Economic Perspectives

Russell T. Price, CFA
Chief Economist

August 14, 2019

Economic Outlook:
- The U.S./China trade dispute has slowed global growth and offers further downside risk.
- Strong consumer fundamentals remain a sound source of support here in the U.S., but consumer sentiment and spending could be susceptible to negative developments.

U.S. economic growth is slowing largely due to the ongoing trade dispute with China. The moderation in activity has been most apparent in business investment spending as corporate leaders have understandably been reluctant to invest large sums given the high uncertainty of future trade rules. Slower growth in other key regions of the world has also negatively impacted demand for U.S. exports.

Amid this backdrop, recession risks have understandably risen. We believe recession remains unlikely over the intermediate-term (12 to 24 months) without a significant further deterioration in the trade situation, though this is certainly a possibility.

We believe strong U.S. consumer fundamentals should continue to support ongoing expansion. Consumers represent 70% of U.S. economic activity. And quite unlike previous periods when the economy has been expanding for several years, consumer finances are in remarkably strong shape, in our view.

We’ve stressed this factor consistently over the last several years as we believe consumer financial health is THE most important factor in determining intermediate-term economic prospects. Additionally, we see this issue as being under-appreciated in both its historical significance and its current situation. Consumer debt to income ratios remain low, the personal savings rate is high, and personal income continues to grow faster than spending. (See page 4 for more.)

Trade relations with China, however, are likely to hold considerable sway over the economic path. Unfortunately, we believe this situation could offer more downside risk than up. China’s economy has continued to slow which could entice Chinese leaders back to the negotiating table. However, recent rhetoric suggests this may be an overly optimistic hope. Although the economic risk from this situation is tangible, the risk to corporate sales and earnings (thus stock prices) is likely higher. (See page 2 for more.)

Economic Outlook: In early June, we trimmed our 2019 U.S. real GDP forecast from +2.4% to +2.2% to reflect eroding U.S./China trade relations. Conversely, Congress recently passed a 2-year federal budget agreement that turned what was scheduled to be a hefty cut in government spending into an increase of about $50 billion over the next two years. This change took our 2020 Real GDP outlook from +1.6% to +2.1%.

Source: Actuals via the Commerce Department, forecasts via American Enterprise Investment Services, Inc.
CURRENT ISSUES OF NOTE:

Trade: The U.S.-China trade dispute has taken an ugly turn over the last few months. In early May, it appeared that a trade agreement may be just days away. Since that time, China appears to have taken a hardline approach and shown no intention of giving up any of the practices the western world widely sees as unfair or worse.

Additionally, what started as a disagreement on trade has quickly morphed into a broader adversarial relationship. The recent situation in Hong Kong, the growing territorial tensions in the South China Sea, and rising concerns over China’s intentions relating to Taiwan, are all concerning.

Unfortunately, we believe the odds of a long, drawn-out confrontation, possibly lingering beyond the 2020 U.S. elections, have risen considerably. We note, however, that standing up to China on these issues is currently one of the few areas that enjoys strong bipartisan support in Washington.

As we have said since large-scale tariffs on Chinese goods were first implemented last year, any near-term economic pain suffered in this situation is likely to be minor relative to the very serious long-term consequences of allowing the status-quo to continue. (For more on this trade dispute, please see our Economic Views Brief: Updating our Outlook, published on June 5th).

New tariffs: On August 1st, the president announced new tariffs of 10% on the remaining $300 billion in Chinese imports not previously taxed. The new tariffs were scheduled to take effect on September 1st, joining the previously implemented 25% tariff on $250 billion in Chinese made goods. On August 13th, however, the administration announced that many of the new tariffs would be delayed until December 15th.

Unlike previous tariffs, the products targeted under this latest round are primarily consumer goods. Likewise, many of the goods getting a reprieve until early December are items that would otherwise likely have generated higher prices just in time for the holiday shopping season. Items such as cell phones, toys, footwear, apparel, and computer products.

This new round is expected to have a more direct negative impact on U.S. consumer purchasing power via higher prices (i.e., inflation) when and if, fully implemented.

Putting this into perspective: If the administration ultimately applies a 10% tariff to $200 billion worth of Chinese made products it could raise consumer prices by as much as $20 billion. We estimate such an increase would boost inflation (as measured by the Consumer Price Index) by about 0.15% and be equivalent to an approximate $0.14 increase in gasoline prices (maintained over the course of a full year).

Overall, we believe the tariff increase will likely be smaller relative to the initial proposal for several reasons. First, the final list of products impacted is likely to be trimmed of sensitive products such as medicines. Second, a portion of the tariff costs are likely to be absorbed by the exporter and importer. And third, part of the increase will be reduced by recent declines in the value of the Chinese yuan versus the U.S. dollar (assuming recent exchange rates are maintained).

Fed rate cuts: For the first time in more than 10-years, the Federal Reserve cut its overnight lending rate on July 31st by a ¼ of a percent. The cut comes at an unusual time given that the unemployment rate is near 50-year lows and inflation has been well contained for several years.

However, we believe the Fed needed to re-align its overnight interest rate with market-based rates that had already fallen much lower. Additionally, we believe it was proper for officials to cut rates as a form of “insurance” against further slowing of the economy amid growing trade challenges.

Such cuts are unlikely to materially boost economic activity, in our view. Consumer and corporate borrowing costs were already sharply lower. As seen in the chart below, mortgage rates had dropped by more than a full percentage point since November. Additionally, demand for borrowing has been weak as consumers and businesses have been cautious. (For more on this issue, please see our Economic Views Brief: Why the Fed is Cutting Rates, published on July 30th).
**Economic Perspectives**

**Recession risk:** The odds of a U.S. recession have increased over the last year, but we still believe a recession remains unlikely. If we were to experience a downturn however, we believe it would mostly likely be due to adverse developments on trade.

At any given time, "base-case" recession odds are about 17% to 18%. The reason being that this is the percentage of time that the economy has historically spent in recession. Currently, most recession risk measures put the odds of recession over the intermediate-term at about 30% to 40%. Most such estimates are subjective, and on the same basis we currently see the odds as closer to the 30% figure.

Whether or not the U.S. economy actually experiences a recession may be of little consequence for investors. As investors, we examine the economic outlook primarily to get a sense of the possible path for corporate sales and earnings; a business’s earnings being THE most important factor in determining its value and thus stock price, over time. So when earnings go down, or are anticipated to go down, stocks typically follow.

This “normal” relationship is currently disrupted, in our view by the trade dispute. It’s possible that corporate sales and earnings could decline over the intermediate-term without the U.S. economy technically going into recession. We believe this is an important concept for investors to understand in the current environment.

![U.S. ECONOMIC OUTLOOK AND CONDITIONS:](chart)

**Our base case outlook:** Slow growth continues, but with elevated risk. Over the first half of 2019, the U.S. economy grew at an average pace of +2.6%. Over the second-half of the year, we believe the pace is likely to slow to about +2.1%. Keep in mind that the average pace since mid-2009 (when the current expansion began) has been +2.3%.

**U.S. economic outlook on a quarterly basis:** (Note: the red line in the chart below represents year-over-year growth.)

Business investment spending has slowed considerably and we forecast it to slow further over the intermediate-term. In addition to U.S./China uncertainty, the revised North American Free trade Agreement (NAFTA), known as USMCA (United States, Mexico, Canada Agreement), remains an unknown, as do the conditions of the U.K.’s pending exit from the European Union (Brexit). Congress is scheduled to take up the USMCA in September with most observers believing it likely to pass, though with some possible changes.

The need for inventory destocking is also expected to remain a drag on GDP growth over the next few quarters (it shaved 0.9 percentage points from GDP growth in Q2). In the second-half of 2018 and into Q1-2019, inventory levels expanded as U.S. businesses pulled forward deliveries from China ahead of new tariffs going into effect. Inventory accumulation adds to GDP growth while destocking subtracts.

**What exactly qualifies as a “recession?”** Historically, recessions have been defined as two consecutive quarters of negative Real GDP growth. “Real” means the effect of price increases (i.e., inflation) has been removed.

In the early 2000’s however, the official definition of recession, at least here in the U.S., was adjusted. The National Bureau of Economic Research (NBER), the accepted arbiter of recession start and end dates in the U.S., refined the definition to include a broader array of measures. The revised definition relies on evidence of sustained declines in such factors as consumer income, employment, industrial production and retail sales, amongst other factors.
Consumers remain key: As has been the case for the last several years, our outlook for a continuation of economic growth is largely predicated on an expectation of steady consumer spending.

Consumer financial health has rarely been stronger, in our opinion. Given the importance of this issue and in respect to the current state of heightened recession fears, we offer several different perspectives on consumer finances over the next two pages.

As seen in the chart below, real consumer spending (spending with the effect of inflation stripped out) has been fairly consistent over the last several years. For both 2019 and 2020, we are projecting real consumer spending growth of 2.7%. Over the last 5 years, real consumer spending growth has averaged +3.0%.

Source: FactSet

Headline consumer spending numbers, however, fail to illustrate just how conservative consumers have been during the current expansion.

For instance, in the recently ended second quarter, consumer income grew faster than consumer spending; just as it had in each of the 8 quarters that preceded it. (See chart at top of next column.) This is a dramatic departure from historical norms.

Additionally, since 2011 consumers have spent just 84% of their total income gains. During the period of economic expansion running from 2002 to 2008, consumers spent 105% of their income gains, and from 1992 to 2001, consumers spent 102%. In both instances, the difference was made up with debt.

Source: FactSet

As a result of incomes growing faster than spending, the Personal Savings Rate (as shown below) has recently been above 8%; a level not seen consistently since the early 1990’s.

Source: FactSet

Meanwhile, various media outlets have noted that the dollar value of credit card debt has finally eclipsed that of its pre-Financial Crisis highs. Such dollar values are meaningless without context.

As seen in the chart at the top of the next page, credit card debt relative to personal income remains well below its pre-recession rates.
Consumers are also doing a much better job of keeping up with their bills than they have in recent decades. The chart below shows the percentage of consumer loans with payments 90 days or more past due.

Post-crisis, consumers have shown a significant aversion to any sort of debt. In fact, even after 10-years of economic expansion and several years of a strong job market, consumer debt levels have been growing very slowly. As seen in the chart at the top of the next column, consumer debt is not even growing as fast as it did in the early 1980’s when borrowing costs were drastically higher. (The yield on the 10-year Treasury averaged 13.9% in 1981).

Finally, the Federal Reserve’s Financial Obligation Ratio (FOR) has long been our favorite measure of overall consumer indebtedness, as it measures monthly consumer financial obligations (i.e., required payments) against consumer disposable income. So rather than just looking at the dollar amount of debt, it looks at whether consumers can afford it.

As seen in the chart below, the ratio is not quite as low as it reached just after the recession, but it is still quite low when compared to its historical levels. In fact, the ratio is generally in-line with its levels of the early 1980’s, a time when exceptionally high interest rates made borrowing very undesirable.
Corporate balance sheets, meanwhile, have come under some scrutiny. The dollar value of corporate debt as well as corporate debt relative to U.S. GDP (a commonly cited measure used to determine overall leverage) are both high. Dollar values are almost always going to be higher during periods of economic expansion when businesses see greater investment opportunity. Additionally, it’s simply normal for the dollar value of debt to grow as an economy grows (as does income, sales, employment, etc.).

The blue line in the chart below shows total debt held by S&P 500 companies relative to U.S. GDP. It should be considered that companies also have elevated levels of cash. As such, the red-line in the chart represents NET-debt (debt minus cash) on the same basis. As seen, net debt as a percent of GDP is somewhat elevated relative to its history, but not significantly so. The current ratio of 16.3% compares to its 28-year average of 14%. Also, considering today’s ultra-low borrowing costs, some added debt is to be expected.

Source: FactSet.

Finally, we also note that an ever-growing percentage of U.S. corporate sales are generated outside the U.S. As such, comparing the debt of these companies, as they serve a growing percentage of the world economy, to the U.S. economy alone, seems flawed.

There are, of course, some companies and industries where debt levels are too high, yet such segments are generally in the minority, in our view.

Economic activity has slowed: As previously mentioned, U.S. economic activity has slowed and we believe much of the moderation can be attributed to reduced business investment, weaker demand for U.S. exports, and a broad need to trim business inventories.

The Institute of Supply Management’s (ISM) Manufacturing and Non-manufacturing (Services) indexes have both reflected notable deceleration since the start of the year. For each, Index readings above 50 indicate month-over-month expansion, while readings below 50 indicate contraction. As seen in the chart, although both have slowed noticeably they continue to reflect ongoing expansion nonetheless.

Source: FactSet.

KEY ECONOMIC FORECASTS:

Employment: At the start of the year, we forecast the U.S. economy to generate approximately 1.9 million net new jobs in 2019, for a monthly average of approximately +158,000. This would be a deceleration from the better than expected 2.6 million net new jobs created in 2018 (220,000 /mo.). Our forecast of slower job growth is largely due to the simple fact that there are fewer people still on the sidelines and thus available to be hired into the workforce.

Unemployment rate: We forecast a 2019 year-ending unemployment rate of 3.6% as compared to the 2018 year-ending rate of 3.9%. In July, the rate was 3.7%.
**Inflation:** We believe inflation is likely to remain relatively well contained over the intermediate-term. For both 2019 and 2020, we have forecast a headline inflation rate (as measured by the Consumer Price Index) of +2.1%. Core inflation (which excludes the volatility of food and energy prices) should be similar, in our view.

Tariffs and rising labor costs could yet place added upward pressure on inflation. But as has been the case, we believe modest cost pressures in other areas are likely to keep growth and inflation generally in balance.

**Source:** FactSet

**US Dollar:** On a trade-weighted basis, the U.S. dollar rose by approximately 8% in 2018. Heading into 2019, we believed the dollar’s trade-weighted value could decline by about 2% to 6%.

However, during the first quarter, the European Central Bank (ECB) and a few other major central banks indicated a willingness to lower interest rates to stimulate economic activity. This made U.S.-based rates more attractive by comparison, enticing capital to the U.S. and resulting in greater demand for dollars. These factors, combined with better relative economic conditions, has offered support to the dollar. As of this writing, The Wall Street Journal’s Dollar Index is 1.2% higher year-to-date, and we believe it could end the year up about +2% to +4% for the full year.

**Interest rates:** Broadly speaking, we believe consumer and corporate borrowing costs are likely to remain highly accommodative yet drift slowly higher from today’s exceptionally low levels. At the time of this writing, the yield on the 10-year U.S. Treasury is 1.59% versus it’s 2018 year-ending level of 2.70%. As with many factors mentioned in this report, the path of interest rates is likely to be heavily influenced by trade developments.

Over the longer-term, we believe interest rates, inflation and growth prospects will likely all remain lower than their historical norms given changing global demographics, particularly in developed economies.

**INTERNATIONAL PROSPECTS:**

The U.S. /China trade dispute has slowed economic momentum not just in the two countries involved, but in most other regions of the globe as well. The International Monetary Fund (IMF) recently lowered its 2019 and 2020 global growth forecasts for the fourth time in as many quarters.

Manufacturing demand has been particularly pressured by rising trade barriers and reduced business investment. The United Kingdom’s pending separation from the European Union (Brexit) also poses a risk to economic momentum, particularly in Europe.

Currently, the U.K. is schedule to exit the EU on October 31st, but it could come sooner. A “hard” Brexit (i.e., exiting without a trade deal in place) is looking more likely. We believe such a scenario would be disruptive to the regional economy, with modest repercussions for related developed economies, but manageable overall.

**IMF Global Economic Projections**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>World</td>
<td>3.4</td>
<td>3.8</td>
<td>3.6</td>
<td>3.2</td>
<td>3.5</td>
<td>-0.1</td>
</tr>
<tr>
<td>United States</td>
<td>1.6</td>
<td>2.2</td>
<td>2.9</td>
<td>2.6</td>
<td>1.9</td>
<td>0.1</td>
</tr>
<tr>
<td>Euro Region</td>
<td>2.0</td>
<td>2.4</td>
<td>1.9</td>
<td>1.3</td>
<td>1.6</td>
<td>0.0</td>
</tr>
<tr>
<td>Japan</td>
<td>0.6</td>
<td>1.9</td>
<td>0.9</td>
<td>0.9</td>
<td>0.4</td>
<td>-0.1</td>
</tr>
<tr>
<td>Developing Asia</td>
<td>6.7</td>
<td>6.6</td>
<td>6.4</td>
<td>6.2</td>
<td>6.2</td>
<td>-0.1</td>
</tr>
<tr>
<td>China</td>
<td>6.7</td>
<td>6.8</td>
<td>6.6</td>
<td>6.2</td>
<td>6.0</td>
<td>-0.1</td>
</tr>
<tr>
<td>India</td>
<td>8.2</td>
<td>7.2</td>
<td>6.8</td>
<td>7.0</td>
<td>7.2</td>
<td>-0.3</td>
</tr>
<tr>
<td>Russia</td>
<td>0.3</td>
<td>1.6</td>
<td>2.3</td>
<td>1.2</td>
<td>1.9</td>
<td>-0.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>-3.3</td>
<td>1.1</td>
<td>1.1</td>
<td>0.8</td>
<td>2.4</td>
<td>-1.3</td>
</tr>
<tr>
<td>Mexico</td>
<td>2.9</td>
<td>2.1</td>
<td>2.0</td>
<td>0.9</td>
<td>1.9</td>
<td>-0.7</td>
</tr>
</tbody>
</table>

Source: IMF World Economic Outlook Update, July 2019
CORPORATE PROFITS: the bridge between the economy and equity markets.

Companies of the S&P 500 generated exceptional earnings per share (EPS) growth in 2018 of approximately 23%, according to FactSet. In 2019, EPS growth has stalled with results for Q1 and Q2 each being about flat (year-over-year).

Consensus estimates as compiled by FactSet currently show S&P 500 EPS as forecast to be generally flat for the full-year, on sales growth of about +4.8%. These estimates are down from +3% and +5.0%, respectively, in March. The ongoing situation with China, a moderately stronger U.S. dollar and the economic slowdown in Europe, have all taken a toll on corporate results in a pattern that may continue over the near-term at least.

Earnings estimates for 2020 currently show expected growth of a strong 11%. We view the number as somewhat misleading, however. Though the estimated percentage gain appears strong, the dollar value of next-year’s S&P 500 EPS results has declined noticeably – but so too have this year’s expected earnings. Since the year began, S&P 500 consensus estimates for this year’s second half are down $4.90 per share, while full-year EPS estimates for 2020 are down $10.40 per share (about 5%).

Several factors are challenging corporate sales and profits. Slower global growth is affecting most sectors, while also weighing on commodity prices (thus pressuring sales and earnings of Energy and Materials related companies). A stronger dollar is also pressuring the results of U.S. multinationals as it takes more foreign currency to translate into each U.S. dollar for financial reporting purposes.

Additionally, we believe U.S. companies in aggregate have generated slightly less than 5% of their sales in China in recent years (based on data from the U.S. BEA), a market that could shrink rapidly under a further escalation of tensions.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarterly $$ amount</td>
<td>$30.87</td>
<td>$32.80</td>
<td>$33.54</td>
<td>$36.29</td>
<td>$38.71</td>
<td>$41.13</td>
<td>$42.87</td>
</tr>
<tr>
<td>yr/yr</td>
<td>-1%</td>
<td>6%</td>
<td>2%</td>
<td>8%</td>
<td>7%</td>
<td>6%</td>
<td>4%</td>
</tr>
<tr>
<td>Trailing 4 quarters $$</td>
<td>$119.02</td>
<td>$118.67</td>
<td>$119.64</td>
<td>$123.25</td>
<td>$126.42</td>
<td>$128.53</td>
<td>$133.50</td>
</tr>
<tr>
<td>yr/yr</td>
<td>6.8%</td>
<td>-0.3%</td>
<td>0.8%</td>
<td>11.6%</td>
<td>22.9%</td>
<td>0.7%</td>
<td>10.6%</td>
</tr>
</tbody>
</table>

Source: FactSet
Valuation metrics are currently somewhat elevated in relation to historical averages. Such metrics appear fair in our estimation, however, given current interest rates, solid balance sheets for most companies, and fairly strong relative domestic market conditions.

Source: FactSet
SUMMARY

Trade disputes, primarily that of the U.S. and China, represent a considerable risk to the intermediate-term economic outlook. Unfortunately, there is a great deal of uncertainty as to the potential path of this situation. Unlike a dispassionate evaluation of economic conditions, this issue basically comes down to a battle of wills between a select few individuals. In such cases, we believe the rational path (i.e., eventually coming to an agreement), will ultimately prevail as the economic consequences will grow too great. As we stated at the beginning of this report, however, we still believe the situation could get worse before getting better.

Although we believe a recession here in the U.S. remains unlikely due to strong consumer fundamentals, recession risks have clearly increased. We could ultimately slip into a recession should some external event, likely centered on trade, were to occur as to cause a sudden drop in consumer sentiment and spending.

The job market is also close to being about as good as it can get, and labor constraints are likely to weigh on the pace of growth going forward. Higher labor productivity (i.e., an increase in output per hour worked) can overcome labor constraints but this would require a material improvement in productivity trends.

Over the longer-term, we believe three fundamental factors: demographics, government debt, and China, will have an outsized influence on the path of global economic activity and financial markets. Demographics across the industrial world reflect slower population growth and aging societies; this implies slower potential economic growth than has been experienced historically. Government borrowing needs, particularly here in the U.S., are high and about to go much higher over the next few decades. This is somewhat of a new dynamic for fixed income markets and it remains to be seen at what rates markets will clear. Meanwhile, China has become a major influence in the global economy over a very short-period of time. Chinese leadership has been very strategic in wielding its expanding power and the country’s policies and actions do not always adhere to established norms of fair dealing. China’s path of development could someday intersect with those of presiding western powers in a messy way.

RISKS

Though we have confidence in our forecast of a slower-than-desired, yet continuing, global expansion, we recognize that a number of serious economic and financial market challenges remain. Government debt loads remain exceptionally high in most of the world’s developed economies. The hard choices associated with correcting these imbalances are likely to weigh on economic performance for some time; but allowing debt levels to continue higher would ultimately be worse. Recent volatility in foreign market capital flows, as well as wide currency swings that correspond with such, are also an economic risk that bears careful watching.

Furthermore, we are still in unchartered territory in terms of potential policy response should the economic expansion falter. Monetary and fiscal policy, the traditional levers of stimulus employed to counter a downturn, are largely exhausted. Interest rates have little room to go lower and government debts are already on an unsustainable path. Should another adverse global economic shock occur over the intermediate-term, there is little government officials could do to directly counteract the results.

Geopolitical risks (e.g., N. Korea, Syria, Venezuela, relations with China and Russia, most notably) are also more difficult than they have been in a long time. The impact of these issues on economic and financial market activity has been reasonably contained thus far, but tensions could easily evolve into much more serious problems. There always have been problems for the global economy /capital markets to deal with, and there always will be.

This space intentionally left blank
"The content in this report is authored by American Enterprise Investment Services Inc. ("AEIS") and distributed by Ameriprise Financial Services, Inc. ("AFSI") to financial advisors and clients of AFSI. AEIS and AFSI are affiliates and subsidiaries of Ameriprise Financial, Inc. Both AEIS and AFSI are member firms registered with FINRA and are subject to the objectivity safeguards and disclosure requirements relating to research analysts and the publication and distribution of research reports. The "Important Disclosures" below relate to the AEIS research analyst(s) that prepared this publication. The "Disclosures of Possible Conflicts of Interest" section, where applicable, relates to the conflicts of interest of each of AEIS and AFSI, their affiliates and their research analysts, as applicable, with respect to the subject companies mentioned in the report.

Each of AEIS and AFSI have implemented policies and procedures reasonably designed to ensure that its employees involved in the preparation, content and distribution of research reports, including dually registered employees, do not influence the objectivity or timing of the publication of research report content. All research policies, coverage decisions, compensation, hiring and other personnel decisions with respect to research analysts are made by AEIS, which is operationally independent of AFSI.

IMPORTANT DISCLOSURES
As of June 30, 2019
The views expressed regarding the company(ies) and sector(s) featured in this publication reflect the personal views of the research analyst(s) authoring the publication. Further, no part of research analyst compensation is directly or indirectly related to the specific recommendations or views contained in this publication.

A part of a research analyst’s compensation may be based upon overall firm revenue and profitability, of which investment banking, sales and trading, and principal trading are components. No part of a research analyst’s compensation is based on a specific investment banking transaction, nor is it based on sales, trading, or principal trading. A research analyst may have visited the material operations of one or more of the subject companies mentioned in this research report. No payment was received for the related travel costs.

Additional information and current research disclosures on individual companies mentioned in this research report are available on our website at ameriprise.com/legal/disclosures in the Additional Ameriprise research disclosures section, or through your Ameriprise financial advisor. You may also submit a written request to Ameriprise Financial, Inc., 1441 West Long Lake Road, Troy MI, 48098. Independent third party research on individual companies is available to clients at ameriprise.com/research-market-insights. SEC filings may be viewed at sec.gov.

INDEX DEFINITIONS
An index is a statistical composite that is not managed. It is not possible to invest directly in an index.

Definitions of individual indices mentioned in this report are available on our website at ameriprise.com/legal/disclosures in the Additional Ameriprise research disclosures section, or through your Ameriprise financial advisor.

ADDITIONAL RISK DISCLOSURES
International investing involves increased risk and volatility due to political and economic instability, currency fluctuations, and differences in financial reporting and accounting standards and oversight. Risks are particularly significant in emerging markets.

DISCLAIMER SECTION
Except for the historical information contained herein, certain matters in this report are forward-looking statements or projections that are dependent upon certain risks and uncertainties, including but not limited to, such factors and considerations as general market volatility, global economic and geopolitical impacts, fiscal and monetary policy, liquidity, the level of interest rates, historical sector performance relationships as they relate to the business and economic cycle, consumer preferences, foreign currency exchange rates, litigation risk, competitive positioning, the ability to successfully integrate acquisitions, the ability to develop and commercialize new products and services, legislative risks, the pricing environment for products and services, and compliance with various local, state, and federal health care laws. See latest third-party research reports and updates for risks pertaining to a particular security.

This summary is based upon financial information and statistical data obtained from sources deemed reliable, but in no way is warranted by Ameriprise Financial, Inc. as to accuracy or completeness. This is not a solicitation by Ameriprise Financial Services, Inc. of any order to buy or sell securities. This summary is based exclusively on an analysis of general current market conditions, rather than the suitability of a specific proposed securities transaction. We will not advise you as to any change in figures or our views.

Past performance is not a guarantee of future results.

Investment products are not federally or FDIC-insured, are not deposits or obligations of, or guaranteed by any financial institution, and involve investment risks including possible loss of principal and fluctuation in value.

AFSI and its affiliates do not offer tax or legal advice. Consumers should consult with their tax advisor or attorney regarding their specific situation.

Ameriprise Financial Services, Inc. Member FINRA and SIPC.