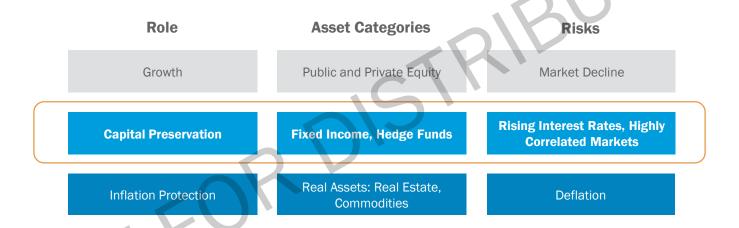
## Quarterly Asset Class Report Tax-Exempt Fixed Income

Canterbury Consulting ("CCI") is an SEC registered Investment Adviser. Information pertaining to CCI's advisory operations, services, and fees is set forth in CCI's current Form ADV Part 2 (Brochure), a copy of which is available upon request and at <a href="www.adviserinfo.sec.gov">www.adviserinfo.sec.gov</a>. Information provided through CCI's Quarterly Outlook related to market or asset class performance figures is believed to be derived from reliable sources. However, CCI assumes no responsibility for their content or the manner in which the viewer utilizes such information. The performance information presented in certain charts or tables is for informational purpose only and represents historical performance based on available market data results for the quarterly period shown above and does not reflect any performance related to trading in actual accounts. Any recommendations or statement made in the Quarterly Outlook is not to be construed as specific investment advice. The viewer should be aware of the inherent limitations of data derived from the retroactive application of historical data developed with the benefit of hindsight and that actual results may differ. Actual performance with client accounts would be materially less than the stated performance results for the same period when including the deduction of advisory fees, brokerage or other commissions, and any other expenses that a client would have paid.

Role in the Portfolio Fixed Income

Canterbury Consulting recommends and communicates asset-class strategy with the objective of constructing a diversified portfolio of fixed income strategies designed to (in aggregate):

- Preserve capital and mitigate volatility
- Provide measured exposure to the diverse universe of fixed income securities
- Exhibit returns uncorrelated to equity markets



- Canterbury fixed income portfolios are expected to deliver consistent net-of-fees excess returns and moderate tracking error versus the Barclays Global Aggregate.
- Relative to the index, Canterbury's current fixed income portfolios will exhibit lower duration, similar credit quality, and higher yields.

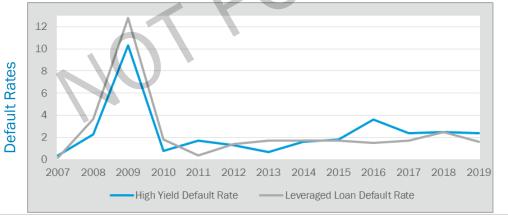
	QTD	YTD	1 Year	3-Year	5-Year	7-Year	10-Year
Barclays Global Aggregate	0.49	6.84	6.84	4.27	2.31	1.35	2.48
Barclays US Agg Bond	0.18	8.72	8.72	4.03	3.05	2.72	3.75
						_	
U.S. Treasurys							
BofAML 3M US Treasury Note	0.46	2.31	2.31	1.68	1.09	0.80	0.60
Barclays Short Treasury	0.50	2.46	2.46	1.72	1.16	0.86	0.67
Barclays Intermediate Treasury	0.01	5.22	5.22	2.58	1.99	1.59	2.46
Barclays Long Term US Treasury	-4.12	14.83	14.83	6.95	4.13	4.24	7.01
Barclays US Treasury TIPS 1-5Y	1.15	5.08	5.08	2.08	1.84	0.86	1.73
Barclays US Treasury US TIPS	0.79	8.43	8.43	3.32	2.62	1.08	3.36
U.S. Corporate Credit							
Barclays US Corp IG	1.18	14.54	14.54	5.92	4.60	4.10	5.55
S&P/LSTA Leveraged Loan	1.73	8.64	8.64	4.35	4.45	4.15	5.01
BofAML US HY Master II	2.61	14.41	14.41	6.33	6.13	5.79	7.50
BofAML US HY BB-B Constrained	2.58	15.10	15.10	6.45	6.11	5.76	7.40
BofAML US Corporate AAA	-0.17	14.34	14.34	6.46	4.60	3.95	4.85
BofAML US Corporate AA	0.16	10.78	10.78	4.93	3.88	3.47	4.55
BofAML US Corporate A	0.75	12.93	12.93	5.43	4.24	3.79	5.26
BofAML US Corps BBB	1.67	15.91	15.91	6.54	5.05	4.54	6.24
BofAML US High Yield BB	2.37	15.73	15.73	6.55	6.27	5.98	7.67
BofAML US High Yield B	2.83	14.36	14.36	6.33	5.96	5.50	7.15
BofAML US High Yield CCC	2.80	9.11	9.11	4.97	6.05	5.72	7.56
Securitized							
Barclays ABS	0.39	4.53	4.53	2.61	2.22	1.81	2.72
Barclays MBS	0.71	6.35	6.35	3.25	2.58	2.49	3.15
Barclays CMBS	-0.33	8.29	8.29	4.06	3.15	2.67	5.25
. \\							
Municipals							
Barclays Municipal	0.74	7.54	7.54	4.73	3.53	3.40	4.34
Barclays Muni 1-10	0.88	5.23	5.23	3.31	2.39	2.25	2.86
▼							
Global							
Citi WGBI	-0.35	5.90	5.90	4.12	2.03	0.79	1.85
Barclays Gbl Agg Ex USD	0.67	5.09	5.09	4.36	1.63	0.26	1.50
JPM EMBI Plus	3.38	12.60	12.60	4.90	5.20	3.29	6.10



## Market Environment as of December 31, 2019







#### Fixed Income

- U.S. interest rates moved gradually higher as the Fed communicated a "wait-and-see" approach to implementing further rate cuts.
   U.S.-China and Brexit resolutions also resulted in developed country rates moving higher as investors rotated into riskier assets.
- Corporate debt performed well as risk-on sentiment led to tighter spreads. High yield outperformed investment-grade bonds as investors allocated to lower quality credit.
- returns and constructive economic growth.

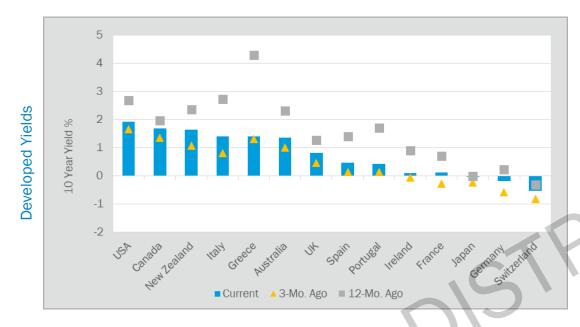
  Many EM countries underwent interest rate cuts, which propelled bond prices higher.

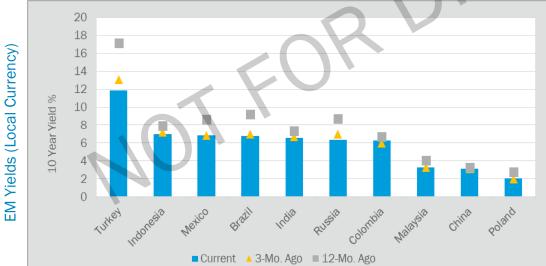
Sources: Federal Reserve Economic Data; World Bank, U.S. Treasury Department, Barclays as of December 31, 2019



## Market Environment as of December 31, 2019

#### Fixed Income





- The charts on the left display 10-year interest rates for developed and emerging market countries. The blue line represents the current 10-year yield, the triangle represents the yield 3 months prior, and the gray square represents the yield 12 months prior.
- Developed market yields moved considerably lower over the last 12 months. Slowing global growth, accommodative central bank policies, and the lack of inflation has resulted in compressed yields and falling interest rates.
- Emerging market yields marginally declined year-over-year as many regions decided to cut interest rates. Country-specific economic and political developments have had the largest effects on interest rates. For instance, positive economic and political developments in Mexico and Brazil have resulted in increased demand for sovereign debt.

Source: Bloomberg



## **Market Environment**

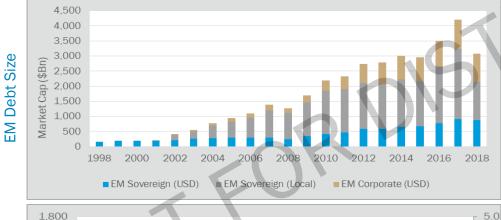
**Bond Issuance** 

U.S.

Corporate Issuance

#### 

■Treasury ■Agency ■Muni ■Corporate ■MBS ■ABS





#### Fixed Income

- U.S. Treasury issuance significantly increased after the financial crisis. Since the Fed began tapering, 2019 was the largest issuance year to date as lower rates resulted in higher corporate and MBS issuance.
- The EM debt market has grown significantly since 1996. While investors have worried about EM liabilities denominated in U.S. dollars, debt denominated in local currency has grown exponentially since 2004.
- orporate leverage significantly decreased after 2008. Leverage in the U.S. and emerging markets has since grown while leverage in Europe and Japan has moderated.

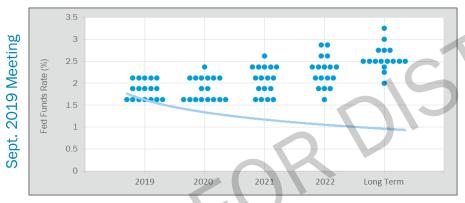
Sources: SIFMA, Bloomberg, JPM EM Indices (EMBI Global, JPM GBI-EM Broad, JPM CEMBI Broad)

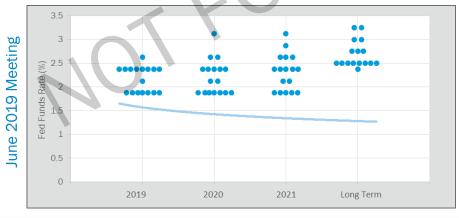


## **Fed Dot Plots**

Dec. 2019 Meeting

## 3.5 3 2.5 Span 2.5 1.5 1.5 2020 2021 2022 Long Term





#### Fixed Income

- The dot plot charts display Federal Open Market Committee (FOMC) participant projections of where the Fed Funds Rate should be over the next several years.
- The light blue line represents the Fed Funds Futures, which measures the market's projection on where the Fed Funds Rate will be.
- The graphs on the left display projections from the last three FOMC meetings.
- Fed funds projections for 2019 declined when the Fed decided to cut interest rates. While the Fed's long-term interest rate forecast adjusted downward, the market continues to price rates much lower.

Source: Bloomberg as of December 31, 2019



#### Goals

- Are clients seeking to preserve capital, generate total return, or blend the two within a fixed income segment?
- What level of risk related to portfolio correlation is the client looking to incur?



# Interest Rate & Inflationary Environment

- How does the current interest rate regime and inflationary environment affect return and risk (i.e. stagnant, slow-rise, rapid rise)?
- What level of interest rate volatility is the client willing to take?



### Risk Tolerance

- How much risk is a client willing to take?
- Duration, yield curve positioning, sector exposure, credit exposure, the correlation to equities, and the client's distribution flows are important factors to measure.



## Tax Considerations

- Is the client's status taxable or tax-exempt?
- Does the client have a higher return target given the respective tax situation?



## Time Horizon

- Does the client have short term or long term goals?
- Are spending requirements quarterly, annual, or longer?
- Is spending consistent with the return/risk profile of the portfolio?

## **FIXED INCOME PORTFOLIO**



**CORE** 





## **Characteristics**

- Low volatility
- Uncorrelated to equities
- U.S. focus



## **Exposure**

- Treasuries
- Agencies
- Municipals
- Investment-grade corporate
- MBS



## **Characteristics**

- Income orientated
- Total return focus
- Low correlation to core bonds



## **Exposure**

- Non-U.S. developed sovereigns
- EM sovereigns
- High yield
- Bank loans
- Private debt

