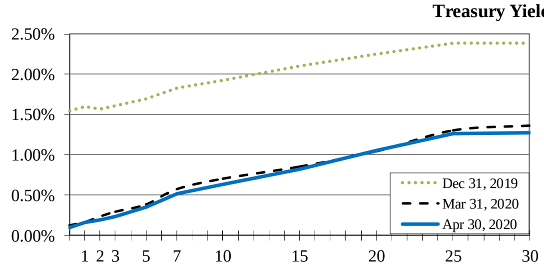
Baird Advisors
Fixed Income Market Commentary
April 2020

Yield Curve Flattens Modestly as Fed's Bond Buying Continues, Fiscal Response Takes Hold

The benchmark 10yr Treasury yield declined 7 bps in April, ending the month at 0.63% as the Fed continued its massive bond buying program. Markets are looking beyond expected, extremely weak economic data (March nonfarm payrolls -701k, 1Q GDP -4.8% annualized decline and likely much worse for April) for signs of whether the government response is working to support the economy during the Covid-19 lockdown until the economy can be safely reopened in gradual phases. Since resuming QE in the middle of March, the Fed has purchased nearly $1.5T in Treasury securities and nearly $600B of Agency mortgage-backed securities which has been very supportive of these two sectors. On April 9th, the Fed announced a $2.3 trillion expansion of their emergency lending powers to support the flow of credit more broadly. They expanded the size of its new primary and secondary market corporate credit facilities and <u>for the first time</u> included certain "fallen angels" – recently downgraded issuers - and high yield ETFs as eligible collateral. The Fed also announced the Main Street Loan Facility and Paycheck Protection Program Lending Facility (PPPLF) to provide lenders financing for the forgivable loans guaranteed by the Small Business Administration under the CARES act. Furthermore, the Fed announced a Municipal Liquidity Facility to provide backstop financing and tweaked the collateral eligibility for the Term Asset Lending Facility (TALF). Congress passed an additional relief package, providing another $320B of funds for the PPP after the initial $349B was quickly depleted. The package also provided another $100B in funding for hospitals and Covid-19 testing. The market will be focused on whether the <u>unprecedented</u> fiscal relief packages can keep businesses and consumers afloat until the economy can reopen and whether the <u>unprecedented</u> monetary policy response keeps debt markets liquid and open for new issuance. Market participants are no longer expecting a V-shaped recovery, but a more gradual reopening with the risk of additional waves of infection until a vaccine becomes broadly available likely some time in 2021. Longer term, markets are wrestling with the implications of much more government debt ($3.8T deficit this fiscal year), much greater public involvement in the private sector, and a shift of business focus toward *resiliency* and away from *efficiency* by bringing supply chains closer to home and holding more inventory.

Treasury Yields



Maturity	12/31/19	3/31/20	4/30/20	1Mo Chg	YTD Chg
3 Mo	1.55%	0.12%	0.10%	-0.02%	-1.45%
1	1.60%	0.16%	0.16%	0.00%	-1.44%
2	1.57%	0.23%	0.19%	-0.04%	-1.38%
3	1.61%	0.29%	0.23%	-0.06%	-1.38%
5	1.69%	0.38%	0.35%	-0.03%	-1.34%
7	1.83%	0.57%	0.52%	-0.05%	-1.31%
10	1.92%	0.70%	0.63%	-0.07%	-1.29%
30	2.39%	1.36%	1.27%	-0.09%	-1.12%

Spreads Tighten on Monetary and Fiscal Support, Oil Drops

The Fed's actions eased liquidity concerns and brought more stability to fixed income markets broadly. Spreads tightened across all fixed income sectors. Despite a record-setting $362B of April issuance, Investment-grade Corporate Credit spreads tightened 70bps on strong demand to end the month at 202 bps. In contrast, WTI oil futures experienced great *instability* in April as demand collapsed and storage reached capacity. The front month May WTI contract traded for the first time at negative prices due to forced selling by Oil ETFs that were not capable or willing to take physical delivery and were forced to roll their contracts to later months.

Corporate Credit Outperforms, Municipals Drop

Corporates (+5.24%) posted the highest total return in April, bringing YTD returns into positive territory (+1.42%). In contrast High Yield and Emerging Market Debt, still have substantially negative YTD returns (-8.75% and -13.96% respectively). The uncertainty of the magnitude and timing of additional fiscal support for municipalities put pressure on the municipal bond sector, leading to negative returns for the month (-1.26%) and YTD (-1.88%).

Option-Adjusted Spreads (in bps)

	12/31/19	3/31/20	4/30/20	1Mo Chg	YTD Chg
U.S. Aggregate Index	39	95	74	-21	35
U.S. Agency (non-mortgage)	10	49	32	-17	22
Mortgage and ABS Sectors					
U.S. Agency Pass-throughs	39	60	39	-21	0
U.S. Agency CMBS	53	116	89	-27	36
U.S. Non-Agency CMBS	85	238	231	-7	146
Asset-Backed Securities	44	213	159	-54	115
Corporate Sectors					
U.S. Investment Grade	93	272	202	-70	109
Industrial	99	276	207	-69	108
Utility	97	254	168	-86	71
Financial Institutions	80	268	203	-65	123
Other Govt. Related	72	164	126	-38	54
U.S. High Yield Corporates	336	880	744	-136	408
Emerging Market Debt	573	1254	1217	-37	644

Source: Bloomberg Barclays Indices

Total Returns of Selected Barclays Indices and Subsectors

Bloomberg Barclays Index/Sector	April	YTD	Effective Duration (yrs)
U.S. Aggregate Index	1.78%	4.98%	5.72
U.S. Gov't/Credit Index	2.23%	5.67%	7.47
U.S. Intermediate Gov't/Credit Index	1.41%	3.84%	4.02
U.S. 1-3 Yr. Gov't/Credit Index	0.63%	2.33%	1.90
U.S. Treasury	0.64%	8.89%	7.14
U.S. Agency (Non-Mortgage)	0.51%	4.67%	3.81
U.S. Agency Pass-Throughs	0.64%	3.47%	1.28
CMBS (Commercial Mortgage Backed Securities)	1.22%	2.42%	5.33
ABS (Asset-Backed Securities)	1.34%	1.12%	2.11
U.S. Corporate Investment Grade	5.24%	1.42%	8.34
U.S. High Yield Corporates	4.51%	-8.75%	3.91
Emerging Market Debt	3.14%	-13.96%	4.49
Municipal Bond Index	-1.26%	-1.88%	6.11
TIPS (Treasury Inflation Protected Securities)	2.78%	4.52%	6.80

Disclosures

Fixed income is generally considered to be a more conservative investment than stocks, but bonds and other fixed income investments still carry a variety of risks such as interest rate risk, credit risk, inflation risk, and liquidity risk. In a rising interest rate environment, the value of fixed-income securities generally decline and conversely, in a falling interest rate environment, the value of fixed-income securities generally increase. High yield securities may be subject to heightened market, interest rate or credit risk and should not be purchased solely because of the stated yield.

The Bloomberg Barclays Aggregate Bond Index is an index comprised of approximately 6000 publicly traded bonds including U.S. Government, mortgage-backed, corporate, and Yankee bonds with an average maturity of approximately 10 years.

The Bloomberg Barclays Government/Credit Index is a combination of the Government Index which measures government-bond general and Treasury funds, and the Credit Bond Index, which is a market value-weighted index which tracks the returns of all publicly issued, fixed-rate, nonconvertible, dollar-denominated, SEC registered, investment grade Corporate Debt.

The Bloomberg Barclays Intermediate Government/Credit Index is a combination of the Government Index which measures government-bond general and Treasury funds, and the Credit Bond Index, which is a market value-weighted index which tracks the returns of all publicly issued, fixed-rate, nonconvertible, dollar-denominated, SEC registered, investment grade Corporate Debt with maturities between one and ten years.

The Bloomberg Barclays Government/Credit Intermediate Index (1 – 3 yr.) is a combination of the Government Index which measures government-bond general and Treasury funds, and the Credit Bond Index, which is a market value-weighted index which tracks the returns of all publicly issued, fixed-rate, nonconvertible, dollar-denominated, SEC registered, investment grade Corporate Debt with maturities between zero and three years.

The Bloomberg Barclays U.S. Treasury Index includes public obligations of the U.S. Treasury. Treasury bills are excluded by the maturity constraint of at least one year but are part of a separate Short Treasury Index. In addition, certain special issues, such as state and local government series bonds (SLGs), as well as U.S. Treasury TIPS, are excluded. STRIPS are excluded from the index because their inclusion would result in double-counting. Securities in the Index roll up to the U.S. Aggregate, U.S. Universal, and Global Aggregate Indices. The U.S. Treasury Index was launched on January 1, 1973.

U.S. Agency: This index is the U.S. Agency component of the U.S. Government/Credit index. Publicly issued debt of U.S. Government agencies, quasi-federal corporations, and corporate or foreign debt guaranteed by the U.S. Government (such as USAID securities). The largest issues are Fannie Mae, Freddie Mac, and the Federal Home Loan Bank System (FHLB). The index includes both callable and non-callable agency securities.

U.S Corporate – Investment Grade: This index is the Corporate component of the U.S. Credit index. It includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet the specified maturity, liquidity, and quality requirements. To qualify, bonds must be SEC-registered.

CMBS (Commercial Mortgage-Backed Securities): This index is the CMBS component of the U.S. Aggregate index. The Bloomberg Barclays CMBS ERISA-Eligible Index is the ERISA-eligible component of the Bloomberg Barclays CMBS Index. This index, which includes investment grade securities that are ERISA eligible under the underwriter's exemption, is the only CMBS sector that is included in the U.S. Aggregate Index.

MBS (Mortgage-Backed Securities): This index is the U.S. MBS component of the U.S. Aggregate index. The MBS Index covers the mortgage-backed pass-through securities of Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The MBS Index is formed by grouping the universe of over 600,000 individual fixed rate MBS pools into approximately 3,500 generic aggregates.

ABS (Asset-Backed Securities): This index is the ABS component of the U.S. Aggregate index. The ABS index has three subsectors: credit and charge cards, autos, and utility. The index includes pass-through, bullet, and controlled amortization structures. The ABS Index includes only the senior class of each ABS issue and the ERISA-eligible B and C tranche. The Manufactured Housing sector was removed as of January 1, 2008, and the Home Equity Loan sector was removed as of October 1, 2009.

Corporate High Yield: The Bloomberg Barclays U.S. High Yield Index covers the universe of fixed rate, non-investment grade debt. Eurobonds and debt issues from countries designated as emerging markets (sovereign rating of Baa1/BBB+/BBB+ and below using the middle of Moody's, S&P, and Fitch) are excluded, but Canadian and global bonds (SEC registered) of issuers in non-EMG countries are included. Original issue zeroes, step-up coupon structures, 144-As and pay-in-kind bonds (PIKs, as of October 1, 2009) are also included.

Emerging Market: Bloomberg uses a fixed list of countries defined as emerging markets countries for index inclusion purposes that is based on World Bank Income group definitions (Low/Middle), IMF country classifications (Non-Advanced Economies), and other advanced economies that may be less accessible or investable for global debt investors.

The Bloomberg Barclays Municipal Bond Index is a broad-based, total-return index. The bonds are all investment-grade, tax-exempt, and fixed-rate securities with long-term maturities (greater than 2 years). They are selected from issues larger than $50 million.

The Bloomberg Barclays TIPS Index consists of Treasury Inflation Protected Securities (TIPS). TIPS are securities whose principal is tied to the Consumer Price Index. TIPS pay interest semi-annually, based on the fixed rate applied to the adjusted principal.

Ratings are measured on a scale that ranges from AAA or Aaa (highest) to D or C (lowest). Investment grade investments are those rated from highest down to BBB- or Baa3.