Fixed Income

Q1 2019 REVIEW

FIXED INCOME COMMENTARY: Q1 2019

by Matthew S. Guleserian, CFA

Market Review

Economic Data

- Final GDP for the full year of 2018 was 3.0%, up from 2.5% in 2017.
- Economic data in Q1 2019, however, is softening, with a growing number of indicators at their worst levels since 2016 – the last time there was an economic growth scare.
- The PCE Price Index, which is the Fed's preferred inflation measure, also continues to drop.

Interest Rates

- Interest rates globally continue to move lower on lower growth and inflationary prospects.
- US government bond yields remain among the highest among the developed economies.
- Negative yielding debt has increased around the world, now representing about 20% of all global debt, up from about 12% during the fourth quarter.
- The yield curve, as measured by the difference between 10-year US Treasury and 3-month US Treasury Bill, inverted during March, but has since reverted to positive.
- Corporate bond spreads rebounded along with stocks, retracing almost all of the widening that occurred during the fourth quarter.
- Municipal bonds continued to benefit from light supply, a growing investor need for tax-efficiency, and their flight-to-safety haven status.

The Federal Reserve

- Softening economic data has caused the Fed and other central banks to turn more dovish toward the global economy.
- In a bit of a surprise, the Fed softened its monetary stance more than expected during its March meeting, removing 25bps of hikes from their dot plot for 2019 and taking out 50bps of hikes in total.
- The Fed signaled that it was either done or very close to being done raising interest rates and unwinding its balance sheet.

Performance

- Bonds reported strong gains in 1Q19 as fears of a global slowdown took hold.
- Corporate credit was the best performer during the quarter, returning 5.14%, as measured by the Bloomberg Barclays Credit Index.
- Municipals reported their best quarter in 5 years, returning 2.90%, as measured by the Bloomberg Barclays Municipal Index.

Bond Market Snapshot

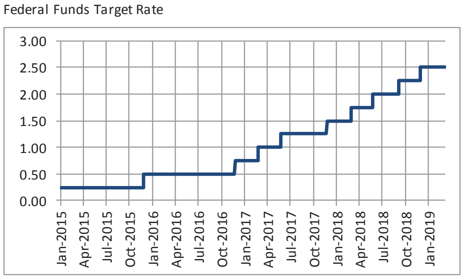
As of 3/31/2019

Indexes	*Yield-to-Worst*	*Modified Duration*	*QTD Return*	*YTD Return*
Bloomberg Barclays Muni				
Municipal Index	2.32%	4.99	2.90%	2.90%
CA Municipal Index	2.20%	5.24	2.81%	2.81%
NY Municipal Index	2.20%	4.82	2.86%	2.86%
MA Municipal Index	2.20%	5.00	2.77%	2.77%
Bloomberg Barclays Agg				
Aggregate Index	2.93%	6.13	2.94%	2.94%
Government/Credit Index	2.87%	6.62	3.26%	3.26%
Treasury Index	2.38%	6.23	2.11%	2.11%
Corporate Index	3.63%	7.50	5.14%	5.14%

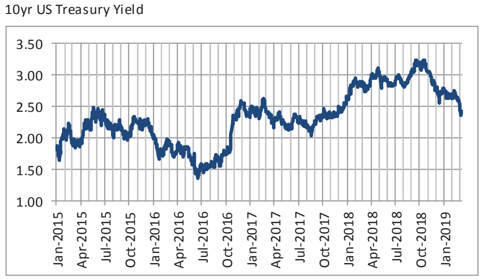
Municipal Yields	*Latest Yield*	*12/31/2018*	*12/31/2018*
Bloomberg AAA Muni			
2-Year	1.50%	1.78%	1.78%
5-Year	1.57%	1.94%	1.94%
10-Year	1.87%	2.30%	2.30%
30-Year	2.64%	3.03%	3.03%
Bloomberg Muni/Treasury %			
2-Year	67%	72%	72%
5-Year	71%	78%	78%
10-Year	78%	86%	86%
30-Year	97%	102%	102%

Taxable Yields	*Latest Yield*	*12/31/2018*	*12/31/2018*
US Treasury			
2-Year	2.26%	2.49%	2.49%
5-Year	2.23%	2.51%	2.51%
10-Year	2.41%	2.68%	2.68%
30-Year	2.81%	3.01%	3.01%
US Corporate			
High Grade	3.63%	4.20%	4.20%
AA Rated	2.97%	3.37%	3.37%
BBB Rated	4.02%	4.65%	4.65%
High Yield	6.43%	7.95%	7.95%

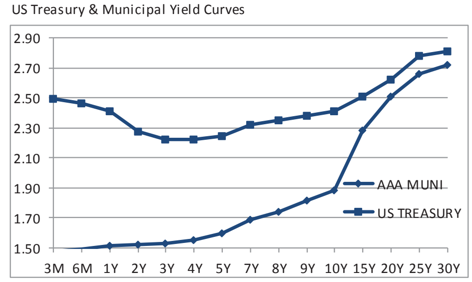
Federal Funds Target Rate



10yr US Treasury Yield



US Treasury & Municipal Yield Curves



Source: Bloomberg

LMCG Composite Performance

- Our Core Bond Strategy composite performance was helped by the strong rebound in credit during the quarter. We have continued to overweight corporate credit relative to governments, albeit less so than in previous years. Exposure to taxable municipal bonds also contributed to our outperformance. The Bloomberg Barclays Capital Intermediate U.S. Gov't/Credit Index returned 2.3% for the quarter.
- A technical imbalance remains in the municipal bond market, with greater demand than there is supply. Recognizing this imbalance, we extended duration in our Municipal Bond Strategy during the quarter, which helped performance. Lower quality municipals outperformed higher quality municipals during the first quarter, but our extended duration position was able to offset the drag from our preferred higher average credit quality bias. The Bloomberg Barclays 1-10 Yr. Municipal Bond Index returned 2.2% during the first quarter. Our Municipal Bond Strategy composite is expected to be in line with this index for the first quarter. A detailed report of our returns will be forthcoming.

LMCG Core Bond Composite Performance

As of 3/31/2019, US Dollar

			Annualized			
	Q1 2019	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception*
LMCG Core Bond (Gross)	**2.8**	**4.4**	**3.1**	**3.2**	**4.5**	**4.6**
LMCG Core Bond (Net)	**2.6**	**3.6**	**2.3**	**2.4**	**3.7**	**3.9**
Bloomberg Barclays Capital Interm U.S. Gov't/Credit Index	2.3	4.3	1.7	2.1	3.1	3.8

*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 3/31/2019, US Dollar

			Annualized			
	Q1 2019	1 Yr	3 Yrs	5 Yrs	10 Yrs	Since Inception*
LMCG Municipal Bond (Gross)	**2.2**	**4.4**	**1.9**	**2.4**	**3.0**	**3.4**
LMCG Municipal Bond (Net)	**2.0**	**3.6**	**1.1**	**1.6**	**2.3**	**2.7**
Bloomberg Barclays 1-10 Yr. Municipal Bond Index	2.2	4.6	2.0	2.5	3.3	3.7

*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

- The overall picture remains very supportive of lower US rates thanks to generally lower yields globally, a softening economic backdrop and light net bond supply.
- We expect the global growth slowdown to continue into Q2. And, according to the Fed, GDP for 2019 is expected to slow to 2.3%
- We expect inflation to generally remain low. Over the next few months, inflation data is likely to be choppy as year-over-year comparisons do not get easier.
- Although an inverted yield curve does not cause a recession by itself, the probability of a recession rises the longer if remains flat or inverts and coincident economic data continue to move lower.
- The market has moved from expecting one Fed interest rate hike in 2019 to a greater than 50% chance of one rate cut by December.
- We foresee greater risks in credit caused by elevated balance sheet debt and declining earnings expectations rather than higher interest rates driven up by inflation or Fed policy. Thus, we are maintaining a neutral to slightly long duration position relative to the benchmark index and a bias toward higher quality credit.
- Muni bonds remain especially attractive for their tax efficiencies, especially for high tax paying clients who may face higher tax bills this year due to lower allowed deductions.

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.

Compliance Review #5737