarkable accomplishments of our scientific and medical communities, we mourn the loss of 2.6 million lives globally. While we recognize the remarkable scientific achievements of Operation Warp Speed, we note that it will be years before billions of our fellow global citizens share in the benefits of this research miracle.

Blake Anderson
Senior Managing Director
Institutional Sales & Trading

Bing Hsu
Senior Vice President
Institutional Sales & Trading

Mark Whitaker
Senior Vice President
Institutional Sales & Trading

The correlation between free, open economies and the increasingly successful research and vaccine distribution outcomes is too important to overlook. Free market democracies can look sloppy in a crisis, and initially they often are. But the results discussed below speak for themselves.

For nine decades, Mesirow has found ways to see patterns in the turbulence of global events, harnessing data and disciplined qualitative analysis, and applying those insights in a balanced and thoughtful approach to markets on behalf of our clients.

To set a baseline for our comments below we note that, as we write:

- The S&P 500 has returned 6.18% QTD.
- The 10 Year Treasury has returned -7.20% QTD
- The Municipal AAA Index has returned -3.17% QTD
- The US Dollar Index has returned 3.65% QTD

Overview: An unbalanced world ahead

As we survey global capital markets at the close of 1Q2021, four themes emerge. Common to each of these topics is the question of balance. Are pandemic impact and response evenly distributed? Are markets working to price risk efficiently? Are Central Bank and government policy responses balanced and proportionate? Finally, are the impacts of these policy responses creating market distortions or masking unrealized risk?

Globally, COVID-19 vaccinations are moving forward at an extremely uneven pace, as critical issues of policy efficiency, differences in national/regional wealth, infrastructure, policy and education leap out from the data.[1]
Some examples:

The English Channel is 21 miles wide at its narrowest point. The slow-rolling Brexit political crisis reveals a systemic policy gap that is far wider. Bloomberg data this week reports that 6.4% of the European Union population has been treated with COVID-19 vaccine versus 22.4% in the United Kingdom (data adjusted by BB for dosing protocols[2]). Germany extended, then rescinded another four weeks of shutdown after a ferocious public pushback, as the UK implements reduced internal restrictions effective March 29, 2021. These two data points have implications for human health and well-being, economic growth, markets, education and trade policy; not to mention deep threats to contract law regarding the distribution of AstraZeneca vaccine shipments. 21 miles and a world apart.

The immediate policy responses and resource commitments of free market economies in the western democracies in the early stages of the COVID-19 pandemic have created a treatment gap in the global race to herd immunity. The US (at 19.4%; 127mm doses administered) and the UK (at 22.4%; 29.8mm doses administered) versus the global average (2.9%) have raced ahead of most of their international competitors. Herd immunity is likely to be achieved within five months in these economies while the less developed world is left behind. Despite claims to the contrary, China and Russia likely lag the global average, while India is further behind. These are enormous markets facing systemic competitive stress.

Lest the reader think that the impacts of decisive leadership, policy-making implementation discipline and broadly available high quality education do not change crisis outcomes, Israel, in spite of significant political turbulence, is giving the world a clinic in crisis management, delivering a remarkable 53.6% of the population dosed (9.71mm doses). We note the disparity between sovereign Israel and the Palestinian territories as another example of our imbalance theme.

Free, open, highly educated and technologically advanced economies are going to recover faster, renormalize education quicker, reach full employment sooner and run into material, labor and supply-chain inflation pressures in the intermediate term. Europe is likely to wallow. The developing world faces a long and painful slog toward renewed public health and economic prosperity.

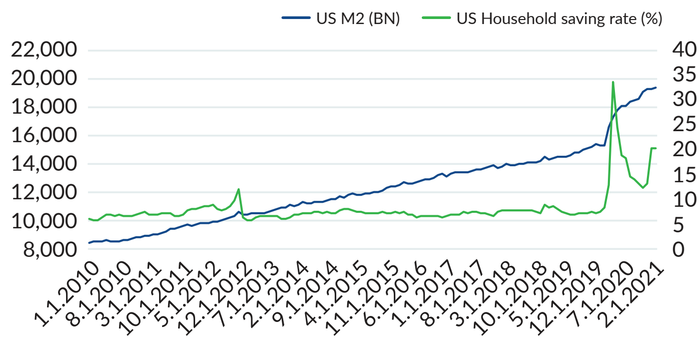
Issues of "global fairness," social equity, resource distribution, supply-chain redomestication and raw materials distribution will be fought out in global capital markets. Price discovery has barely begun. Investors will rightly wonder whether the unrealized risk of the social, economic and medical disparities is properly priced in today's markets.

Markets are awash in Central Bank liquidity, leading to asset price distortions and resulting fears of market bubbles.

As Charts 1–3 clearly demonstrate, equity and capital markets are floating on a substantial and unprecedented peacetime wave of liquidity. The expansion of M2 and the swollen Federal Reserve Balance Sheet will give the cautious bond investor pause. Bullish equity investors look for comfort in the charts tracking the growth in household wealth and savings rates. Can both viewpoints be simultaneously correct?

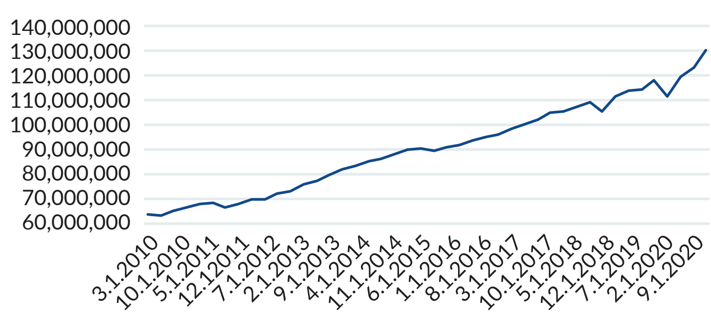
This paradox is largely the result of "dovish" Federal Reserve policy and a growing series of simulative fiscal packages unleashed in the wake of the COVID-19 shock of 1Q–2Q2020.

CHART 1: **US M2 (BN) & HOUSEHOLD SAVING RATE (%)**



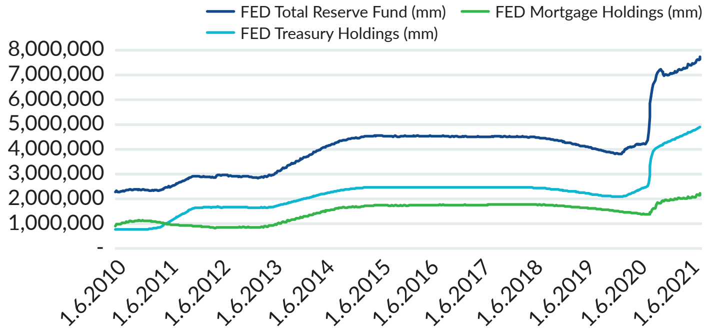
Source: Federal Reserve Bank, Bloomberg..

CHART 2: **HOUSEHOLD NET WEALTH (BN)**



Source: Federal Reserve Bank, Bloomberg.

CHART 3: **FEDERAL RESERVE BALANCESHEET HOLDINGS**



Source: Federal Reserve Bank, Bloomberg

Economists can argue about the social benefits and the economic efficiency of these aggressive measures, but it is impossible to ignore the evidence of the liquidity wave that flows through these charts. Global investors are likely watching US policy responses with a cautious eye, as Chart 4 indicates.

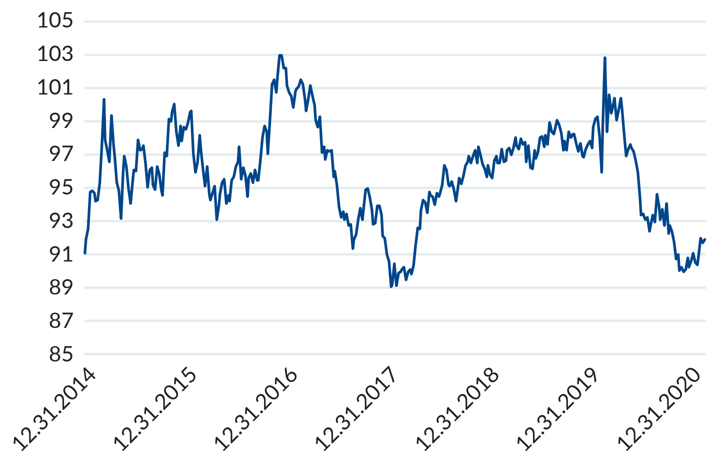
It doesn't take a hardened monetarist to raise questions about the effect of this US government (with the full support of G7 Central Bankers) liquidity poured into global rate and equity markets. Arguably, this is the most accommodative Fed since William Miller's brief 1979-81 chairmanship — a short term as Chairman that, after a run on the US$ and runaway inflation, led to the Paul Volcker Federal Reserve era, 1979-87, and the painful but successful monetary and interest rate shocks that were the foundation for a remarkable period of domestic prosperity. Chairman Powell is the first non-economist Fed Chairman since Miller. His very dovish comments about "the 2% inflation ceiling," along with those of Secretary Yellen, appeared to be an attempt to encourage market forecasters to "move the dots" (extend their expectations of Fed action). The yield on Ten Year Bond peaked above 1.7%, settled back down, and bounced back to 1.742% at the end of 1Q2021. Serious investors may wish to consider the Chairman's change in nuance carefully; he is a Washington bred attorney, not an economist, and we should understand his use and understanding of language accordingly.

This is not to make a case for prospective aggressive inflation or imminent double-digit short rates, by any means. The depth of the COVID-19 drag on most world economies, as previously outlined, is enough by itself to put this scenario to rest. But US jobless claims recently breaking below 700,000 and annualized 4Q2020 GDP at 4.1% suggest that a "V-shaped" recovery is taking hold in the US.

The charts below describing the extent of the policy-based liquidity bubble and those charting the rise of prices of real assets, building commodities, silicon chips and (not least) equity markets are placed together for your consideration, as is the data on tightening credit spreads in fixed income markets.

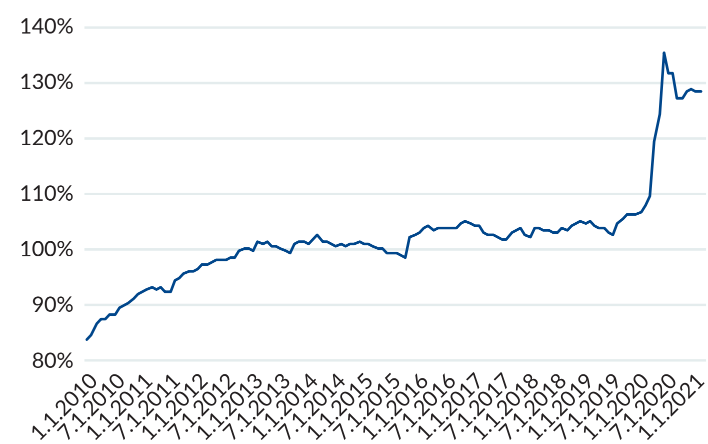
The US Dollar Index (Chart 4) follows for your review as you balance the US's remarkable scientific prowess, and our equity and capital market's "RISK ON" response, against the global valuation of the state of our national fisc in the context of our currency. As the 1Q2021 ends, we note modest US Dollar strength against this trend.

CHART 4: **US DOLLAR INDEX**



Source: Bloomberg.

CHART 5: **TOTAL OUTSTANDING TREASURY / NOMINAL GDP**



Source: US Department of Treasury, Bureau of Economic Analysis.

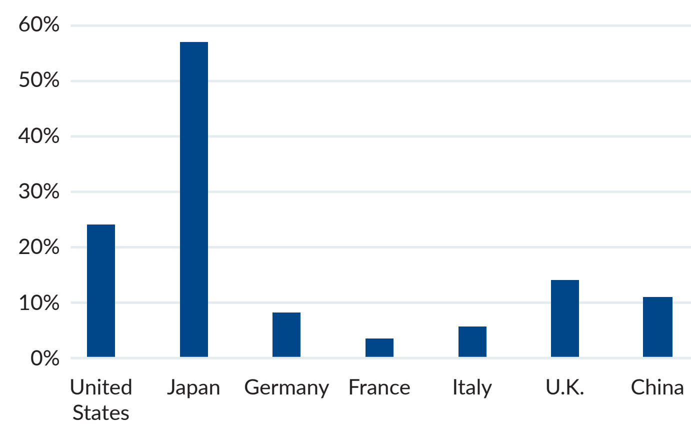
Fiscal stimulus is adding leverage to the asset inflation pattern, in a response to accommodating Central Bank Policies.

TABLE 1: **COMPARATIVE FISCAL AND MONETARY TABLE**

Country	Monetary policy	Fiscal policy
US	• Rates cut to 0-0.25% • Unlimited asset purchases	5.0-5.2 trillion stimulus (24% GDP)
Japan	• Short-term rate at -0.1%; 10-year yield target at 0%, with no limit on JGB purchases. • REIT and ETF purchases doubled • CB and CP purchases more than tripled	308 trillion yen stimulus (57% of GDP) package includes existing measures
Germany	• ECB deposit rate unchanged at -0.5% • Rates on TLTRO as low as -1.0% from June-20 to June-22	267 billion euro stimulus (8.1% GDP)
France	• Existing asset purchases expanded by 120 euro by end-2020	84 billion stimulus (3.7% of GDP)
Italy	• Net asset purchases under Pandemic Emergency Purchase Program to run to until Mar-22, with an envelope of 1.85 trillion euro	100 billion euro stimulus (5.6% of GDP)
UK	• Rates cut to 0.1% • Purchase of 450 billion pound in bonds	295 pound billion stimulus (14% of GDP)
China	• Loan Prime Rate cut 30-bps to 3.85% • Targeted reserve requirement ratio cut • 1.8 trillion yuan re-lending quota and 400 billion yuan loan-purchase scheme	11% of GDP

Source: Bloomberg Economics.

CHART 6: **FISCAL POLICY % OF GDP**



Source: Bloomberg Economics.

The March 2020 US CARES Act and March 2021 America Rescue plan provided states with direct aid totaling $334 billion, exactly 30% of 2019 census state tax revenues. State tax revenues grew in calendar year 2020 by 1%. We believe this will bring more credit stability over the next fiscal year. Rating agencies also project (with characteristic optimism) more stability to state general obligation bonds, with Moody's and S&P assigning stable outlooks to the state sector in March 2021. We also caution that the length of recovery and use of funds will vary significantly among states.

As we write this edition of the Mesirow Capital Markets Brief, the White House background notes for the $2.25 Trillion (est) American Jobs Plan are on the wire.

Between the first two packages, aid was allocated based on population, share of national unemployment and minimum distribution amount formulas. The allocations did not account for lost revenues or budget performance, so for analytical purposes, we have combined federal aid data with census state tax revenue data from calendar years 2019 and 2020 to show how disparate the effects of this Federal aid will be in the context of individual state revenue performance.

Chart 7 shows the highest performers when combining aid and tax revenue. Disproportionate benefits appear to be directed toward the smaller budget states due to the minimum distribution allocations of each bill.

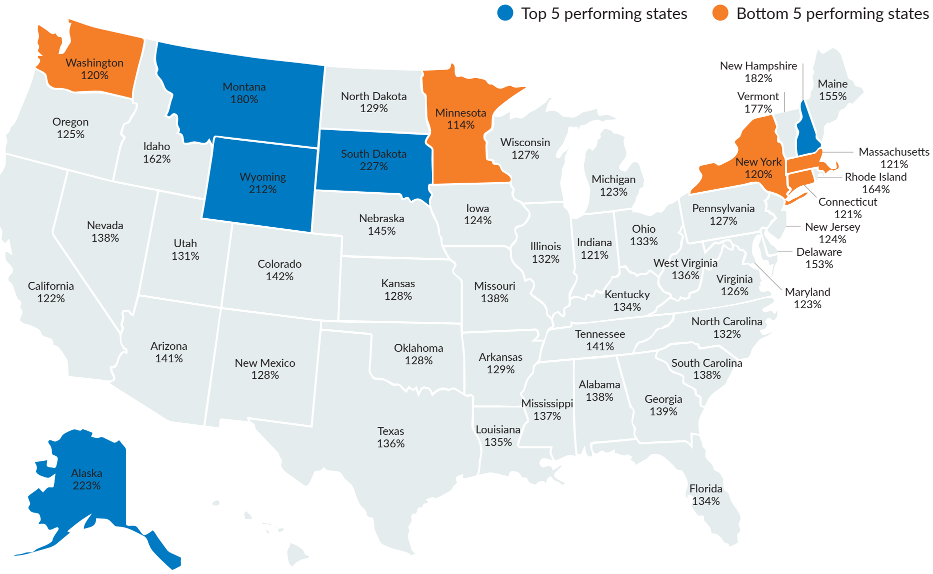
For example, isolating tax revenue performance, Alaska performed the worst amongst states measured by tax revenues -33% YoY. However, Alaska had a relatively small tax revenue base of $1.6B pre-COVID-19 and they received the minimum $1.25B of aid in each round of stimulus, making aid + 2020 revenues more than double 2019 revenues. This contrasts with the State of New York – while having a high share of unemployment and absolute aid dollar amount, New York's large tax revenue base leaves it at 49th in terms of aid + revenue performance.

Tax revenue performance by itself was influenced by factors such as tourism and oil dependence. The aid packages alone favor large states with high population and a high share of unemployment during 4Q2020. **When aid and tax revenue performance are combined, we do not see clear factors attributing to outperformance other than minimum allocation amounts having a greater impact on states with lower tax bases.** Lastly, we recognize that different states experienced different expense growth during the pandemic. We believe separate aid allocated for Medicaid, school districts, higher education and mass transit have helped alleviate expense pressures at the state level.

The bottom tier states with lower aid and revenue performance will have a shorter term time benefit from Federal relief than the top performers. Ceteris paribus, the names towards the bottom that entered the pandemic with structural deficits will likely return to running structural deficits quicker and land fiscally harder than the top performers. The March 2021 American Rescue Plan aid to state governments is available to draw on through 2024.

Under the American Rescue Plan, which provided 4x more aid to local governments than the CARES Act, cities received aid based on the Federal Community Development Block Grant formula, which takes into account poverty rates and the age of housing stock. When looking at total aid, the cities of Buffalo, Cleveland, Detroit, Fresno, Toledo, Milwaukee, Pittsburgh and St. Louis were all allocated amounts >50% of their 2019 governmental revenues. San Francisco and New York are at the bottom, with aid amounts of 8% and 6% of 2019 revenues.

CHART 7: AID + 2020 TAX REVENUE / 2019 TAX REVENUE



Source: Mesirow Research.

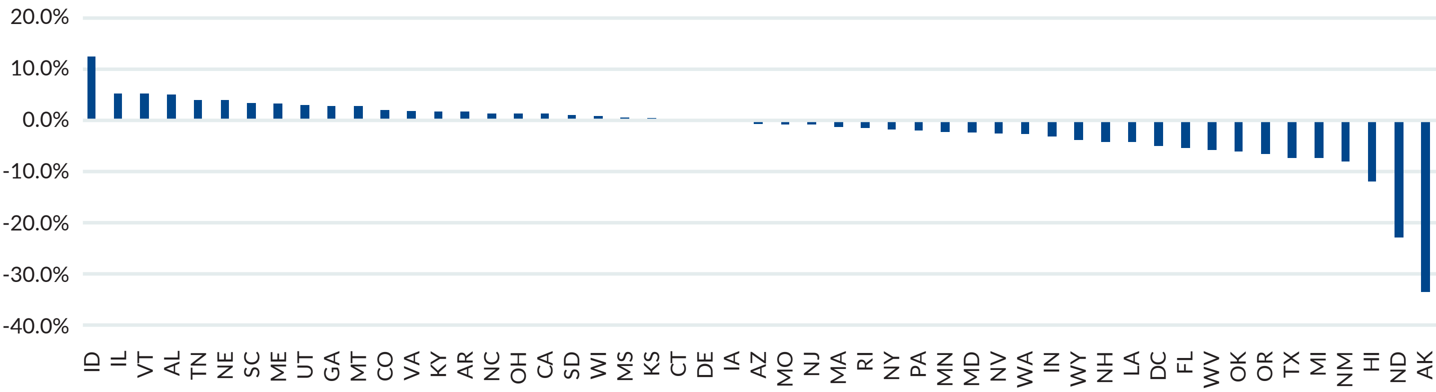
TABLE 2: TOP 5 PERFORMING STATES

State	CARES Act + American Rescue Plan + 2020 Census Tax Revenue / 2019 Census Tax Revenue (%)	2020 Census State Tax Revenue YoY (%)	Population (2019)	CARES Act + American Rescue Plan State Aid $
South Dakota	227%	1%	887,127	$892,717
Alaska	223%	-34%	733,603	$731,158
Wyoming	212%	-4%	580,116	$582,328
New Hampshire	182%	-4%	1,360,783	$1,366,275
Montana	180%	3%	1,070,123	$1,080,577

TABLE 3: BOTTOM 5 PERFORMING STATES

State	CARES Act + American Rescue Plan + 2020 Census Tax Revenue / 2019 Census Tax Revenue (%)	2020 Census State Tax Revenue YoY (%)	Population (2019)	CARES Act + American Rescue Plan State Aid $
Minnesota	114%	-2%	5,640,053	$5,657,342
New York	120%	-2%	19,463,131	$19,336,776
Washington	120%	-3%	7,614,024	$7,693,612
Massachusetts	121%	-1%	6,894,883	$6,893,574
Connecticut	121%	0%	3,566,022	$3,557,006

CHART 8: **2020 CENSUS STATE TAX REVENUE YOY %**



Source: Mesirow Research.

Asset inflation in the US is reflecting this fiscal and monetary stimulus pattern

If we accept the thesis that herd immunity will stimulate economic recovery in the US, and several other advanced "COVID-effective" economies, we must also accept the idea that this recovery will not even be on a global basis. Even within the highly privileged developed world, economic growth and sustained prosperity will be unevenly distributed.

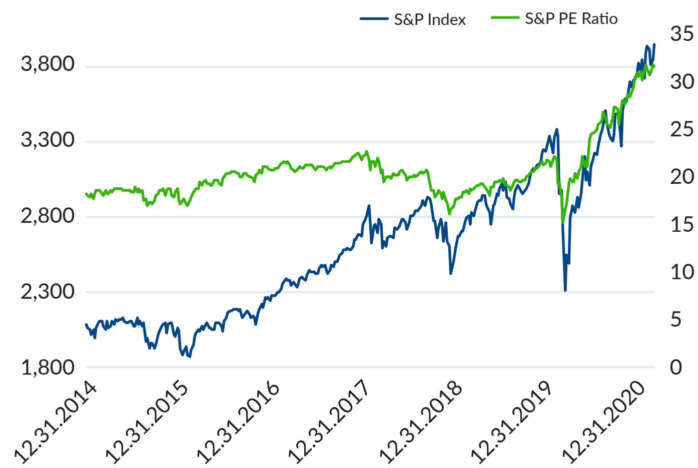
Two key questions arise:

- Will the true legacy cost of the fiscal and monetary policies that purchased this competitive global advantage prove to be national wealth wisely and efficiently invested? This question leaps out of many of these data charts in relative economic terms. In absolute terms, how will our children look back on this period of public debt expansion and money growth?
- Are US equity and capital markets fairly pricing both the absolute and relative economic prospects of US economic recovery? Are markets pricing the divergence of health and prosperity; global region to region, country to country, state to state?

US equity markets are at or near peaks as the Standard and Poor's Index (Chart 9) illustrates.

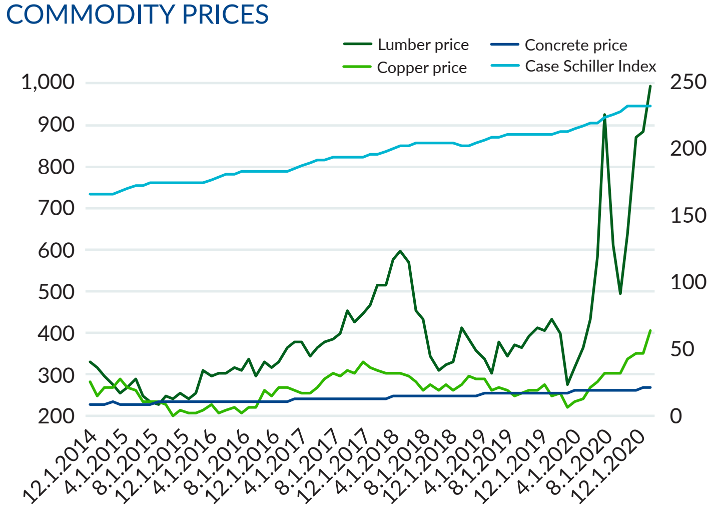
Housing prices and building commodities continue to grind upward as Chart 10 illustrates.

CHART 9: **S&P INDEX (L) & P/E RATIO (R)**



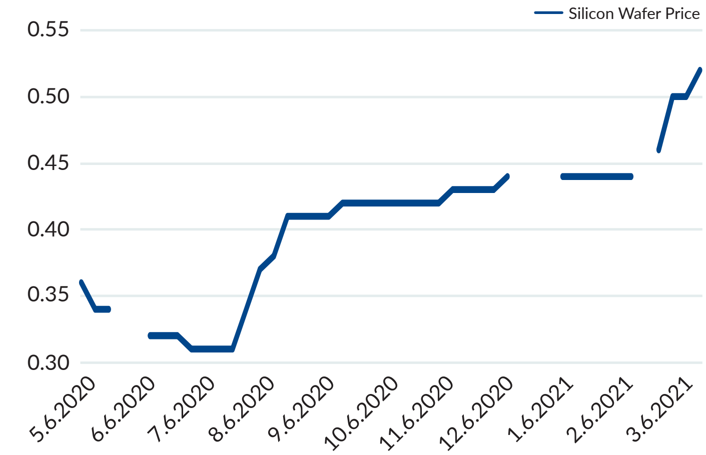
Source: Bloomberg. | The S&P 500 Index or Standard & Poor's 500 Index is a market-capitalization-weighted index of the 500 largest U.S. publicly traded companies. The index is widely regarded as the best gauge of large-cap U.S. equities.

CHART 10: **CASE SCHILLER INDEX (R) & CONSTRUCTION COMMODITY PRICES**



Source: Bloomberg.

CHART 11: SILICON WAFER PRICE

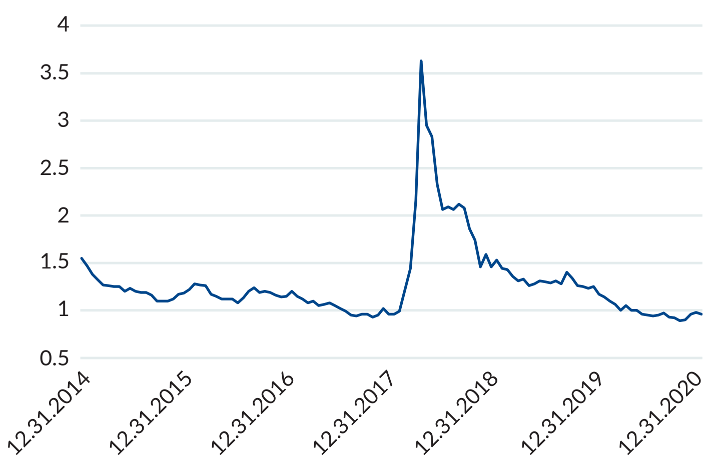


Source: Bloomberg.

CHART 12: US TREASURY 10Y REAL RATE (%)

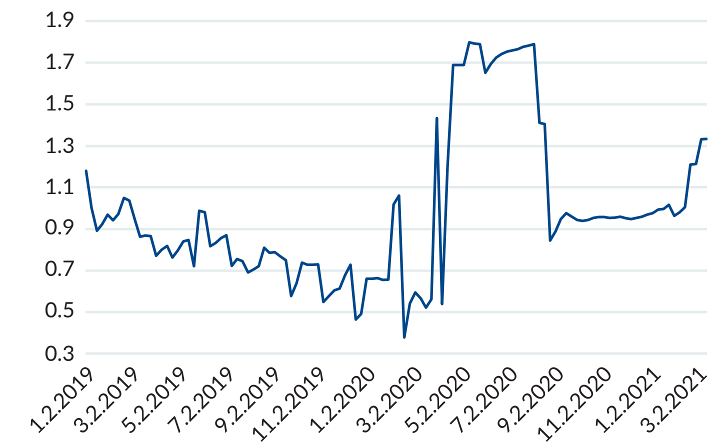
Source: Bloomberg.

CHART 13: BARCLAYS CORPORATE OAS (%)



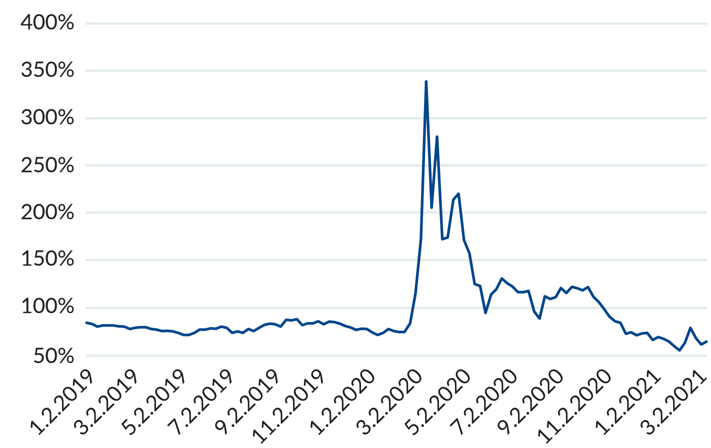
Source: Bloomberg.

CHART 14: MUNICIPAL 10Y BBB — AAA SPREAD (%)



Source: Bloomberg.

CHART 15: MUNICIPAL AAA 10Y / TREASURY 10Y



Source: Bloomberg.

Conclusion

So, we conclude where we began, with questions of balance:

- Can the US economy grow at a +4% rate for several quarters without a negative reaction in the rates market?
- Have US equities, some markets at peak P/E ratios (Chart 9) priced in a steeper treasury curve? Have they priced in the extent of the uneven global recovery that our data forecast?
- Have US equities priced in the weight of a severely unbalanced fisc and Debt/GDP > 100%?
- Do corporate and municipal market credit spreads correctly price credit risk in the uneven COVID-driven global economic environment our data suggest? The Barclay's Corporate Index (Chart 13) suggests very little downside is priced into this market. Municipal credit spreads (Chart 14) suggest some corrective widening as cash flows into funds have moderated. But the tax exempt market is still trading credit very cautiously.
- Is the wave of retail investor driven liquidity we that discussed last quarter distorting price discovery and dampening unrealized volatility (we are just a few days from March 2021's aggressive treasury market correction, and the municipal market's time-delayed 42 bp response)? The 10 Year Treasury note has backed up to a 1.742 yield as we write. Municipal ratios remain very rich (Chart 15) driven by retail investor flows and expectations of significant tax increases. The legislation released today appears to justify the expectation of higher corporate tax rates. But the "Warren Wealth tax" is absent at this stage and the fate of the cap on state and local taxes (SALT Tax cap) is unclear.
- The "margin call" that drove block trade liquidation of Archegos Capital's highly-leveraged equity derivatives positions is an event that shook bank valuations while financial institutions and regulators tallied and released individual institutional exposures to Archegos. Experienced investors shiver whenever they open their market day to reports of a derivative-leverage unwind.
- We reviewed the potential "unbalanced" effects of COVID-19 using Bloomberg data from March 21, 2020. It does not account for "Fourth Wave COVID". Mesirow has tracked COVID data from the earliest days of the pandemic. We see signals of increased infection rates in India and Brazil. It is too early for data signals from less developed nations, but it stands to reason that if a Fourth Wave develops, they will be disproportionately affected. In contrast, as Israel, the US and the UK approach herd immunity, the "Balance Thesis" is likely to come into play strongly, as the data in this market comment suggests.

For nearly 90 years, Mesirow has worked with our client-partners to balance risk and reward. We protect our clients' capital as mindfully as our own. We deploy our firm's capital on their behalf to provide liquidity when needed and to pursue opportunity when it presents itself.

We believe that putting our clients first, sharing our insights transparently and deploying our capital on their behalf is the foundation of the decades-long client partnerships that are our greatest asset and source of pride.

> "When the people find that they can vote themselves money that will herald the end of the republic."
>
> — Benjamin Franklin

About Mesirow

Mesirow is an independent, employee-owned financial services firm founded in 1937. Headquartered in Chicago with offices around the world, we serve clients through a personal, custom approach to reaching financial goals and acting as a force for social good. With capabilities spanning Global Investment Management, Capital Markets & Investment Banking, and Advisory Services, we invest in what matters: our clients, our communities and our culture. To learn more, visit mesirow.com and follow us on LinkedIn.

Contact us

Blake Anderson
617.235.1423
blake.anderson@mesirow.com

Bing Hsu
312.595.8912
bing.hsu@mesirow.com

Mark Whitaker
312.595.6535
mark.whitaker@mesirow.com

1. Source: Bloomberg, 3.21.21.

2. Readers will have seen higher vaccination percentage data in headline press coverage. We have focused on Bloomberg data which has been adjusted for dosing protocols by vaccine (2x or 1X required) as a more comparably accurate approach. For example, the British focus on first dose produces a 59% adult one dose population vs. 38% in the US. More Americans are fully vaccinated at a rate of almost 3x the rate of British full vaccination. Thus, we've utilized Bloomberg's adjusted data in the interest of data equivalency.