QMA a PGIM company

Q3 2021 OUTLOOK

QMA's Global Multi-Asset Solutions Team

JUNE 2021

EXECUTIVE SUMMARY

Economic Outlook:

- The global economy is on track for a strong but uneven rebound from the pandemic as growth appears to have shifted into a higher gear in Q2 after slowing outside the US and China in Q1, due to a new wave of infections that forced renewed restrictions in Europe, Japan and emerging markets.
- Success in vaccine distribution and the size of policy stimulus have been the key drivers of relative economic performance during the economic rebound. Preferential access to vaccines and more room to enact fiscal and monetary policy have led to a sharper rebound in developed economies.
- The US continues to lead the recovery in the developed world due to its high vaccination rate and fiscal stimulus, while China and Taiwan lead the recovery amongst emerging economies as a new wave of infections weighs on growth in emerging markets ex-China.
- The Eurozone and the UK are set to rebound sharply in Q2, joining the US. Growth in Japan will likely be less robust but may move from negative to positive quarter-over-quarter.
- The surge in inflation in 2021 has fueled an intense inflation debate with central banks taking a more benign view that the current rise in inflation is "transitory," while markets are nervous that the rise in inflation could herald a new phase of higher inflation after decades of low inflation and deflation fears.
- We are less sanguine about the inflation risks than what we are currently hearing from the central banks and believe that an inflation regime change could be underway. The potential for a sustained period of 3-4% average inflation is a non-trivial risk for investors, though not our base case.
- Developed market central banks remain on hold as they consider rising inflation to be a "transitory" phenomenon. Among emerging markets, there is a split between those central banks that have begun down a normalization path as the recovery gains strength and other central banks still grappling with virus-related downside risks.

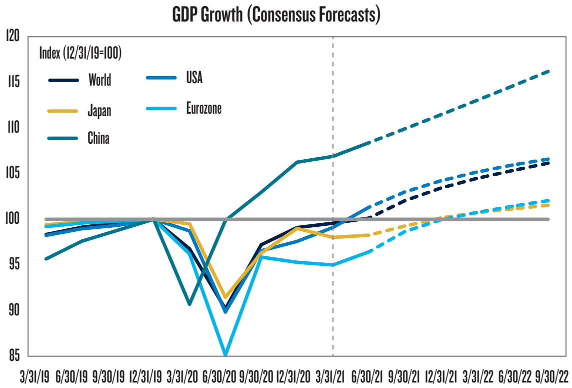
Investment Outlook:

- We retain our pro-risk view, driven by the continued strong economic and earnings recovery from the pandemic, the accommodative stance of global central banks, and the widespread fiscal support, which has left consumers with excess savings at a time of significant pent up demand from a year of COVID-19 restrictions.
- On asset allocation, we remain overweight stocks and commodities relative to cash and fixed income. We are also overweight real estate relative to fixed income. Equities and commodities should continue to perform strongly, and interest rates should rise as investors stay focused on reflation and reopening.
- Within equities, the current rotation is intact and sustainable, and value/cyclical sectors should continue beating growth/defensive sectors.
- Regionally, US stocks, which have been the outperformers so far this year, should typically lag during a strong global upturn given the US market's higher quality and less cyclical market composition. Non-US equities are likely to take the leadership from here given cheaper valuation, more cyclical exposures, and the narrowing of the gap on vaccine distribution between the US and the rest of the world.
- The latest decline in interest rates after the spike earlier in the year is likely a temporary consolidation/countertrend move before the next up leg. However, the magnitude of interest rate increases will be limited given central bank bond buying.
- Within fixed income we stay "risk on" emphasizing spread sectors such as high yield bonds and emerging market debt over core bonds (Bloomberg Barclay's Aggregate index) given the strength of the global recovery. TIPS should continue outperforming nominal bonds.
- The biggest risk to investors looking forward is that policymakers (both fiscal and monetary) stay too profligate and allow inflation to rise above what investors consider to be benign levels for too long.
- We are bullish on the outlook for real assets, such as natural resources stocks, midstream energy/MLPs, and commodities given the strong economic growth prospects, supply side constraints and rising inflation risks.

The Global Economy: Engines Revving at Mid-Year

Following last year's historic collapse, the global economy is experiencing an exceptionally strong recovery but also an uneven one. While advanced economies are growing rapidly and are poised to recover pre-COVID-19 levels of economic activity this year (Figure 1), emerging economies (excluding China) are lagging, and many of the world's poorest economies are being left behind.

Figure 1: Major Economies See Continued Robust Rebound From Crisis



Source: OECD, Bloomberg as of 6/10/21.

The global economy is set to expand by 5.8 percent in 2021, according to the Organisation for Economic Co-operation and Development (OECD), and around 4.5% in 2022. Developed economies are expected to grow around 5.3% in 2021, led by a strong upturn in the United States and strong private spending in most countries. The growth pace is expected to moderate to 3.8% in 2022 as the impact of fiscal and monetary stimulus fades. While GDP in China has already caught up with pre-pandemic levels and is expected to remain solid in 2021 and 2022, other emerging-market economies, including India, might continue to have large shortfalls in GDP relative to pre-pandemic expectations and are projected to grow strongly only once the impact of the virus fades.

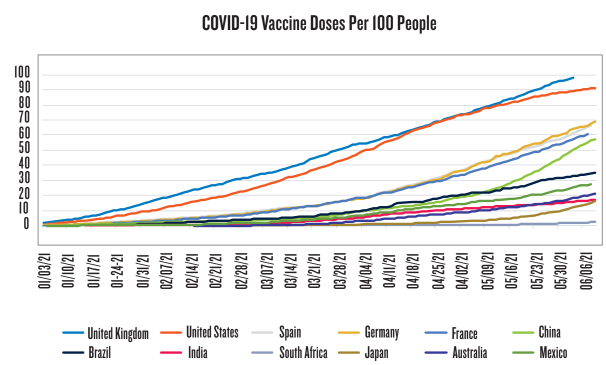
The global economic recovery was on track in the aggregate in the first quarter with the United States and China growing rapidly, but other major economies saw declines, namely the Eurozone (-3.6%) United Kingdom (-1.6%) and Japan (-5.1%), as new waves of infections forced renewed COVID-19 restrictions, which dampened growth. Growth in emerging markets was also mixed in the first quarter with strong growth in China and Taiwan but weaker growth in India, Brazil and other emerging countries.

However, growth looks to have shifted into higher gear in the second quarter with the Eurozone (6.0%) and the UK (4.4%) joining the US (9.0%) with rebounding growth.[1] Growth in Japan will likely be less robust but may move from negative to positive quarter-over-quarter. With the Olympics coming up in August, the Japanese government is likely to remain cautious until then about keeping soft curbs on in-person activities to reduce the risk of another surge in cases. But mass vaccination sites are now open in Tokyo and Osaka, and growth is set to pick up steam thereafter reflecting vaccine progress and the government's shift toward full reopening.

In the emerging world, Chinese GDP growth is expected to remain strong in Q2 (around 8% year-over-year) slowing from the torrid and unsustainable 18.3% growth pace in Q1 2021. Growth in Taiwan and South Korea should continue to benefit from the strong recovery in the advanced economies and China, though Taiwan's economy could see some near-term risks due to a surge in COVID-19 infections. India was on track for double-digit growth in 2021, but the fresh April surge in COVID-19 infections was a negative jolt to the economy, requiring renewed tightening of virus restrictions. The ongoing global growth recovery and growing investment spending should continue to support higher commodity prices benefiting commodity-dependent export economies in Latin America and South Africa and Russia.

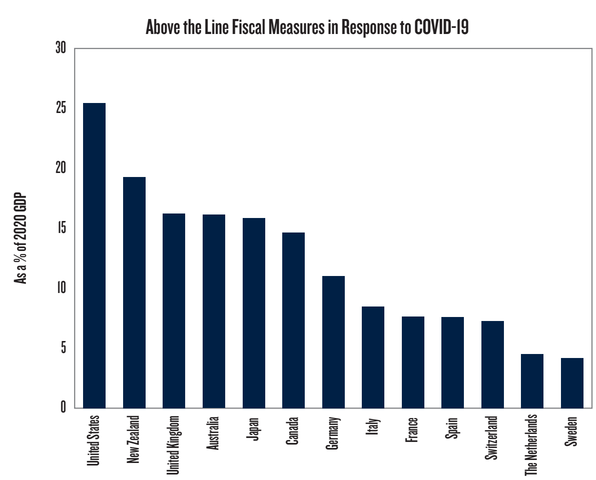
Two key drivers of relative economic performance during the economic rebound have been success in vaccine distribution (getting jabs in arms) and the size of policy stimulus (both fiscal and monetary). Figure 2 shows the performance in vaccine distribution has been highly unequal, with the United States and the United Kingdom being exceptional performers. In general, advanced economies have had preferential access to vaccines and thus those economies are generally outperforming emerging economies ex-China in vaccine distribution. Fiscal stimulus is another variable that explains the differential between the strength of the current recovery and the post financial crisis recovery when monetary policy stimulus was generally the only game in town. Figure 3 shows that fiscal stimulus among major advanced economies has been substantial and truly massive in the United States. While some countries adopted quantitative easing policies, emerging economies ex-China in general have had less policy room for large scale stimulus compared to advanced economies and thus have delivered much lower levels of fiscal and monetary support. Thus, improved growth in advanced economies is generally driving the recovery. The United States has been a stand out on both vaccines and policy stimulus and is thus seeing exceptional economic performance.

Figures 2: Dramatic Difference in Vaccine Rollout Among Countries



Source: OECD as of 6/8/21.

Figures 3: There Has Been a Massive Fiscal Response to the Crisis



Source: World Economic Outlook, BCA Research as of 4/31/21.

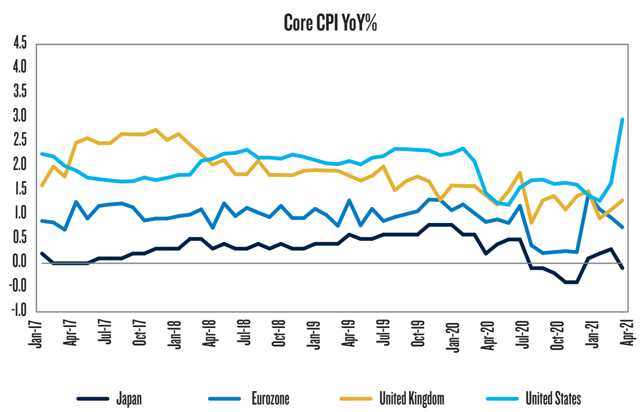
[1] Growth forecasts referenced are Bloomberg Consensus

US GDP growth for Q2 is on track to strengthen to around 9.0% annualized growth, with risks to the upside. The economy continues to be supported by the fiscal stimulus approved in the first quarter of 2021 and unleashing of pent-up demand with most states removing their COVID-19 restrictions as more than half of the country is vaccinated. Q1 growth was driven by solid contributions from consumption expenditure, business investment spending and residential investment, each of which posted double-digit growth. US GDP growth in Q2 continues to be underpinned by robust consumption expenditure and business investment spending. Consumption spending is being fueled by pent-up demand for services as steady labor income and excess savings boost spending. The capex cycle is likely to be another engine for growth, fueled by ongoing momentum in investment in intellectual property and robust equipment investment as firms respond to supply shortages.

Inflation: Transient or Persistent?

After decades of low inflation and deflation fears in 2020, headline inflation has started to rise across most developed markets, primarily due to rising energy prices and base effects as prices plunged during the second quarter of last year when the global economy ground to a halt due to lockdowns. US inflation jumped to 5% year-over-year in May from 4.2% in April and 2.6% in March. Core inflation rose further to 3.8% from 3.6% in April, the highest in 28 years (Figure 4). Eurozone inflation rose slightly to 2.0% in May from 1.6% in April, also largely driven by energy prices. Eurozone core inflation also increased slightly to 0.9% from 0.7% previously. However, in Japan, nationwide inflation edged down to -0.4% year-over-year in April from -0.2%, while core inflation decreased to -0.2% from 0.3% in March. Looking ahead, many observers expect inflation to peak in Q2 as the sharpest decline occurred in Q2 2020. Thereafter, base effects will have an offsetting impact, limiting the rise in annualized inflation numbers.

Figure 4: US Inflation Surges



Source: Datastream as of 5/31/21.

The surge in inflation in 2021 has fueled an intense inflation debate with central banks taking a more benign view that the current rise in inflation is "transitory," while markets are nervous that the rise in inflation could herald a new phase of higher inflation after decades of low inflation and deflation fears. Major developed central banks, including the US Federal Reserve and European Central Bank, expect that much of the sharp rise in inflation will turn out to be transitory. Several Fed officials commented that the chief sources of rising prices are driven by temporary shortages of key supplies and labor tied to the reopening of the economy.

In its May update, the OECD acknowledged that signs of higher input cost pressures have appeared in recent months, but they maintain that sizeable spare capacity is likely to prevent a significant and sustained pick-up in underlying inflation. The recent upturn in headline inflation rates reflects the recovery of oil and other commodity prices, a surge in shipping costs, the normalization of prices in hard-hit sectors as restraints are eased and one-off factors, such as tax changes, and should ease in the near term, according to the OECD. Prolonged high or rising inflation, the OECD argues, is unlikely if central banks take necessary measures to keep inflation expectations anchored at target and if structural changes that limited pressures on inflation during the past three decades continue. However, there is still significant uncertainty about the future evolution of inflation looking forward.

We cover these issues at length in a just-released white paper.[2] In general, we are less sanguine about inflation than what we are currently hearing from the central banks. Our take: "We believe an inflation regime change could be underway once the deflationary shock of the pandemic fades into memory. The four-decade trend in falling US inflation has likely ended, and inflation will probably increase at a higher rate over the next decade. While an extreme scenario of 1970s-style, double-digit inflation appears unlikely, the potential for a sustained period of 3-4% average inflation is a non-trivial risk for investors".

The Policy Environment

Developed market central banks remain on hold as they consider rising inflation to be a "transitory" phenomenon. The Fed expects to keep rates at zero until 2023 but has been signaling that it is time to "start thinking" about tapering quantitative easing purchases. For now, the Fed is likely to keep the pace of its purchases at the current level but may begin reducing the pace of its purchases by early next year. Meanwhile the ECB has committed to increasing purchases in Q3 2021 relative to earlier in the year, while likely preparing the ground for a very gradual tapering of purchases in the fourth quarter. The Bank of Canada has already announced it will begin QE tapering. There is also the possibility that the Bank of England will let its QE purchases expire in the second half of 2021.

Among emerging markets, there is a split between those central banks that have begun down a normalization path as the recovery gains strength and financial stability concerns (i.e., concerns about excess risk taking) move to the fore, and other central banks still grappling with virus-related downside risks. In China, one of the first major economies to exit the pandemic recession, policymakers are already tightening credit and housing policies. The Bank of Korea took its first steps toward normalization at its latest meeting, with a more hawkish tone in its statement and press conference. By contrast, in the wake of a large second infection wave in India, the Reserve Bank of India could continue to add to its accommodative measures with additional bond purchases and by relaxing regulatory controls and enhancing liquidity measures.

As noted above, most advanced economies have increased fiscal stimulus to deal with the pandemic and confinement measures. Conditional on continued economic recovery and successful virus management, a large part of the extraordinary support is expected to be withdrawn over time. This would result in a tightening of the fiscal stance across countries as measured by a change in the government primary balance. Changes in the overall fiscal stance should be calibrated to overall economic conditions. Too abrupt a removal of fiscal stimulus could threaten the recovery. Too profligate a stance for too long, meanwhile, would further fuel inflation pressure. The infrastructure spending bill currently being negotiated would provide another dose of fiscal stimulus in the US, however, the size, scope, and odds of the bill becoming law are still very much uncertain.

[2] Brundage, Campbell, Cummings & Tokat-Acikel, 2021, "*Is Inflation About to Revive?*", https://www.qma.com/research/inflation-about-to-revive

Reopening and Reflation Themes Drive Markets

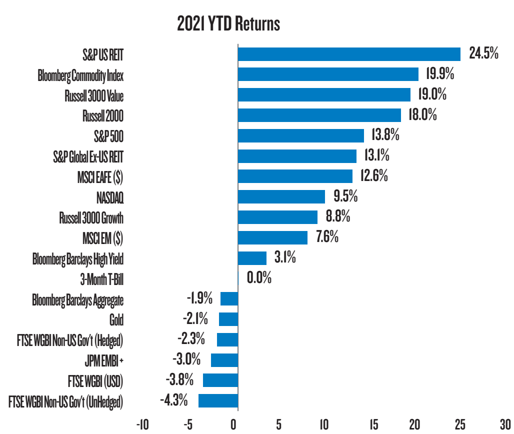
We remain positive on risky asset classes and continue to overweight stocks and commodities relative to cash. We are also overweight real estate relative to fixed income. (See our positioning table at the end of this section.) Our pro-risk view is driven by the continued strong economic and earnings recovery after the pandemic, the accommodative stance of global central banks, and widespread fiscal support, which has left consumers with excess savings at a time of significant pent up demand from a year of COVID-19 restrictions. We expect upside growth and inflation surprises could continue through the summer months as we reach peak reopening.

Earnings and GDP growth in the United States should peak in the second quarter of this year with S&P 500 earnings per share expected to grow 65% and US real GDP expected to rise 13%—both year-over-year. We think equities and commodities should continue to perform strongly and interest rates should rise as investors stay focused on reflation and reopening. We view the latest decline in interest rates as a temporary consolidation/countertrend move before the next leg up. However, we think the magnitude of any interest rate rise will be limited given central bank bond buying.

US stocks have been the relative outperformer so far this year because of the US's supercharged economic rebound, which has been driven by standout performance on vaccine distribution and tremendous fiscal and monetary stimulus. However, US stocks should typically lag during a strong global upturn given the US equity market's higher quality and less cyclical market composition. We think non-US equities are likely to take the leadership baton from here on given their cheaper valuation, more cyclical market exposures, and the narrowing of the gap on vaccine distribution between the US and the rest of the world. As we note in the sidebar, we think the rotation within the equity markets is intact and sustainable and value/cyclical sectors should continue beating growth/defensive sectors.

Even with big questions hanging over the future of the office sector in the post pandemic world, REITs were the strongest performers in the second quarter and year-to-date (Figure 5). REITs were a significant laggard last year relative to broader equities and are benefitting from some mean reversion. Meanwhile, beaten-down sectors, such as lodging and hospitality, are bouncing back strongly due to the economy reopening. Finally, with inflation rising, property is benefiting from its status as a "real asset" as investors reallocate exposure away from fixed income.

Figure 5: Reopening/Reflation Trade Continues



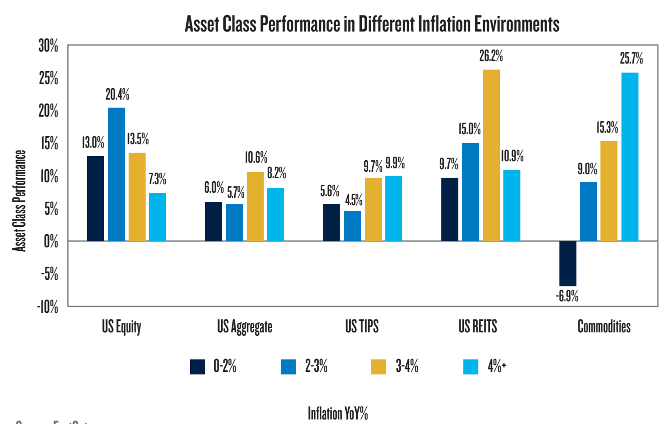
Source: FactSet as of 6/15/2021.

Within fixed income we stay "risk on," as well, emphasizing spread sectors, such as high yield bonds and emerging market debt over core bonds (Bloomberg Barclay's Aggregate Index) given the strength of the global recovery. We think TIPS should continue outperforming nominal bonds, as they have so far year to date.

The biggest risk to investors looking forward is that policymakers (both fiscal and monetary) stay too profligate and allow inflation to rise above what investors consider to be benign levels for too long, thereby making the environment prone to the risk of a wage-price spiral. The Fed has shifted to average inflation targeting, assuring investors that it will be patient and reactive in responding to higher inflation that is not transitory i.e., only when it becomes visible in the data and is persistent. This is positive for stocks in the near term, but it raises the risk that the Fed falls behind the curve and has to tighten much more aggressively down the road. This would be a negative for stocks as aggressive Fed tightening would undermine lofty equity market multiples, putting stock markets at risk of large drawdowns.

In a recent white paper, we discuss the possibility that the pandemic has ushered in a new regime of higher inflation on a trend basis.[3] Further, we are less sanguine about the inflation risks in the short to medium term than what we are hearing from the major central banks. Figure 6 shows that real assets are winners compared to traditional assets in a higher-inflation environment. Commodities and real estate in particular see dramatically improved performance compared to the low (0-2%) inflation period that has reigned over the past decade. Equities have experienced higher returns in the 2-3% inflation environment than when inflation was in the 0-2% range, but lower returns in the two highest inflation periods. Equities also have a negative beta to inflation surprises, especially in higher inflation periods.[4]

Figure 6: Are We in a New Inflation Regime?



Source: FactSet.

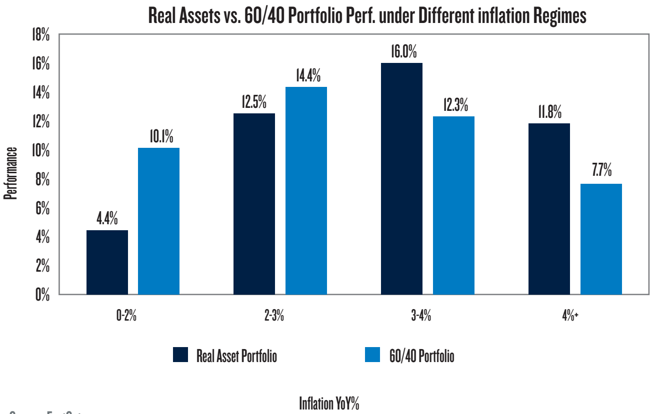
Note: Asset class performance ranges from 1973-2020. Indices used for each asset class are the S&P 500 (US Equity), Bloomberg Barclays US Aggregate (US Aggregate), Bloomberg Barclays US TIPS (US TIPS), FTSE RAREIT Equity REIT (US REITs), and the Goldman Sachs Commodity Index (Commodities).

[3] Brundage, Campbell, Cummings & Tokat-Acikel, 2021, "*Is Inflation About to Revive?*", https://www.qma.com/research/inflation-about-to-revive

[4] Brundage, Campbell, Cummings & Tokat-Acikel, 2021, "*Is Inflation About to Revive?*", https://www.qma.com/research/inflation-about-to-revive

Figure 7 shows that a diversified real assets portfolio shows improved performance at higher levels of inflation both on an absolute basis and relative to a 60/40 balanced portfolio. Our research shows that real assets are an effective inflation hedge, as they are likely to outperform nominal assets, such as stocks and bonds, in a period of rising inflation levels and upside inflation surprises, without sacrificing exposure to economic growth.[5] Further, real assets are effective diversifiers to traditional stocks and bonds—the diversified real assets portfolio has a correlation coefficient of 0.6 relative to the 60/40 portfolio over the time period examined.

Figure 7: Real Assets a Good Inflation Hedge and Diversifier to Traditional Assets



Source: FactSet.

Note: The number of quarterly observations in each bucket are: 44, 49, 32, and 58 for 0-2, 2-3, 3-4, 4+ inflation buckets, respectively. Inflation buckets are created using YoY inflation, measured at quarterly frequency.

Real asset portfolio consists of 25% TIPS, 12.5% US REITs, 12.5% Non US Developed REITs, 18% Commodities, 3% Gold, 10% Global Infrastructure, 9% Natural Resources and 10% MLPs.

60/40 portfolio is 60% US equity and 40% US Aggregate Bonds. Note: Asset class performance ranges from 1973-2020.

We are bullish on the outlook for real assets such as natural resources stocks, master limited partnerships (MLPs)[6], and commodities due to strong economic growth prospects, supply constraints, and the increasing possibility of inflation rising and remaining elevated for longer than expected. Oil and other commodities have historically performed well during episodes of rising inflation expectations. Despite structural headwinds from decarbonization, oil prices are likely to remain firm as OPEC's supply response to the strong oil demand recovery has been fairly restrained.[7] In the case of commodities, such as industrial metals, the supply response, in the form of new mines and expanded production, inherently takes time. While oil prices have rebounded sharply from the lows in 2020, energy stocks, which have just erased their pandemic losses, have not fully discounted the rebound in oil prices. In addition, energy stocks remain relatively depressed compared to the broader market despite their gains in the past year, suggesting that the rally in energy stocks has more room to run.

Midstream energy infrastructure—including MLPs—offers another avenue among real assets to benefit from the rising inflation environment. MLPs rank highly in our models using carry, momentum and valuation factors. Midstream energy sports attractive yields: the yield on the Alerian MLP Index is currently 7.3%, while the yield on the broader Alerian Midstream Energy index is 5.9%--the latter includes C-Corps and generally higher-quality companies.[8] Meanwhile MLP valuations are very attractive relative to history, roughly near the top 10th percentile in terms of attractiveness. Moreover, the momentum score in our models for MLPs has just started picking up in the past few months, suggesting that the positive streak for MLPs could just be starting.

Figure 8: QMA's Tactical Asset Class Views

Asset Class	- Neutral +				
Stocks				■	
Fixed Income	■				
Real Estate				■	
Commodities					■
Cash	■				
Stocks					
US				■	
EAFE				■	
EM				■	
Fixed Income					
US Core	■				
TIPS		■			
High Yield			■		
Non-US Dev Sov	■				
EMD			■		

Source: QMA as of 6/7/21. For illustrative purposes only.

[5] Brundage, Campbell, Cummings & Tokat-Acikel, 2021, "*Is Inflation About to Revive?*", https://www.qma.com/research/inflation-about-to-revive

[6] MLP stands for Master Limited Partnership. All partnerships in the US, including MLPs, pay no income tax at the partnership (or company) level. Unlike most partnerships, MLPs are public companies, trading on the major stock exchanges and filing reports with the Securities and Exchange Commission (SEC). Midstream MLPs are involved in the transportation, processing, and storage of oil, natural gas, and natural gas liquids (NGLs). Source: https://www.alerian.com/.

[7] PGIM's Megatrends whitepaper Weathering Climate Change: Opportunities and Risks in an Altered Landscape, spring 2020 notes that fossil fuels will experience a prolonged sunset period even as renewables gain share. "Fossil fuels will remain a prominent feature of the global energy landscape for decades," they write. We note that advances in carbon capture technology, though still at a very early stage, hold out the prospect for continued decarbonization while remaining with fossil fuels. https://www.pgim.com/megatrends/climate-change

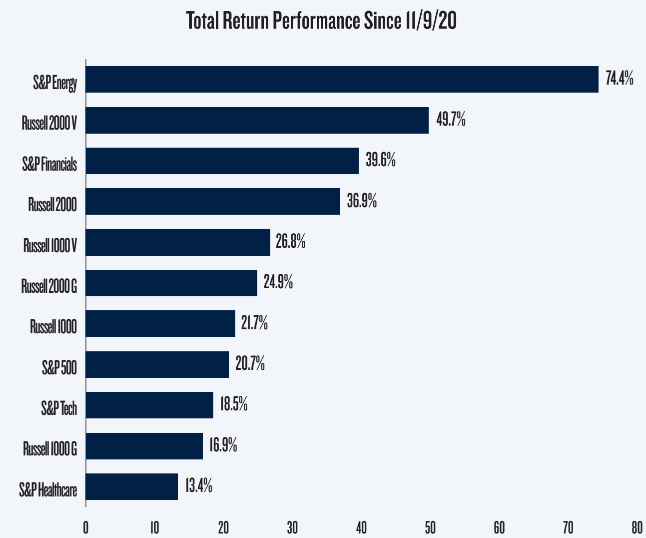
[8] As of 6/18/2021

US EQUITY MARKET ROTATION: INTACT AND SUSTAINABLE

As a follow-up to our December 2020 piece, “Time for a Great Rotation in Equities?”, we note that equities have experienced a powerful rotation since Pfizer announced its enormously successful stage-three vaccine trial results on November 11, 2020 (Figure 1), with value and cyclical stocks taking over market leadership from secular growth segments.

Equity market performance in 2020 was dominated by the so called “stay-at-home” trade with the FAANGM[1] stocks up an average of 55% versus 18.4% for the S&P 500 index. Value and cyclical stocks trailed by massive margins in 2020, with the Russell 1000 Value up just 2.8%, while the S&P 500 Financial and Energy sectors were down -1.7% and -33.7%, respectively. But last year’s losers are shaping up to be this year’s big winners. We believe the factors supporting this rotation are compelling and likely to continue throughout 2021 and perhaps beyond.

Figure 1: A Powerful Rotation Towards Cyclical and Value Stocks



Source: FactSet as of 6/15/21.

Factors supporting the continued outperformance of value and cyclical stocks include the following:

• **Unprecedented Government Policy Stimulus:** Both monetary and fiscal policy are off-the- charts stimulative. US federal government outlays were up a record 50% in 2020, eclipsing the 41% increase reached in 1968, and more spending is on the way in 2021. Action by the Federal Reserve has been far more forceful and timelier than in the aftermath of the Global Financial Crisis. Further, the Fed is pledging considerable patience in exiting emergency policy and is targeting inflation overshoot to compensate for inflation undershooting its 2% target in the past.

As of April 28th, Cornerstone Macro estimated the combined amount of US fiscal stimulus and central bank liquidity injection at an eye-popping $12.3 trillion, or 57% of US GDP.

• **Booming Economic and Corporate Profit Growth:** The unprecedented level of policy stimulus, combined with economic reopening and widespread vaccine administration, is unleashing a wave of economic growth not seen in the United States in decades. Real GDP growth is forecast to rise by 6.5% in 2021, according to the Bloomberg consensus. That may be too conservative, in our view, as some of the more bullish economic forecasters we follow and respect are estimating real growth in the 8%-9% range.[2]

Likewise, corporate profits are growing at a blistering pace. Currently, corporate profits for the S&P 500 index are expected to rise by 37% for calendar year 2021, but that has been rising, and we expect it will rise further (it was 26% on April 1st and 23% at the start of the year). Positive earnings surprise for the current reporting season (the first quarter of 2021) has been absolutely massive, with 87% of the companies beating analyst estimates and actual results coming in at 53% year-over-year versus 24% expected at the start of the reporting season. The earnings surprise factor (the amount by which actual earnings beat analyst estimates) has averaged 20% over the past four quarters. Value stocks typically outperform when earnings growth is strong, whereas Growth stocks typically outperform in a weaker earnings environment, as investors bid up the stocks of companies that are able to produce steady earnings regardless of the macro environment. Finally, large-cap value stocks are expected to produce faster earnings growth (29.8%), rebounding from the slump last year, versus 20.6% for their growth brethren, which benefited from demand pulled forward by the pandemic, over the next 12 months.[3]

• **Rising Inflation Pressure:** Massive policy stimulus, huge pent up demand, and supply shortages stemming from the economic lockdown and subsequent reopening are sparking rising prices across many markets. Shorter-term inflation dynamics are being driven by base effects (abnormally low levels of inflation from a year ago during the peak of the lockdown) and supply/demand imbalances associated with the economic reopening and massive stimulus. The real test for whether this burst of inflation is transitory or more persistent depends on whether and how policy makers react once the economy has returned to full employment. The risk is that inflation expectations become unmoored and result in a vicious cycle of rising prices.

[1] Facebook, Amazon, Apple, Netflix, Google and Microsoft
[2] Nancy Lazar of Cornerstone Macro and Jan Hatzius of Goldman Sachs
[3] Russell 1000 Growth and Value Indexes, as of 5/31/2021

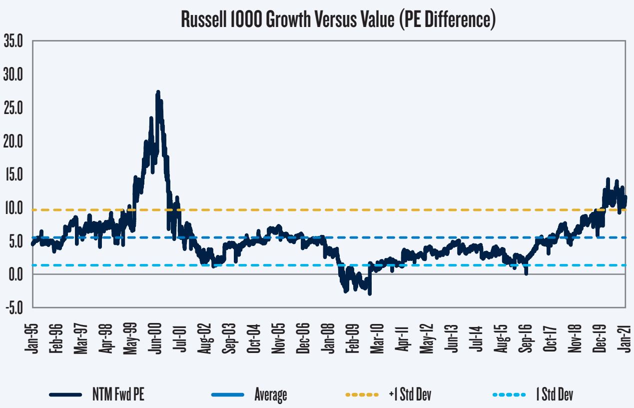
Here it is sufficient to note that periods of high and/or rising inflation have favored Value stocks and thus are another tailwind for the equity market rotation. In a recent note, Jonathan Golub of Credit Suisse observed that "pro-cyclical groups outperform as inflation rises, with Small-Caps, Value, Financials, and Cyclicals leading." In a trailing one-year analysis based on the five-year breakeven rate from the TIPS market, he calculates average daily returns for the Russell 2000 (0.66%), Russell 1000 Value (0.53%), and the Russell 1000 Growth (0.40%) on days when inflation expectations rise. Rising inflation also typically coincides with rising interest rates, which tend to weigh more on the multiples of longer-duration Growth stocks.

Value Is Still Cheap and Coming Off More Than a Decade of Underperformance: If we are correct, and the cycle has, indeed, turned, it's likely early days in the outperformance of Value. As shown in Figure 2, style cycles tend to move in multi-year waves. The latest Growth cycle was particularly long at 14 years! As a point of reference, the last Value cycle lasted eight years (2000-2007), however, the most explosive period of outperformance was during the first two years. With Value outperformance beginning last September, we are just nine months into a Value phase. Meanwhile, Value continues to look cheap relative to Growth on a relative PE basis. Growth stocks typically sell at higher earnings multiples, but the current difference in PE multiples is still more than a standard deviation above its historic average (Figure 3). That is, the PE for Growth is currently 30.2 versus 18.6 for Value, more than an 11-point gap compared to a long-term average of about 5.5.[4]

Figure 2: Style Cycles Have Historically Moved In Long Waves

Source: FactSet as of 5/31/21.

Figure 3: Value is Still Cheap Relative To Growth



Source: Bloomberg as of 6/14/21.

[4] As of 6/14/21

AUTHORS

Edward L. Campbell, CFA, Managing Director and Portfolio Manager
John Praveen, PhD, Managing Director and Portfolio Manager
Manoj Rengarajan, CFA, Principal and Portfolio Manager
QMA's Global Multi-Asset Solutions Team

FOR MORE INFORMATION

To learn more about our capabilities, please contact QMA by email at contactus@qma.com or by phone in the US at +1 (866) 748-0643 or in the UK at +44 (0) 20-7663-3400.

ABOUT QMA

QMA began managing multi-asset portfolios for institutional investors in 1975. Today, we manage systematic quantitative equity and global multi-asset strategies as part of PGIM, the global investment management businesses of Prudential Financial, Inc. Our investment processes, based on academic, economic and behavioral foundations, serve a global client base with $118.8 billion in assets under management* as of 3/31/2021.

*Assets under management (AUM) are based on company estimates and are subject to change.

Notes to Disclosure

Sources: BCA Research, Bloomberg, Datastream, FactSet, OECD and World Economic Forum. **This is intended for Professional Investors only. All investments involve risk, including the possible loss of capital. Past performance is not a guarantee or a reliable indicator of future results.**

The comments, opinions and estimates contained herein are based on and/or derived from publicly available information from sources that QMA believes to be reliable. We do not guarantee the accuracy of such sources of information and have no obligation to provide updates or changes to these materials. This material is for informational purposes and sets forth our views as of the date of this presentation. The underlying assumptions and our views are subject to change.

In the United Kingdom, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorised and regulated by the Financial Conduct Authority ("FCA") of the United Kingdom (Firm Reference Number 193418). In the European Economic Area ("EEA"), information is issued by PGIM Netherlands B.V. with registered office: Gustav Mahlerlaan 1212, 1081 LA Amsterdam, The Netherlands. PGIM Netherlands B.V. is authorised by the Autoriteit Financiële Markten ("AFM") in the Netherlands (Registration number 15003620) and operating on the basis of a European passport. In certain EEA countries, information is, where permitted, presented by PGIM Limited in reliance of provisions, exemptions or licenses available to PGIM Limited under temporary permission arrangements following the exit of the United Kingdom from the European Union. QMA LLC, which is an affiliate to PGIM Limited, is an SEC-registered investment adviser, and a limited liability company. Registration with the SEC does not imply a certain level or skill or training. These materials are issued by PGIM Limited and/or PGIM Netherlands B.V. to persons who are professional clients as defined under the rules of the FCA and/or to persons who are professional clients as defined under the rules of the FCA and/or to persons who are professional clients as defined in the relevant local implementation of Directive 2014/65/EU (MiFID II).

QMA is a wholly-owned subsidiary of PGIM, Inc., the principal asset management business of Prudential Financial, Inc. (PFI) of the United States of America. PFI of the United States is not affiliated in any manner with Prudential plc incorporated in the United Kingdom or with Prudential Assurance Company, a subsidiary of M&G plc, incorporated in the United Kingdom.

These materials are neither intended as investment advice nor an offer or solicitation with respect to the purchase or sale of any security or financial instrument. These materials are not intended to be an offer with respect to the provision of investment management services.

These materials are not intended for distribution to, or use by, any person in any jurisdiction where such distribution would be contrary to local or international law or regulation. Distribution of this information to any person other than the person to whom it was originally delivered, and to such person's advisers, is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of its contents is also unauthorized. These materials contain confidential information, and the recipient thereof agrees to maintain the confidentiality of such information. The opinions expressed herein do not take into account individual client circumstances, objectives, or needs and are therefore are not intended to serve as investment recommendations. No determination has been made regarding the suitability of particular strategies to particular clients or prospects. The financial indices referenced herein is provided for informational purposes only. You cannot invest directly in an index. The statistical data regarding such indices has been obtained from sources believed to be reliable but has not been independently verified.

Certain information contained herein may constitute "forward-looking statements," (including observations about markets and industry and regulatory trends as of the original date of this document). Due to various risks and uncertainties, actual events or results may differ materially from those reflected or contemplated in such forward-looking statements. As a result, you should not rely on such forward-looking statements in making any decisions. No representation or warranty is made as to future performance or such forward-looking statements.

SPECIAL RISKS

Foreign investments may be volatile and involve additional expenses and special risks, including currency fluctuations, foreign taxes and political and economic uncertainties. Emerging and developing market investments may be especially volatile. Investments in securities of growth companies may be especially volatile. Due to the recent global economic crisis that caused financial difficulties for many European Union countries, Eurozone investments may be subject to volatility and liquidity issues. Value investing involves the risk that undervalued securities may not appreciate as anticipated. Small and mid-sized company stock is typically more volatile than that of larger, more established businesses, as these stocks tend to be more sensitive to changes in earnings expectations and tend to have lower trading volumes than large-cap securities, creating potential for more erratic price movements. It may take a substantial period of time to realize a gain on an investment in a small or mid-sized company, if any gain is realized at all. Diversification does not guarantee profit or protect against loss.

Emerging markets are countries that are beginning to emerge with increased consumer potential driven by rapid industrial expansion and economic growth. Investing in emerging markets is very risky due to the additional political, economic and currency risks associated with these underdeveloped geographic areas. Fixed-income investments are subject to interest rate risk, and their value will decline as interest rates rise. Unlike other investment vehicles, U.S. government securities and U.S. Treasury bills are backed by the full faith and credit of the U.S. government, are less volatile than equity investments, and provide a guaranteed return of principal at maturity. Treasury Inflation-Protected Securities (TIPS) are inflation-index bonds that may experience greater losses than other fixed income securities with similar durations and are more likely to cause fluctuations in a Portfolio's income distribution. Investing in real estate poses risks related to an individual property, credit risk and interest rate fluctuations. High yield bonds, commonly known as junk bonds, are subject to a high level of credit and market risks. Investing involves risks. Some investments are riskier than others. The investment return and principal value will fluctuate and when sold may be worth more or less than the original cost.