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Centre Funds Insight – Winter 2018/19 Market Review & Outlook – U.S. Fixed Income

Over the long run, interest rate behavior reflects real economic growth, investors' inflation expectations or concerns, monetary policy, and bond market valuations. In our view, over the next few years – and barring a recessionary shock - steady real growth in the U.S. economy, inflation overshooting the Fed's 2% goal before moving back to the target rate, and continued monetary policy normalization should push interest rates higher, perhaps significantly higher. As of now, the U.S. economy continues to be in an expansionary state and is in almost the longest expansion in the post WWII period. U.S. labor market activity is strong and has positive momentum, which has lowered the unemployment rate below the level that is sustainable historically. Current estimates of NAIRU, based on projected population growth and estimates of the labor force participation rate, are in the range of 4.5-4.7%. The unemployment rate in September 2018 reached 3.7% and some forecasts have it bottoming out in the 3.5-3.6% range in 2019. Job openings reported by the Department of Labor have reached record levels and the "quits rate" has increased. The quits rate is an indicator of confidence on the part of workers, as it indicates that those leaving current employment are searching for better positions. Labor market strength is further confirmed by the Non-Employment Index, which is designed to evaluate the likelihood of a return to the labor force by those no longer counted as active job seekers.

Real growth projections from the FOMC (which is currently forecasting 3.1%) and the Survey of Professional Forecasters (the "Survey") continue to increase and are now more closely aligned with our interest rate estimate of 2.75-3.0% for 2018. Our expectation remains in the 2.75 to 3.0% range in 2019 (consistent with that of the Survey) which is consistent with the slower pace (from 2018) of U.S. economic growth anticipated by the FOMC, the Survey, as well as the Congressional Budget Office (CBO). The projection for slowing economic growth is based on the view that the benefits from tax cuts will wash out after two years and that an aging population will combine with slow productivity growth to limit the economy's growth potential.

Recently, reported price data suggest that the special factors that have slowed the pace of inflation are now behind us. At annualized rates, the core PCE (Personal Consumption Expenditures) and various inflation calculations from the Atlanta, Cleveland, and Dallas Federal Reserve Banks indicate inflation is in line with, if not higher than, the Fed's 2% goal. The "Underlying Inflation Gauge" from the influential New York Federal Reserve Bank, which takes growth factors into consideration as well as price factors, indicates CPI (Consumer Price Index) inflation of greater than 3%. And, the "Wage Tracker" calculation from the Atlanta Federal Reserve indicates weighted wage growth in excess of 3%. In our view, with solid growth seemingly likely for the next two years and with inflation reaching the Fed's 2% target, the monetary policy normalization will continue, supporting the Fund's current bearish view on interest rates.

Historically, the FOMC's decision process has involved several small target rate increases initially. The Taylor Rule Utility maintained by the Atlanta Federal Reserve Bank indicates that, following the most recent increase to the 2.0-2.25% range, the actual funds rate is in line with the inertia-based approach followed in the past. Inertia in the current period appears warranted for at least three reasons. First, increasingly there are arguments for price level targeting as opposed to inflation rate targeting as the objective for optimal monetary policy. Given that the rate of inflation has been below the Fed's 2% target since 2012, the price level is below where it otherwise would be. Any change to a more rapid series of funds rate increases with likely result in higher bond market volatility and the Fund will react appropriately in its active duration management. Secondly, the lack of acceleration in the inflation rate as the unemployment rate has fallen to such a low level and the seeming failure of the Phillips curve may be indicative of some remaining labor market slack. The recent uptick in the labor force participation rate and the fact that the employment-to-population ratio for prime age males remains 1% below pre-2008 levels may be evidence of such slack. So, as various FOMC members have said, it seems likely that while monetary policy normalization continues, the Fed is willing to support some overheating of the labor market and an inflation rate somewhat above target for a period of time. Thirdly, James Bullard, President of the St. Louis Federal Reserve Bank, has recently said that the FOMC must be sensitive to not "invert the yield curve." While our own assessment is that yield curve inversions do not have the predictive power that may be attributed to them by some analysts and the financial press, many others, including policy makers and academics, continue to view them as indicative of near-term recessions.

As growth, improving inflation, and policy normalization continue, interest rates will undoubtedly increase. Several researchers both in the Federal Reserve system and in academia have hypothesized that Quantitative Easing ("QE") reduced longer term yields by a little less than 1%. Therefore, unwinding the balance sheet may put upward pressure on longer term yields by a similar level. Historically, the spread between the 10-year yield and the funds rate has been 150 basis points. So, a 3% funds rate (current estimates of the natural of 1% plus the Fed's 2% inflation target) would be consistent with a 4 1/2% 10-year yield. John Williams, President of the Federal Reserve Bank of San Francisco and a voting member of the FOMC, has suggested that a 1% spread may be normal going forward, which would put the 10-year rate at 4%. However, we see no reason why investors should willingly accept lesser term premia going forward unless the Fed proves to be a more stabilizing force than in the past. Given our growth expectations and the indicated willingness of policy makers to foster overshooting of the unemployment and inflation rate targets, our view is that rates could be in the 3.5-3.75% range before December 31, 2018. Assuming a stable term premia, the 10-year yield could easily break through the 5% level rate in the 2019/2020 if the FOMC's median projected path for the federal funds rate at 3.4% proves accurate.

Risks to the interest rate forecast described above may be more likely skewed to the upside than the downside in our view. In fact, even FOMC participants are currently placing greater weight on the upside risks to both their real growth and inflation projections than was the case in June. Like stock prices, rates tend to overshoot the level indicated by the fundamentals. Additionally, the Federal Reserve has never achieved a "soft-landing" in reaching its dual mandate of full employment and price stability, defined as an unemployment rate somewhat above where it stands today and an inflation rate of 2%. Upside risk may be even more probable given the Fed's expressed willingness to breach the 2% target by a "small amount" for a "temporary period," as neither "small" nor "temporary" were well specified by the Fed. Once currently well anchored inflationary expectations break free, actual inflation could spike higher, creating a vicious cycle as business and household expectations become embodied in pricing and spending decisions. In its most recent release, the Cleveland Federal Reserve Bank's expected inflation calculation has now moved above 2%.

Additionally, continued progress in rolling back the bureaucratic and regulatory environment that has hindered growth could create a more favorable climate for business than anticipated and accelerate the pace of hiring and investment for plants and equipment. Furthermore, if investors become convinced that tax simplification and restructuring, growth facilitating infrastructure spending will occur, and there is an improved pro-business regulatory environment, real rates could again spike higher. Longer term, yields will likely settle in the 5%-6% range if our expectations for real growth are realized and inflation, after a period of overshooting, settles at the Fed's 2% target. If this becomes the generally accepted outlook, we think investors will cause rates to move into this range sooner rather than later.

Risks to the downside of our higher interest rate outlook arise from arguments that the best days for U.S. and developed countries growth are behind us due to the demographic and productivity trends. Over time, inflation and real growth and interest rate levels generally reflect political, economic, and demographic related issues. Our short to intermediate growth outlook, for the reasons mentioned above, resembles, though it is somewhat less than, the economy's potential growth during much of the 20th and early part of the 21st centuries. In contrast, real growth projections based on the "*New Normal*" for the U.S. economy from the San Francisco Federal Reserve Bank are in the range of 1.5-1.75% while the Congressional Budget Office (CBO) is projecting 1.8% real growth through 2027. Combined with the Fed's 2% goal for inflation, these growth projections would place the equilibrium value for the 10-year yield at roughly 4% longer term. The arguments that form the basis for this significantly slower pace of growth relative to the 20th century average of around 3.0-3.25% revolve around a reduced rate of technological advancement, less contribution from education, and slower growth in the labor force.

An example of the New Normal thought is "The Rise and Fall of American Growth", whereby Robert Gordon argues that the technology related ideas of today are much less dramatic in their growth impact than the innovations of the past, such as the steam engine. John Fernald of the San Francisco Federal Reserve Bank projects productivity growth in line with its pace for most of the period since 1973 of only about 1%. He assumes that any contribution from educational attainment (increased human capital) has "plateaued" and that capital deepening (*i.e.*, increased capital per worker) will not spur labor productivity dramatically. The arguments for a reduced rate of growth in the future point to a slowing pace of labor force growth, which in turn reflects both slower population growth and the retirement of the "baby boomers".

Forecasting an ongoing lack of meaningful technological advancements and the failure of the educational system to adapt to changing skill requirements seems both problematic and pessimistic. And, to the extent that capital deepening has an impact on productivity, the ongoing pace of business investment spending is encouraging. This investment reflects, in our view, the attractive after-tax rate of return currently being earned, which has been stable to increasing of late according to research at the St. Louis Federal Reserve Bank. This research also calls into question the work concluding that a decline in the economy's natural rate of interest, the rate in real terms consistent with potential output growth and target rate inflation, has occurred. An explanation for why the real or natural rate of interest is below the return on capital may be an increased aversion to risk on the part of investors and a greater demand for the "riskless" asset, U.S. Treasury securities. Increased risk aversion could reflect demographic changes, global political and economic volatility, and the lingering aftermath of the global financial crisis. If investors become less concerned, they will be less willing to pay a higher premium for perceived safety.

Apart from the contrasting position noted above, there is a "stagflation" scenario that merits concern. Stanford's Hoover Institution highlights, for example, that if interest rates were to rise to 5%, instead of the Trump administration's prediction of just under 3.5%, the interest cost alone on the projected $20 trillion of U.S. public debt would total $1 trillion per year. More than half of all personal income taxes would then be needed to pay bondholders. Such high interest payments would crowd out financing of needed expenditures to restore our national defense budget, domestic infrastructure, and other critical government activities." In the event of a reduction in outlays for infrastructure, there could be a slowing of the economy's potential for growth. And, in our opinion the situation likely won't be corrected simply by looking to the private sector for the needed capital outlays. While the exact "tipping point" for a slowing in growth due to an excessive government debt-to-GDP ratio has not been well specified, research on the topic indicates to us that an increasing ratio does have negative growth implications. Additionally, research suggests that even real growth at the 20th century pace would not allow the U.S. to grow out of its growing deficit due to the current structure of the various entitlement programs.

This problem would likely be exacerbated if the President pressured the Fed to keep rates low. A loss of confidence in the Fed's independence could damage the strength of the U.S. Dollar, whose strength is needed to incent foreign purchases of U.S. bonds, and could potentially lead to a dramatic increase in inflation concerns and in inflation itself. The situation would likely be worse still, in our opinion, if the Fed succumbed to any such pressure. Individuals would likely adjust their spending downward, leading to slower growth with inflation having accelerated as excess liquidity is generated by the monetary authorities.

Regardless of the eventual outcomes for growth and inflation rates, there is nothing in this debate to suggest that the business cycle (generally, the natural rise and fall of economic growth over time) has been tamed out of existence or that it will not be exacerbated by monetary policy, either conventional or unconventional, as has been true in the past. In fact, some suggest that business cycles may occur more frequently and potentially be of greater downside magnitude if a lower real federal funds rate, consistent with slower trend growth, limits the Fed's ability to stimulate growth through conventional monetary policy. If true, this would increase opportunities for the Fund to benefit more frequently from cyclical declines in rates. If, on the other hand, real growth reverts toward its 20th century norm and inflation accelerates as policy makers delay too long in the normalization process, there will be a great need to protect the Fund's portfolio value against rising rates. There will, the Adviser believes, be an opportunity for the Fund to benefit from the eventual cyclical decline in rates as policy makers eventually act to rein in accelerating inflation.

Despite the near and intermediate term turbulence, our longer-term outlook assumes that the current regulatory environment will continue to be more pro-growth oriented through legislative action or executive orders, that the 2017 tax reforms will increase incentives to both work and invest, that infrastructure spending to facilitate growth will take place, and that further educational attainment will be achieved. Additionally, we anticipate that the future spending obligations of the Entitlement Programs (*e.g.*, Medicaid, Medicare, Social Security, etc.) will be addressed and that, as a result, the tax cut benefits to growth will not be eliminated because of increasing debt obligations. In sum, we remain bullish on the U.S. and longer-term we expect a continuing period of non-inflationary growth.

Going forward and consistent with history, rate behavior seems likely to continue to be cyclical in nature and jagged or violent in pattern as both market participants and policy makers react and overreact to the impacts of changing economic, inflation, and political conditions. Our investment strategy for the Fund is designed for such a world. It is intended to anticipate rate moves and adjust portfolio duration tactically for the benefit of the Fund's shareholders by seeking to take advantage of rate declines by extending duration and potentially lessening the impact on net asset value from interest rate increases by shortening the duration of the Fund.

Centre Funds

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T. Kirkham Barneby is the portfolio manager of the Active U.S. Treasury Fund. Mr. Barneby serves as Investment Director, Fixed Income of the Adviser. Prior to joining the Adviser in 2014, Mr. Barneby served as Senior Managing Director and Portfolio Manager at Hudson Canyon Investment Counselors, LLC, where he was responsible for managing private account clients in the Active Interest Rate Management strategy. Prior to that, Mr. Barneby held the title of Chief Strategist & Portfolio Manager, Taxable Fixed Income at American Independence Financial Services. Prior to AIFS, Mr. Barneby was a Managing Member of Old Iron Hill Capital Management, LLC employing quantitatively-oriented fixed income and multi-strategy investment approaches. Previously, he headed an investment group at UBS in New York that managed equity and bond portfolios with roughly $7 billion in assets. Mr. Barneby is a graduate of Southwest Missouri State College-now Missouri State University-with a Bachelor of Science Degree in Mathematics and Economics. Subsequently, he completed all course and exam requirements for a Doctorate in Economics at Oklahoma State University. He is a National Science, NDEA and Woodrow Wilson Fellow.

T. Kirkham Barneby is a registered representative of ALPS Distributor, Inc.

About The Fund

The Fund is a nontraditional U.S. Treasury securities fund that seeks to maximize investors' total return through capital appreciation and current income through investments in primarily U.S. treasury securities. The Fund has the potential for capital appreciation/preservation in various interest rate environments through a proprietary interest rate forecasting process that aims to take advantage of interest rate changes through active duration and interest rate management.

The Fund's investment objective is to maximize total return through capital appreciation and current income. The Fund pursues this objective by using an active interest rate risk management strategy. In other words, when interest rates are expected to decline, the Fund extends duration and when interest rates are expected to rise, the Fund shortens duration. The portfolio's duration is adjusted based on a monthly assessment of the likely change in interest rates. Our fundamentally-driven active duration management strategy seeks the potential for capital appreciation and/or preservation in variable interest rate environments by utilizing U.S. Treasury securities including bills, notes, bonds, inflation protected securities (TIPS), cash equivalents and, in certain market environments, futures contracts on U.S. Treasury Notes and Bonds.

The Centre Active U.S. Treasury Fund is intended to serve as a tactical (long, short or neutral duration relative to that of the Treasury market) fixed income investment by managing market exposure to achieve performance (i.e., managing interest rate beta to achieve alpha). Over time, it is intended to provide the same yield as the Treasury market with attractive diversification benefits given the underlying core portfolio of fixed income yielding bonds. In addition to its capital appreciation and current income generation objectives, the strategy is designed to accommodate both systematic and unforeseen cash needs, given the liquidity of the Treasury market. Furthermore, the utilization of Treasury securities within asset allocation is designed to provide attractive diversification properties, as the correlation between Treasury market returns and those of the U.S. equity market has historically been negative during recession related "bear" equity markets, particularly over the previous two decades. The Fund's investment discipline is designed to identify the risks and opportunities of trends and short term deviations from those trends in interest rate behavior by incorporating the Federal Reserve's policies, measures of real growth, inflation expectations, and market valuations. The Fund's investment discipline is intended to preserve capital in periods of significant rate increases by decreasing the portfolio duration and provide the flexibility to extend portfolio duration when rates are likely to decline.

Definitions and References

1. The Taylor rule is an equation John Taylor introduced in a 1993 paper that prescribes a value for the federal funds rate—the short-term interest rate targeted by the Federal Open Market Committee (FOMC)—based on the values of inflation and economic slack such as the output gap or unemployment gap.
2. An inverted yield curve is an interest rate environment in which long-term debt instruments have a lower yield than short-term debt instruments of the same credit quality.
3. The 10-year yield is the return on investment, expressed as a percentage, on the debt obligation issued by the U.S. government with a maturity of 10 years upon initial issuance.
4. Basis point refers to a common unit of measure for interest rates and other percentages in finance. One basis point is equal to $1/100^{th}$ of 1%, or 0.01%, or 0.0001, and is used to denote the percentage change in a financial instrument.
5. The term premium is the excess yield that investors require to commit to holding a long-term bond instead of a series of shorter-term bonds. Thus, a key component of the term premium is investor expectations about the future course of short-term interest rates over the lifetime of the long-term bond.
6. The term "New Normal" refers to a permanent downward departure from America's historic 3% growth rate. New Normal projections could be a response to the trauma of the financial panic, the European debt crisis, deleveraging, and downtrending demographics, summing to a suggestion of slower growth.
7. Stagflation is a condition of slow economic growth and relatively high unemployment, or economic stagnation, accompanied by rising prices, or inflation. It can also be defined as inflation and a decline in gross domestic product (GDP).
8. Duration is a measure of the sensitivity of the price of a fixed-income investment to a change in interest rates.
9. The Non-Employment Index is an alternative measure of the labor utilization that accounts for all non-employed individuals, distinguishing between groups like short-term versus long-term unemployed, discouraged workers, retirees, and disabled individuals, and adjusting for how likely each is to transition to employment.
10. "NAIRU," or non-accelerating inflation rate of unemployment, refers to a level of unemployment below which inflation rises.
11. Quantitative Easing is an unconventional monetary policy in which a central bank purchases government securities or

other securities from the market in order to lower interest rates and increase the money supply.

12. Beta is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. Beta is used in the capital asset pricing model (CAPM), which calculates the expected return of an asset based on its beta and expected market returns.
13. Alpha is a measure of performance on a risk-adjusted basis. Alpha takes the volatility (price risk) of a mutual fund and compares its risk adjusted performance to a benchmark index. The excess return of the fund relative to the return of the benchmark index is a fund's alpha.

Disclosures

Investors should consider the investment objectives, risks, charges and expenses of the Funds carefully before investing.

To obtain a prospectus containing this and other information, please call 1-855-298 4236 or download the file from www.centrefunds.com. Read the prospectus carefully before you invest.

There is no assurance that this investment philosophy will consistently lead to successful investing. An investment in the Funds involves risk, including loss of principal. Fixed-income securities are subject to repayment risk and the risk of price volatility due to interest rate sensitivity, market perception of the issuer's creditworthiness and general market conditions. As interest rates rise, the value of fixed-income securities typically declines. TIPS are long-duration assets, sensitive to changes in interest rates and, in the short term, can experience substantial fluctuations in price.

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