STRATEGIC RESEARCH

MEMORANDUM

TO: Wilshire Consulting Clients

FROM: Steve Foresti, Chief Investment Officer, Wilshire Consulting

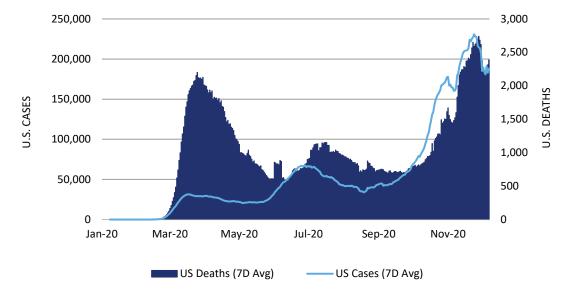
SUBJECT: Yearend Memo: 2020 Hindsight & the Road Ahead

DATE: January 5, 2021

"Turn the Page" - Bob Seger

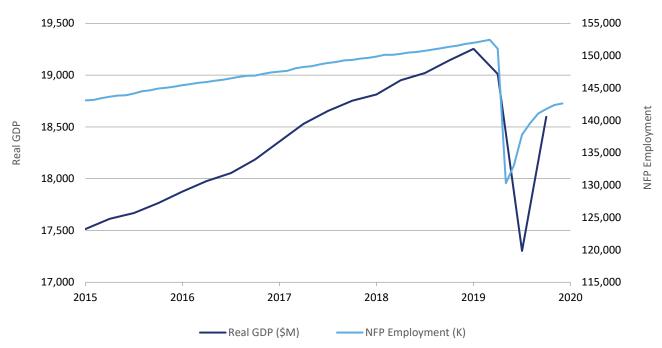
As we turn the page on 2020 with the profound uncertainty of its problems stubbornly following us into 2021, we are all certain of one thing, we will never be the same. Throughout the journey of our lives and careers we are shaped, taught, and often hardened by the totality of our respective experiences. By that measure, 2020 is likely to be one of the most consequential years of many of our lives and one that will forever influence our individual perspectives on life and the relationships we have with our families, friends, employers and government. With sincere respect for the personal experiences and reflections of individual readers, we will not be so presumptuous to even begin to attempt to generalize what those individual takeaways will be or how they will shape our collective culture. In pivoting to economic and market related impacts, we simply acknowledge and accept that the COVID-19 chart below is sure to endure as 2020's "chart of the year." All other influences - economic, social, and political – started here.

U.S. COVID-19 CONFIRMED CASES AND DEATHS



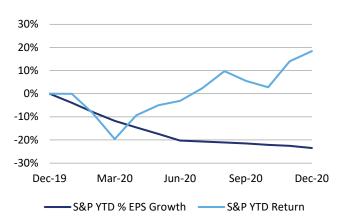
While the global pandemic is certain to prevail as the monumental historical event of 2020, the monetary and fiscal actions it prompted are likely to be the dominant driver of economic and market conditions over the coming decade(s). Thoughtful people can disagree on the level and precision of the U.S.'s government response, but none should doubt the unprecedented impact these stimulative activities had on the divergence between economic and market outcomes. This, we believe, will drive the investment environment for the foreseeable future and, as we have discussed through our 2020 research notes, challenges all investors to rethink portfolio strategies. The following exhibit provides a high-level economic picture of how COVID-19 and its associated shutdowns impacted the general economy. While the chart clearly demonstrates the dramatic shock to growth and employment, these headline statistics mask the massive divergences realized within specific segments of the economy (i.e. service vs. manufacturing sectors, employment by level of education, gender and race, etc.).

GDP & EMPLOYMENT

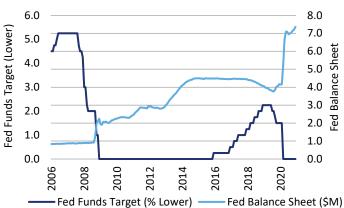


Below, we move to the divergence between underlying economic conditions and market performance. The chart to the left shows the 2020 percentage change decline in S&P EPS (dark blue line) versus the Index's cumulative 2020 total return (light blue line). A portion of the rationale for this divergence stems from investors looking past the current economic shutdown and discounting positive expected growth once the U.S. and global economies realize the benefits of the burgeoning vaccination process. However, another critical driver – arguably the dominant catalyst – of the separation between economic and market outcomes can be attributed to the unprecedented levels of monetary stimulus unleashed to dampen the economic impacts from pandemic-induced shutdowns. We show those historic flows in the chart to the right, which captures two of these key metrics and compares them against levels seen following 2008's global financial crisis (GFC). First, note how quickly the Fed supported liquidity access by returning its Fed Funds Discount Rate to zero in early 2020 (dark blue line). More dramatically, however, is the pace at which the Fed used its balance sheet to support financial assets (light blue line). Remarkably, the Fed's 2020 action made its previously unprecedented and aggressive post-GFC activity look modest by comparison. The Fed grew its balance sheet to ~\$7.4 trillion in 2020 (~35% of GDP), adding a staggering ~\$3.2T from its already lofty ~\$4.2T level at the end of 2019 (~19% of GDP). For perspective, the Fed's 2020 balance sheet growth, the bulk of which occurred over just three months, nearly matches the cumulative balance sheet expansion of ~\$3.5T (from ~\$1T to ~\$4.5T) realized across the Fed's QE1 through QE4 programs that ran in the six years from late-2008 to late-2014.

S&P 500 YTD EPS Change vs Return



Fed Funds Target Rate & Balance Sheet



Considerations for the Strategic Game Plan

The good news for investors from the divergences chronicled above are the relatively attractive asset class returns that were collected in 2020 (W5000 +20.8%, MSCI ACWI-ex-US +10.7%, BB US High Yield +7.1%, BB US Aggregate +7.5%). The bad news, of course, is that those returns when viewed against their fundamental backdrops have, in part, pulled forward future returns, thus dampening expected return prospects. This is the daunting environment we have discussed in 2020 within Wilshire's "The Investor's Challenge" series of research notes. The conditions described above have fundamentally reshaped the investment opportunity set and its embedded risks. We will continue to focus our research on potential investor responses to today's challenges and direct interested readers to those earlier notes, as a more detailed discussion of important investment trade-offs is beyond the scope of this memo. We do, however, present several high-level themes that we believe to be worthy of serious consideration when examining long-term strategic allocations.

The combination of 1) the widening gap between return requirements and expectations, 2) the diminished utility of high-quality nominal bonds (i.e. the traditional portfolio diversifier), and 3) the growing risk of future inflation as central bankers actively pursue inflationary policies suggest that some adjustments to the long-term strategic investment game plan are worth considering. After spending the past decade defending and promoting the critical role of nominal bond duration in portfolios, we now find ourselves less comfortable making that case. While Wilshire continues to appreciate a role for these defensive assets within institutional portfolios, we view the replacement and/or supplementation of traditional nominal bonds to be a primary consideration within a return-seeking investor's revised game plan. We recommend compartmentalizing decisions around high-quality nominal bond allocations into two primary components, reshaping and resizing.

Reshaping: As the primary growth-risk dampener in most institutional portfolios, any alterations to core bond allocations should begin with an assessment of desirable risk characteristics needed from this defensive sleeve of the portfolio. Our goal here should be to examine asset classes that might be able to deliver some of the desirable risk reducing properties of nominal bonds while avoiding excessive portfolio exposure to their environmental vulnerabilities. As we have described in previous notes, some of these defensive allocations might be restructured to include inflation-sensitive, growth diversifiers such as TIPS and gold or uncorrelated investments within the alternative income strategies segment.

Resizing: The ongoing investor need for return and the attractive relative spread between expected return for growth assets (stocks) versus defensive assets (bonds) suggests that there may be value in taking on additional growth risk. However, and perhaps in a blend between an exercise of reshaping and resizing, we would recommend approaching a potentially increasing growth allocation in a more diversified and defensive manner. Specifically, for allocation shifts from defensive to growth assets, we would advocate considering a role for defensive growth strategies such as low volatility equities, convertible bonds and other dynamic/asymmetric approaches. Rather than overly concentrating portfolios in traditional public and private equity beta, these defensive growth assets would be

targeted to tap into similar return opportunities, while attempting to manage the downside risk associated with traditional equity exposure.

We label the current environment as "The Investor's Challenge" because the list of options available to meet investor objectives are limited. A panacea approach does not exist nor are there any simple, low-risk strategies available to meet most institutional return requirements. To that end, the strategic ideas listed above are intended to generally guide upcoming asset allocation studies to be responsive to today's unique economic environment and not as a one-size fits all prescription for meeting the challenge. All portfolio trade-offs must be consistent with individual institutional risk tolerances and return objectives as portfolio priorities are reshaped by swapping one form of risk for another. Nonetheless, several of the risks noted above have been elevated in the current environment and are worth addressing via the re-allocation of economic portfolio exposures.

Conclusion

Star J. Late.

While we all take some symbolic satisfaction in turning the page on 2020, we know that many of the pandemic-induced hardships and isolation will remain with us for quite some time. We hope that you and your families remain healthy and have discovered creative ways to turn the challenges of COVID-19 into opportunities for personal and family growth. For example, many of us have been provided a once-in-a-lifetime opportunity to spend additional quality time with young and adult children that would not have been possible in normal times. We wish that these and other rewarding offsets assist all in keeping a positive and healthy perspective in attacking the challenges that lay ahead. On behalf of the entire team at Wilshire, we sincerely appreciate and are honored by the trust you have placed in us. More than ever, we are committed to serving as a valued partner as we explore risk-controlled solutions to assist in navigating today's challenges and achieving your organizational goals. Cheers to better times ahead!

Important Information

Wilshire Associates ("Wilshire") is a global financial services firm providing diverse services to various types of investors and intermediaries. Wilshire's products, services, investment approach and advice may differ between clients and all of Wilshire's products and services may not be available to all clients. For more information regarding Wilshire's services, please see Wilshire's ADV Part 2 available at www.wilshire.com/ADV.

Wilshire Consulting is a business unit of Wilshire. This material contains confidential and proprietary information of Wilshire Consulting, and is intended for the exclusive use of the person to whom it is provided. It may not be disclosed, reproduced, or redistributed, in whole or in part, to any other person or entity without prior written permission from Wilshire.

This material is intended for informational purposes only and should not be construed as legal, accounting, tax, investment, or other professional advice. Past performance is not indicative of future returns. This material may include estimates, projections and other "forwardlooking statements." Forward-looking statements represent Wilshire's current beliefs and opinions in respect of potential future events. These statements are not guarantees of future performance and undue reliance should not be placed on them. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause actual events, performance and financial results to differ materially from any projections. Forward-looking statements speak only as of the date on which they are made and are subject to change without notice. Wilshire undertakes no obligation to update or revise any forward-looking statements.

This material represents the current opinion of Wilshire Consulting based on sources believed to be reliable. Wilshire assumes no duty to update any such opinions. Wilshire gives no representations or warranties as to the accuracy of such information, and accepts no responsibility or liability (including for indirect, consequential or incidental damages) for any error, omission or inaccuracy in such information and for results obtained from its use. Information and opinions are as of the date indicated, and are subject to change without notice.

Wilshire® is a registered service mark of Wilshire Associates Incorporated, Santa Monica, California. All other trade names, trademarks, and/or service marks are the property of their respective holder.

Copyright © 2021 Wilshire. All rights reserved.

11776004 F0621

More information

For more information, please contact us directly:

T +1 310 451 3051

Wilshire

1299 Ocean Avenue, Suite 700, Santa Monica, CA 90401

wilshire.com