CHEVY CHASE TRUST
INVESTMENT ADVISORS

Investment Update—July 2017

This is a quarterly update of economic conditions and investment strategy.

Global equity markets rose during the first half of 2017. In fact, annualized returns are on pace for the fifth best showing in 30 years. The MSCI All Country World Index (ACWI) generated a total return of 4.45% during the second quarter of 2017, bringing its year-to-date return to 11.82%. Although the total return for the S&P 500 Index was below that of the ACWI, the S&P still generated a healthy total return of 3.09% for the second quarter and 9.34% year-to-date. The S&P outperformed most global indices each of the past four years. But relative economic conditions and policy positions have changed and it is not surprising the U.S. has lagged most non-U.S. markets in 2017.

Despite this strong performance, investor sentiment is less sanguine. One potential reason is political uncertainty. History has proven that when it comes to investing, it pays to be apolitical. Tying investing to politics tends to be a losing proposition or, at least, a fleeting proposition. We believe that equity markets generally align with economic fundamentals. Strong post-election returns of some stocks based on beneficial exposure to proposed U.S. infrastructure spending and/or tax reform has reversed during the first half of 2017. In our opinion, current equity market valuations are not dependent on new fiscal stimulus. In fact, we believe at this point in the cycle, fiscal stimulus would be counterproductive and likely lead to further tightening of monetary policy which would, in turn, hurt economic growth and equity market multiples.

Broadly speaking, we continue to be in a low growth, low inflation environment. This is a positive backdrop for equity markets. While the sheer length of the current U.S. expansion, now over eight years and the third longest in the post-war era, is worrying to many, expansions do not die of old age. Rather, they usually end by some combination of Federal Reserve tightening and the unwinding of built-up imbalances.

During the most recent Federal Reserve meeting in mid-June, Chairwoman Yellen reaffirmed that the Fed remains inclined toward more rate hikes. This is our biggest concern. We think the Fed has just about exhausted its ability to raise rates without hurting the economy and equity markets. As growth and inflation data continue to come in below expectations, we think the current Fed stance will soften and slow (as it has done several times in recent years). If we're right, it will support current or even slightly higher equity market multiples.

Today's economic imbalances are not as severe as those leading up to past recessions. The ratio of household debt-to-disposable income is still close to post-recession lows. Corporate debt-to-GDP is relatively high and somewhat concerning, but cash flow growth seems adequate to cover the increase in debt, and credit spreads remain extremely low. If corporate profitability declines for any reason, debt levels could become an issue. We don't think this is a risk in the near term, but the end of the business cycle is likely closer in the U.S. than other major economies. Given this backdrop, we have added a new theme to portfolios to reflect this shift in global positioning.

Investment Themes

Our themes capitalize on secular trends, disruptive ideas, innovations and economic forces that are reshaping the world. Thematic portfolios include growth and value stocks, large and small capitalization stocks and companies with different geographic domiciles and global exposures. Each theme spans multiple sectors with macroeconomic conditions influencing sector, factor and geographic weightings. Five major themes shape our portfolios.

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Molecular Medicine Will Revolutionize Healthcare

Breakthroughs in genomic science are changing the practice of medicine. Genomic sequencing technology, clinical knowledge and data analytics are converging to deliver novel treatments and diagnostics that will improve medical outcomes and usher in a new era of healthcare.

- The sequencing market was approximately $5 billion in 2015. It is expected to grow to over $21 billion by 2020.
- The cost of sequencing is declining rapidly. Ten years ago it cost almost $10 million to sequence one genome. Today it costs between $1,000 and $2,000.
- Less than one million genomes have been sequenced to date. By 2025, 25% of the population in the U.S. will likely have their genome sequenced.
- Genetic information is increasingly being used to better treat many diseases, including cancers.
- Genomic data is doubling every seven months.

After a Hundred Year Migration to Suburbia, the U.S. is Urbanizing

Urbanization trends are occurring across the country influenced by demographics, changes in city planning, shifts in the housing market and new business models that leverage population density. Urban living has profound economic implications, changing behavior, spending and consumption patterns.

- Population growth in metro areas is now outpacing growth in non-metro regions.
- Urban areas have significantly higher income levels and more money is spent on clothing, education, travel and food outside the home.
- On-demand services, such as UBER, GrubHub and FreshDirect, are enabled by increasing population densities. These services are leading to an even greater divide between spending and consumption patterns in urban and non-urban areas.
- Rentership (versus home ownership) is increasing in every age cohort. Expectations are for at least an additional 4.4 million renter households by 2025.
- Suburban and near-urban population centers increasingly include urban-style developments to accommodate walkable “downtowns” and other urban amenities.

Next Generation Automation is Extending Beyond the Auto Industry

Automation that was concentrated in automobile production in the developed world is now penetrating other industries such as retail, food service, and even healthcare. This will lead to improved productivity, dramatic shifts in supply chains and growing end markets for technology components and industrial equipment.

- Improvements in machine vision, connectivity and programming/software are enabling robotics to extend beyond the factory floor.
- Amazon now employs over 80,000 mobile robots in warehouses and fulfillment centers, up from only 1,000 a few years ago.
- Amazon’s sales per square foot are over $1,800 versus approximately $200 for traditional retail stores.
- We estimate that shipments of industrial robots will increase five-fold this decade.
- Pricing for optical sensors used in machine vision has fallen from over $100 per megapixel in 2001 to less than $1 per megapixel today.

Intellectual Capital, Data and User Networks Create New and Sustainable Moats

Traditionally hard to measure assets such as access to nonpublic consumer data, intellectual capital (including R&D and proprietary technology), and robust user networks have become increasingly valuable. These properties provide competitive advantages and barriers to entry and have led to sustainably high returns for a select group of pioneering companies.

- The value of intellectual capital has held up better than that of traditional assets in recent years.
- Companies in the top-quintile of R&D spending-to-market capitalization have outperformed the market by 6% per annum since 1975 and more than that this decade.
- Increases in brand value have a strong correlation to long-term outperformance.
- The productivity gap between companies is widening. Between 2001 and 2013 the top 5% of firms within each industry generated productivity growth of 3% per

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annum, the remaining 95% saw productivity growth of less than 0.5%.

- In an increasing number of sectors, it has been "winner-take-all" or "winner-take-most" with one or two companies attracting the top talent and garnering most market share in a particular industry.

The U.S. Business Cycle Will End Before Others

With unemployment below 4.5% and the potential for future interest rate increases, it is likely that the U.S. business cycle will end before business cycles in other developed markets run their course. This may well end the multi-year stretch of U.S. outperformance and impact sector leadership in the second half of 2017 and beyond.

- The U.S. Federal Reserve has now raised rates four times. Current guidance is for at least one more increase in 2017. Another rate hike would bring the Fed Funds rate very close to, or potentially above, the neutral rate. This would mean monetary policy would shift from accommodative to restrictive.
- The Fed has also indicated that it would begin to reduce its balance sheet by year end. This would also be a form of tightening monetary policy.
- Conversely, central banks in Europe have much more room to maintain accommodative monetary policies, given the significantly higher levels of unemployment and very low inflation.
- European GDP growth outpaced U.S. GDP growth last year and is on track to do so again in 2017.
- The Bank of Japan is also likely to remain accommodative for the foreseeable future. Additionally, Japanese companies have been making important changes in corporate governance, which should benefit shareholders.

Fixed Income

For most of the quarter, performance in global fixed income markets seemed to indicate bond investors were pessimistic about prospects for global growth and inflation. Global bond yields fell steadily from mid-March through mid-June before rebounding in the last two weeks of the quarter. The U.S. ten-year bond yield was 2.60% on March 14th. It fell to a low of 2.12% on June 14th, then rebounded to 2.30% to end the quarter. Similarly, ten-year German bond yields yielded 0.44% in mid-March, fell to 0.26% in mid-June and then rebounded to 0.38%.

Interestingly, the low point in U.S. bond yields coincided with the June Federal Reserve Board meeting. We suspect that some of the recent rebound in yields is due to more dovish commentary coming from Fed Governors. Paradoxically, if the Fed does not slow its rate increases, we'd expect the increase in long-term yields to be short lived. Yields could fall to 2.0% or even a bit lower. However, if the Fed pauses, as we expect, it is likely ten-year bond yields will trade between 2.3% and 2.6% as was the case for most of the first quarter.

Overall, our positioning has not changed. We construct well-diversified, high-quality portfolios with short-intermediate durations. The average duration of our bond holdings is approximately 3.25 to 3.5 years and the vast majority of our bonds are investment grade.

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