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Year-End Update and 2018 Outlook

Rational Resiliency

As we come to the end of 2017 and look forward to 2018, we are approaching the tenth year of the post-crisis recovery. With synchronized global growth for the first time in a decade, equity markets near all-time highs, and a year of strong double-digit portfolio returns, investors should be feeling exuberant. And yet we find the exuberance of most institutions with whom we work tempered by concerns about the future.

Some of the concern may be caused by the length of this cycle, which is leading many investors to wonder if it can continue. This Outlook may be dated December, but we believe that we are in "September" of the business cycle – late to be sure. But some of the indicators that we watch closely show that it could continue for some time. Certainly, the case could be made that we are nearing a top, particularly in the United States. In fact, several indicators suggest that we may already be in "Irrational Exuberance" territory, to borrow a phrase from Nobel laureate Robert Shiller. Let's look at the evidence:

IRRATIONAL EXUBERANCE?

Cycle
104 months
The 2nd longest stock market rally on record[1]

Consumers
129.5
The Consumer Confidence Index is at a 17-year high[2]

Companies
$131.6
S&P 500 earnings per share at an all-time high[3]

Markets
2652
The S&P 500 stock index at (or near) an all-time high[4]

Valuations
22.3
Current P/E ratio of the S&P 500 – long-term average 15.7[4]

Economy
3%+
U.S. back-to-back quarters of 3% GDP growth – first time since 2014[5]

It is understandable that these numbers would give investors pause. However, as we look deeper into the underlying drivers, we see three indicators that can support continuance of this cycle and positive equity markets, leading us to believe that, for now, we may actually be in a period of "Rational Exuberance."

RATIONAL EXUBERANCE

Corporate earnings. Despite high valuations, corporate earnings continue to be very strong in the United States and are improving around the world. When adjusted for low interest rates and record amounts of cash on corporate balance sheets, price/earnings ratios are less elevated compared to long-term averages. Plus, the earnings yield advantage of stocks over bonds remains quite wide, even after factoring in rate hikes. This holds true in the United States and overseas, where the earnings yield advantage is even greater.

Valuations
16.3
S&P P/E ratio adjusted for cash and low interest rates – long-term average 15.6[6]

Equity Premium
4.5%
U.S. equity risk premium over 10-year government bonds[6]

Inflation. Inflation remains relatively low and, specifically, labor cost pressures that often surface late in a business cycle are muted, despite a historically low unemployment rate. It appears to us that inflation is being held down by long-term factors including technology, demographics and globalization. Nonetheless, inflation is a key indicator for the Federal Reserve and for portfolios, as it portends rising rates and their consequences, including a possible recession and end to the cycle. We note that Commonfund's own inflation calculator—the Higher Education Price Index (HEPI)—registered 3.7 percent in 2017, suggesting that inflation is already a significant factor for many institutions.

Unemployment
4.1%
Unemployment is at a 17-year low[7]

Wages
+2.5%
Wage increases are low and current wage momentum flat[7,8]

Debt levels. Downturns are often preceded by high private debt levels. We do not see this indicator in the private sector at this time, as household debt service ratios are at multi-decade lows and corporate debt to equity ratios are reasonable.

Household Debt

9.9%

Household debt service ratio vs. long-term average 11.3% - lowest in decades[7]

Corporate Debt

39.6%

Debt to equity of the business sector – long-term average 42%[8]

We are mindful, however, that these ratios are averages, and that rising rates will impact all borrowers and portfolios, some significantly. Moreover, national governments have issued more debt and central banks have purchased more debt, resulting in larger public sector debt holdings. The path of the reduction of those holdings remains important for portfolios. Taken together, however, these private sector debt signals (among the many that our investment teams analyze) indicate that, for now, the long business cycle expansion and associated bull market could continue for some time.

PREPARING FOR THE INEVITABLE: RATIONAL RESILIENCY

Since our founding almost five decades ago, Commonfund's focus has been to grow and protect the assets for which we, and our clients, are fiduciaries. Our role is not to "call" market highs or lows. Market forecasts have incorrectly predicted higher 10-year Treasury rates for the last seven years, and the consensus S&P 500 return for 2017 was 5.4 percent,[9] significantly below the 20.7 percent return of the index year to date.[4] In any case, our role is to build portfolios that are resilient across market cycles. The success of our mission—to enhance the financial resources of nonprofit and public sector investors through performance, service and insight—is proven over a cycle, not in a single year.

To that end, Commonfund's teams are working to prepare resilient portfolios that can endure cyclical risks. Preparation takes many forms, but we believe that there are three overriding principles that should guide investors: first, **investment policy** to protect against behavioral biases; second, **liquidity** to fund missions in a downturn; and third, **active risk management** to minimize negative impacts.

INVESTMENT POLICY

The Commonfund Institute has tracked the investment performance of nonprofit institutions across four decades. Our data tells us that institutional investment performance has been vastly superior to that of the average individual investor. While there are a number of reasons for the gap, including access to alternative investments and scale to negotiate fees, the primary reason for the gap is policy, codified in the Investment Policy Statement (IPS).

Among investors, nonprofit and public institutions have the longest time horizons, but also the highest return targets—returns sufficient to cover the rate of inflation plus annual distributions, typically CPI plus five percent. The IPS codifies that goal, as well as the practices necessary to achieve it, including regular rebalancing. We have seen across cycles that policy protects institutions; it enables committees to avoid individual behavioral biases.

With a nod (or "nudge") to America's most recent Nobel laureate economist, Richard Thaler, all of us are prone to behavioral biases that impact investment outcomes. At this point in the cycle, some of those biases may include recency; loss aversion; familiarity; and overconfidence. A well-constructed IPS protects against all of them. It allows institutions to be counter-cyclical, and continue to invest and distribute consistently across years.

"Follow policy," however, is easier to say than to do. (Just ask anyone on an investment committee in the fall of 2008.) So it is important to review and stress test an IPS regularly. We believe that developing a crisis playbook—simulating market conditions that could stress your institution, and assessing portfolio and institutional implications—is a prudent practice, particularly now in the latter stage of this market cycle. The Dodd Frank law has required banks to perform annual stress tests since the financial crisis. Those tests, among other measures, have made the banking system more resilient. We believe stress tests can make portfolios and institutions more resilient as well. Accordingly, our independent risk team stress tests our portfolios monthly, with the results reviewed by our Board's Audit and Risk Management Committee.

LIQUIDITY

Managing liquidity is critical to supporting the missions of nonprofit and public institutions. When markets decline, individuals and companies can, and typically do, tighten their belts and reduce spending. Nonprofit and public investors cannot—they must continue to spend to support their constituents. Liquidity measurement and management—monthly, quarterly, and annually—to support spending is mission critical.

As the cycle matures, liquidity management becomes more important. Now is the time to assess future liquidity needs, including annual spending, multi-year grants, uncalled private capital commitments, and other requirements, and to ensure adequate sources of liquidity within and without the portfolio.

RISK

We also believe that now is the time to focus on the three tiers of investment risk borne by nonprofit and public investors:

Near term risk (or volatility): Intra-year or intra-cycle volatility is a modest risk for long term nonprofit and public investors. Consider that over the 37 years since 1980, the average intra-year S&P 500 correction has been 14 percent, but the market has been up in 28 of those years (76 percent).[10]

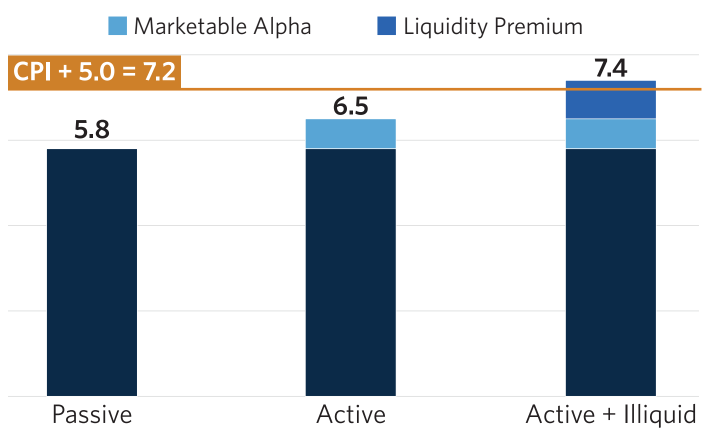
Medium term risk (or drawdown): A significant and prolonged drawdown is a more serious risk, as it impacts an institution's ability to spend to support its constituents. That is why Commonfund's portfolio construction process optimizes to drawdown, and not (as is more common in the industry) to volatility.

Long term risk (or loss of real purchasing power): This is the most serious risk for nonprofit and public investors. It is fundamental to Commonfund's founding and mission as well. The Ford Foundation grant to create Commonfund was for the development of an investment model and firm to minimize this risk. That is what we have been doing for 46 years—building portfolios designed to exceed the costs of inflation plus distributions (or CPI plus 5 percent).

As we look forward, we acknowledge that achieving the returns needed for CPI plus five percent may not be easy over the next five years. Over our history it has rarely been easy, but it has been achievable across cycles, through a combination of (i) public market returns, (ii) diversified sources of alpha (excess returns due to manager skill), and (iii) private market liquidity premium. That same combination will guide our portfolios over the coming years.

ALPHA AND LIQUIDITY PREMIUM ARE KEY TO SOLVING CPI+5 PERCENT

Commonfund's Five-Year View[11] |
70% MSCI ACWI / 30% Bloomberg Barclays Aggregate[12]
Numbers in percent



A BRIEF LOOK BACK AND AHEAD

This Outlook has been focused on the future. It is easy for investors to look backward and measure past performance—and the asset management industry does that very well! It is far harder to predict the future. I began by acknowledging that few institutions with whom we work are feeling exuberant, even with the strong returns achieved in portfolios in 2017. That is the price of being a fiduciary who is responsible for both the present and the future.

But perhaps a very brief moment of exuberance is in order. We are gratified to report that year-to-date through November, our core liquid investment strategies have outperformed their benchmarks net of fees. Our global equity strategies average 176 basis points of outperformance, while our U.S. equity and bond strategies average 64 basis points and 105 basis points of outperformance, respectively.[13] We know that basis points matter to missions. Every basis point that we can earn or save is a basis point that benefits your constituents. We remain dedicated to mission enhancement every day in all we do at Commonfund.

Looking ahead, we are focused on factors that could either bring an end to, or extend, the current cycle. Our 64-person investment team is closely monitoring the indicators referenced above and more, as markets are often the leading indicator of a potential downturn in the economy.

We are also cognizant of some of the most prominent features of this aging market cycle and will share our views in the new year, including:

- **Narrowness**: U.S. equity market dominated by the "FAANGS+"
- **Volatility**: extraordinarily low levels indicating investor complacency
- **Capital flows**: record commitments to private equity
- **Market structure**: including explosive growth in ETFs

We recognize that market imbalances tend to build slowly, but that corrections are often swift and steep. We also believe that the proposed Federal tax reform, if enacted, will support the "business" segment of this business cycle, at least initially. We will be monitoring its impact on both consumers (who drive the U.S. economy) and on the constituents that you and we jointly serve through the nonprofit and public sectors.

CLOSING THOUGHTS

In keeping with these messages, and our heritage of educational programs and research, the focus for our 2018 Commonfund Forum will be Building Resiliency. We hope you will join us in March in Orlando, Florida.

Finally, as 2017 comes to a close, we are mindful that the exuberance of the markets was not shared in many of our communities. This past year was, unfortunately, marked by a number of human tragedies, from storms to gun violence to terrorism. It is in these times that the mission-based institutions you serve make their most important contributions. On behalf of all of us at Commonfund, please accept our gratitude for all that you do for our society. Please also accept our thanks for the trust and confidence you have placed in Commonfund. We are committed to continuing to earn it.

With best wishes for a happy and successful 2018 from all of us at Commonfund,

Catherine

Catherine M. Keating
President and Chief Executive Officer

End Notes

All data is as of November 30, 2017 unless otherwise noted.

1. Source: Bloomberg, based on returns of the S&P 500 index.
2. Source: The Conference Board Consumer Confidence Index®, November 2017. The previous high was 132.6 in November 2000.
3. Source: ThomsonReuters, based on 2017 calendar year.
4. Source: Bloomberg, S&P and Commonfund. Based on closing price on December 8, 2017.
5. Source: U.S. Bureau of Economic Analysis.
6. Source: Commonfund research. The price to earnings ratio is adjusted for current corporate cash balances and the differential between the current 10-year note yield and the 35-year average 10-year note yield. The equity risk premium is in real terms and based on one-year forward estimates.
7. Source: U.S. Bureau of Labor Statistics.
8. Source: Ned Davis Research.
9. Source: Bespoke Investment Group.
10. Source: J.P. Morgan, Guide to the Markets, 4Q 2017.
11. Source: Commonfund research.
12. The active plus illiquid portfolio is 30% illiquid, with asset allocation of 40% Global Equity / 8.7% Private Equity / 5.7% Venture Capital / 30% Core Bonds / 4.5% Private Credit / 5.1% Private Natural Resources / 6.0% Private Real Estate.
13. Past performance is no assurance of future results.

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