

Market Outlook & Strategy

Third Quarter of 2021

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Executive Summary

- It was an uninspiring quarter for global equity markets, in large part due to a late-September equity market slide of -4.0% (All Country World Index). Rising Delta variant cases, more persistent inflation and supply chain issues, concerns in China, and the debt ceiling stalemate all weighed on market returns after a very strong Q2.
- The biggest winner this quarter was commodities (+6.6%) as supply chain issues and oil and natural gas shortages drove prices higher. Equity markets finished negative, with U.S. equity (-0.1%) outperforming international developed (-0.7%) and emerging market equity (-6.5%).
- In bond markets, TIPS (+1.7%) were the only bright spot, while municipal bonds (-0.1%), corporate bonds (+0.2%), and real estate income (+0.2%) all had flat returns.
 Our blended fixed income benchmark (+0.0%) was flat as well.
- In this quarter's report, we report on the key takeaways of an interesting conference Scott and I recently attended on the key forces ("megatrends") that will likely drive market returns over the next decade. The megatrends include climate change, the socalled Fourth Technology Revolution (i.e., technological innovation), China, and Federal Reserve policy. We discuss some of the implications of these megatrends for investment strategy and will be returning to these themes in subsequent reports.
- Current market views. We also share our perspective on current market dynamics
 and our views for the next 6-18 months. In brief, we would not be surprised if the
 next 3-6 months remain a bit bumpy after the strong returns over the last 18+
 months. In the short-term, economic bottlenecks (e.g., supply chain issues, back-towork issues) and corporate earnings remain in focus.
- We do, however, have a positive outlook for 2022 at this point: Covid cases are
 falling, and experts are starting to believe that enough folks are vaccinated or
 immune to prevent another big wave; consumers and business are flush with cash;
 there are plenty of jobs; private sector capital spending is soaring; productivity is
 rising; and the Federal Reserve is committed to remain accommodative.
- Artemis strategy. We like our current positioning, so we did not make any changes
 this quarter. Should the market correct between now and year end, we will conduct
 tax-loss harvesting where possible, but we are in no rush to execute on some of the
 bigger moves we are contemplating.



Markets in Review – Q3

It was an uninspiring quarter for global equity markets, in large part due to a late-September equity market slide of -4.0% (All Country World Index - ACWI). Rising Delta variant cases, more persistent inflation and supply chain issues, and concerns in China all weighed on market returns after a very strong Q2. The proximate trigger for the September slide was the congressional stalemate regarding the U.S. debt ceiling. This stalemate raised the possibility, however remote, of the U.S. defaulting on its debt obligations. The debt ceiling issue remains unresolved and is tied up in negotiations over the fiscal FY2022 spending bill. As usual with Congress, the tough decision has been delayed with a budget extension to December, setting us up for a potentially volatile year end.

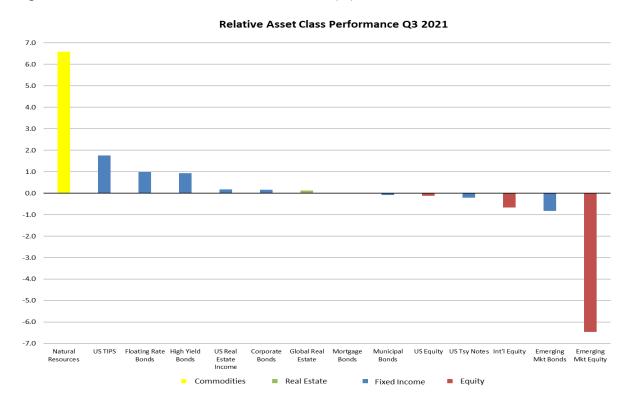
The biggest winner this quarter was commodities (+6.6%) as supply chain issues and oil and natural gas shortages drove prices higher. Equity markets finished negative, with U.S. equity (-0.1%) outperforming international developed (-0.7%) and emerging market equity (-6.5%).

In bond markets, TIPS (+1.7%) were the only bright spot for the quarter, while municipal bonds (-0.1%), corporate bonds (+0.2%), and real estate income (+0.2%) all had flat returns. Our blended fixed income benchmark (+0.0%) was flat as well. High yield (+0.9%) outperformed while emerging market debt (-1.0%) lagged. See Figure 1 (next page).

Emerging market equity was clearly this quarter's biggest loser. One reason for this was an outsized negative impact of the Delta variant in emerging markets, due to low vaccination rates. China had a host of issues converge this quarter, which led to a deep decline in its stock market. The first of these was a continued regulatory crackdown on technology and other sectors as President Xi set out to assert control and introduce a strategy of "Common Prosperity". In addition, investors were spooked by potential knock-on effects of Chinese property management giant Evergrande's debt difficulties, which triggered 'Lehman moment' type fears. While it does not appear Evergrande's issues are systemic, nor that China is forgoing all capitalist enterprise, continued crackdowns are disconcerting. We believe the real estate market and government policy uncertainty will continue to be headwinds until there is more clarity.



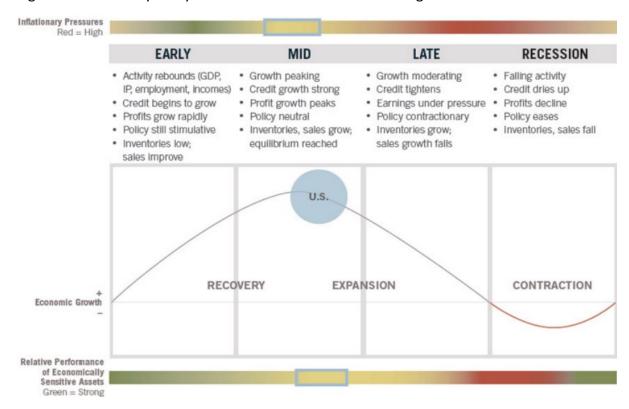
Figure 1. Asset Class Returns in USD for Q3 2021 (%)



Perspective: Taking a step back from the near-term noise, we appear to be entering to a new phase of the global economic expansion. As the robust snap-back from the pandemic lockdown fades, we are starting to see a transition to a 'mid-cycle' environment where economic growth normalizes and is increasingly driven by consumer activity, corporate profits, and productivity. In this phase, growth rates tend to return to their longer-term averages, while broader economic activity gathers momentum, profitability is healthy, and monetary policy ceases to be stimulative. It is usually the longest phase of an economic cycle. See Figure 2 (next page).



Figure 2. Business Cycle Dynamics and Current U.S. Positioning



A mid-cycle transition is our structural view, however, in the short-term, global economic bottlenecks (e.g., supply chain issues, back-to- work issues) remain in focus. That said, despite these challenges there are plenty of positive undercurrents (e.g., high consumer savings and pent-up demand) that will continue to support the economy, though at lower growth and market return rates than we've seen over the last 18 months. Global growth is expected to clock in at 5.9% in 2021 and will continue to expand in 2022, though more slowly. The International Monetary Fund projects global growth of 4.9% in 2022 and 3.6% in 2023. For the U.S., growth is expected to reach 6.0% in 2021 and 3.8% in 2022 and 3.0% in 2023.

The final persistent and important theme to touch on is the latest policy news from the Federal Reserve. The Fed has made clear that a tapering of the asset-purchase program will soon be warranted. This is expected to begin in Q4 and conclude in 2022 and may affect longer-term interest rates. However, Fed Chair Jerome Powell reiterated multiple times at his September press conference that the winding down of asset purchases does not



necessarily indicate a timeline for adjusting the very short-term federal funds rate, which remains at 0-0.25%, and is likely to remain low until at least 2023. Thus far, the Fed has placated markets with consistent messaging, though interest rates started moving slightly higher to end Q3 with the 10-yr Treasury moving out of the 1.2-1.4% range to 1.5-1.6%.

Megatrends, Risks and Opportunities – Next 10 Year Cycle

Scott and I recently attended an investment conference that focused on what will likely be key drivers of market returns over the next decade. It was a very informative conference, and so we thought we would summarize what we learned and discuss some of the implications for investment strategy.

Climate Change

To nobody's surprise, one of the key sessions was on climate change. The presenter's main point (and we agree) is that the global community is in trouble because nations don't yet have binding laws that will enable major economies to meet their Paris climate commitments. The main reason is an overly optimistic view of how much wind, solar, hydroelectric power, and battery solutions (e.g., EV cars) will be able to replace fossil fuels in the overall mix. This reliance on technological improvement is a way to avoid making hard political choices, such as a global tax on carbon or deadline to close all coal-fired power plants.

Some of the limitations of these technologies are well-known – the sun doesn't always shine, and the wind doesn't always blow (one of the rude surprises Europe dealt with this summer), and current battery technology to store power to cover for those deficits is expensive and insufficient. But the presenter focused on a different and more overlooked limitation of the solutions touted today – their low inherit energy efficiency, defined as the ratio of energy supplied divided by the amount of energy used to supply the energy; this of this as *energy returned for energy invested (EROEI)*. Wind energy is a good example. As shown in Figure 3, it takes a lot of energy to produce a wind turbine because it takes a lot of energy to produce the steel, cement, and copper to manufacture and install a turbine. Then you add the fact the average turbine is only productive 22% of the time (because the wind doesn't always blow), and you get a calculated EROEI of 4:1. Solar is even worse for similar reasons, with an EROEI of 1.5: 1.

In contrast, the presenter pointed out that nuclear energy has an EROEI of 100:1 and zero carbon emitted at the source, in large part because reactors can run at near 100% capacity,



and they last for decades. As such, an increasing number of experts believe that nuclear must be part of the mix to help the transition to net-zero emissions globally by 2050.

1.5 MW Windmill Rotor 22% utilization rate 15 t carbon fiber 10.8 TJ/Annum 20 Year Life 13 TJ to build 15x Gross EROEI 4x Buffered EROEI Nacelle • 45 t steel Generator Grid 9 t copper 6 t copper 150 t steel Basement 40 t steel; 600 t conrete

Figure 3: Energy Returned for Energy Invested – Wind Turbine

We tend to agree because nuclear technology is shifting fast. Whereas most reactors built to date were hugely expensive and took decades to complete, emerging technology (although still not fully proven) is smaller, cheaper, and more flexible. These modular reactors can be located in safer, more convenient locations and be treated as a transitional or temporary energy source. In October, both England and France have announced construction plans for multiple modular reactors. Nuclear technologists are also increasingly claiming the technology today is a lot safer because reactors can now be run on recycled fuel, although more work needs to be done to prove this technology.

Notably, there are now a few ETFs that track the global nuclear and uranium mining industry. We are starting to watch this sector quite closely as it may be an interesting way to play the clean energy trade.



The Fourth Technology Revolution

Scott and I were hoping the presenter on "the fourth technology revolution" was going to discuss some emerging disruptive technologies that we haven't focused on. We did not learn of any, but we certainly gained confirmation that this revolution is on and, frankly, that it is only in early innings.

According to our presenter, the pandemic has helped speed the revolution as it led to a permanent shift in the way we work, pay for things, and shop. The next wave of innovation will be more business focused because the heart of the revolution is the now near-zero cost of data collection and analysis; this development is reducing R&D and production costs and driving other industrial innovations (e.g., photonics). On this point, the presenter was quick to remind us that much of the technology being developed today is inherently deflationary (i.e., drive down inflation) and that it's critical for investment managers to recognize this force (more on inflation later).

The presenter concluded by (all but) asserting that investing in technology might be the only place to earn decent returns in the next decade. Why? In his view, global growth over the next decade is likely to be pretty disappointing as the world reckons with a massive overhang of debt resulting from fighting the pandemic. If you combine slow growth with low inflation, interest rates will remain low over the next decade, leading to an environment that will continue to favor growth and technology stocks relative to other sectors.

China

There wasn't much disagreement at the conference that China will continue to play a key role driving market outcomes over the next decade. After all, China's growth accounted for over 30% of total global growth over the last five years, and it is sure to continue to be a key participant over the next decade.

But unlike the presentation on technological innovation, there was less agreement over whether China would continue to be a force driving global growth or become a drag on growth. One key issue is whether China is rapidly exhausting its model of debt-financed growth as the marginal productivity of additional debt is declining. In this vein, the recent travails of the enormous Chinese property developer Evergrande was on the mind of many at the conference. While no clear point of view emerged, most speakers seemed to agree that China is on a path to slower growth over the next decade as President Xi has begun to articulate a goal of "Common Prosperity," which at its core is about reasserting Party



control over the economy and focusing less on debt-fueled growth and more on income inequality.

Another presenter raised the issue that the key problem facing China right now -- and one that may also slow China's growth trajectory -- is President Xi himself, who seems to oscillate between worrying over China's high debt levels to worrying over employment and short-term growth. This is leading to off-again, on-again monetary and fiscal policy stimulus.

Federal Reserve Policy

There is no doubt that the last decade has been marked by extraordinary central bank (i.e., monetary) support for markets across the developed world and the U.S. is the leading example.

One need only look back to the Great Financial Crisis that's now more than a decade behind us, which would have been the "Second Great Depression" had the U.S. Federal Reserve, followed by other major central banks, not injected massive amounts of liquidity (i.e., dollars) into the global financial system. The role of monetary policy has also increased in importance because governments by and large have been unable to come to any agreement in the last decade over the appropriate use of fiscal policy to steer economic outcomes. With Covid hopefully behind us soon, many experts say it's time to return the focus to the role of central banks in affecting interest rates, employment levels and stock market returns.

We agree with this view. If high debt levels (and divisive politics) are going to constrain fiscal policy over the next decade, the world is going to have to continue to rely on monetary policy to manage the business cycle, keep inflation in check and employment elevated. Of note is that the conference organizers asked participants to state what they thought was the key current risk to the global economy, and the majority answer by far was that the Federal Reserve makes a policy mistake, and we get a recession.

The Bottom Line

One of the most important lessons I have learned in my investing career is that what matters to portfolio returns are the two or three big decisions ("bets") that portfolio managers make over a business cycle, not the myriad of little adjustments they often fret over. In the last decade following the financial crisis, the winning bets were to lean into equities versus fixed income – especially growth, favor the U.S. over other markets, and not



hold much cash. This conference gave Scott and me much to think about for our "bets" for the next decade and how we position portfolios.

Short Term Market Views and Artemis Strategy

We would not be surprised if the next 3-6 months remain a bit bumpy after the strong returns over the last 18+ months. That said, our medium-term outlook remains positive. First and foremost, Covid cases are falling steadily and rapidly across the U.S. and other major developed markets, and vaccination rates, combined with immunity via prior infection, reduce the chance of another severe wave of cases this winter. We are already starting to see an uptick in airline ticket sales and hotel occupancy rates in the U.S. and Europe. In addition, consumer fundamentals are very strong, with \$2.5 trillion in excess savings that will take a few years to work its way into the economy, the lowest household debt to personal income ratio since 1995, and plenty of jobs.

The private sector is also thriving as businesses have record levels of cash, some of which is finally being spent on capital goods. This bodes well for productivity growth, which will help companies maintain their margins even as wages increase.

Finally, despite some persistency, we believe inflation is mostly transitory and will moderate over time. The key thing to remember is that current inflation is largely a result of Covid creating a major negative shock to the supply side, while governments around the world continued to support consumer income. Simple economics will tell you that less supply and more income (i.e., more demand) will lead to price increases, but if both are one-time events the adjustment in price levels will also be a one-time occurrence. This means that compared to the pre-pandemic world, many goods and services will be more expensive, and those prices will remain at higher levels in the future. But that doesn't mean they will continue to increase at the same rate, because that would imply continual price adjustments. We expect that type of cycle, which would be difficult, will only happen if the supply shocks persist (e.g., we don't fix the bottlenecks) or governments continue to give out income subsidies.

For all of these reasons, we plan to remain fully invested as usual and look through any short-term noise. Put simply, we believe the core underlying fundamentals of the economy support a 'mid-cycle' transition that will generate broad consumer strength and continuing economic growth.

As we have discussed in recent quarterly reports, this outlook has led us to take a more balanced approach between growth and value, given the duality of increased opportunities



for cyclicals at this stage of the economic recovery and the continued strength of big technology business models with the backdrop of a low-interest-rate environment. We are also continuing to keep a higher weighting to the U.S. stock market vs. international. In our fixed income portfolios, we continue to stay away from the riskier segments such as emerging market debt and high yield, in favor of municipal debt and high-quality corporates.

Between now and year end, we are not planning any more changes to our portfolios, in part because our rebalancing activity in 2021 has resulted in a higher-than-normal capital gains realization, and because we like our current positioning at the moment. Given what has happened in China this year and continued issues in many developing countries (e.g., low vaccination rates and slower growth), our modest overweight to emerging markets has been a drag on returns, and we are unlikely to be buying soon.

Finally, a quick word about our technology disrupter lineup. This year has been one of underperformance across all segments, in large part because they likely overshot in 2020 and are now coming back to earth. Biotech, in particular, has been spooked a bit by the Biden administration's attempts to rein in drug prices, but the fundamentals of the sector remain bright. We'll be discussing the short-term dynamics of these investments more fully in our next quarterly report.



Market Index Descriptions (for Figure 1)

Equities:

The **Dow Jones U.S. Total Stock Market** is a market cap-weighted index providing broad-based coverage of the U.S. stock market. Considered a total market index, it represents the top 95% of the U.S. stock market.

The MSCI EAFE + Canada (net) is a market cap-weighted equity index that is designed to measure the equity market performance of developed markets, excluding the U.S.

The FTSE Emerging Markets All Capitalization China A Inclusion (net) is a market capweighted index representing the performance of large-, mid- and small-capitalization stocks in emerging markets.

Fixed Income:

The **Bank of America Merrill Lynch U.S. Treasuries 7-10 Year** measures the performance of U.S. Treasury securities that have a remaining maturity of at least seven years and less than 10 years.

The Bank of America Merrill Lynch U.S. GNMA Mortgage Backed Securities Index is a market cap-weighted index, including generic-coupon Ginnie Mae mortgages, with at least of \$150 million principal amounts outstanding.

The **Barclays Capital 1-15 Year Municipal Bond** measures the performance of tax-exempt investment grade debt of U.S. municipalities having at least one year and less than 15 years remaining term to maturity.

The **Bank of America Merrill Lynch U.S. Corporate 5-7 Year** measures the performance of U.S. dollar denominated investment grade rated corporate debt having at least five years and less than seven years remaining term to maturity.

The **J.P. Morgan Emerging Market Bond Global Core** is a broad, diverse U.S. dollar-denominated emerging markets debt benchmark that tracks the total return of actively traded debt instruments in emerging market countries.



The **Bloomberg Barclays U.S. Treasury U.S. TIPS** measures all publicly issued, U.S. Treasury inflation-protected securities that have at least one year remaining to maturity.

The **Bloomberg Commodity Index** is a broadly diversified commodity price index that tracks the prices of futures contracts on physical commodities on the commodity markets.

The **Fidelity Real Estate Income Composite** is a benchmark that combines the total returns of the Merrill Lynch Real Estate Corporate Bond Index (40%), Morgan Stanley REIT Preferred Index (40%), and the FTSE NAREIT All REIT Index (20%).

The **S&P Global REIT Index** measures the performance of equity REITs and real estate operating companies (REOCs) traded globally.

The **Bank of America Merrill Lynch U.S. High Yield Master II** tracks the performance of U.S. dollar denominated below investment grade-rated corporate debt publicly issued in the U.S. domestic market with a maturity of at least one year remaining.

The **S&P/LSTA U.S. Leveraged Loan 100** reflects the performance of the largest facilities in the leveraged loan market.