The World Gets a Shot in the Arm

By: James R. Solloway, CFA, Chief Market Strategist and Senior Portfolio Manager

- COVID-19 and efforts to contain it will continue to make headlines and influence the global economy in 2021.
- Although U.S. business activity could be throttled by additional lockdown orders during the first quarter, the promise of widely-available vaccines in the U.S. and other developed countries has encouraged a risk-on, pro-cyclical posture.
- While we have seen increasing evidence of a “Great Rotation” from growth to value and cyclical investing, we believe it is too early to tell if this is the beginning of a major secular shift in equity investment themes.

Good-bye, 2020—and good riddance! We’re all looking forward to a better 2021. Unfortunately, when it comes to the havoc wreaked by SARS-CoV-2 (the virus that causes COVID-19), the beginning of the New Year appears to be no better than the end of the last one. According to one organization tracking the daily course of the virus, EndCoronavirus.org, nearly 100 countries currently need to engage in strong action to bring the virus to heel. By comparison, at the peak of the first wave in mid-April, 84 countries were reporting a high and/or rising infection rate. Conditions improved modestly into June as warmer weather came to the northern hemisphere—but then began to deteriorate once again as the virus extended its reach during the southern hemisphere’s winter season.

Several countries in eastern and central Europe are getting hit hard at the moment, when measured by newly-confirmed cases per million, as shown in Exhibit 1. Unfortunately, the United States is still among the nations reporting the most new cases of COVID-19, recording nearly 20,000 confirmed cases per million people during the month of December. Health officials expect this monthly total to rise even further in January in the aftermath of the holidays. Some western European countries (including Austria, France, Greece, Italy and Spain) are recording downturns in new cases following lockdowns and other mitigation actions that forced social distancing and reduced mobility. This has helped to cut down the infection rate, but likely caused overall economic activity to contract during the fourth quarter. The United Kingdom experienced a particularly sharp surge in new infections last month associated with a mutation of the virus that enhanced its transmissibility.

Infection rates, however, don’t tell the full story. We likely will never know the true extent to which people around the world were infected due to testing limitations and the fact that so many victims are asymptomatic and, therefore, never tested. The trend in hospitalizations is a better, but still imperfect, measure for policy makers when it comes to the difficult decision to close businesses and impose limits on gatherings. However, there is no global, aggregated database of hospitalizations upon which to draw.

Exhibit 1: A Contagious Christmastime

Infection rates, however, don’t tell the full story. We likely will never know the true extent to which people around the world were infected due to testing limitations and the fact that so many victims are asymptomatic and, therefore, never tested. The trend in hospitalizations is a better, but still imperfect, measure for policy makers when it comes to the difficult decision to close businesses and impose limits on gatherings. However, there is no global, aggregated database of hospitalizations upon which to draw.
Exhibit 2 highlights the experience of a selection of countries with accessible data (the U.S., Canada, the U.K., France, Italy, Poland and Hungary). COVID-19-related hospitalizations appear to have peaked in Italy, France and Poland, although they all remain near the high levels recorded during the spring. Hospitalizations in Hungary also appear to have peaked, although the country still reported about 700 current patients per million population as of year-end. Hospitalizations in the U.S., the U.K. and Canada, by contrast, continue to rise.

Exhibit 2: A Tsunami of Hospitalizations

As for the U.S., this is the third wave of COVID-19 trouble. The first wave in the spring was mostly limited to New York, New Jersey and other states in the Northeast. The second wave hit the rest of the country, particularly the southern and western states, with California, Texas, Florida and Arizona enduring some of the biggest outbreaks at that time. This third wave now is even broader in scope, with few areas of the country left unscathed. According to COVID Act Now, another data aggregator we use to track the virus, Hawaii is the only state reporting a slow rate of disease growth. Three states (Arizona, California and Tennessee) had severe outbreaks as of the end of December, while the rest had active outbreaks or were at risk of one. Intensive Care Unit capacity was constrained in eight states and elevated in an additional 19.

This situation prompted yet another round of restrictions on businesses and households during the fourth quarter. Exhibit 3 updates the Federal Reserve Bank of Dallas’ Mobility and Engagement Index (MEI)\(^1\) and the Federal Reserve Bank of New York’s Weekly Economic Index (WEI)\(^2\). The MEI is based on geolocation data collected from a large sample of mobile phone devices throughout the U.S. It measures the pandemic-driven deviation from typical pre-pandemic mobility behaviors in January and February. The WEI, meanwhile, is composed of ten high-frequency indicators of U.S. economic activity that reflect consumer behavior, the labor market and production, and is scaled to align with the four-quarter change in U.S. inflation-adjusted gross domestic product (GDP).

Exhibit 3: The Economy Moves Ahead Even if Movement Itself Does Not

For the U.S. as a whole, mobility data show a flattish trend since June. Economic activity, on the other hand, has managed to continue its improvement from the lows of April and now appears to be just 2.5% off its year-ago level (implying that the economy is still operating at almost 5% below capacity). The economic data reported points to another strong gain along the lines of a 10% seasonally adjusted annual rate during the fourth quarter versus the July-September period.

The steady rise in weekly economic activity seen in Exhibit 3 can be chalked up to a few different factors. First, a large portion of the U.S. population has been able to continue working and shopping virtually. Second, manufacturing and construction had strong recoveries even as services of many kinds continued to struggle. Third, the income-support programs passed in the

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\(^{1}\) The MEI summarizes information from seven different variables: fraction of devices leaving home in a day, fraction of devices away from home for three-to-six hours at a fixed location, fraction of devices away from home at a fixed location, an adjusted average of daytime hours spent at home, fraction of devices taking trips longer than 10 miles (16 kilometers), fraction of trips less than 1.2 miles (2 kilometers), average time spent at locations from home.

\(^{2}\) The 10 components of the WEI include initial unemployment insurance claims, continuing unemployment insurance claims, federal taxes withheld, Redbook same-store sales, Rasmussen Consumer Index, American Staffing Association Staffing Index, raw steel production, U.S. railroad traffic, U.S. fuel sales to end users, and U.S. electricity output.

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spring, and the emergency lending facilities simultaneously established by the Federal Reserve (Fed), were quite successful in preventing a downward self-reinforcing spiral in consumption and employment. Household saving rates are still considerably above normal levels, which provided a cushion for the economy as a whole, although we acknowledge that individual circumstances vary enormously.

As has been the case through much of the pandemic, the extent of governmental restrictions—and adherence to them—vary dramatically from state to state. California and New York are two of the most restrictive when it comes to enforcing social distancing measures, while Florida and Texas have few restraints. State mobility data corroborate this disparity, with the Mobility and Engagement Index readings for Florida and Texas only about half as low as those of California and New York.

Although there is a danger that U.S. business activity could be throttled by additional lockdown orders during the first quarter, investors are obviously looking beyond the valley. The promise of vaccines being widely available in the U.S. and other developed countries has been enough to encourage a risk-on, pro-cyclical posture. Exhibit 4 tracks the number of confirmed doses of vaccines purchased by various countries/regions.

The U.S. has already contracted for more than one billion doses, enough to give more than 3.4 jabs to each person (several vaccines will need two shots spaced three or four weeks apart to be fully effective). The European Union (EU) is in about the same position in terms of per-capita doses purchased. Canada, meanwhile, has contracted enough doses to inoculate each person nine times. The middle-income economies countries listed in the chart (India, Indonesia, Brazil and Mexico) so far have contracted for enough vaccines to fully protect only about half of their populations. The rich countries in the world should be in a position to help out the poorer ones later this year and in 2022. COVAX, a facility designed to purchase and distribute vaccines to lower-income emerging economies, will need all the help it can get if there is hope for vaccinating the bulk of the world’s population.

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Exhibit 4: Who Gets a Shot at Getting a Jab?

<table>
<thead>
<tr>
<th>Country</th>
<th>COVID-19 Vaccine Doses Confirmed Purchases (Billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>1</td>
</tr>
<tr>
<td>Mexico</td>
<td>0.5</td>
</tr>
<tr>
<td>Latin America ex-Brazil</td>
<td>0.5</td>
</tr>
<tr>
<td>Brazil</td>
<td>0.5</td>
</tr>
<tr>
<td>Japan</td>
<td>0.5</td>
</tr>
<tr>
<td>Indonesia</td>
<td>0.5</td>
</tr>
<tr>
<td>Canada</td>
<td>0.5</td>
</tr>
<tr>
<td>U.K.</td>
<td>0.5</td>
</tr>
<tr>
<td>U.S.</td>
<td>1.0</td>
</tr>
<tr>
<td>COVAX</td>
<td>1.5</td>
</tr>
<tr>
<td>EU</td>
<td>1.5</td>
</tr>
<tr>
<td>India</td>
<td>2.0</td>
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</tbody>
</table>

Source: Duke University, SEI. Data as of 12/29/2020.


The roll-out of surprisingly effective vaccines has energized the rotation into cyclical stocks. Exhibit 5 examines the total-return performance of the S&P 500® Index by style relative to the S&P 500® Index over the past five years. These style-specific indexes are published by S&P Dow Jones, a division of S&P Global.

Exhibit 5: A Matter of Style

| S&P 500 Style-Specific Indexes Relative to the S&P 500 Index, 1/1/2016=100 |
|----------------------------------------|----------------|
| S&P 500 Growth Index                  | 125 |
| S&P 500 Momentum Index                | 115 |
| S&P 500 Quality Index                 | 105 |
| S&P 500 Value Index                   | 95  |

Source: S&P Global, SEI. All indexes are total return. Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

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3 Note that other organizations, including MSCI and Russell, publish style indexes with similar names. They all have different methodologies and compositions, however, and so are not directly comparable to each other. We use the S&P style indexes in Exhibit 5 because we are focusing on the widely-followed S&P 500® Index.

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It should surprise no one that growth and momentum stocks were the big winners of 2020. Although they represent separate investing styles, the composition of the two indexes are currently dominated by information technology stocks (about 40% of both indexes), with the communication services, consumer discretionary and health care sectors also well represented in both indexes. They also share six companies in their top-10 constituents by index weight.

The big laggard has been the value style. Again, this is not a surprise. This index has relatively low exposure to the sectors where strong performance has been concentrated. It also suffered from having high exposure to financials, amounting to nearly 20% of its market cap. The value index has been trailing other investing styles for a long time, as the chart shows. In fact, its relative performance actually peaked in March 2007, when the global financial crisis began to hit the financial sector with its full fury. The pandemic of 2020 has had a similar impact. Exhibit 6 focuses on the S&P 500® Growth and Value Indexes to provide a richer historical context, beginning in 1975. In terms of relative total-return performance, the value style has underperformed growth by an even greater degree over the past 13 years than during the 1990s, when the tech boom was revving up.

Exhibit 6: The Long Tale of Two Styles

<table>
<thead>
<tr>
<th>U.S. Recession Periods</th>
<th>S&amp;P 500 Value Index/S&amp;P 500 Growth Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1975</td>
<td>110</td>
</tr>
<tr>
<td>1978</td>
<td>115</td>
</tr>
<tr>
<td>1981</td>
<td>120</td>
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<td>1984</td>
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<td>1987</td>
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<td>2011</td>
<td>190</td>
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<tr>
<td>2014</td>
<td>200</td>
</tr>
<tr>
<td>2017</td>
<td>210</td>
</tr>
<tr>
<td>2020</td>
<td>220</td>
</tr>
</tbody>
</table>

Source: Economic Cycle Research Institute (ECRI), S&P Global, SEI. All indexes are total return. Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

In our third-quarter 2020 Economic Outlook (“Regime Change”), we argued that there was increasing evidence pointing to a major rotation from the growth and momentum investing styles to a renewed focus on value-oriented and more cyclical areas of the equity market. We noted that changes in stock-market leadership in favor of cyclical and traditional value sectors often occur around recession periods. We also pointed out that the long period of mega-company tech-stock outperformance since the global financial crisis had led to extremes in both valuations and market-cap concentration that, in the past half century, were exceeded only during the peak of the Nifty Fifty craze in the early 1970s and the tech bubble of the late 1990s. While conceding that tech and other stay-at-home stocks were big winners as a result of the pandemic, we noted that even the best companies do not stay the best stock-market performers forever.

We also cited a variety of reasons why there could be a major change in investment regimes. These included a deceleration in the earnings growth of the favored few from super-fast to merely fast; an acceleration in the revenue and earnings growth of the laggards in response to a vaccine and the ramping-up of a return-to-work trend; a shift in the political winds that could lead to higher taxes and more aggressive anti-trust enforcement against the big social media and other leading tech companies; and a rise in bond yields that would harm high-multiple growth stocks more than low-multiple value stocks.

This change in investing regimes played out in a big way in November and the first half of December, and we expect the nascent trend to reassert itself over the course of 2021. Sticking with the S&P 500® style indexes, the S&P 500® Value Index bottomed at the beginning of September, with the S&P 500® Growth Index making a top on the same day. However, the big moves in relative performance came on November 9, the day Pfizer and BioNTech announced the surprisingly strong efficacy results of their COVID-19 vaccine. No one knows if this is the turn in the relative fortunes of these style indexes, but we think investors will prove willing to shrug off the likely prospect of more bad news during the difficult days and months that lay immediately ahead in the world’s battle against the virus. The focus will turn instead to the rising odds that the world will be in a better place economically as we enter the second half of 2021.

Be prepared for bumps in the road

Financial markets may still encounter challenges. For example, although the safety results from the vaccine trials are promising, there may be unanticipated adverse reactions to them as they are distributed more broadly. In the worst-case scenario, this could force a temporary pause in the inoculation effort for specific vaccines, or limit their use to a smaller portion of the general population. Those with severe allergies are already being discouraged from getting the Pfizer vaccine after some people had serious reactions after they received their first dose.
Even if safety profiles become well established, the distribution of the vaccines will nonetheless be a complicated and mammoth exercise. Just the process of giving two doses a few weeks apart to about 180 million people over the age of 16 in the U.S. alone (assuming 70% participation) is already proving to be a challenge to achieve quickly and efficiently, with the number of vaccinations delivered already falling far short of projections.

Manufacturing challenges are also evident. Russia has reported great difficulty in ramping up the production of its vaccine, and Pfizer cut December shipments of its vaccine in half. AstraZeneca/University of Oxford and Sanofi/GSK have also run into delays that will slow their approvals for emergency use in the U.S. Logistical snafus are another likely hurdle.

Finally, there is the issue of consumer willingness to get inoculated. Although the high efficacy of the vaccines may soften reluctance, a survey conducted by Ipsos in December indicated that only 69% of the respondents in the U.S. appear willing to get the vaccine. This is comparable to the percentages recorded in several other developed countries, including Germany, Italy and Spain. The French are even more skeptical, as seen in Exhibit 7. Since health experts believe that herd immunity is generally achieved when 70% or more of the population is exposed to the virus or is vaccinated, a return to normalcy depends critically on overcoming this reluctance to take a vaccine that has been fast-tracked like no other.

Exhibit 7: Maybe I Will, Maybe I Won’t

<table>
<thead>
<tr>
<th>Country</th>
<th>Respondents Who Say They Will Get a Vaccine for COVID-19 (%)</th>
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</thead>
<tbody>
<tr>
<td>China</td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
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<tr>
<td>Mexico</td>
<td></td>
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<tr>
<td>U.K.</td>
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<tr>
<td>South Korea</td>
<td></td>
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<tr>
<td>Australia</td>
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<tr>
<td>Canada</td>
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<td>U.S.</td>
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<td>Germany</td>
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<tr>
<td>Italy</td>
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<td>Spain</td>
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<tr>
<td>Japan</td>
<td></td>
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<tr>
<td>South Africa</td>
<td></td>
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<tr>
<td>Russia</td>
<td></td>
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<tr>
<td>France</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ipsos, SEI. Base: 13,542 online adults aged 16-74 across 15 countries. *Online samples in Brazil, China, Mexico, Russia, and South Africa tend to be more urban, educated and/or affluent than the general population.

Biden: His time

In 2021, the successful production and delivery of the vaccines will be the two most important factors that determine the pace of the economic recovery and sustained rotation in leadership away from the pandemic winners to a broader selection of stocks and investment styles. However, politics will also come into play, and can either act as a tailwind or a headwind. Congress struggled for months trying to get additional income support to the people and businesses most seriously affected by the economic disruptions politicians caused by the virus. They finally came up with a $900 billion compromise. Although amounting to more than 4% of GDP, it is limited in scope and falls far short of what is needed (most of the benefits are set to expire in March and April, and it does not address revenue shortfalls facing state and local governments). Even if the last-minute attempt to increase one-time payments to individuals stalls in the Senate, there will likely be more emergency actions after President-elect Biden enters office on January 20.

The Georgia run-off elections on January 5 will decide which party holds the majority power in the U.S. Senate. While that should be helpful for financial markets since it reduces political uncertainty, getting legislation through Congress probably won’t get any easier. Even if the Democrats win both Senate seats, resulting in their unified control of the Congress and the Presidency, the distribution of power will remain so finely balanced that it will still be difficult to pass anything without substantial compromise and prolonged negotiations. Still, a Democratic-run Senate would have significant implications. The party would have control over the chamber’s agenda, be able to enact smoother passage of Cabinet-level and judicial appointees and lead the oversight committees that have become a potent political weapon in the hands of the opposition.

Unified Democratic control would also ease the passage of legislation that increases taxes on corporations and high-income individuals, although that may be a battle that doesn’t take place until after the economy is back on its feet, post-pandemic. During the first few months of his tenure, President-elect Biden is more likely to simply reverse many of the executive orders of his predecessor, re-imposing environmental, consumer, labor and other regulations that will add to the cost of doing business.

On a positive note, the more extreme measures that had been promoted by various Democratic politicians and activists before the November elections—such as eliminating the Senate filibuster, packing the Supreme Court or admitting Puerto Rico and the District of Columbia as states in order to give a structural advantage to Democrats in future elections—now appear dead in the water. The elections were, in one sense, a victory for the moderates and the center of the political spectrum. If President-elect Biden wants to get
things done, he will often need to follow a middle course that reaches across the aisle.

Janet + Jay: So happy together

Policy depends on personnel, and there is no disputing the priorities of a Biden administration will be quite different from those of the Trump era. One of the most important nominations put forth by President-elect Biden is that of former Fed Chair Janet Yellen as Treasury Secretary. If the Senate approves—and we expect she will enjoy substantial bipartisan support—the Treasury and the Fed are likely to work together in a fashion not seen since the days of World War II, when the central bank held interest rates at fixed levels in order to smoothly fund the war effort. This close working relationship between the Treasury and the Fed will probably be reassuring for investors in the near term, since there is little doubt that the central bank will continue its extraordinary efforts to support the economic recovery in 2021. That’s good news for the economic outlook and for firms that face high debt levels.

A sustained rotation out of the high-multiple growth stocks to the lowly valued cyclical and financial stocks, however, is dependent to an important extent upon a rise in bond yields and a widening of the yield-curve spread. Exhibit 8 highlights this interest-rate sensitivity, comparing Treasury yield-curve movements to the relative performance of the S&P 500® Financials Index against the S&P 500® Information Technology Index.

Exhibit 8: A Widening Yield Curve Should Help Financial Stocks

At the start of 2020, the 10-year Treasury bond yielded 1.9%. It currently yields just under 1%, which is still below the likely future rate of inflation. While it seems sensible to predict further increases in bond yields, there is the possibility that the Fed will actively suppress that rise via quantitative easing and yield-curve control operations in 2021. SEI’s portfolio managers are penciling in only a modest rise of 25 to 50 basis points in the 10-year Treasury bond from its current level. We think central banks around the world share the goal of keeping a fairly tight rein on yields across the maturity spectrum in order to limit their government’s debt service burdens. Exhibit 9 shows that the U.S. government’s interest expense as a percentage of total outlays has fallen sharply this year, even as federal debt held by the public soared. Actual interest expense, measured as a 12-month moving sum, has fallen from a peak of $582 billion in April to $509 billion in November.
Even after the COVID-19 crisis passes, governmental pressure will likely be placed on the Fed to continue to suppress the cost of debt. One of the key dangers of working hand-in-glove with the Treasury is the possible loss of some of the Fed’s independence. It’s certainly not a problem now, but what happens if inflation increases well beyond the Fed’s 2% target? Will the central bank allow interest rates to rise in order to lean against that acceleration in inflation, or will it feel obligated to continue to help out federal and state governments by keeping rates lower than they otherwise would be? Additionally, inflation is a time-honored method of reducing the real debt burden at the expense of savers. The pressure to allow inflation to run hotter than it has at any time in the past two or three decades could well intensify in the years ahead.

Investors apparently are not anticipating such an outcome. The Federal Reserve Bank of Cleveland publishes data on expected inflation over a range of periods, from one year to 30 years. In Exhibit 10, we highlight the average projected rate over the next three and 10 years. These estimates are calculated by the Cleveland Fed with a model that uses Treasury yields, Consumer Price Index (CPI) inflation data, inflation swaps and survey-based measures of inflation expectations. By its estimates, consumer-price inflation will average just 1.3% over the next three years and 1.4% over the next decade. By comparison, the 3-year Treasury note currently yields only 0.18%. The 10-year bond is at 0.95%. Even after the economic recovery of the past seven months and the likelihood of further improvement in 2021, inflation expectations remain near the low end of the range recorded since the global financial crisis.

As economic activity normalizes in the year ahead, there probably will be some upward pressure on prices. Whether markets respond to that inflation acceleration depends on how sustained it turns out to be. Among the key measures we use in our analysis of inflation is the trend in compensation costs, productivity and unit labor costs. The change in unit labor costs equals the change in compensation minus the change in productivity. Exhibit 11 examines the three-year annual rate of change in unit labor costs versus the Personal Consumption Expenditures (PCE) Price Index excluding food and energy, the Fed’s preferred measure of inflation.
Notice that, even when smoothed over a three-year period, unit labor costs for the nonfarm business sector are more volatile than the actual inflation rate. But we think it’s still useful as a measure of the underlying inflation trend.

A benign view of inflation in the near term is based on the observation that unit labor costs tend to decline significantly during the early stages of an economic recovery. In the last economic cycle, the three-year per-annum change in unit labor costs peaked at 3% in the first quarter of 2007 and fell to a low of -1.4% by the fourth quarter of 2011. Core inflation, measured by the PCE Price Index (excluding food and energy), fell from a peak of 2.2% in March 2007, hitting a low of 1.3% in March 2011. It usually takes about two or three years after a recession ends for unit labor costs to bottom out. It takes a while for labor markets to tighten, leading to stronger compensation increases. Productivity also tends to fade as the economy approaches full employment of resources.

Exhibit 12 looks at the two inputs of unit labor unit costs, total labor compensation and productivity. The three-year annualized change in labor compensation peaked in 2020’s second quarter at 5.5%, near the highest levels recorded in the past 35 years. This spike in compensation is misleading, however. Through the end of 2019, the pace of compensation gain was only 3.4% per annum. The nonfarm business sector recorded quarterly spikes of 9.2% in the first quarter and 24.3% in the second quarter at seasonally adjusted annual rates because this statistic is heavily influenced by the types of workers who have jobs.

**Exhibit 12: The Spike in Costs Won’t Last**

The lockdowns and other social distancing measures have led to proportionately bigger layoffs in lower-paid service jobs than in higher-paid manufacturing, construction or professional ones. This shift in the composition of U.S. employment explains why productivity also shifted higher, jumping 10.6% at an annual rate in the second quarter from the previous quarter.

As the world returns to normal, compensation growth will likely decelerate significantly, as will productivity growth. Once normalization is achieved—probably in 2022—we will have a better idea where productivity and costs really are. Under the Biden administration, however, we could see measures implemented that would tend to increase wages and benefits in the form of a higher national minimum wage, additional health care benefits or executive orders that favor the priorities of organized labor. Under a best-case scenario, any sustained rise in compensation growth will be matched by a similarly sustained rise in productivity. If that doesn’t happen, unit labor costs will rise, profit margins will erode and inflation will accelerate.

The key consideration is the outlook for productivity. Optimistic economists argue that the pandemic has accelerated investment in robotics, cloud computing and artificial intelligence software. They think that the implementation of virtual meetings and other work-at-home innovations will lead to the kind of bump in productivity seen during the tech boom of the late 1990s and early 2000s. It is certainly an attractive theory, but it will still take years to play out. In the meantime, we think it pays to be alert to the possibility that the current explosion in the growth of money and credit, combined with the political pressures on the Fed to ease the fiscal strains facing governments at all levels, could lead to unexpected inflation pressures in the years beyond 2021. The current cozy relationship between the Fed and the Treasury will not last forever.

**Brexit and COVID-19 make it hard to stay calm and carry on**

The last-minute Brexit deal provided a Christmas gift of sorts (at least in terms of removing a degree of uncertainty); but in a year when most countries have been under severe economic and financial stress, the U.K. has endured more pain than most. Exhibit 13 highlights the degree to which the U.K. economy has lagged other major nations through the first three quarters of 2020. Its economy did rather well between 2010 and 2019, with real GDP rising by a cumulative 19.0%. That lagged the U.S. (+24.9%) and Canada (+22.7%), but was in line with the performance of Germany over that time span. Meanwhile, France (+13.6%), Japan (+9.2%) and Italy (+1.7%) were the true laggards.

Since the end of 2019, however, U.K. inflation-adjusted GDP has contracted more sharply than the other six countries highlighted in Exhibit 13. The country recorded a horrendous 21.2% cumulative slide over the first half of 2020. By comparison, France and Italy contracted by...
18.9% and 17.8%, respectively. Japan (-8.7%) and the U.S. (-10.1%) suffered the least in the first half of the year. Despite its sharp 16.0% rebound off the trough during the third quarter, the U.K. still lags all the other listed countries in the year to date.

**Exhibit 13: Hard Times**

![Graph](image)

Source: FactSet, SEI. Data as of 9/30/2020.

The U.K. also reports GDP on a monthly basis. The best month was June, when monthly GDP jumped by 9.1%, but the gains have eased progressively since then, most recently logging a gain of 0.4% in October. Given the re- imposition of mobility restraints in November and December, which we highlight below, it would not be surprising if the GDP data turned negative during the final month of the year.

Earnings expectations follow the economic trends. Exhibit 14 looks at the forward price-to-earnings ratio of the MSCI United Kingdom, MSCI Europe ex UK and the MSCI USA indexes.

**Exhibit 14: The U.K. Stock Market Looks Cheap**

![Graph](image)

Source: MSCI, SEI.

Over the past 15 years, the U.S. market has consistently traded at a premium valuation, but that premium has widened since 2017 owing to the boom in growth stocks relative to the more value-laden U.K. and European equity markets. In 2020, that premium valuation has expanded significantly further. The other two markets have mostly traded at similar valuations to each other over time. But a major divergence began to develop in 2019 and became more pronounced in 2020.

The pandemic dominated the economic backdrop, but the prospect of Brexit made matters worse. The country’s departure from the EU promised to be messy and full of uncertainties from the start. This time last year, we had figured that some sort of deal with the EU would eventually be made in order to avoid a “hard” Brexit. That turned out to be the case, although the negotiations went on for as long as they possibly could before the December 31st departure date. The result is a “skinny” deal that allows the U.K. to gain preferential, tariff-free, access to the EU market for its goods as long as it follows many of the EU’s rules and regulations as they apply to governance, labor and the environment. If those standards change in the future, the U.K. will be permitted to deviate from them and will be able to challenge future disputes in an independent court.

While a skinny deal is better than none, the U.K. has suffered from a long period of intense uncertainty (which continues to a degree, as Brexit addresses the transfer of goods but not commerce in services). Firms have been playing defense in anticipation of the country’s departure from the trading bloc, trying to build up inventories to guard against near-term shortages and supply disruptions. The government has warned consumers that fresh fruit and vegetables may be in short supply over the next few months. Trucks have been piling up on both sides of the EU-U.K. border over the past several weeks owing to the surge in import volumes caused by precautionary stockpiling, the usual Christmas rush and the added safety complications resulting from the pandemic. Barriers to trade introduce economic inefficiencies, whether they be tariffs or additional inspections and paperwork. Post-Brexit, prices will likely end up being a bit higher, GDP a bit lower and supply chains a bit more unreliable.

Exhibit 15 shows that the drop in U.K. business sentiment in 2020 has been accompanied by a slide in plant and equipment investment activity (the latter statistic is an equally weighted average of capital spending activity at capital goods, intermediate goods and consumer goods manufacturers, as surveyed by the Confederation of British Industry). Although there was a rebound in the third quarter, more manufacturers continued to cut back on capital spending than increase it. Business sentiment, meanwhile, fell sharply in November following a five-month recovery, as worries over Brexit and the pandemic returned.
expected to drive the global economy to higher ground in 2021. This should benefit the large energy, materials and industrial multinationals that make up nearly one-third of the market capitalization of the MSCI United Kingdom Index. Second, the country appears competitive versus other advanced countries when measured by various benchmarks, such as relative unit labor costs, which we present in Exhibit 17.

Even Brexit may turn out to be less of a nightmare than many people fear. The government’s trade negotiators have already fanned out across the world to make sure that the U.K. retains the same trade agreements that it has enjoyed as a member of the EU. Boris Johnson has also backed away from his attempt to renege on the Withdrawal Agreement that allows Northern Ireland to trade without border restrictions with Ireland and the rest of the EU. This decision saves a lot of headaches, especially with the incoming Biden administration, which threatened to impose trade sanctions if the treaty was abrogated. In any event, we expect the impact of the virus—good or bad—to swamp any Brexit effects not only in the near term, but throughout 2021.

Exhibit 17: U.K. Competitiveness—A Bright Spot in the Gloom

No European Christmas vacation

As we mentioned earlier in this report, infection rates and hospitalizations have decreased in some parts of Europe. In early November, for example, France had one of the highest recorded daily infection rate of about 800 per million population. The rate is now around 200 per million—with President Macron one of the more recent victims. On the other hand, Germany, the Netherlands, Sweden and much of emerging Europe (Turkey, especially) are seeing a sharp ramp-up in cases measures, households are not allowed to mix, but one person is allowed to meet one other person in a public space.

4 Under Tier 4 restrictions, non-essential shops, hairdressers, and leisure and entertainment must close. Under the

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that have necessitated severe social-distancing restrictions.

Purchasing managers in the eurozone are reporting deteriorating economic conditions, which we show in Exhibit 18. The Composite Purchasing Managers Index from IHS Markit recorded a strong bounce off the April lows, but peaked in July and slipped below the 50 line (indicating a contraction in business activity) in October. It tumbled further in November. Service industries again led the way lower, slipping into contraction in September and moving more deeply into recession territory in October and November. Construction activity was more resilient, although it remains below pre-pandemic levels. The manufacturing sector is the stand-out winner, falling less sharply than the services or construction sectors during the spring lockdowns and now continuing to signal robust growth. The eurozone PMI manufacturing index is currently at its highest level since August 2018.

Exhibit 18: Manufacturing—the Only Bright Spot in Europe

If global equity markets witness a sustained broadening out of performance from a large-cap growth/technology and U.S.-dominated focus, the eurozone and other European countries should participate. The top three sector weightings in the MSCI EMU Index, for example, are consumer discretionary (16.5% of the total market cap as of the end of November), industrials (15.1%) and financials (14.3%). The information technology sector has the fourth-largest capitalization weight in the Index, amounting to 11.9%. That weighting is similar to the combined weight of the highly-cyclical materials and energy sectors (11.3%). By contrast, information technology now accounts for 28.2% of the total market capitalization of the MSCI USA Index.

Exhibit 19 tracks the relative performance of the MSCI EMU Index (total return) versus the MSCI USA Total Return Index in local-currency and U.S. dollar terms since 1999. Through much of this period, the countries that make up the eurozone lagged the U.S., especially in U.S. dollar terms. In local-currency terms, there have been periods of meaningful outperformance against U.S. equities, coinciding with a sharp depreciation of the greenback against the euro. However, in 2020, eurozone equities continued to lag the performance of the U.S. stock market in both local and U.S. dollar terms despite the greenback’s weakening trend since March.

Like so many other relationships in the equity market, the underperformance of the eurozone benchmark has been going on for a long time, although for good reason. The European economy is more cyclical, value-oriented and less dynamic than the U.S. economy. Regulations are more constraining and less shareholder-friendly. Taxes and government spending represent a larger proportion of the economy. Profit margins and returns on invested capital are lower. But none of these considerations rules out a cyclical rebound in equity performance against the U.S. stock market at a time when the latter appears to be excessively tilted toward technology stocks, the dollar is weakening and a global economic recovery is at hand thanks to the game-changing introduction of effective vaccines.

Exhibit 19: Fly Like an Emu

The pandemic has had one good outcome for Europe. It finally forced Germany and other fiscal “hawks” to allow an expansion in fiscal policy. This move away from budgetary austerity should be viewed in context. Exhibit 20 compares the increase in the primary fiscal deficit as a percentage of potential GDP for a handful of major developed countries. All the countries have experienced a sharp rise in red ink this year, measured by the International Monetary Fund (IMF). The biggest deficits
are outside the Eurozone, with the Euro area as a whole moving from a 0.7% of GDP surplus in 2019 to a deficit of 5.6%, a swing of 6.3 percentage points in the government budget balance as a result of changes in government expenditure and tax policies (referred to as a fiscal impulse). By contrast, Canada, the U.K., the U.S. and Japan were already in deficit in 2019, but provided an even larger fiscal impulse to their economies than Europe did.

The Europeans probably can afford to run higher deficits than the IMF appears to be penciling in for 2021. Italy almost certainly will. The memory of the European periphery debt crisis is still fresh in the minds of many policymakers; they realize that pushing for fiscal austerity measures prematurely would probably be a mistake. On the other hand, we think that there is greater need for other countries outside the eurozone to regain control of their finances. If those countries fail to do so, Europe could be the beneficiary of investment flows that would further prop up the euro and equity valuations.

Exhibit 20: Europe Becomes Less Austere, Grudgingly

In the meantime, the European Central Bank (ECB) appears ready and willing to do whatever it can to support the region’s economy. As Exhibit 21 shows, the ECB’s balance sheet expanded dramatically in 2020, climbing nearly 50% to almost €7 trillion. At its December meeting, the Governing Council expanded its Pandemic Emergency Purchasing Programme (PEPP) by an additional €500 billion and extended the program until March 2022. The PEPP was established last March with the announcement of a €750 billion purchase target. It was expanded in June by €600 billion.

The ECB’s primary quantitative-easing tool, the Asset Purchase Programme, was created in January 2015. It was restarted in March 2020 and currently absorbs €20 billion of mostly government securities each month; although the program was enhanced to include the purchase of corporate securities and a greater proportion of the sovereign securities of the larger debtors in the eurozone. Finally, the terms of the central bank’s targeted long-term refinancing operations also were made somewhat more favorable recently to encourage further lending by the banking system.

These programs have provided liquidity to the financial markets and have encouraged banks to lend to households and businesses, as we show in Exhibit 22. Through October, lending to non-financial corporations has climbed by 6.3% on a year-over-year basis.

Exhibit 22: Credit Growth, at Last

Source: International Monetary Fund, SEI. Data as of 9/30/2020. Primary budget balance excludes net interest payment. 2020 and 2021 are estimates.

Source: European Central Bank (ECB), Yardeni Research, SEI. Data as of 12/25/2020.

Source: ECB, SEI. Data as of 10/31/2020.
This is in sharp contrast to the slowing of business lending between 2011 and 2013, when the periphery debt crisis was in full swing and the integrity of the monetary union was in considerable doubt. The various ECB programs also have helped to drive the bond yields of even the most problematic European debtor countries lower. Exhibit 23 tracks the journey taken by the 10-year government benchmark bonds of the European periphery countries—Greece, Italy, Spain, Portugal and Ireland—versus German bunds since 2010. Periphery bond yields soared between 2010 and 2011. Greece hit a peak of nearly 35%, Portugal almost 16% and Ireland nearly 14%. These countries experienced another period of stress in 2015 and 2016, although the rise in yields at that time paled in comparison to the crisis years at the start of the decade.

Exhibit 23: From Junk to German Bund-Like

![Graph showing benchmark 10-Year Bond Yield (%) for Greece, Portugal, Spain, Ireland, and Germany from 2010 to 2020.]

Source: FactSet, SEI.

More recently, the pandemic-induced spike in periphery yields in mid-March has given way to new all-time lows for several countries. At year end. German bunds settled at -0.59%. Ireland’s 10-year benchmark bond also was negative, at -0.29%. Spain and Portugal were a handful of basis points above zero. Greece and Italy sported the highest yields, a mere 0.64% and 0.59%, respectively. These yields are all well below the 95 basis points that can be obtained investing in U.S. 10-year Treasurys. There should be little wonder why SEI’s global fixed-income portfolio managers look to corporate credit for income and are underweight duration to guard against a potential rise in yields from these rock-bottom levels.

Emerging markets turn the corner

Emerging-market equities have been on a tear since they bottomed out last March, with the MSCI Emerging Markets Index (total return) soaring by more than 70%. For 2020 as a whole, this measure of emerging-market equities has climbed by 16.4%. This represents a slightly better performance than the 15.4% gain registered by the MSCI World Index (total return), a benchmark that tracks the performance of advanced-country stock markets. Exhibit 24, however, shows how difficult the last 10 years have been for developing equity markets.

Even after this year’s appreciation, the Index is still just 10% above its previous high-water mark recorded in January 2018. Frontier markets have fared even worse. The MSCI Frontier Emerging Markets Index (total return) has yet to surpass its most recent pre-pandemic level recorded last January.

Exhibit 24: Emerging Markets Have Been Left Behind

![Graph showing the performance of the MSCI Emerging Markets Index, MSCI Frontier Markets Index, and MSCI World Index from 2008 to 2020.]

Source: MSCI, SEI. All indexes are net, total return. Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

We are hopeful that the rally in emerging-market equities that began in March will continue. Central-bank actions are fostering global liquidity, as we show in Exhibit 25.

Exhibit 25: Strong Support for Emerging Market Debt Even as It Balloons

![Graph showing emerging-market debt (% of GDP) from 2008 to 2020.]

Source: Bank for International Settlements, JP Morgan, SEI.

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Exhibit 26: Emerging Market Currencies Perk Up

Not only has the combined firepower of global central banks prevented a liquidity crisis, it has also driven borrowing costs down to near-record lows even as total emerging-market debt exceeds 200% of GDP. Only two problem debtors had to increase their interest rates in recent months to stem investment outflows. Argentina increased its policy rate by 200 basis points in November; at a current level of 38%, however, it is still well below the 55% that prevailed at the beginning of 2020 and is less than half the rate it was in September 2019. Turkey was forced to drive rates higher this year with a 200 basis-point hike in September, followed by a 475 basis-point jump in November. It is the only major country in the world that sported a higher policy rate at the end of 2020 than at the beginning.

As the world returns to normal, other nations may need to raise rates in order to attract sufficient investment inflows to sustain their fiscal and current-account positions. They include major countries like Brazil, Russia and South Africa. As Exhibit 26 highlights, however, these countries currently are enjoying an appreciating exchange rate against the U.S. dollar. The Chinese renminbi, Indonesian rupiah and Indian rupee have held their own against the dollar in recent years, and were not hit anywhere near as badly as other emerging-market currencies during the March panic. The South African rand and the Mexican peso, meanwhile, have recovered the bulk of their losses since the spring. The rand certainly profited from the rise in the price of gold and other metals. The peso benefited from Mexico’s close economic ties with the U.S. and the bounce-back in its auto manufacturing and cross-border trade. The other countries in the chart (Brazil, Russia and Turkey) continue to see their currencies struggle a bit, but even these exchange rates have been rising against the U.S. dollar since early November.

A weak dollar is an important catalyst for emerging-markets performance. Exhibit 27 tracks the relative performance of the MSCI Emerging Markets Index against the MSCI World benchmark has been in a mostly flat and narrow range. We expect that the coming year will see emerging equities perform better relative to the World Index. One reason for our optimism is the projection that the dollar should continue to weaken. Exhibit 28 is a reminder that the dollar can be subject to long up-and-down cycles that can persist for years. In the current up-cycle, the greenback bottomed in 2011.

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We thought for a while that the U.S trade-weighted exchange rate might have peaked in December 2016, but that proved untrue. As we saw in the previous Exhibit, the dollar’s drop between December 2016 and January 2018 coincided with a big emerging-market rally, both in absolute terms and versus developed countries. The extension of the dollar’s bull market to its March 2020 peak, however, now means that it has climbed by 42% over roughly nine years. The length of this cycle matches that of the previous decline’s duration from 2002 to 2011 and is generally in line with the length of the up-and-down cycles going further back in time. The cumulative increase off the 2011 low, meanwhile, is eerily similar to the previous secular dollar bull market from 1995 to 2002.

If the world economy enjoys a durable cyclical recovery in 2021, the dollar should continue to fall. This will also bolster the rally in commodity prices. Exhibit 29 shows that commodities of all sorts have been rallying sharply since the spring, when the world’s central banks and fiscal authorities came riding to rescue. This is the first time since 2009 to 2011 that metals, raw industrials and foodstuffs have all rallied at the same time. The rebound in Chinese economic activity certainly has been a factor. So has the dollar’s pullback and the Fed’s and other major central banks’ promises to keep policy rates near zero for as long as it takes to get inflation up to a 2% (or higher) rate. And, of course, the expectation of better times to come as vaccines become available is a powerful hope for all investors to latch onto as a new chapter begins in a new year.

What actions are our portfolio managers taking?

Recent market chatter has hinted at the notion of a “Great Rotation” in capital markets, suggesting that investors may have begun to favor value and cyclical sectors over growth names. While we have seen accumulating evidence of this, we believe it is too early to say definitively that this is the beginning of a major secular shift in equity investment themes. But we believe the time for a durable rotation is drawing near. Since September, value style equity indexes have outpaced their growth counterparts to varying degrees across geographies and market capitalizations, most notably within U.S. large caps.

We also have observed several signs of potential normalization. In October, U.S. Treasury yields started to tick up, at least partially owing to markets pricing in a potential Democratic sweep in the November elections, which would be expected to yield a larger fiscal expansion in the coming quarters (the prospect of divided government is being viewed in an optimistic light too). The development of highly-effective COVID-19 vaccines have helped investors shake off worries that the pandemic would last indefinitely. Meanwhile, regulatory developments in both the U.S. and abroad have hinted that the dominance of large technology companies may no longer be as straightforward, long-lasting or profitable as some investors have grown accustomed.

Over the next several years, signs of a value recovery should continue to reveal themselves. Economic activity will likely normalize as COVID-19 abates (via vaccines or herd immunity), while fiscal spending and accommodative central-bank policy should prop up inflation. As the market prices in these developments, “long-duration” growth and expensive high-profitability stocks should be pressured, while momentum investors...
are likely to rotate into new themes, potentially adding more fuel to the value rally.

While leadership in the S&P 500® Index has rotated to the most expensive stocks, the managers in our U.S. large-cap portfolios prefer the less commodity-dependent areas of the value universe (such as health care and consumer staples) and companies with decent franchises and significant profitability. They have avoided economically-sensitive areas of the market.

U.S. small caps performed well in November and December. Lower-quality stocks rallied, while higher-quality stocks lagged. Growth beat value in December. In our portfolios, managers trimmed from stability-oriented names in favor of deeper-value stocks. During the fourth quarter’s so-called “junk” rally, the portfolios’ momentum-oriented managers reduced their significant underweight to value and now are in line with the benchmark.

Within our international equity portfolios, value outperformed modestly in December. Higher-quality stability stocks performed well, and low-volatility stocks lagged. In our view, our momentum-oriented managers will signal whether the “Great Rotation” has become established. Momentum-oriented manager JO Hambo has not rotated its portfolios into reflationary trades; however, our two quantitative momentum managers modestly have added to cyclical stocks within specialty chemicals, retailers and insurance. Some opportunistic profit-taking may be warranted if the portfolios need to raise cash to meet flows as weights of the value-oriented managers increased in November on relative performance. In general, our managers have little exposure to either extreme of the value-growth spectrum (deep-value junk stocks or highly speculative growth stocks).

In emerging-market equities, lower-quality companies have performed well in the last several weeks. China has struggled on valuation grounds and U.S. trade restrictions; however, China A shares (mainland China-based companies that trade domestically on the two Chinese stock exchanges) have eked out decent performance. Our portfolios remain slightly overweight financials. They are also modestly overweight reasonably-priced technology stocks, while avoiding the high-flying, expensive names in the sector. We have seen some rotation into value in Japan, where our portfolios are overweight industrials, machinery, auto components and specialty retail.

With investment-grade bond yields at historic lows, it’s not surprising to hear investors express concerns about their effectiveness in either a strategic portfolio or as standalone investments. Despite low interest rates and attractive equity returns, we believe that investment-grade bonds are an important and relevant tool for investors. We expect them to continue to offer a combination of better returns than cash and genuine diversification benefits relative to equities. In our view, those diversification benefits are particularly notable, since equity risk typically dominates investors’ portfolios. If the economic recovery out of the current pandemic were to falter, we think exposure to bonds could help mitigate harm caused by a drop in stock prices. On the other hand, if economic growth strengthens, we would expect investment-grade bonds to hold their value given the outlook for continued low interest rates as a result of efforts by global central banks to support the economic recovery.

Within our core investment-grade fixed-income portfolios, our managers did not make any material changes to portfolio positioning during the quarter. They do not view inflation as an issue in the near term; however, longer-term pressures are building from deficit financing and supply-chain pressure. The Fed has indicated that any uptick in inflation is likely to be viewed as transient. The portfolios do not have an inflation hedge; although our managers did purchase Treasury inflation-protected securities (TIPS) in the spring, when they were cheap compared to U.S. Treasury securities. However, TIPS exposure has been reduced throughout the year. Allocations to U.S. Treasurys are higher than usual, with an overweight to 30-year Treasurys. Our managers have a preference for higher-yielding securities and hold a favorable view on securitized products (mortgages, credit cards, and auto and student loans). During the quarter, the overweight to corporate bonds was reduced in our portfolios.

Our high-yield managers did not make many changes during the quarter. New issuance continued at a record pace this year at $450 billion. Our portfolios’ underweight to energy remains, and our managers believe low energy prices will continue to pressure companies for some time. We maintain an overweight to CCC rated issues. Collateralized loan obligations remain the largest active weight in our portfolios. Managers continue to monitor new issues and add to positions on valuation grounds.

In our emerging-markets debt portfolios, our managers are willing to continue running risk. There are no markets that are pricing in aggressive policy-rate moves. Duration positioning in our portfolios is broadly in line with that of the benchmark. We have some inflation exposure in Mexico through index-linked Mexican bonds.
Glossary

**Absolute return** is the gain or loss generated by a security or portfolio over a certain period of time.

**Austerity** refers to measures taken by a country’s government in an effort to reduce expenditures and a budget deficit.

A **bull market** refers to a market environment in which prices are generally rising (or are expected to do so) and investor confidence is high.

**Cash flow** is a formula used to measure a company's financial health by calculating the difference between money flowing into and out of a business in a given time.

A **collateralized loan obligation** is a security that is created by pooling together smaller, high-yielding fixed-income assets, such as bank loans. These pools are then packaged into various tranches according to credit quality, maturity or other qualities.

**Cyclical stocks or sectors** are those whose performance is closely tied to the economic environment and business cycle. Managers with a pro-cyclical market view tend to favor stocks that are more sensitive to movements in the broad market and therefore tend to have more volatile performance.

**Duration** is a measure of a security’s price sensitivity to changes in interest rates. Specifically, duration measures the potential change in value of a bond that would result from a 1% change in interest rates. Short duration bonds are less price-sensitive to changes in interest rates.

**Growth stocks** exhibit steady earnings growth above that of the broader market.

**Hawk** refers to a policy advisor that has a negative view of inflation and its economic impact and thus tends to favor higher interest rates.

**Hedging** is an investment technique designed to try to limit potential losses from swings in market value (price changes) of stocks, bonds, commodities or currencies. This is generally achieved by purchasing equally weighted and opposite exposure in two different markets.

**High-yield debt** is rated below investment grade and is considered to be riskier.

The **International Monetary Fund (IMF)** is an organization of 190 countries, working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.

**Issuance** is the sale of securities, typically with regard to debt instruments such as bills, notes and bonds.

**Momentum stocks** are those whose prices are expected to keep moving in the same direction (either up or down) and are not likely to change direction in the short term.

The **price-to-earnings (P/E) ratio** is the ratio for valuing a company that measures its current share price relative to its per-share earnings (EPS).

**Quantitative easing** (QE) is a form of unconventional monetary policy in which a central bank purchases longer-term securities from the open market in order to increase the money supply and encourage lending and investment.

**Securitized debt** consists of a portfolio of assets (such as mortgages or bank loans) that have been grouped together and repackaged as individual securities.

The **yield curve** represents differences in yields across a range of maturities of bonds of the same issuer or credit rating (likelihood of default). A steeper yield curve represents a greater difference between the yields. A flatter curve indicates the yields are closer together.

**Value stocks** are those that are considered to be cheap and are trading for less than they are worth.
Index Definitions

The Consumer Confidence Index is an economic indicator published by The Conference Board to measure consumer confidence, defined as the degree of optimism on the state of the U.S. economy that consumers are expressing through their activities of savings and spending.

The Consumer Price Index measures changes in the price level of a weighted average market basket of consumer goods and services purchased by households. A consumer price index is a statistical estimate constructed using the prices of a sample of representative items whose prices are collected periodically.

The Commodity Research Bureau Raw Industrial Materials Price Index is a measure of price movements of 22 sensitive basic commodities whose markets are presumed to be among the first to be influenced by changes in economic conditions. It serves as one early indication of impending changes in business activity.

The Dow Jones Industrial Average measures the stock performance of 30 large companies listed on stock exchanges in the U.S.

The Federal Reserve Bank of Dallas’ Mobility and Engagement Index measures the deviation from the pre-pandemic mobility behavior of device users recorded during the January/February 2020 period. It summarizes information from seven different variables: fraction of devices leaving home in a day, fraction of devices away from home for three-to-six hours at a fixed location, fraction of devices away from home at a fixed location, an adjusted average of daytime hours spent at home, fraction of devices taking trips longer than 10 miles (16 kilometers), fraction of trips less than 1.2 miles (2 kilometers), average time spent at locations from home.

The Federal Reserve Bank of New York Weekly Economic Index measures ten indicators of real economic activity, scaled to align with the four-quarter gross domestic product growth rate. It represents the common component of series covering consumer behavior, the labor market and production.

The JP Morgan EMBI Global Diversified Index tracks the performance of external debt instruments (including U.S.-dollar-denominated and other external-currency-denominated Brady bonds, loans, eurobonds and local-market instruments) in emerging markets.

The MSCI Emerging Markets Index is a free float-adjusted market-capitalization-weighted index designed to measure the performance of global emerging-market equities.

The MSCI EMU Index covers large- and mid-cap representation across the ten developed-market countries in the European Economic and Monetary Union, representing approximately 85% of the free float-adjusted market capitalization.

The MSCI Europe ex UK Index is a free float-adjusted market-capitalization-weighted index designed to measure the performance of large- and mid-capitalization stocks across developed-market countries in Europe, excluding the U.K.

The MSCI Frontier Emerging Markets (FEM) Index captures large- and mid-cap representation across 34 frontier and emerging-markets countries. The Index covers about 85% of the free float-adjusted market capitalization in each country.

The MSCI United Kingdom Index is a free float-adjusted market-capitalization-weighted index designed to measure the performance of large- and mid-capitalization stocks in the U.K.

The MSCI USA Index measures the performance of the large- and mid-cap segments of the U.S. market. The Index covers approximately 85% of the free float-adjusted market capitalization in the U.S.

The MSCI World Index is a free float-adjusted market-capitalization-weighted index that is designed to measure the equity-market performance of developed markets. The Index consists of 24 developed-market country indexes.

The Personal Consumption Expenditures Price Index is the component statistic for consumption in gross domestic product collected by the United States Bureau of Economic Analysis. It consists of the actual and imputed expenditures of households and includes data pertaining to durable and non-durable goods and services.
The **IHS Markit Purchasing Managers' Index (PMI)** is an indicator of economic health for manufacturing and service sectors. Its purpose is to provide information about current business conditions to company decision makers, analysts and purchasing managers.

The **Personal Consumption Expenditures (PCE) Price Index** is the primary inflation index used by the Federal Reserve when making monetary policy decisions.

The **PMI Construction Index** measures the activity level of purchasing managers in the construction industry. A reading above 50 indicates expansion in the construction industry; a reading below 50 indicates contraction.

The **PMI Manufacturing Index** is a monthly indicator of U.S. economic activity based on a survey of purchasing managers at more than 300 manufacturing firms. It is considered to be a key indicator of the state of the U.S. economy.

The **PMI Services Index** is based on monthly questionnaire surveys collected from over 400 U.S. companies which provide a leading indication of what is happening in the private sector services economy.

The **Russell 1000® Index** includes 1,000 of the largest U.S. stocks based on market cap and current index membership; it is used to measure the activity of the U.S. large-cap equity market.

The **Russell 2000® Index** includes 2,000 small-cap U.S. stocks and is used to measure the activity of the U.S. small-cap equity market.

The **S&P 500® Index** is an unmanaged, market-weighted index that consists of 500 of the largest publicly-traded U.S. companies and is considered representative of the broad U.S. stock market.

The **S&P 500® Financials Index** comprises those companies included in the S&P 500® that are classified as members of the GICS® financials sector.

The **S&P 500® Growth Index** is a measure of U.S. growth stocks using three factors: sales growth, the ratio of earnings change to price, and momentum.

The **S&P 500® Information Technology Index** comprises those companies included in the S&P 500® that are classified as members of the GICS® information technology sector.

The **S&P 500® Momentum Index** solely comprises constituents with high risk-adjusted price return momentum scores. The objective is to provide exposure to the momentum factor (the tendency of investments to exhibit persistence in their relative performance) in various markets using a rule-based methodology.

The **S&P 500® Value Index** measures U.S. value stocks using three factors: the ratios of book value, earnings, and sales to price.

The **S&P 500® Quality Index** is designed to track high-quality stocks in the S&P 500® Index by quality score, which is calculated based on return on equity, accruals ratio and financial leverage ratio.

The **ICE U.S. Dollar Index®** is a measure of the value of the U.S. dollar relative to a basket of foreign currencies, often referred to as a basket of U.S. trade partners’ currencies. The Index goes up when the U.S. dollar gains strength when compared to other currencies.
Important Information

This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice, nor should it be construed as a recommendation to purchase or sell a security, including futures contracts.

There are risks involved with investing, including loss of principal. Diversification does not ensure a profit or guarantee against a loss. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from economic or political instability in other nations. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume.

Narrowly-focused investments and smaller companies typically exhibit higher volatility. Bonds and bond funds will decrease in value as interest rates rise. High-yield bonds involve greater risks of default or downgrade and are more volatile than investment-grade securities, due to the speculative nature of their investments.

Past performance does not guarantee future results. Index returns are for illustrative purposes only and do not represent actual portfolio performance. Index returns do not reflect any management fees, transaction costs or expenses. One cannot invest directly in an index.

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