# Fixed Income

**Q3 2018 REVIEW**

## FIXED INCOME COMMENTARY: Q3 2018

*by Matthew S. Guleserian, CFA*

### Market Review

- The third quarter saw several days of market stress and volatility brought on by global trade tensions, emerging market currency declines and Italian and European Union budget issues. However, US treasury yields resisted virtually all attempts to move lower.
- US economic growth continued to show gains, with the latest non-manufacturing PMI hitting 61.6, a level seen only three times since 1983. (Recall that the US economy is about 70% service-oriented and that a number above 50 indicates that the economy is expanding.)
- Stronger US economic data and an increase in expected Fed rate hikes kept the upward pressure on bond yields. The yield on the 10-year US treasury tested its May 2018 high of 3.11% and ended the third quarter at 3.06%, twenty basis points higher than where it began the quarter.
- Higher rates caused US treasury and municipal bonds to generate negative returns during the quarter, in the range of 0.0% to -2.0%, depending on quality and maturity. However, US credit spreads rebounded after widening during the first and second quarters resulting in positive returns for high grade corporate bonds. Year-to-date, high grade corporate bonds continue to trail US treasury and municipal bonds.
- The Bloomberg Barclays Municipal Index declined 0.15% during the third quarter. Most all sectors saw declines, but Puerto Rico and a select few other low quality credits saw gains due to positive debt restructuring news.
- The Bloomberg Barclays Corporate Index gained 0.97% during the third quarter. Most all sectors saw gains, led by the Industrial sector.
- The US treasury and municipal yield curves flattened further during the third quarter with shorter maturity yields rising more than longer maturity yields. Short maturity municipal yields increased the most.
- At the September meeting, the Federal Reserve raised the fed funds rate range for the third time this year to 2.00% to 2.25%. Their dot plot median reflects one more rate hike this year, three hikes to 3.00% to 3.25% in 2019, and one more hike to 3.25% to 3.50% in 2020.
- In its forward guidance, the FOMC acknowledged the remarkable strength in the US economy and thus revised its 2018 US GDP forecast to 3.1% from 2.8% and 2019 US GDP to 2.5% from 2.4%. Their forecasts for inflation and unemployment were essentially the same as outlined during their June meeting.
- The European Central Bank left its monetary stance unchanged at its September meeting. Net asset purchases will end in December, but the reinvestment of their existing holdings' maturities will maintain substantial stimulus. No increase in their policy interest rates are expected until September 2019. The ECB appears to be following the same playbook as the US Federal Reserve.

### LMCG Composite Performance

LMCG's Core Bond strategy continues to rebound from the negative first quarter returns. The strategy produced positive returns and outperformed the benchmark index during the third quarter. Our positive outperformance was driven by a rebound

### Bond Market Snapshot

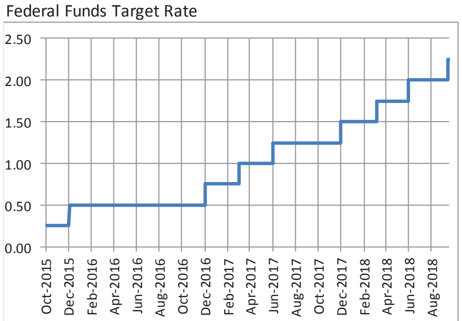
As of 9/30/2018

| Index Yields & Returns | Yield-to-Worst | QTD Return | YTD Return |
|---|---|---|---|
| *Bloomberg Barclays Municipal:* | | | |
| Muncipal Index | 2.86% | -0.15% | -0.40% |
| California Municipal Index | 2.64% | -0.22% | -0.34% |
| New York Municipal Index | 2.77% | -0.23% | -0.67% |
| Massachusetts Municipal Index | 2.79% | -0.27% | -0.74% |
| *Bloomberg Barclays Aggregate:* | | | |
| Aggregate Index | 3.47% | 0.02% | -1.60% |
| Government/Credit Index | 3.40% | 0.06% | -1.85% |
| Treasury Index | 2.95% | -0.59% | -1.67% |
| Corporate Index | 4.07% | 0.97% | -2.33% |

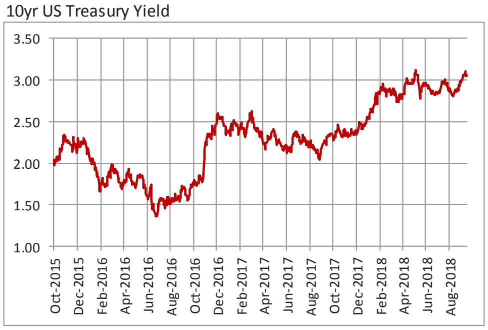
| Muncipal Yields & Ratios | Yield | QTD Change | YTD Change |
|---|---|---|---|
| *Bloomberg AAA Muni:* | | | |
| 2-year | 1.96% | 33 bps | 42 bps |
| 5-year | 2.21% | 23 bps | 53 bps |
| 10-year | 2.60% | 15 bps | 60 bps |
| 30-year | 3.21% | 27 bps | 66 bps |
| *Bloomberg Muni/Treasury %:* | | | |
| 2-year | 70% | 500 bps | -1200 bps |
| 5-year | 75% | 200 bps | -200 bps |
| 10-year | 86% | 0 bps | 200 bps |
| 30-year | 102% | 200 bps | 600 bps |

| Taxable Yields | Yield | QTD Change | YTD Change |
|---|---|---|---|
| *US Treasury:* | | | |
| 2-year | 2.82% | 29 bps | 94 bps |
| 5-year | 2.95% | 21 bps | 75 bps |
| 10-year | 3.06% | 20 bps | 66 bps |
| 30-year | 3.21% | 24 bps | 47 bps |
| *Bloomberg US Corporate:* | | | |
| High Grade | 4.07% | 5 bps | 82 bps |
| AA-rated | 3.55% | 10 bps | 76 bps |
| BBB-rated | 4.38% | 0 bps | 79 bps |
| High Yield | 6.24% | -25 bps | 53 bps |

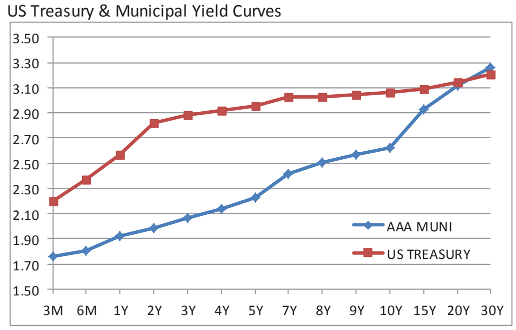
Federal Funds Target Rate




10yr US Treasury Yield




US Treasury & Municipal Yield Curves




Source: Bloomberg

in corporate credit spreads, as well as allocations to some out-of-benchmark sectors, including taxable municipals, hybrid preferred credits and some variable-rate structured bonds. Our Municipal Bond strategy generated weaker absolute returns than our taxable Core strategy, but matched the broader municipal benchmark index during the third quarter. Lower quality municipal securities continued to outperform higher quality municipal securities. Higher interest rates continue to be a challenge for both our Core and Municipal bond strategies with year-to-date total returns of approximately -0.3% for both strategies.

**LMCG Core Bond Composite Performance**

As of 9/30/2018, US Dollar

| | | | | Annualized | | | |
|---|---|---|---|---|---|---|---|
| | Q3 2018 | YTD 2018 | 1 Yr | 3 Yrs | 5 Yrs | 10 Yrs | Since Inception* |
| **LMCG Core Bond (Gross)** | **0.5** | **-0.3** | **0.2** | **2.6** | **2.9** | **4.5** | **4.5** |
| **LMCG Core Bond (Net)** | **0.3** | **-0.8** | **-0.6** | **1.8** | **2.1** | **3.7** | **3.8** |
| Bloomberg Barclays Capital Interm U.S. Gov't/Credit Index | 0.2 | -0.8 | -1.0 | 0.9 | 1.5 | 3.2 | 3.6 |

*Inception: June 2006.

Past performance is not indicative of future results. Investment advisory fees are described in Part 2A of LMCG's Form ADV. Gross performance returns presented above are net of transaction costs and include the reinvestment of dividends and other earnings but do not reflect the deduction of investment management fees which would reduce returns. Net returns are calculated by applying the investment management fee schedule noted in the composite disclosure to the gross returns of the accounts included in the composite. For information regarding the impact of investment management fees on performance, please refer to the attached composite disclosure. Shown as supplemental information only and complements the Core Bond composite disclosure attached.

**LMCG Municipal Bond Composite Performance**

As of 9/30/2018, US Dollar

| | | | | Annualized | | | |
|---|---|---|---|---|---|---|---|
| | Q3 2018 | YTD 2018 | 1 Yr | 3 Yrs | 5 Yrs | 10 Yrs | Since Inception* |
| **LMCG Municipal Bond (Gross)** | **-0.1** | **-0.3** | **-0.3** | **1.2** | **2.0** | **3.1** | **3.2** |
| **LMCG Municipal Bond (Net)** | **-0.3** | **-0.9** | **-1.1** | **0.5** | **1.2** | **2.4** | **2.5** |
| Bloomberg Barclays Capital 1-10 Yr. Municipal Bond Index | -0.1 | 0.0 | -0.2 | 1.4 | 2.2 | 3.4 | 3.5 |

*Inception: June 2006.

Past performance is not indicative of future results. Investment advisory fees are described in Part 2A of LMCG's Form ADV. Gross performance returns presented above are net of transaction costs and include the reinvestment of dividends and other earnings but do not reflect the deduction of investment management fees which would reduce returns. Net returns are calculated by applying the investment management fee schedule noted in the composite disclosure to the gross returns of the accounts included in the composite. For information regarding the impact of investment management fees on performance, please refer to the attached composite disclosure. Shown as supplemental information only and complements the Municipal Bond composite disclosure attached.

## LMCG Outlook & Strategy

Higher interest rates are beginning to have negative effects on both the economy and on riskier assets. Areas of the economy that are sensitive to financing costs, such as auto and home sales, have seen some signs of slowing. The riskier equity markets, e.g., emerging markets, have also shown signs of stress during this latest bout of rising rates. While our outlook is not especially bullish for interest rates, we believe that the largest and most dramatic rise in yields is behind us for this year and that the next move is likely lower. With higher rates and stronger economic expectations fully priced into the bond market, any weakening economic data could start a move to lower yields.

Some themes guiding our fixed income strategy heading into the fourth quarter:

- Higher yields, larger supply, and potentially higher volatility as the mid-term elections draw closer could provide some opportunities to add to credit and duration in the fourth quarter.
- The Fed has not implied anything new in its latest statement. During the September meeting, the Fed removed the word "accommodative" in reference to monetary policy. As Chairman Powell said at the press conference, the removal doesn't mean that policy is no longer accommodative. Rather, the economy is no longer fragile, so there is no need for the word. Obviously, since the funds rate is at 2.0-2.5% and the projected longer run terminal rate is 3.0-3.25%, policy is still accommodative.
- The market's narrative remains one of rising inflation, but inflation should remain close to the Fed's 2% target. Inflation readings accelerated during the first half of 2018, but have since moderated. The Producers Price Index (PPI) has declined for three consecutive months, from 2.83% to 2.64% year-over-year, the lowest level since December 2017. The stronger US dollar is also helping keep inflation in check.
- One potential risk of China/US trade tensions may be an even stronger US dollar. China exports more to the US than the US imports to China and thus, China's growth is more at risk. In response to weakening growth, China may ease policy further and depreciate their currency, which would likely strengthen the dollar.
- We believe the Fed will hike one more time in 2018 and two more times in 2019; Three more 25 basis point hikes from the current level will put the Fed Funds Target Rate at their long-term terminal rate of 3%. At that point, we believe the Fed will re-evaluate policy depending on their latest economic growth and inflation outlooks.
- We view recent municipal underperformance to be more of a correction rather than a bear market. Earnings growth and the effects of fiscal stimulus are expected to slow in the US in 2019, thus our view that the US economy is late in the economic cycle has not changed. Municipal bonds remain attractive for their relatively stronger performance characteristics during Fed tightening cycles and late cycle economies.
- We maintain our bias for high quality corporate credits. Low quality corporate bonds have performed better than their higher quality counterparts this year. Supply differentials appear to be the leading factor as the supply of low quality bonds has declined much more than the supply of high quality bonds this year. We believe this technical dynamic has only masked the deterioration in corporate credit quality. We believe that valuations for lower quality bonds are stretched. The current ratio of low quality bond yields relative to high quality bond yields is about 150%, which is the lowest since before the financial crisis and approaching the all-time low of 125% reached in 2007.

# Fixed Income



## CORE BOND COMPOSITE

**Schedule of Annual Returns**

January 1, 2008 through December 31, 2017

| | Gross Returns (%) | Net Returns (%) | Benchmark Returns[1] (%) | Dispersion (bps) | Composite 3yr Ex Post Standard Deviation[2] (%) | Benchmark 3yr Ex Post Standard Deviation[2] (%) | Number of Accounts | Composite Assets at End of Period ($ millions) | Total Firm Assets ($ millions) |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | 4.0 | 3.2 | 2.1 | 64 | 1.9 | 2.1 | 23 | 41.5 | 7,551.3 |
| 2016 | 4.4 | 3.6 | 2.1 | 91 | 2.1 | 2.2 | 23 | 46.6 | 7,367.5 |
| 2015 | 1.2 | 0.4 | 1.1 | 81 | 2.3 | 2.1 | 31 | 41.2 | 6,786.9 |
| 2014 | 4.7 | 3.9 | 3.1 | 76 | 2.3 | 1.9 | 30 | 40.3 | 6,370.5 |
| 2013 | -0.5 | -1.3 | -0.9 | 44 | 2.3 | 2.1 | 26 | 36.7 | 5,831.5 |
| 2012 | 5.9 | 5.1 | 3.9 | 62 | 2.2 | 2.2 | 20 | 33.4 | 4,402.6 |
| 2011 | 6.3 | 5.5 | 5.8 | 65 | 2.6 | 2.6 | 18 | 29.8 | 4,200.7 |
| 2010 | 7.0 | 6.3 | 5.9 | 121 | 3.8 | 4.0 | 17 | 28.5 | 4,412.7 |
| 2009 | 9.3 | 8.7 | 5.2 | 124 | 3.6 | 3.8 | 15 | 27.1 | 4,365.1 |
| 2008 | 3.2 | 2.5 | 5.1 | 294 | - | - | 12 | 40.7 | 2,527.4 |

1 Benchmark returns have been obtained from an independent source and have not been examined by independent accountants.
2 The three-year annualized standard deviation is not presented for December 31, 2008 because the composite did not have 36 monthly returns in that time period.

**Core Bond Composite** Portfolios included in this composite seek to earn consistent, above average returns while taking a low risk approach to fixed income asset management. The fixed income investment philosophy focuses on constructing high quality portfolios with an intermediate-term maturity structure. The portfolio invests in taxable fixed income bonds including but not limited to US Treasuries, Agency bonds and corporate bonds. All securities purchased are investment grade. The composite includes fully discretionary bond portfolios. For comparison purposes, the Barclays Intermediate Government/Credit Index is used. The minimum fixed income value requirement for inclusion in the composite is $750,000. The composite minimum prior to January 1, 2013, was $500,000. The inception date of the composite is June 1, 2006. The composite was created in October 2008.

Royal Bank of Canada ("RBC") became LMCG's indirect majority owner in November 2015 when RBC acquired City National Corporation ("CNC"). Effective January 1, 2015, Lee Munder Capital Group, LLC is known as LMCG Investments, LLC ("LMCG"), an investment adviser registered with the Securities and Exchange Commission. In July 2009, the firm was reorganized as an affiliate of CNC and took the name of Lee Munder Capital Group, LLC., prior to which it was known as Lee Munder Investments Ltd. ("LMIL"), which itself was an investment adviser registered with the Securities and Exchange Commission. The firm maintains a complete list and description of composites, which is available upon request.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. The U.S. Dollar is the currency used to express performance. Performance results are presented gross and net of management fees and include the reinvestment of income. Net returns are calculated by applying the investment management fee schedule noted below to the gross returns of the accounts included in the composite. The annual composite dispersion presented is an asset weighted standard deviation calculated for the accounts in the composite the entire year. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

The investment management fee schedule is as follows: Beginning January 1, 2011, 0.80% on the first $1 million and 0.77% on assets above $1 million. The prior fee schedule was 0.65% on the first $1 million and 0.62% on assets above $1 million. Actual investment advisory fees incurred by clients may vary

LMCG claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. LMCG has been independently verified for the periods October 1, 2000 through December 31, 2017. The verification report(s) is/are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. Past performance is not indicative of future results.

## MUNICIPAL BOND COMPOSITE

**Schedule of Annual Returns**

January 1, 2008 through December 31, 2017

| | Gross Returns (%) | Net Returns (%) | Benchmark Returns[1] (%) | Dispersion (bps) | Composite 3yr Ex Post Standard Deviation[2] (%) | Benchmark 3yr Ex Post Standard Deviation[2] (%) | Number of Accounts | Composite Assets at End of Period ($ millions) | Total Firm Assets ($ millions) |
|---|---|---|---|---|---|---|---|---|---|
| 2017 | 3.3 | 2.5 | 3.5 | 43 | 2.3 | 2.5 | 62 | 118.1 | 7,551.3 |
| 2016 | 0.1 | -0.7 | -0.1 | 37 | 2.3 | 2.4 | 57 | 115.1 | 7,367.5 |
| 2015 | 2.3 | 1.5 | 2.5 | 22 | 2.1 | 2.1 | 59 | 105.1 | 6,786.9 |
| 2014 | 4.3 | 3.5 | 4.7 | 43 | 2.1 | 2.2 | 57 | 102.4 | 6,370.5 |
| 2013 | -0.3 | -1.1 | -0.3 | 72 | 2.3 | 2.5 | 51 | 91.6 | 5,831.5 |
| 2012 | 3.1 | 2.3 | 3.6 | 55 | 2.5 | 2.5 | 46 | 86.0 | 4,402.6 |
| 2011 | 6.8 | 6.0 | 7.6 | 52 | 3.3 | 3.2 | 42 | 73.0 | 4,200.7 |
| 2010 | 3.1 | 2.7 | 3.1 | 60 | 4.2 | 4.2 | 32 | 46.3 | 4,412.7 |
| 2009 | 6.2 | 5.8 | 7.2 | 132 | 3.9 | 3.9 | 18 | 18.5 | 4,365.1 |
| 2008 | 3.9 | 3.4 | 4.2 | 164 | - | - | 13 | 12.7 | 2,527.4 |

1 Benchmark returns have been obtained from an independent source and have not been examined by independent accountants.
2 The three-year annualized standard deviation is not presented for December 31, 2008 because the composite did not have 36 monthly returns in that time period.

**Municipal Bond Composite** Portfolios included in this composite seek to earn consistent, above average returns while taking a low risk approach to fixed income asset management. The fixed income investment philosophy focuses on constructing high quality portfolios with an intermediate-term maturity structure. Value is added through issue and sector selection. All securities purchased are investment grade. The composite includes fully discretionary, municipal bond portfolios. The minimum fixed income value requirement for inclusion in the composite is $750,000. Prior to January 1, 2012, the composite minimum was $500,000. For comparison purposes, the composite is measured against the Barclays 1-10yr Municipal Bond Index. The inception date of the composite is June 1, 2006. The composite was created in January 2008.

Royal Bank of Canada ("RBC") became LMCG's indirect majority owner in November 2015 when RBC acquired City National Corporation ("CNC"). Effective January 1, 2015, Lee Munder Capital Group, LLC is known as LMCG Investments, LLC ("LMCG"), an investment adviser registered with the Securities and Exchange Commission. In July 2009, the firm was reorganized as an affiliate of CNC and took the name of Lee Munder Capital Group, LLC., prior to which it was known as Lee Munder Investments Ltd. ("LMIL"), which itself was an investment adviser registered with the Securities and Exchange Commission. The firm maintains a complete list and description of composites, which is available upon request.

The investment management fee schedule is as follows: Beginning January 1, 2011, 0.80% on the first $1 million and 0.77% on assets above $1 million. The prior fee schedule was 0.40% on all assets. Actual investment advisory fees incurred by clients may vary.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. Account performance is calculated on a total return basis including income and realized and unrealized gains and losses. Composite performance is presented gross and net of management fees. Net returns are calculated by applying the investment management fee schedule noted above to the gross returns of the accounts included in the composite. The annual composite dispersion presented is an asset weighted standard deviation calculated for the accounts in the composite the entire year. The U.S. Dollar is the currency used to express performance. Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

LMCG claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. LMCG has been independently verified for the periods October 1, 2000 through December 31, 2017. The verification report(s) is/are available upon request. Verification assesses whether (1) the firm has complied with all the composite construction requirements of the GIPS standards on a firm-wide basis and (2) the firm's policies and procedures are designed to calculate and present performance in compliance with the GIPS standards. Verification does not ensure the accuracy of any specific composite presentation. Past performance is not indicative of future results.

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