

# Economic Outlook

Fourth Quarter 2019

## Our Outlook for 2020: No Boom, No Bust, No Bear

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

- U.S. and global economic growth will likely continue in 2020, albeit at a rather sluggish pace.
- This should support further gains in stocks and other higher-risk assets, perhaps with a total return for U.S. equities in the mid-to-upper single-digit range.
- Given low interest rates and rising stock valuations in the U.S., another year of double-digit returns for U.S. equities in 2020 would be a source of concern rather than celebration.

What a difference a year can make! Exactly one year ago, investors were licking their wounds following a sharp stock-market correction. The 2018 fourth-quarter decline featured a near-20% price drop in the S&P 500 Index that left most risk-oriented assets down for the year. In fact, small-capitalization equities and many stock markets outside the U.S. posted double-digit losses for the year. Although fixed-income assets displayed superior performance on a relative basis, their absolute total-return performance was quite disappointing—many broad bond categories declined in 2018.

In the midst of all this gloom, we believed that a strong rebound in equity prices was imminent. We noted for example, that valuations for the S&P 500 Index (as measured by the forward 12-month price/earnings ratio) had collapsed from a high of almost 19 times to an attractive level of 14 times. We also pointed out that bond yields in the U.S. and elsewhere were likely to remain near historical lows, and would force investors to reinvest in equities since fixed-income instruments would likely not provide comparable risk-adjusted returns. With our expectation that the economy would continue to grow, we saw little risk of a collapse in corporate profits. Last but not least, the sheer ferocity of the correction at the end of 2018 left the market extremely oversold. The odds favored a quick recovery in equity prices.

Exhibit 1 is a recreation of a table we included in our final quarterly Economic Outlook for 2018. It measures the subsequent percentage change in the S&P 500 Index (price only) over periods of 6 and 12 months from the few historical times when more than 90% of the stocks in the index had fallen below their 200-day moving averages. Prior to the one in December 2018, there were five such episodes over the course of more than 30 years. The median price-only advance from these prior episodes worked out to 14.0% over six months and 24.3% over one year. As for the half- and

full-year periods that followed the 2018 episode, our bullish expectations were not disappointed: After the S&P 500 Index (price only) first breached that 90% threshold on Christmas Eve 2018, it soared 28.3% over the subsequent six months and 37.1% over the full year ending Christmas Eve 2019.

### Exhibit 1: Once More Unto the Breach Rode the 500

Date of 90% Threshold Breach	S&P 500 Index Price Change 6 Months Later (%)	S&P 500 Index Price Change 12 Months Later (%)
10/19/1987	14.0	24.3
8/23/1990	18.2	28.4
7/19/2002	3.6	16.6
10/31/2008	-13.8	7.0
8/8/2011	20.8	25.3
<b>Average % Change</b>	8.6	20.3
<b>Median % Change</b>	14.0	24.3
12/24/2018	28.3	37.1

Source: Ned Davis Research, SEI

Average and median calculated for 10/19/1987-8/8/2011 data points. Data as of 12/31/2019

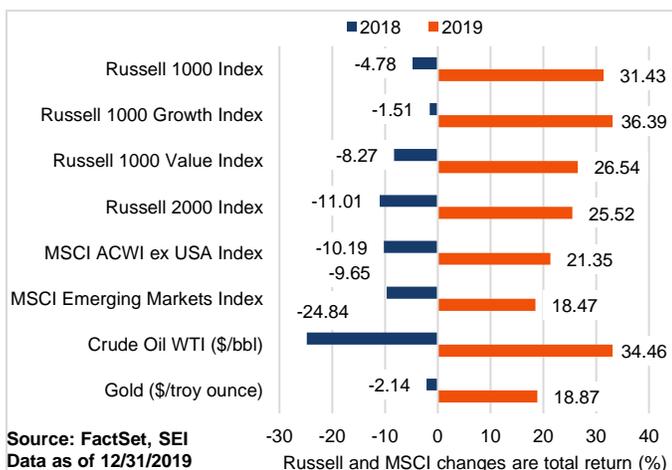
Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

Exhibits 2 and 3 provide a selection of stock, fixed-income and commodity indexes and their performance for the past two calendar years. In equities, the Russell 1000 Index (total return) climbed 31.4% in 2019 versus a decline of 4.8% in 2018. Although we were appropriately bullish on equities as a broad asset class, we have been surprised by the continuing strength of the Russell 1000 Growth Index (total return). It outperformed the Russell 1000 Value Index (total return) by nearly 10 percentage points in 2019, an advantage that actually eclipsed the large differential in the previous year that favored growth stocks.

Small-cap stocks, as measured by the Russell 2000 Index, had a good year in 2019 (with a total return of 25.5%) but still lagged their larger brethren (Russell 1000 Index) just as they did the year before. International stocks also lagged the U.S. once again by a rather wide margin. Although the U.S. dollar's appreciation was a factor in depressing returns, it was less of a detractor in 2019 than in 2018. Emerging markets, meanwhile, were clearly a laggard in the performance derby. The MSCI Emerging Markets Index (net, total return) gained only 18.5% in 2019, a far worse relative performance versus the U.S. than in 2018, when emerging markets fell 9.7%. Our optimistic outlook for emerging-market equities at the start of the year was not a good call. We did not think U.S.-China trade tensions would ratchet up as much as they did. In addition, we were too optimistic in our belief that China would convincingly pull out of its growth slowdown. Finally, we expected a weaker U.S. dollar to act as a tailwind for emerging-market equity performance—but the currency fared better than anticipated (although it has weakened in recent months on a broad trade-weighted basis).

Among commodities, crude oil prices made up for 2018's steep losses with a gain of 34.5% in 2019. All of the positive performance was achieved early in the year. From May on, crude oil became a victim of the U.S.-China tariff war and the general sluggishness in global economic growth. Even the bombing of Saudi Arabia's biggest refinery failed to shake crude oil out of its lethargy. As we enter 2020, traders are still skeptical that demand for petroleum will outpace supply. Among other commodities, gold advanced 18.9% in 2019. It was also one of the better performers in 2018, dropping by less than all but one of the asset classes illustrated in Exhibit 2. Negative inflation-adjusted interest rates have dramatically cut the opportunity cost of holding gold as a hedge against financial assets since the global financial crisis.

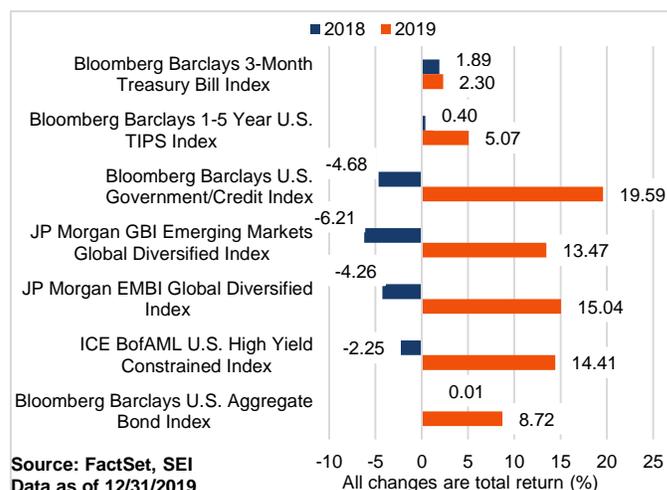
### Exhibit 2: Risk Assets Went Boom



MSCI indexes are net return. 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.

Turning to the bond market, most of the asset class had a decent 2019 (as shown in Exhibit 3). The Bloomberg Barclays U.S. Government/Credit Bond Index (total return) surged 19.6%. The Bloomberg Barclays U.S. Aggregate Bond Index (total return), which includes securities that are rated as investment-grade quality or better and have at least one year to maturity, gained 8.7%. Meanwhile, the riskier end of the bond-market spectrum—high-yield (ICE BofAML U.S. High Yield Constrained Index) and emerging-market debt (JP Morgan GBI Emerging Markets Global Diversified Index)—posted total returns in the mid-teens. While these returns are somewhat higher than we penciled in at the start of last year, we were not overly bearish on the U.S. or global bond fixed-income markets. We expected inflation to remain mostly under control, especially in Europe and Japan where monetary-policy easing has failed to reignite growth.

### Exhibit 3: Bonds Unchained



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.

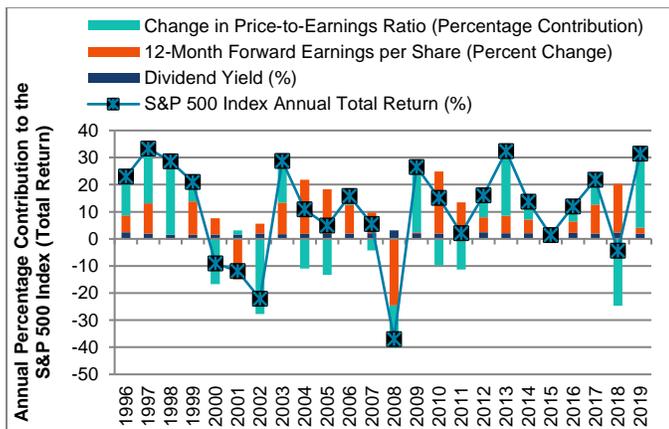
Investors obviously are confronted with a notably different market backdrop today compared to that of a year ago, especially in the U.S. Instead of a sharp correction resulting in cheap valuations, share prices generally ended 2019 near their highs of the year. To be clear, we do not consider equity earnings multiples at 18.2 times on the S&P 500 Index as particularly worrisome—yet. The U.S. economy is still growing, interest rates remain low and government economic policies, both fiscal and monetary, have a pro-cyclical bias. Still, we can't deny that large-cap U.S. equities are significantly more expensive today than they were at the end of last year.

Exhibit 4 breaks down the year-over-year total return of the S&P 500 Index into its three component parts—the annual dividend yield; the change in earnings per share

(EPS), using consensus one-year forward estimates; and the contribution to return provided by the change in the price-to-earnings (P/E) ratio. The S&P 500 Index had its second-best calendar year of this bull market, posting a total return of 31.5%. Only 2013 was bigger, at 32.4%.

Over the past year, the change in forward earnings per share provided a negligible contribution to S&P 500 Index performance, amounting to only 2.2 percentage points. The change in the P/E ratio, however, added more than 27 percentage points to its total return (a dividend yield of 1.9% rounded out the total). By contrast, a contracting earnings multiple detracted from S&P 500 Index in 2018 to the tune of 24.7 percentage points. This huge hit was only partially mitigated by the strong gain in earnings that year, which totaled 18.0% as a result of the U.S. corporate tax reforms enacted at the end of 2017.

**Exhibit 4: The Stock Market’s Multiple Personalities**



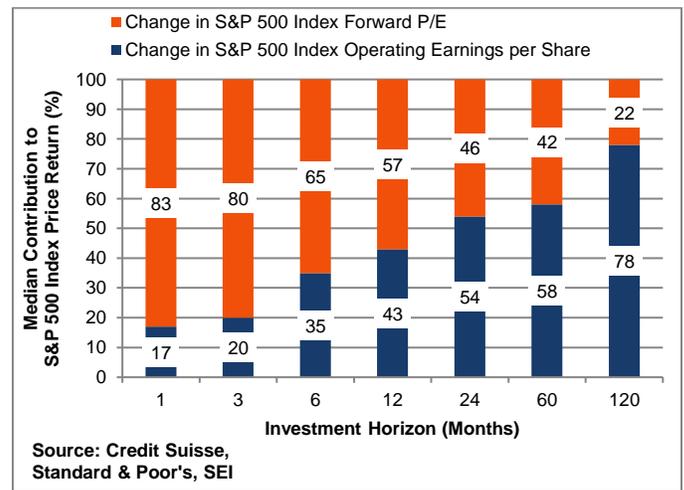
Source: Standard & Poor’s, SEI  
Data as of 12/31/2019

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.

It should be no surprise that the expansions and contractions of the earnings multiple generally account for the bulk of the change in stock prices over a year’s time. However, over longer time horizons, these gyrations tend to offset. Fundamentals, as measured by the growth in profits, have been the long-term driver of equity prices. As one way to illustrate this point, the chart in Exhibit 5 highlights the relative contribution from earnings growth versus the change in the S&P 500 Index forward price-to-earnings ratio, measured over periods ranging from one month to 120 months. Over time frames as long as a year, changes in the earnings multiple tend to dominate earnings as the primary driver of stock prices. Over one- and three-month periods, 80% or more of the price change comes from changes in the forward P/E ratio. For 12-month periods, changes in the forward price-to-earnings ratio still account for more than

half the change in the S&P 500 Index (price only). When the time horizon is extended two years and beyond, it is the earnings component that accounts for the largest share of the change in stock prices. Over a 10-year time frame, the change in earnings is historically responsible for three-quarters of the change in the S&P 500 Index in price-only terms.

**Exhibit 5: Where Does the Time Go?**



Source: Credit Suisse, Standard & Poor’s, SEI

Equities and other risky assets are generally not well-correlated with the fundamentals in the short run; investors’ expectations can alter much more rapidly and far more dramatically than the fundamentals. As seen in the past two years, changes in investor expectations can sometimes completely negate a change in the fundamentals.

With that in mind, we take stock of the economic and financial developments around the globe and provide our thoughts on where global growth and interest rates are headed. That’s the easy part, as the experience of the last few years illustrates. The much harder exercise is almost always figuring out how investors might react to the shifts in macroeconomic conditions.

**The U.S. outlook: Slow but steady wins the race**

Last year at this time, we expected U.S. economic growth, as measured by inflation-adjusted gross domestic product (GDP), to decelerate to a 2.5% annual pace by the end of this year. This turned out to be mildly optimistic: The growth rate appears on track to gain an average of about 2.2% over the one-year period, decelerating by more than anticipated. Judging from the ongoing decline in the Conference Board’s Composite Index of Leading Economic Indicators (LEI), as seen in Exhibit 6, the U.S. economy could continue to slow in the near-term, perhaps posting a year-over-year gain of 1.5% or less before reaccelerating toward midyear. Looking ahead three months, the LEI change for the 12-month period ending February 2020 is just about at the zero line (the right axis). Since returning to expansion

territory following the 2008 recession, the LEI growth rate fell to zero in 2016 and came close in 2013. Those periods corresponded to growth rates in inflation-adjusted GDP that reached respective lows of approximately 1% and 1.5%.

**Exhibit 6: Looking at What LEIs Ahead**

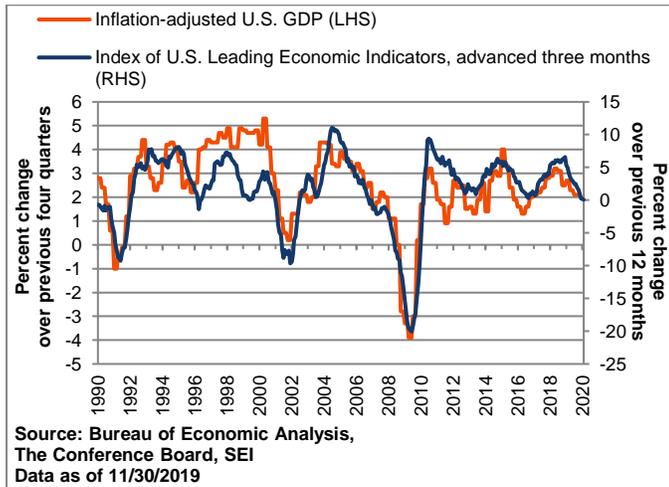


Exhibit 7 breaks down the quarterly changes in U.S. real (inflation-adjusted) GDP by the contribution of its broad component parts: personal consumption expenditures; residential and nonresidential investment; net exports (exports minus imports); inventory swings; and total government expenditures on consumption and investment. There are a few things worth pointing out. First, the quarter-to-quarter fluctuations in overall GDP (seasonally-adjusted) have been held to a relatively narrow range of 2.0% to 3.5% since 2016, with one exception in 2018. Historically, the quarterly changes in GDP have been far more volatile. From the beginning of the current expansion in July 2009 through the end of 2015, quarter-to-quarter annualized returns were mostly between a 1.0% loss and a 5.0% gain. One reason for the lower volatility is household spending. Household consumption accounts for 70% of GDP, so it should be no surprise that its incremental contribution to GDP is large. (Over the past six years, it has consistently been the largest contributor to growth.)

By contrast, the contribution to real U.S. GDP growth from investment, both residential and nonresidential, has been in a slowing trend, notwithstanding near-record-low credit-borrowing costs. The pace of business spending has eased dramatically since early 2018. We view the main culprits behind the slowdown as the unwinding of the upfront stimulus provided by the 2017 tax-reform measures, the general sluggishness in global growth, and the uncertainty engendered by tariff wars with China and other countries. On the positive side, the absence of an investment boom means there should be no hangover. Even if a recession were to develop in the next year or so (which we think has only a 10%-to-15% chance of happening), we believe it almost certainly will

not be as painful as the housing bust that began in 2006 or the tech bust of 2000.

**Exhibit 7: Consumption Makes the Economy Go 'Round**

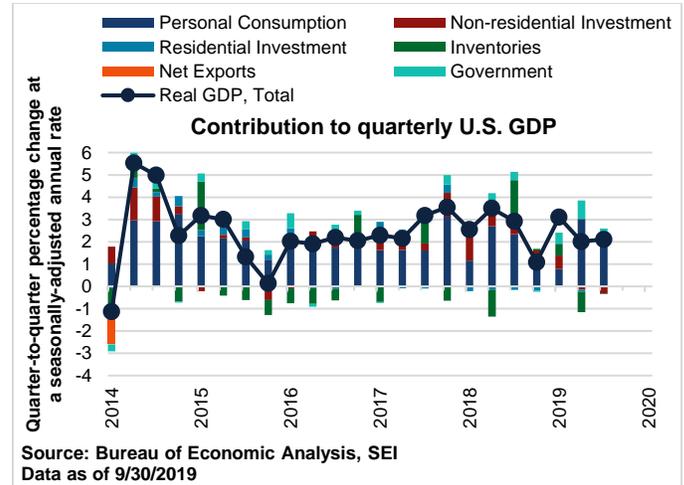
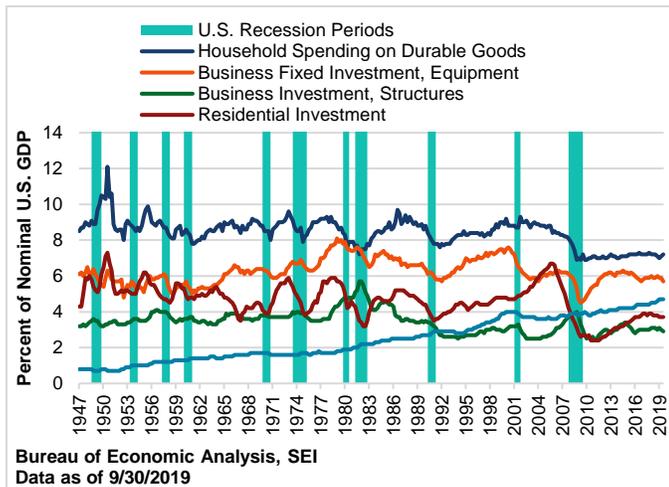


Exhibit 8 tracks spending on consumer durables, housing and business investment as a percent of U.S. GDP. These are sectors of the economy that tend to be highly cyclical and account for much of the variability of business activity. These components have become a smaller portion of the overall economy since the global financial crisis. The spending behavior of households is especially striking. Personal-consumption expenditures on durable goods as a percentage of GDP has not rebounded from the low levels to which they fell in 2008. Spending on long-lived goods like cars and furniture currently amounts to only 7.2% of GDP; during a typical recovery, one might expect this figure to be closer to 9.0%. In similar fashion, residential investment plunged from a 55-year high share of 6.7% in 2005 to a low of only 2.4% by 2010. Although there has been a modest recovery, it has been more tepid and drawn out compared to the typical housing cycle. The unique characteristics of this cycle reflect a combination of demographics, the searing experience of the home-price debacle, and shifting consumer preferences toward services. The aging of baby boomers combined with the different spending priorities displayed by millennials (for example, a preference to rent apartments in urban areas as opposed to buying homes in the suburbs) suggest that the break from historical consumption patterns will not be reversed anytime soon.

Looking at investment, similar patterns prevail. Capital spending on equipment as a percent of GDP has been on a declining trend since the tech bubble burst in 2000. It hit a post-World War II low of 4.5% in 2009. And while it did recover in 2014 with a high of 6.3% of GDP, equipment expenditures were no higher that year than at previous cyclical low points going back to the mid-1960s. Spending on structures shows a similar pattern. Only investment in intellectual property, including research

and development and software, has made steady gains in its share of economic output. Disruption caused by technological change, the shrinkage of the country's manufacturing base and a more disciplined focus by companies on profit margins and cash-flow generation are factors behind these trends. The end result economically is slower growth and less cyclicity. While there are fierce debates regarding whether this is an optimal outcome for society, it helps explain why the current economic expansion shows only a few signs of being in the latter stage of its cycle.

### Exhibit 8: A Shortage of Spending on Long-Lived Goods



### The Fed should take it easy

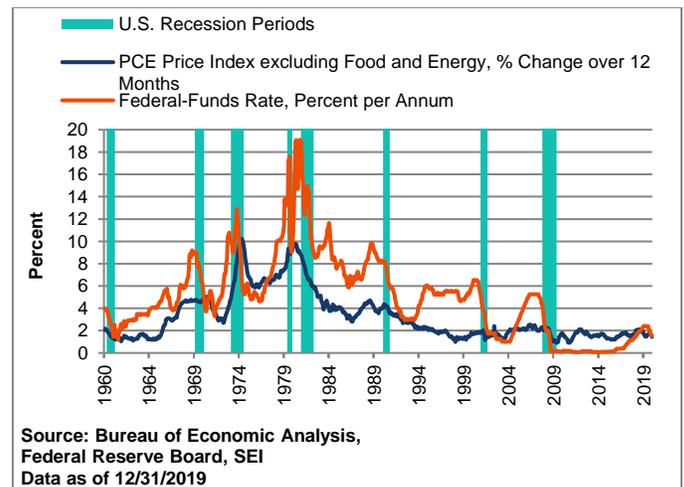
As we mentioned above, one of the big economic developments of 2019 was the pivot by the U.S. Federal Reserve (Fed) from normalizing monetary policy (raising the federal-funds rate from zero and ending quantitative easing) back to a more dovish approach. As highlighted in Exhibit 9, the Fed normally does not begin to cut rates until a recession is imminent. There are a few exceptions, however. For instance, the federal-funds rate fell sharply from October 1984 to December 1986 even though the unemployment rate was continuing to decline. Why? The U.S. inflation rate was moving dramatically lower during this period. The Fed's preferred measure of inflation (the price index for core personal-consumption expenditures, which excludes food and energy, produced by the Department of Commerce) peaked in November 1980 at 9.8%. It then collapsed during the severe recession of 1981 to 1982, and continued to fall all the way down to 2.8% year over year by March 1987. When inflation began to speed up again in 1987, the Fed reversed course and embarked on a significant tightening of monetary policy that ended about a year ahead of the next recession.

Interest-rate policy during the 1990s offers a second example of a mid-cycle pivot toward lower rates. Following a steep decline in the federal-funds rate

between June 1989 and October 1992, the Fed raised the policy rate sharply, from 3% to 6% over a span of just 18 months. However, inflation was still on a downward track at the time. The central bank pivoted toward easing in July 1995, when signs began to emerge that the economy was slowing, and gradually cut the funds rate over the next three and a half years.

The current pivot has some unique aspects. First, it's occurring at a time when the unemployment rate is at 3.5%, a 50-year low—and well under what the Fed itself estimates as the level that tends to cause wages and inflation to accelerate. By comparison, the unemployment was still above 7% when the central bank began to ease rates in 1984 and just below 6% at the start of its next round of cuts in 1995. The inflation backdrop also is different today. The price index for core personal consumption expenditures (PCE) has mostly held in a 1.25%-to-2% range, instead of continuing to fall in significant fashion as in the earlier episodes. The latest reading over the past 12 months was 1.4%, below the central bank's inflation target of 2% but not showing any tendency to push below its multi-year range.

### Exhibit 9: The Fed Won't Fight Inflation Until It Has No Choice

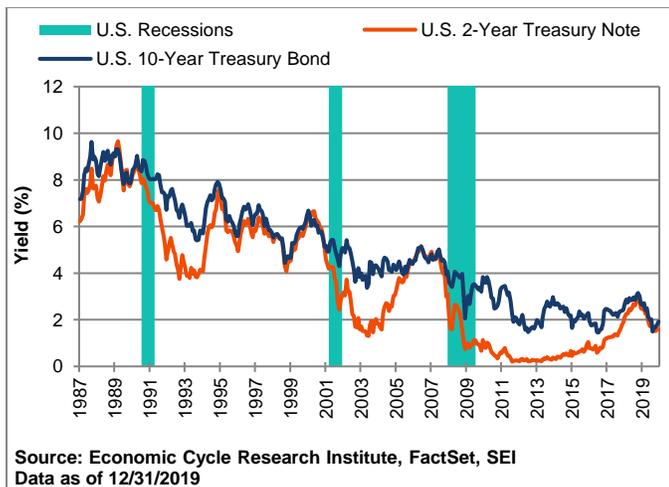


At SEI, we believe the Fed has adopted an asymmetric monetary policy that is skewed toward easing. If the economy exhibits unexpected weakness, or inflation posts surprisingly low readings, the central bank will probably cut the federal-funds rate one or more times in the year ahead. To repeat, surprising economic weakness is not our base scenario. Modest growth, with a tendency to accelerate a bit by mid-year appears to be the more likely outcome. On the other hand, Fed Chairman Jerome Powell and his colleagues are expected to sit on their hands through 2020 if the economy is stronger than forecast and the core inflation rate accelerates above their 2% target. This should be good news for investors in risk assets, since it means that the Fed will likely keep the punch bowl filled to the brim even if the party gets a little bit wilder. Of course,

such a policy course eventually could lead to the kind of financial excesses that trigger the next bear market. This is a risk that should not be ruled out, although we doubt it would materialize as early as 2020.

If short-term rates are more or less pegged at current levels and inflation remains reasonably contained, it is hard to see bond yields dramatically moving to the upside. Of course, a little bit of humility is required when it comes to predicting bond rates. Last year's sharp decline was largely unexpected, particularly for U.S. Treasury bonds at the longer end of the yield curve. According to a survey published in mid-December by the National Association for Business Economics (NABE), the median prediction for the 10-year U.S. Treasury bond yield at the end of 2020 is 2.05%, not too far away from its current yield (ended December 31, 2019) of 1.92%. Last year at this time, economists responding to the NABE survey expected the 10-year bond yield to be 3.50% at the close of 2019 (a huge miss by anyone's standard). Exhibit 10 tracks 2-year and 10-year Treasury bond yields since 1987. The collapse in rates since late 2018 was highly unusual, bringing the 10-year bond yield back toward the bottom of its 7-year range. The 2-year note fell nearly as much. At SEI, we look for the 10-year Treasury bond yield to move higher from here; although most of our managers do not expect an increase much beyond 2.25%. Shorter-term yields appear likely to stay near current levels, implying some widening of the yield curve in the year ahead.

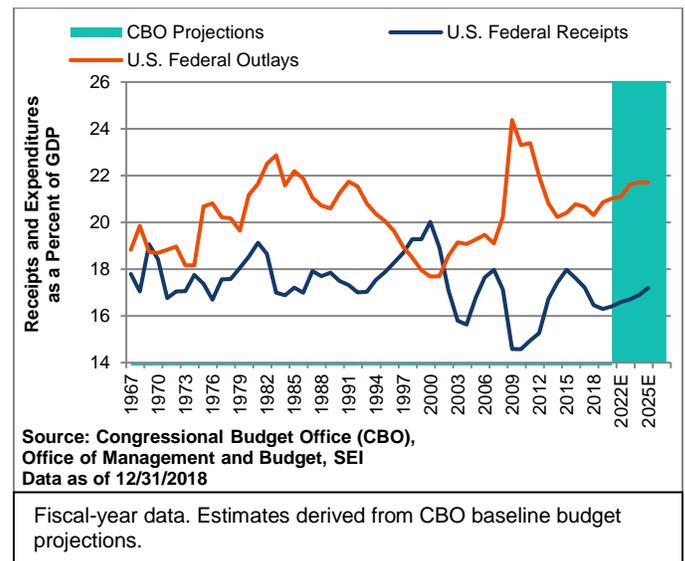
**Exhibit 10: Yields Yielded in 2019**



U.S. fiscal policy also appears locked in a pro-cyclical stance. As Exhibit 11 highlights, government spending is set to advance from 20% of GDP in 2018 to nearly 22% by 2024. Mandatory federal programs like Social Security and Medicare are expected to drive this advance as the baby-boomer generation continues to age and retire from work. Although revenues are

projected to rebound over the five-year time frame, the gains do not match those on the expenditure side. The Congressional Budget Office (CBO) expects this to lead to a widening of the federal budget deficit from 3.8% of GDP in 2019, to 4.5% in 2020, and to a high of about 4.8% by 2024. Keep in mind that these budget estimates assume steady economic growth in the 2% range. If instead a recession were to occur, anti-cyclical stabilizers would likely kick in (sharply falling revenues/increased spending on income support programs).

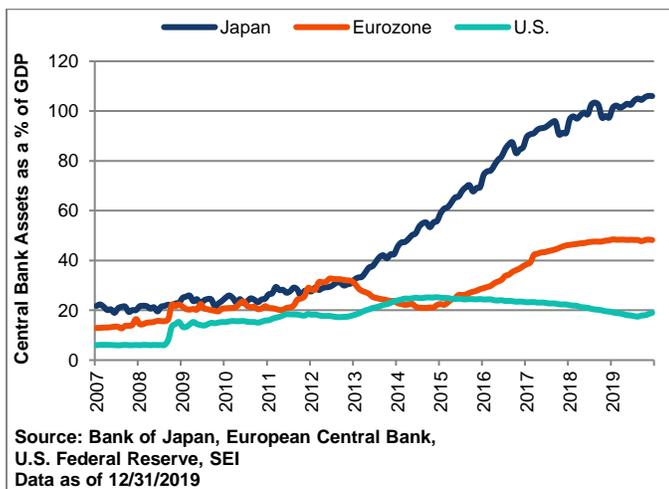
**Exhibit 11: Deficits are a Way of Life for the U.S.**



Investors often ask when we expect these large annual government fiscal deficits will come home to roost. We find it impossible to say. The chart in Exhibit 11 shows that large deficits are a fact of life going back decades. With interest rates still bouncing near historically low levels, debt fears don't seem to be crowding out the private sector or worrying bond-market participants. And the Fed probably can be counted on to increase its purchases of securities if market conditions deteriorate.

Exhibit 12 measures the huge balance-sheet increases of three central banks stemming from their respective quantitative-easing programs. Relative to the size of their economies, both the Bank of Japan and the European Central Bank (ECB) have been far more aggressive than the Fed in using this non-traditional monetary tool.

## Exhibit 12: Hey, Buddy – Can You Spare a T-Bill?



The Fed, however, is battling a liquidity shortage that led to volatility in the overnight loan market back in September 2019. The central bank addressed this by initiating monthly purchases of at least \$60 billion in short-term Treasury bills that began in October 2019 and are set to go into the second quarter of 2020—expanding its balance sheet by an additional \$350 billion to \$500 billion. At the current purchasing rate of about \$60 billion per month, the Fed could own about 20% of the Treasury debt market by the middle of 2020 versus the 1% it owned before the monthly bond buying began. In effect, the Fed’s asset purchases will likely soak up much of the Treasury’s debt issuance over this period. The central bank claims this is not quantitative easing designed to bolster bond prices—that it is actually a way to support the market for overnight interbank lending—but it surely will look like quantitative easing in terms of impact if the program remains in place beyond the first or second quarter.

Modest economic growth, a steady inflation rate and a still-accommodative Fed would seem to be a recipe for further gains in stocks and other risk assets. No one expects a repeat of 2019, but a total return in U.S. equities in the mid-to-upper single-digit range seems to be a plausible outcome. That said, there are two concerns we have a hard time ignoring—valuations and the deceleration of earnings growth. The current price-to-forward earnings ratio for the S&P 500 Index is at 18.2 times, nearly the highest valuation recorded at any point during this long bull market. Unfortunately, this inflated valuation coincides with a flattening out of the earnings trend. However, we think it would be wrong to get too cautious at this point since we believe there is still no recession in sight. Based on a current price-to-earnings ratio of 18.2, further expansion in the price-to-earnings ratio of just one multiple point would imply a 5.5% rise in the S&P 500 Index (price only), even in the absence of profits growth. If EPS post a low single-digit gain as in 2019, we believe a total return of

7% (a historically normal result) can be achieved if there is a further modest expansion in the stock multiple towards the 19 times level. With this in mind, we’re bullish but not ebullient.

SEI’s active large-cap strategies are positioned similarly to last year, with an emphasis on higher quality cyclical value. The strategies have also maintained an underweight to the most expensive quintile of the large-cap universe. As a result, financials and banks are the largest sector and industry overweights. Information technology is the largest underweight on valuation and growth-sustainability concerns. We also are underweight commercial services, which include the interactive media industry and the services and entertainment industry. Mega-cap stocks remain underweight and value continues to be favored over growth.

Our small-cap portfolios are more cautious about the outlook owing to valuation concerns. The price-to-forward earnings on small-cap stocks have been around a value of 23 times, a figure greater than about two-thirds of its historical readings. Last December, the same measure was at only 15 times. Also, nearly 40% of the Russell 2000 Index comprises companies without earnings; a percentage that high is usually not seen outside of recessionary periods. Accordingly, our portfolios are overweight to value and quality. Quality exposure should lower the market sensitivity. Within the small-cap space, we maintain a tilt toward larger companies. This positioning is likely to fare well in an environment of range-bound trading, but would be expected to lag if the Russell 2000 Index posts a strong gain.

Our core fixed-income portfolios engaged in risk reduction during the fourth quarter, pruning securities that were judged to be overvalued and adding to securities where conviction is higher. Based on the belief that we are in the late stage of the economic cycle, our holdings were reduced in capital goods, energy, health care and pharmaceuticals. Duration is neutral-to-slightly long. We expect to see more opportunities in the securitized sectors of the bond market. While student loans remain the largest overweight, that position was trimmed with the balance going to agency mortgage-backed securities. In anticipation of another cut in interest rates, the portfolios were overweight on the front end of the yield curve.

As noted earlier, the high-yield market had an excellent year, with the ICE BofAML U.S. High Yield Constrained Index up 14% as of December 31, 2019. BB rated securities led the way, while CCC rated securities lagged. This is unusual, as CCCs typically lead the market in years of strong high-yield bond performance. At 5.35%, the ICE BofAML U.S. High Yield Constrained Index’s yield (as of December 31, 2019) was at its lowest point since September 2014. Our high-yield portfolio positioning themes did not change in the

quarter. Duration remained shorter than the benchmark. The credit quality was roughly in line with the benchmark. We were overweight B and CCC rated securities. Excluding cash, we maintained a bank-loan exposure equivalent to 10% of the portfolio and a structured-credit weighting of 9%, an off-benchmark allocation.

**The U.K. outlook: Brexit’s in the bag. Now comes the hard part.**

U.K. Prime Minister Boris Johnson’s snap election paid off. He now enjoys the largest Tory majority in Parliament since 1987, when Margaret Thatcher was re-elected Prime Minister for a third term. Just as important, the Conservatives in Parliament are (at the moment) as strongly unified as they have ever been because Johnson pushed dissenting Conservative members of Parliament out after they voted down his proposed Brexit timetable in October. None of the dissenters who ran as independents or with one of the other parties won reelection.

To be sure, more than Brexit was at stake in December’s election. The Labour Party’s radical economic plans and general dislike of its own party leader, Jeremy Corbyn, even among traditional Labour supporters, led to the main opposition party’s worst result since 1935. But Labour’s pains do not diminish the fact that the election gave Johnson a clear mandate to take Britain out of the EU. Parliament officially will soon approve the Brexit legislation and the January 31 departure date. This time last year, we thought it unlikely that the U.K. would leave the EU without a deal and expected a delay past the original March 2019 deadline. However, we also thought there was a good chance that the country would be forced into a second referendum. In any event, former Prime Minister Teresa May’s downfall was less surprising than to us than Boris Johnson’s rise.

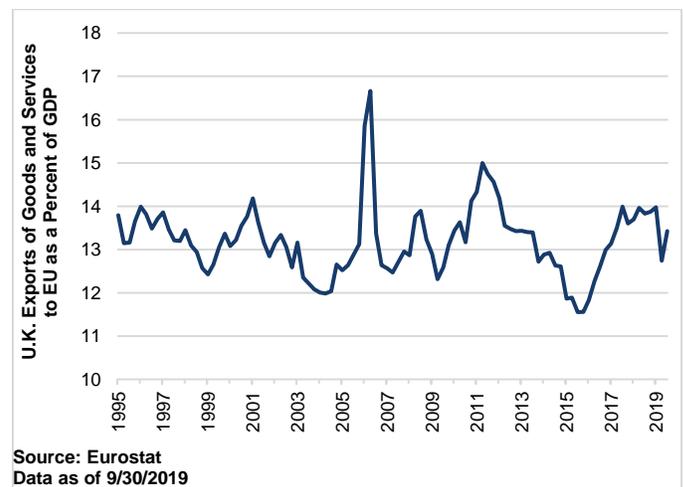
On the positive side, the Conservative Party’s victory eliminated the possibility of a dramatic remaking of the British economy as envisioned by Corbyn and Shadow Chancellor of the Exchequer John McDonnell. The election also eliminated the possibility of a hung Parliament, which could have prolonged the uncertainty surrounding Brexit. Of course, Brexit-related uncertainty still remains because the U.K. now needs to negotiate its future trading relationship with the EU. Nothing between them will change economically on February 1, 2020, the day after the official divorce. Everything conceivably can change on January 1, 2021, when the transition period is set to expire.

As we have noted in the past, a no-deal Brexit would provide a substantial negative shock to merchandise trade because dealings with the EU would revert to the most-favored-nation rule of the World Trade Organization (WTO). It’s estimated that U.K. import prices would increase by more than 4% on average.

Autos would face a 10% tariff, with car parts subject to a rate of just under 3.7%. Many plastic goods would be hit with a 6.5% tariff. Some agricultural products imported from the EU would be subject to a tariff in excess of 20%. Monitors and televisions would be hit with a 14% rate. In addition to the tariff increases, a hard Brexit would likely cause massive border delays. This would be damaging to trade in perishable products, and could severely disrupt manufacturers’ supply chains and “just-in-time” production processes.

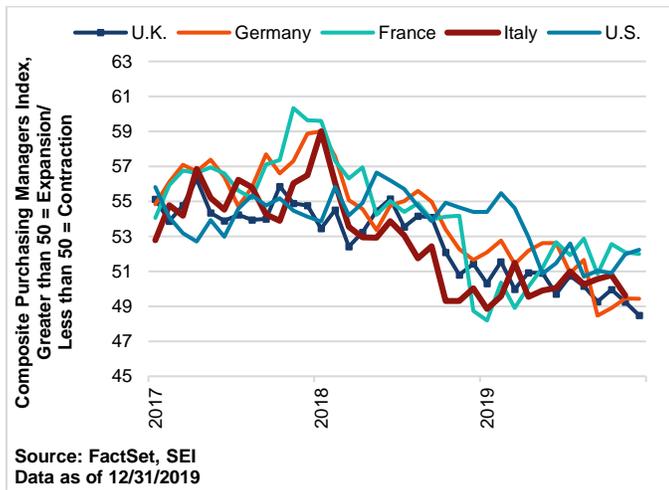
Trade in financial services, a category not well-addressed by WTO rules but critical to the U.K.’s economic wellbeing, would be saddled with increased regulations, paperwork and costs. It continues to be our working assumption that a no-deal Brexit will be avoided, although it might take an extension of the transition period to effect a deal that minimizes the disruption. However, Johnson has already announced his intention to exit the transition period at the December 31 deadline. As Exhibit 13 highlights, the U.K.’s exports to the EU usually is in the range of 12% to 14% of GDP. In all, some 45% of all U.K exports go to the EU, with services accounting for 41% of that total. By contrast, the U.S. accounts for only 13% of the U.K.’s total exports of goods and services.

**Exhibit 13: Exports to the EU—Withering Heights?**



Three-plus years of Brexit uncertainty has had the impact of depressing investment and increasing economic volatility in the U.K. economy. Measured through the end of September, real GDP in the U.K. has increased by less than 1% on a year-over-year basis. That performance lags the U.S. (2.1%), Japan (1.9%), Canada (1.7%) and the eurozone (1.2); although Germany (0.5%) and Italy (0.3%) fared even worse over this period. More recent data (tracked in Exhibit 14)—such as the purchasing managers’ composite indexes, including manufacturing and services—suggest the deterioration in U.K. economic activity continued into the end of the year.

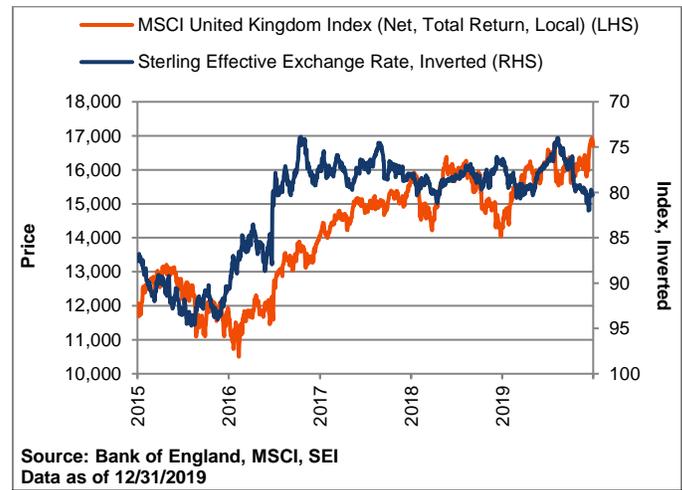
**Exhibit 14: The Unhappiest Purchasing Managers are in the U.K.**



Although the Tory victory in December led to a rise in equity prices, the MSCI United Kingdom Index (net, total return) has struggled for more than two years (Exhibit 15). The long-running Brexit saga and the uncertainties surrounding the U.K. election were the main headwinds; but sectors across the U.K. equity market have generally been out of favor on a global basis. As of the end of November 2019, 55% of MSCI United Kingdom Index capitalization was dominated by out-of-favor sectors financials (20.8%), energy (15.2%), industrials (10.3%) and materials (8.7%). By contrast, growth-heavy communication services (5.3%) and information technology (1.3%) have small weights. The Index therefore tilts toward value stocks and away from growth and momentum; it is also dominated by large multinational companies. Economic sluggishness in Europe and emerging markets in recent years also hurt equity performance.

Exhibit 15 also highlights the tendency for the MSCI United Kingdom Index (net, total return) to move inversely to the trade-weighted value of the currency. This makes sense given the heavy international exposure of the companies that make up the Index. Since August, sterling has advanced sharply, appreciating more than 10% on a trade-weighted basis. It recently hit its highest level since the day of the Brexit referendum in June 2016. If sterling continues its advance, it would represent yet another headwind impeding improvement in U.K. stock prices.

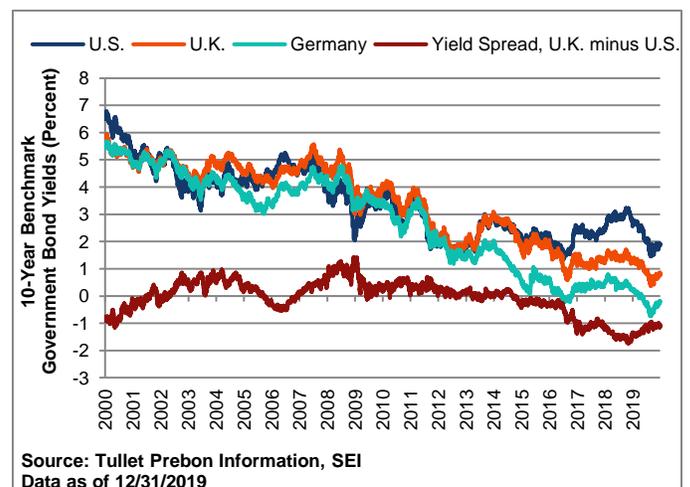
**Exhibit 15: A Strong Stock Market and a Strong Currency—Unusual Companions**



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 the bond market, gilts fell in yield for the year but have moved higher since the end of August along with yields in other major markets (as seen in Exhibit 16). We believe there is a limit to how much higher yields will go. Consumer prices at both the core and headline levels were running slightly below 2%, and have been trending lower for the past two years. Although the government appears ready and willing to increase fiscal spending, this comes at a time when private investment spending is still weak. As in the U.S., the impact of rising wages is not feeding into consumer prices because companies are absorbing the increased costs.

**Exhibit 16: Gilt by Association**

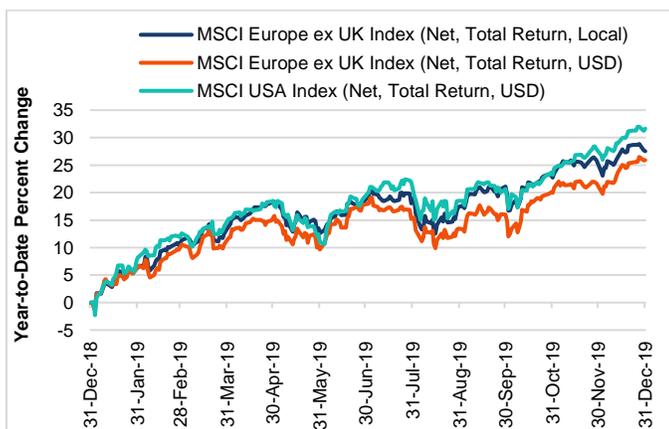


We expect the Bank of England (BoE) to stay on hold. The U.K. Bank Rate hasn't changed since a 25 basis-point increase in August 2018. The remaining questions about the future trading relationship with the EU and the persistent sluggishness of the economy will likely keep the central bank on hold. Like the U.S. Fed, the BoE may be biased toward cutting rather than raising rates. BoE Governor Mark Carney will be ending his service on March 15. Andrew Bailey will take his place. Bailey previously served as the BoE's deputy governor for prudential regulation, and was private secretary to former BoE Governor Eddie George. We do not expect a major turn in policy based on a change in leadership; the BoE's Monetary Policy Committee is a collegial institution.

### Will Europe climb out of its rut in 2020?

This time last year, we figured political uncertainties and tensions would remain high. That was an easy call. For Europe specifically, we foresaw a further slowdown in economic growth to below the 1.5%-to-2% range. That was also an accurate prediction, as eurozone GDP posted a year-over-year rise of 1.2% through the third quarter of 2019, with most signs suggesting further easing in the final three months of the year. Although we were right on the economy, we were perhaps too bearish on European risk assets. Exhibit 17 compares year-to-date performance of the MSCI Europe ex UK Index (net, total return, in local-currency and U.S. dollar terms) with MSCI USA Index performance for the same period. The MSCI Europe ex UK Index enjoyed an exceptional return in 2019 despite a still-significant disparity in economic growth between the U.S. and Europe.

### Exhibit 17: European Stocks Lagged Less



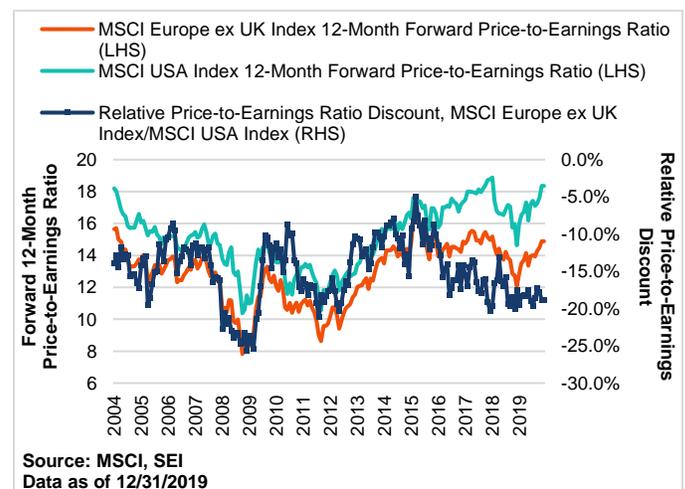
Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

The gains in European equity prices were even more

impressive when taking into account the sector composition of the MSCI Europe ex UK Index versus the more growth-oriented, technology-laden MSCI USA Index. Similar to the MSCI United Kingdom index, the MSCI Europe ex UK index is heavily weighted toward financials, industrials, materials, and energy (together they account for 43% of total capitalization). Nevertheless, the MSCI Europe ex UK Index was neck-and-neck with its U.S. counterpart as of mid-November in local-currency terms. The U.S. pulled away a bit since then, but the differential is relatively small (a total return of 31.6% for the MSCI USA Index versus 27.54% for the local-currency MSCI Europe ex UK Index). European equities underperformed U.S. equities by a more substantial 5.7 percentage points in U.S. dollar terms in 2019, owing to the relative strength of the U.S. currency.

European equities have badly lagged the U.S. stock market on a consistent basis since 2010. As a result, the relative 12-month forward price-to-earnings ratio on the MSCI Europe ex UK Index is at a 19% discount to the MSCI USA Index, still near the low end of the range for the past 10 years (as seen in Exhibit 18). In a way, that's good news because it means that investors have low expectations. While European forward earnings multiples have been rising, they have only been keeping up with the multiple expansion that's been occurring in the U.S. equity market (the relative forward price-to-earnings ratio has been stuck in a range for more than two years). The only time relative valuations have been lower since the global financial crisis was during the European periphery debt debacle in the 2011-to-2012 period.

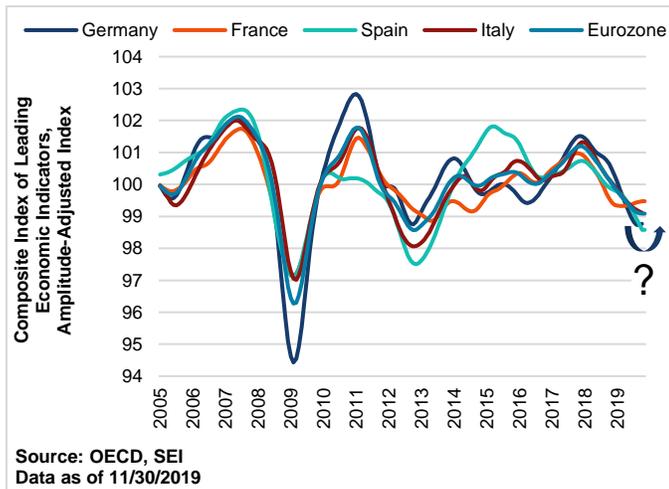
### Exhibit 18: Not-so-Great Expectations



The fundamentals probably need to show improvement for European equities to outperform the U.S. stock market; however, the evidence for a convincing economic turn for the better is still pretty sparse. Exhibit 19 displays the Organization for Economic Co-operation and Development's Leading Economic Indicators (LEI) for the larger European economies and for the eurozone

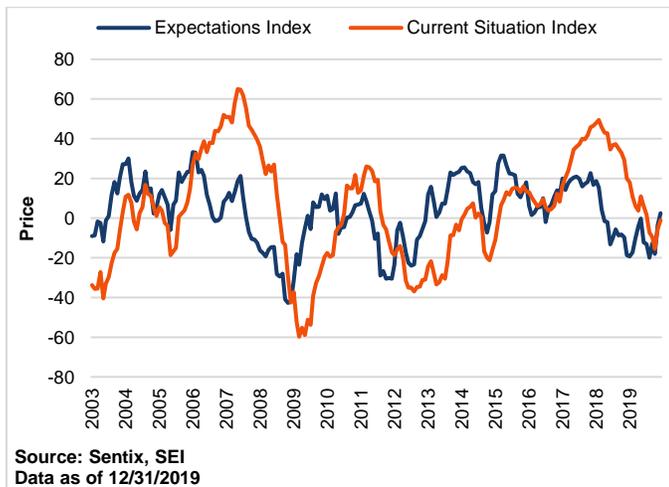
as a whole. The data are amplitude-adjusted, which means every country's LEI is expressed relative to that country's underlying growth trend. A value of 100 signifies that the economy is expected to grow at its trend rate in the period ahead. Values above 100 and below 100 indicate better-than-trend growth and worse-than-trend growth, respectively. By this measure, only France is showing modest improvement at this time, but even the French economy will likely continue to grow at a slower-than-trend pace. Germany may be bottoming out, while Italy and the eurozone as a whole seem to be stabilizing at a below-trend pace.

**Exhibit 19: Bleeding Economic Indicators**



We think it might make sense to look past the current gloom when it comes to Europe. Investor sentiment, as measured by the Sentix Expectations Index and Sentix Current Situations Index in Exhibit 20, already has made a turn. These indexes represent market expectations by investors over the next month. They gauge investor emotions which may fluctuate between fear and greed.

**Exhibit 20: Eurozone Sentiment Starting to Improve**



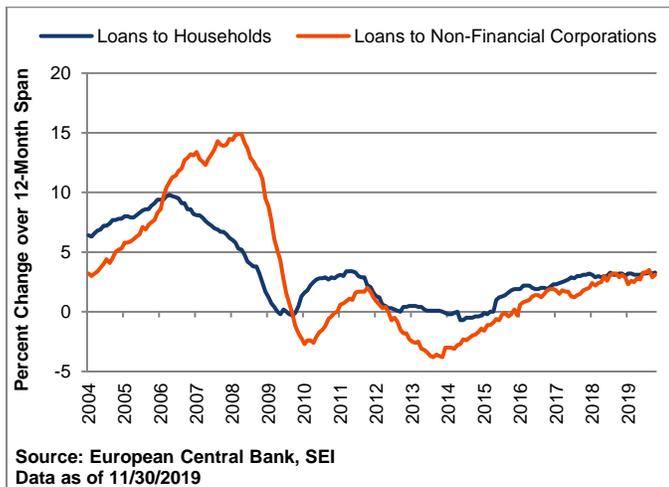
Granted, surveys of sentiment can be volatile. Following a slight move lower at the start of 2019, the euro area's Sentix Expectations Index soared over the next few months, only to peak in May and complete a round trip toward the downside in August before rising again. However, May was the month when the U.S.-China trade deal blew apart, opening the way for the tit-for-tat tariff war that threatened global economic growth. The trade situation certainly has improved in recent months. In fact, the Trump administration has put to rest a number of trade spats beyond China, coming to terms with Korea, Japan and its North American trading partners Canada and Mexico. President Trump also has downplayed his threats against European autos, although economic and political tensions remain higher than desired with both France and Germany.

The lessening of trade tensions and improvement in China's economic growth should provide export-dependent Europe with a moderate boost in 2020. The bottom in expectations was reached in August, concurrent with the trade-war truce. We will look at China and other emerging markets in more detail; for now, let's just mention here that we still expect a respectable reacceleration in growth among the more industrialized emerging markets. This should benefit Europe, particularly Germany.

Government policy also is geared toward encouraging growth, although there is constant debate regarding the efficacy of negative interest rates. It remains to be seen in what direction newly appointed ECB President Christine Lagarde takes the central bank. At the moment, following the noisy disagreements that marred the final weeks of Mario Draghi's tenure as ECB president, she and the other members of the Governing Council are getting a bit of a respite.

Still, there are signs that ECB policy is having some positive impact. The banking system is slowly recuperating. Lending to households and businesses has been in a modestly accelerating trend over the past few years, as we show in Exhibit 21. While growth is only slightly above 3% on year-over-year basis, which hardly qualifies as a boom, it is still the best credit growth recorded since the global financial crisis.

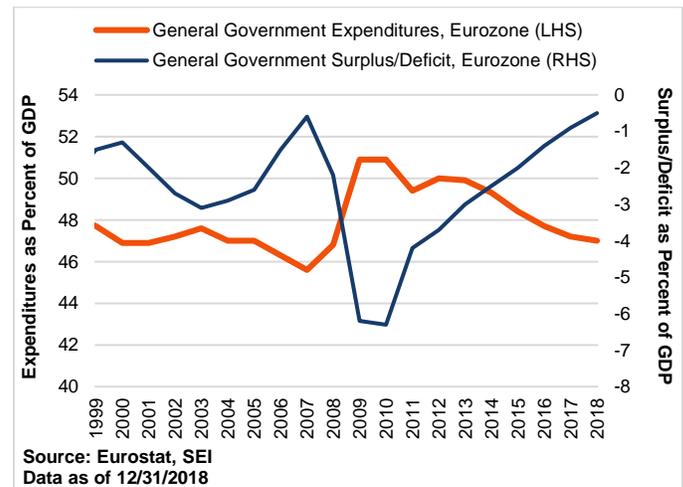
## Exhibit 21: Lending Is Picking Up a Little



However, Lagarde is already showing signs of thinking in ways that differ from a traditional central banker. In particular, under her leadership the ECB is undertaking its first strategic review this year since 2003. She has already expressed a desire for the central bank to consider factors in its deliberations that stray far afield from a central bank's usual remit, including climate change and income inequality. Convincing her fellow governors to venture into such unfamiliar territory may be a heavy lift even for a political heavy-weight like Lagarde, especially considering the ECB's abysmal record in achieving its single legally mandated goal (sustainable inflation at or slightly under 2%).

There also is more serious discussion nowadays about easing fiscal policy. Whether a more stimulative policy becomes a reality in the near term is a good question. But even Jens Weidman, president of the Deutsche Bundesbank and member of the ECB Governing Council, recently warned that the German government's commitment to a balanced federal budget should not become a "fetish." This was remarkable, as Weidman has been a long-time hawk, resistant to most attempts to ease monetary policy – let alone encouraging an easing of fiscal policy. It seemed out of character for him to suggest that fiscal policy in Germany should be loosened to fund public investment, including transport networks, digital infrastructure and climate-friendly energy. Exhibit 22 shows the trend in eurozone general government expenditures and its annual deficit/surplus as a percentage of area-wide GDP since 1999. Despite the euro area's slow economic growth, government spending as a percent of GDP amounted to 47% in 2018, down from a 2010 peak of 51%. The eurozone-wide aggregate deficit, meanwhile, contracted from a hefty 6.3% to just 0.5% over the same period. If Weidman feels comfortable backing Lagarde's call for government spending, perhaps there's hope that fiscal policy will shift from a steady headwind to a tailwind for eurozone growth.

## Exhibit 22: Time to Loosen the Purse Strings?



SEI's portfolio managers are looking for value to make a comeback as historically wide valuation dispersions normalize. The last time the spread was this wide between cheapest and most expensive stocks in the market was in the late 1990s during the tech bubble. When the bubble burst, value went on to outperform significantly over the next six years. In our view, many cyclical stocks are priced for a recession, so it shouldn't need to take a major economic boom for value to outperform.

Our global fixed-income portfolios did well despite being on the wrong side of the duration trade. All of our managers have an aversion to being overweight duration in the core rates markets, even on a tactical basis. The negative performance from the duration underweight, however, was more than offset by off-benchmark credit exposure and overweights to eurozone peripheral sovereign risk (Italy and Spain) and emerging-market local rates (Mexico, Brazil and Poland). Active currency positions had mixed success.

SEI's global bond managers are relatively cautious on credit given how tight interest-rate spreads are. But with central banks still buying securities, the credit cycle may stay positive longer than the fundamentals may justify.

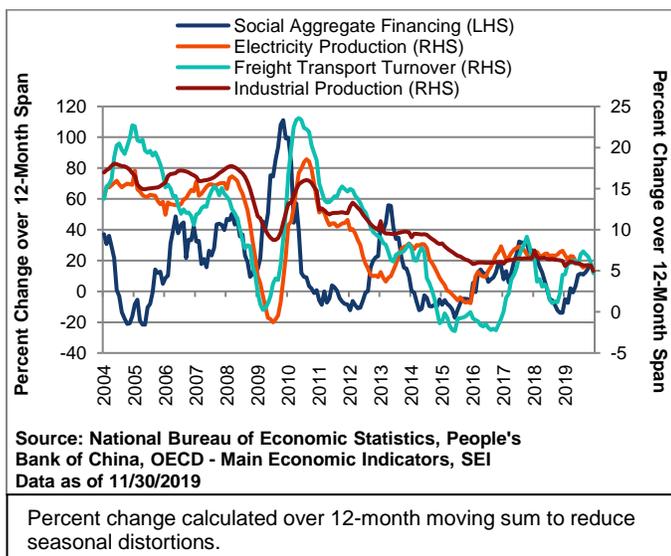
### Will emerging markets re-emerge?

As we mentioned earlier in this report, our expectation that emerging-market economies and equities would enjoy a decent 2019 was severely disappointed. There were a few reasons our hopes didn't pan out. First, we thought an economic turnaround in China was just around the corner. The country had been pushing through various monetary, fiscal and structural reform measures aimed at jumpstarting economic growth for more than a year. In the event that growth remained sluggish, we also assumed that the Chinese government would go back to the debt well like it did during the global financial crisis of 2008 and the global growth

slowdown of 2015 to 2016. This happened only to a certain extent. Although credit growth is certainly on the rise, tight constraints on non-bank lenders (the so-called shadow-banking system) have limited both the size and effectiveness of the credit injection into the economy.

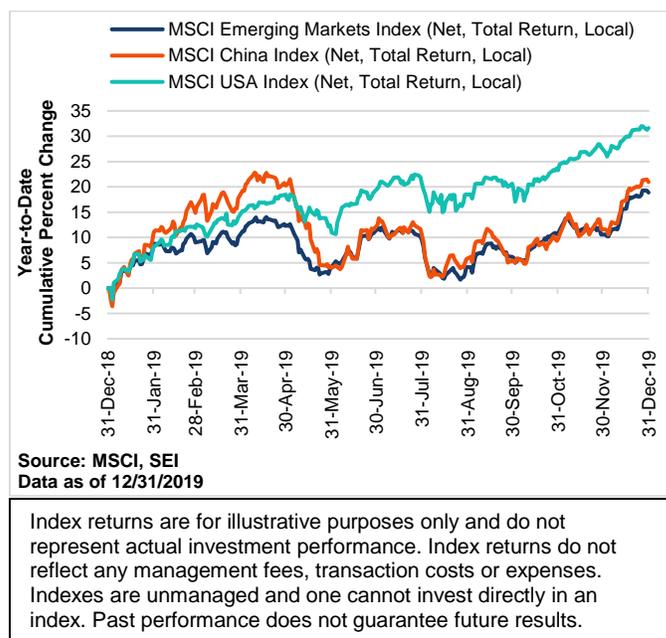
Exhibit 23 shows that Chinese credit growth rebounded almost 18% over the 12 months ended November, following a sharp 14% contraction in 2018. This was similar to the rebound recorded during the previous cycle. However, the response of China's economy to this credit easing has been mixed. Freight transport improved, although growth has eased in recent months; electricity production and industrial production growth have slowed further. Consumption also faded, hurt by flagging demand for automobiles and a hit to discretionary incomes (due to a sharp rise in pork prices caused by the culling of herds in response to the African swine flu).

### Exhibit 23: Less Bang for the Yuan



One big problem impeding the recovery in Chinese economic growth, of course, is the running trade battle with the U.S. Exhibit 24 compares the year-to-date performance of the MSCI China, MSCI Emerging Markets and MSCI USA Indexes (Net).

### Exhibit 24: Equities Traded with Trade Tweets



China's stock market actually outperformed U.S. equities through much of the first quarter. However, as investors grew nervous about trade negotiations, the MSCI China and MSCI Emerging Markets Indexes both faltered. In early May, when China suddenly objected to a deal that the Trump administration thought they reached, all markets fell sharply. China fared the worst, as a 20%-plus year-to-date gain through April became just a 4.5% increase by the end of May. When trade talks resumed, another stock market rally got underway—but that one fizzled out in August as negotiations took yet another turn for the worse, and an additional round of tariff increases came into view. In September, however, outlines of a trade truce and the possibility of a rollback of previous tariffs impositions re-emerged, and markets again surged to the upside. China and other emerging equity markets ended the year with a strong December gain; although the MSCI USA Index (net, total return) beat out the MSCI China Index (net, total return) by 10.7 percentage points and the MSCI Emerging Markets Index (net, total return) by 12.8 percentage points for the year.

We have frequently made the argument that an all-encompassing trade war between China and the U.S. would be in neither country's interest. The economic and political reverberations would simply be too painful—even for Chinese President Xi Jinping, who doesn't need to worry about elections. Their December agreement on a limited "phase one" deal at least helped to lower the temperature and halted the tit-for-tat tariff escalations (even if details of the terms are subject to differing interpretations by the parties). At SEI, we anticipate the truce will hold through the 2020 U.S. presidential election. If we're right, China's economy should be able

to build upon the tentative pickup in growth that has begun to appear in the economic data. Exhibit 25 shows that China's index of leading economic indicators has been edging higher for most of the year through October. More timely data, such as the purchasing-manager reports and Citigroup's economic surprise index indicate continued improvement.

**Exhibit 25: A Promising Turn**



Exhibit 26 bolsters the view that China's economy may be at a turning point. The country's merchandise imports, which had been declining on a year-over-year basis since December 2018, inched into positive territory this past November. The close correlation between China's demand for imported goods and the performance of emerging-market equities highlights how important a healthy Chinese economy is for emerging-market investors.

**Exhibit 26: Chinese Imports Are Picking Up**

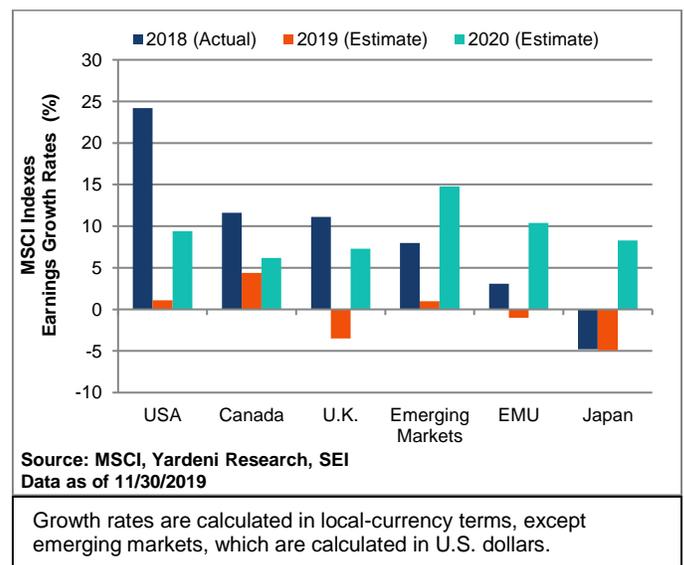


Index returns are for illustrative purposes only and do not represent actual investment performance. Index returns do not reflect any management fees, transaction costs or expenses. Indexes are unmanaged and one cannot invest directly in an index. Past performance does not guarantee future results.

A third headwind for emerging markets last year was the buoyancy of the U.S. dollar. We thought the dollar was poised to depreciate in 2019, which would have provided a positive backdrop for emerging-market equities. We figured that the Fed's pivot toward cutting its policy rate would help reduce the interest-rate differential that existed between U.S. and international fixed-income assets. It also was our belief that U.S. economic and corporate earnings performance would converge toward that of other developed countries. Our economic calls were good, but the U.S. dollar refused to cooperate.

Exhibit 27 highlights the annual growth rates in EPS for the companies that make up a selected grouping of country and regional MSCI indexes. Except for emerging markets, which are shown in U.S.-dollar terms, all growth rates are reported in local-currency terms. In 2018, U.S. earnings growth was heads-and-shoulders above the other markets (depicted by the dark blue bars in the chart). That superior figure reflected the direct impact of corporate tax cuts and the subsequent boost to economic activity. In the past year (orange bars), U.S. EPS growth was in the middle of the pack. In the coming year, security analysts' bottom-up estimates call for an EPS rise of nearly 10% in the U.S.—a good rebound, but lagging the expected increase of 15% for the companies that make up the MSCI Emerging Markets Index. We expect earnings growth will be a few percentage points less than the consensus estimates, but the differential in growth rates among regions and countries looks about right. The key point to remember is that the U.S. is now looking a lot like other advanced countries economically, while emerging markets have a clear potential growth advantage.

**Exhibit 27: The U.S. is Moving Back to the Pack**



We are sticking with the view we held this time last year, and expect emerging-market equities to perform well due in part to a weaker U.S. currency. With the Fed ramping up its purchases of short-term government

securities as part of its effort to calm the overnight lending market, we foresee a sharp improvement in U.S. dollar liquidity that should help drive the currency lower. This potential increase in the global supply of U.S. dollars comes at a time when it remains rather elevated on a trade-weighted basis, as we show in Exhibit 28.

### Exhibit 28: Peak Dollar?



Although the U.S. currency most recently peaked at the end of 2016, it appreciated sharply in 2018 and advanced a bit further last year. It would be unusual if the trade-weighted dollar were to break out to a new high after such a short down cycle. Exhibit 28 shows that the U.S. dollar's bear-and-bull movements tend to last for several years. We are convinced that the dollar is overvalued on a fundamental basis. The Fed's increased Treasury bill purchases could be the catalyst for a major reversal.

Our emerging-market equity portfolios are focused on individual stock selection and momentum. As a result, major overweights include information technology, telecommunications and energy. Financials and materials are the biggest underweights. Regionally, our portfolios continue to underweight Asia, Africa and the Middle East and overweight Latin America.

In fixed income, our emerging-market portfolios maintain an overweight to local currency and anticipate more local-currency appreciation against the U.S. dollar in the year ahead. Mexico is the largest overweight and Chile moved from underweight to overweight. In 2019, 17 emerging-market countries have cut interest rates a total of 55 times; more cuts are expected. Note that China is set to enter the JP Morgan GBI Emerging Markets Global Diversified Index in February; its weighting in the index will rise by one percentage point each month up to a maximum weighting of 10%.

### Key Expectations

Below is a summary of our key expectations for 2020, along with some of the unknowns that could cause markets to behave in ways that run counter to our positioning:

- *No boom, no bust, no bear.* The U.S. and global economies will likely continue to grow, albeit at a sluggish pace. This should keep inflation under control and encourage central banks to continue erring on the side of ease. Quantitative easing also should help fixed-income yields remain relatively steady even as government deficit-spending picks up. This scenario should be positive for risk assets.
- *The U.S. is converging with the rest of the world.* Economic and profits growth in the U.S. are declining. Given the disparity in stock-market valuations, international markets are expected to outperform U.S. equities.
- *China's economy should stabilize and improve.* The U.S./China trade-war truce and a steady progression of fiscal and monetary stimulus measures over the past two years should pay off in 2020. Early signs of improvement are already apparent, which should boost the economic prospects of trade-dependent developed and emerging economies. Our wish for the New Year: No presidential tweets about tariffs.
- *The U.S. dollar should reverse convincingly to the downside.* The Fed's pivot toward an aggressive approach to supporting the overnight lending market has the potential to significantly increase the global supply of U.S. dollars. Since we believe the currency is overvalued on a fundamental basis, its depreciation is a high-conviction call. This would be a tailwind for non-U.S. economies and financial markets.
- *The value style should prevail.* Value-oriented active managers should see a better result in 2020, driven by a modest improvement in global economic growth; a tendency for inflation and interest rates to move higher; and a record disparity in valuation between the most and least expensive stocks.
- *Less Brexit uncertainty, but a trade deal is needed.* We expect rationality to prevail, but a no-deal Brexit remains a residual risk. As the transition deadline nears at the end of 2020, U.K. and European markets could experience renewed volatility if the negotiations appear to be foundering on irreconcilable differences. In the near-term, equity investors may still react positively as signs of improved global economic growth accumulate.

- *Presidential politics could roil equity markets in the U.S. and elsewhere.* We did not say much about the coming U.S. presidential election in this report, as there is little clarity at the moment regarding which Democratic nominee will face Donald Trump. The picture should get clearer in March, when 25 states and Puerto Rico go to the polls—with California and Texas (two states with the most voting power) plus 12 other less populous states holding their primary elections on “Super Tuesday,” March 3.
- *The impact of Fed policy is a potential wildcard.* While we don’t see it as a likely outcome, the Fed’s

dovish stance at a time of full employment could cause a “melt-up” in stock prices. The mid-cycle pivot in the mid-1980s contributed to the stock market bubble that burst in 1987. The mid-1990s pivot eventually spawned the tech bubble and bust of 1998 to 1999. Even at low interest rates, we would consider a forward earnings multiple on the S&P 500 Index of more than 20 times as a danger sign. In other words, another stellar year for U.S. equities in 2020 would be a source of concern rather than celebration.

## Glossary

**Cyclical** sectors, industries or stocks are those whose performance is closely tied to the economic environment and business cycle. Cyclical sectors tend to benefit when the economy is expanding.

**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. The shorter the duration of a bond, the less its price will potentially change as interest rates go up or down; conversely, the longer the duration of a bond, the more its price will potentially change.

**Earnings multiple** is equal to the stock price divided by earnings per share. It is expressed in years. For example, an earnings multiple of 10 means that it would take 10 years of earnings to equal the stock price.

**Forward earnings multiple** is equal to the stock price divided by earnings per share. It is expressed in years. For example, an earnings multiple of 10 means that it would take 10 years of earnings to equal the stock price.

**Momentum** refers to the tendency of assets' recent relative performance to continue in the near future.

**Price-to-earnings ratio (P/E):** The P/E ratio is equal to a company's market capitalization divided by its after-tax earnings. The higher the P/E ratio, the more the market is willing to pay for each dollar of annual earnings. A forward P/E ratio is a current stock's price divided by its estimated earnings per share over the next 12 months.

**Pro-cyclical policy:** In the context of a government's economic policy, pro-cyclical refers to any aspect of economic policy that could magnify economic or financial fluctuations. An economic policy that is believed to decrease fluctuations is called counter-cyclical.

**Spread** is the additional yield, usually expressed in basis points (one basis point is 0.01%), that an index or security offers relative to a comparable duration index or security (the latter is often a risk-free credit, such as sovereign government debt). A spread sector generally includes non-government sectors in which investors demand additional yield above government bonds for assumed increased risk.

**Trade-weighted currency index:** A trade-weighted currency index is a weighted average of a basket of currencies that reflects the importance of a country's trade (imports and exports) with these countries. A trade-weighted currency index is taken as a crude measure of a country's international competitiveness.

**Value** refers to the tendency of relatively cheap assets to outperform relatively expensive assets.

## Index Definitions

**Bloomberg Barclays 1-5 Year U.S. TIPS Index:** Measures the performance of inflation-linked public obligations of the U.S. Treasury that have a remaining maturity of one to five years.

**Bloomberg Barclays U.S. Government/Credit Index:** Measures the investment return of all medium and larger public issues of U.S. Treasury, agency, investment-grade corporate and investment-grade international dollar-denominated bonds.

**Bloomberg Barclays 3-Month Treasury Bill Index:** Includes all publicly-issued zero-coupon U.S. Treasury bills that have a remaining maturity of less than three months and more than one month, are rated investment grade.

**Bloomberg Barclays U.S. Aggregate Bond Index:** The Bloomberg Barclays U.S. Aggregate Bond Index is a market-value-weighted index consisting of investment-grade, fixed-rate debt issues (including government, corporate, asset-backed, and mortgage-backed securities), with maturities of at least one year.

**China's Index of Leading Economic Indicators:** Composite index of leading indicators within China.

**Citigroup Economic Surprise Indexes:** The Citigroup Economic Surprise Indexes are objective and quantitative measures of economic news. They are defined as weighted historical standard deviations of data surprises (actual releases versus Bloomberg survey median). A positive reading of the Economic Surprise Index suggests that economic releases have, on balance, been beating consensus. The indexes are calculated daily in a rolling three-month window.

The weights of economic indicators are derived from relative high-frequency spot FX impacts of one standard deviation data surprises.

**Eurozone Business Economic Sentiment Index:** In the eurozone, the Business Sentiment Index measures the current situation of the businesses and its future prospects. The survey is made by phone and covers 23,000 companies in the euro area. The questionnaire focuses on production trends in recent months, order books, export order books, stocks, and production expectations. The indicator is computed through the estimation of a factor-model and summarizes the common information contained in the surveys.

**Industrial Production Index:** The industrial production index is a monthly economic indicator measuring real output in the manufacturing, mining, electric and gas industries, relative to a base year.

**ICE BofAML U.S. High Yield Constrained Index:** The ICE BofAML US High Yield Constrained Index is a market-value weighted index of all domestic and Yankee high-yield bonds, including deferred interest bonds and payment-in-kind securities. Its securities have maturities of one year or more and a credit rating lower than BBB-/Baa3 but are not in default.

**JP Morgan EMBI Global Diversified Index:** The JPMorgan 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 the emerging markets.

**JP Morgan GBI Emerging Markets Global Diversified Index:** The JP Morgan GBI Emerging Markets Global Diversified Index tracks the performance of debt instruments issued in domestic currencies by emerging market governments.

**MSCI Canada Index:** The MSCI Canada Index tracks the performance of the large- and mid-cap segments of the Canada market.

**MSCI China Index:** The MSCI China Index captures large- and mid-cap representation across China H shares, B shares, Red chips, P chips and foreign listings (such as ADRs). With 469 constituents, the Index covers about 85% of this China equity universe. Currently, the Index also includes large-cap A shares represented at 5% of their free float-adjusted market capitalization.

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

**MSCI EMU Index:** The MSCI EMU Index is a free float-adjusted market-capitalization-weighted index designed to measure the performance of mid- and large cap companies in 10 developed markets in the European Union.

**MSCI Europe ex UK Index:** The MSCI Europe ex UK Index is a free float-adjusted market-capitalization-weighted index that captures large- and mid-cap representation across 14 developed-market countries in Europe (Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland). The Index covers approximately 85% of the free float-adjusted market capitalization across European developed markets excluding the U.K.

**MSCI Japan Index:** The MSCI Japan Index is designed to measure the performance of the large- and mid-cap stocks in Japan.

**MSCI United Kingdom Index:** The MSCI United Kingdom Index is designed to measure the performance of the large- and mid-cap segments of the U.K. market. The Index covers approximately 85% of the free float-adjusted market capitalization in the U.K.

**MSCI USA Index:** The MSCI USA Index is designed to measure 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.

**OECD Composite Leading Indicator Index (CLI):** The OECD CLI is used to measure turning points in the business cycle. The metric looks at qualitative data on short-term economic movements. It is used to predict the direction of global economic movements in future months and is published by the Organisation for Economic Co-operation and Development.

**Personal Consumption Expenditures (PCE) Index:** The personal-consumption-expenditure measure 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.

**Purchasing Managers' Index (PMI):** The 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.

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

**Russell 1000 Growth Index:** The Russell 1000 Growth Index measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000 Index companies with higher price-to-book ratios and higher forecasted growth values.

**Russell 1000 Value Index:** The Russell 1000 Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000 Index companies with lower price-to-book ratios and lower expected growth values.

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

**S&P 500 Index:** 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.

*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.*

*Certain economic and market information contained herein has been obtained from published sources prepared by other parties, which in certain cases have not been updated through the date hereof. While such sources are believed to be reliable, neither SEI nor its subsidiaries assumes any responsibility for the accuracy or completeness of such information and such information has not been independently verified by SEI.*

*Information provided by SEI Investments Management Corporation, a wholly owned subsidiary of SEI Investments Company (SEI).*