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Centre Funds Insight – Winter 2019/20 Market Review & Outlook – U.S. Fixed Income

Over the long run, interest rate behavior is determined by real economic growth, investors' inflation expectations or concerns, monetary policy, and current bond market valuations (term premium) with an allowance for the recent trend. The Treasury Fund portfolio manager's view is that the dramatic decline into negative territory in the term premium of the bellwether 10-year U.S. Treasury note will be reversed and that rates may move significantly higher in the next several months. This anticipated path in interest rates is based on the likely path of economic growth, rate of inflation, behavior of the monetary authorities, and the risk appetite of bond investors globally. Simple reversion to historical mean values in term premium would imply a significant capital loss, potentially in excess 10%, of value in bond portfolios and several years of income distributions.

The Fund's portfolio manager believes the U.S. economy is not "due" for a recession. Though the U.S. economy is now in the longest expansion in recorded business cycle history, research is consistent with the argument that expansions do not die of old age and that a shock to the demand or supply side is required. Despite all the hyperbole, a shock of sufficient magnitude to push the U.S. economy into recession is not likely to come from the trade sector. The trade component in U.S. G.D.P. (Gross Domestic Product) represents the smallest percentage, around 12%, compared to other developed countries. Further, countries like Vietnam are already on the move to replace China in the global supply chain if further negotiations fail to resolve the trade issues with China. The export component of the ISM Manufacturing Index has decreased materially but the overall reading, even though below 50, is consistent with ongoing positive growth of around 1.5%. This rate, while obviously a slowdown, is only slightly below current estimates of the economy's long-term potential based on productivity and demographics.

The shape of the Treasury yield curve has lately been highlighted in the press. However, there is no empirically validated theory underlying the statistical correlation between an inverted yield curve and a subsequent, with a lag of 1-3 years, recession in the economy. The relation of importance, identified by Knut Wicksell in the late 1800s, and emphasized in the writings of Von Mises in his studies of the business cycle and in the policy recommendations of Alan Greenspan, is that between the Federal Fund's rate and the economy's natural rate of interest. The natural rate of interest rate is the rate consistent with full employment and price stability. It, like the economy's natural rate of unemployment, is unobservable and must be inferred from the rate of economic growth, the pace of inflation, and the level of short-term rates. If the Federal Fund's rate target is above the natural rate, monetary policy is restrictive and vice versa. Even before the three recent reductions in the target for the Federal Fund's rate, monetary policy was likely neutral. The most recent moves in the target range, analyzed through the monetary policy tools maintained by the Federal Reserve Banks of Cleveland and Atlanta, have resulted in monetary policy that may be overly accommodative and that certainly supports continued expansion.

The appropriate target for the Federal Fund's rate, based on the Taylor Rule, is much higher than the current level. The Taylor Rule is a process developed by the economist John Taylor and is intended to determine the appropriate target or at least provide guidance to the Federal Open Market Committee (FOMC) in its policy deliberations. The research takes into consideration various estimates of the natural rate and various measures of the real output gap, any shortfall between actual and potential economic performance. It assumes that the inflation goal is 2% as measured by the deflator for personal consumer expenditures and that the FOMC reacts promptly to any required changes. However, allowance for the typical adjustment lag does not materially change the assessment that current policy is accommodative and not restrictive.

Currently, the minimum value indicated is around 2.5% versus the recently established range of 1.50-1.75%.

There is much evidence to indicate a negative relationship between economic policy uncertainty and economic growth. This relationship has been studied by Ben Bernanke in his published work and by numerous other economists as well. Other research providers are now devoted to various measures on policy uncertainty. An increase in policy uncertainty is followed with a lag by decreases in both hiring and investment spending on the part of businesses. While the pace of hiring, as measured by the average number in the establishment data reported by the Bureau of Labor Statistics, of hiring has slowed, it remains well above the level required to absorb new entrants into the labor force.

There has also been some slowing in investment outlays in the wake of trade policy uncertainty, but some slowing would have occurred given the rapid pace of investment spending over the previous quarters in any event and may be short-term. Recently, various measures of policy uncertainty have receded. The Partisan Conflict maintained by the Federal Reserve Bank of Philadelphia indicates as such.

In his examination of the nature and causes of the business cycle, Ludwig Von Mises concluded that excessive credit expansion is the cause. His analysis has been emphasized by Irving Fisher and Kenneth Rogoff and Carmen Rinehart although the latter authors argue for excessive debt as a major factor in worsening the cycle rather than in initiating it. Currently, although debt has been increasing it is not excessive.

Additionally, overall labor market activity has been, and continues to be, at a high level with positive momentum. The estimate of NAIRU (Non-Accelerating Inflation Rate of Unemployment) at 4.5% is increasingly viewed as being too high. A value less than 4.0% is more likely, so the labor market is not overly tight at present, there is labor available. Further, a key category of the work force, those of prime age, 25-54, has not yet returned to its pre-crisis level of participation. The shortfall likely reflects a reduction in middle management positions and/or those job categories that involve repetitive activities without a great demand for cognitive skills. This shortfall points to the importance of education in developing human capital that is consistent with the skills required for increasingly technology-based production processes in both the manufacturing and non-manufacturing sectors of the economy. Strong labor force activity fuels consumer spending which accounts for two-thirds of U.S. G.D.P. Importantly, the strength in labor activity has, in the recent past, been of greater benefit to the rate of growth of wages of those workers in the lower wage deciles. The lower earnings deciles generally include the Hispanic and non-white categories of the labor force. As a result, the various wage "gaps" have begun to narrow. This narrowing, in turn is beneficial to the overall level of consumer spending.

Nowcasts for real growth in the third quarter from the Atlanta and New York Federal Reserve Banks are in the 1.7-2.0% range. Going forward, however, the Fund's portfolio manager believes that real growth will remain above 2% if continued progress is made in reducing regulations including environmental hindrances to growth, tax cuts become permanent, and economic policies become less uncertain. On the regulatory front, oil and gas fracking as an example has made statistically significant contributions to real growth. Current considerations on water usage may likewise be of significant import to agricultural production. These benefits and others, in most cases, do not come at the cost of a deteriorating quality in the environment. The effects of the recently enacted tax cuts on growth are expected to wane unless they are made permanent. Further tax reductions and tax code simplifications would be beneficial to growth. Finally, trade policy needs to be finalized and criticism of the FOMC, particularly Chairman Powell, should stop. An independent monetary authority does not guarantee the value of a country's currency but there exists a negative correlation between the degree of independence and the likelihood of high/excessive inflation.

While these efforts will probably not return growth to a trend rate above 3%, a potential in the 2.5-3% range is achievable.

The declining unemployment rate and the absence of a significant increase in the rate of inflation had been a matter of concern to policy makers. Research seemed to suggest that the Phillips curve relationship no longer held, that is lower unemployment leading to higher inflation. However, as noted above, NAIRU may have been overestimated. If it is below 4% instead of 4.5% then labor market conditions, while good, did not signal an overheated situation. As a result, accelerating inflation was not yet predictable. Further research in this area indicates that a stable Phillips curve relationship exists if inflation is properly defined, and if the phase of the business cycle is taken into consideration. So, an increase in inflation is likely forthcoming.

The inflation measures calculated by the various Federal Reserve Banks, e.g., "sticky-price", trimmed mean and the "underlying inflation gauge", are currently at least consistent with the FOMC's 2% goal. The wage tracker maintained by the Atlanta Fed shows wages growing at a 3.6% rate. Adjusted for productivity growth of 1%, this rate of wage increase is also consistent with inflation at or above the 2% goal. However, inflation by various measures remains well-anchored at a level below 2%. This is a problem for policy makers as expectations are the basis for pricing and spending decisions and eventually the actual inflation rate.

Mary Daly, President of the Federal Reserve Bank of San Francisco, has argued that the increased commitment to maintaining price stability, communicated to the public, may have caused a reduction in expectations for ongoing inflation— meaning the Fed's credibility has caused the problem it now faces. As a result, there is now growing support among policy makers for price level or average inflation targeting. Such approaches imply that if inflation has run below target for a period, since 2012 in this case, it should be allowed to run above target for a period until the desired price level or the average rate of inflation is achieved that is consistent with the long-term goal. Recently, precious metals' prices have begun to increase though not yet on a consistent basis. Historically, precious metals' price behavior has been evidence of investor concern about future inflation, buying implying the need to hedge. Our view is that the rate of inflation, given the likely path of monetary policy, will move above, perhaps well above, 2%.

Whether to help offset the negative effects of uncertainty and/or to cause inflation expectations to "break out," monetary policy will probably continue to be overly accommodative for some period of time. As our research indicates, the policy rate target is probably at least 50 basis points too low. It is unlikely that the target is further reduced from the current level as there is already dissention among FOMC members, although James Bullard of the St. Louis Fed actually argued for a half point reduction at the last meeting rather than the quarter point on which the FOMC eventually settled, about the need for any cuts at all. Our view is that, as has been the case historically, the FOMC will overstay the period of accommodation and that inflation will overshoot the 2% goal by more than the required amount.

The FOMC continues to describe itself as data dependent. And, while a great deal of effort has gone into evaluating leading indicators of policy objectives, full employment and price stability, it is still difficult to determine exactly where the actual and unobservable data, e.g., NAIRU, are in relation to each other. Additionally, once inflation expectations do break free, controlling them into a soft landing may prove, as it has historically been, a difficult task.

While bond investors globally have sacrificed return for safety and liquidity over much of the last year, it is unlikely that this situation will continue to prevail. Longer term, investors are unlikely to be satisfied by the current spreads between long and short term rates. The existing flat yield curve and a term premium on the benchmark 10-year U.S. Treasury note that is negative relative to its long term mean of roughly 160 basis points is justified only if investors fully discount the risk of future increases in short term real rates or the risk of variation in the rate of expected future inflation and/or are willing to accept future dollars that have less purchasing power than those currently being invested.

There is an increasing body of research on the long term relationship between demographics and the level of interest rates. This research suggests that an aging population, all else constant, creates an increased demand for bonds putting downward pressure on rates. However, all else is not constant, as individuals are living longer and so the period of dissaving associated with the period after retirement will be longer putting upward pressure on rates. At a minimum, the risk premium is likely to return to positive territory even it doesn't revert all the way to its historic mean value. Longer living investors need returns.

The historic spread between the Federal Funds rate and the benchmark 10-year yield has been 150 basis points. If the appropriate target, based on our research is 2.5% that would imply a 10-year rate of approximately 4%. Additionally, the long term average term premium added to the current 10-year rate would indicate a yield approaching 3.5%. John Williams, now President of the Federal Reserve Bank of New York, has argued that the spread relative to the fund's rate may be 100 basis points going forward; if so, this argument would still imply a 10-year yield approaching 3.5%. So, from many perspectives, it appears that longer rates are simply too low in light of economic growth, inflation, and risk (term) premium considerations. This situation will be exacerbated if the FOMC overestimates the length of the period that inflation needs to be in excess of 2% in order to reach the price that would have been reached if inflation had increased at a 2% rate since 2012 or to achieve an average 2% inflation rate over the period. Inflation expectations will break out and, if in excess of 2%, will lead to even higher rates beyond 4%.

An argument for lower rates in the future relative to that implied by the above relationships comes from the investment side of the investment savings equation that defines equilibrium in the economy. The economist Lawrence Summers has argued that profitable investment opportunities are not as plentiful as they once were and that, as a result, the real return on capital investment, which is equal to the real interest rate in standard growth models, is reduced. This argument has been refuted by research at the St. Louis Federal Reserve Bank which, based on business income statements and balance sheets, indicates that the real after-tax return on capital is not materially lower than it has been historically and remains attractive. The authors maintain that the current level of lower nominal interest rates is due to an increased demand for safety.

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. The Interest Rate Scorecard is designed for such a world. It is intended to anticipate rate moves and adjust portfolio duration tactically for the benefit of shareholders of the Treasury Fund by taking advantage of rate declines and shielding value against rate increases.

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.

About The Fund

The Centre Active U.S. Treasury 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 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 1/100th 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.
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.

Centre Funds

<u>Disclosures</u>

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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