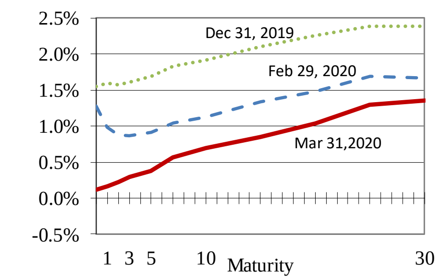
Baird Advisors
Fixed Income Market Commentary
March 2020

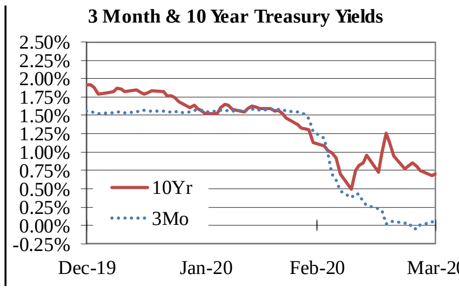
Treasury Yields Fall to Record Lows as Markets Brace for Recession on Covid-19 Global Pandemic Shutdown, Oil Drops

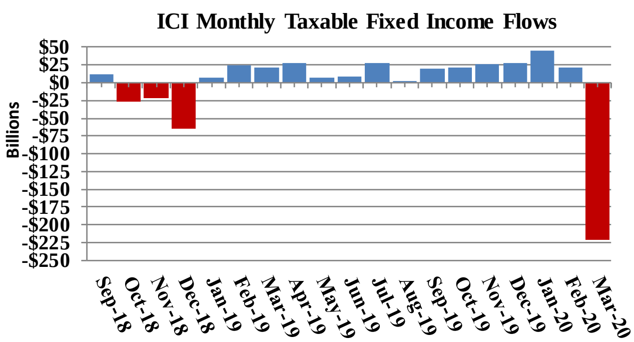
The 10yr Treasury yield reached an all-time record low of 0.31% on March 9th as the global pandemic triggered a flight to safe-haven assets and markets started to price a virus-related recession in the U.S. as well as many other nations. An exponential increase in infections outside of China (especially Italy, Spain, and the U.S.) triggered "stay-at-home" orders. Social distancing mitigates the spread of the virus, but also keeps many home from work without pay and brings a variety of other economic activity grinding to a halt. For the week ending March 21st 3.3 million people filed for unemployment benefits – the highest prior number of initial jobless claims was 695K in 1982. Estimates for 2Q U.S. GDP growth have become decidedly negative, with many economists forecasting a 5% to 10% (20% to 40% annualized) drop in output over this three month period and a high likelihood of the contraction continuing for at least two quarters – meeting the definition of recession. WTI oil prices dropped 55% for the month to $20, an 18 year low, as a result of both the collapse of near-term demand caused by the global shutdown in response to Covid-19 and a supply increase due to a price war between Russia and Saudi Arabia after they couldn't agree on production cuts.



Treasury Yields

Maturity	12/31/19	2/29/20	3/31/20	1 Mo Change	Q1 Change
3mo	1.55%	1.28%	0.12%	-1.16%	-1.43%
1	1.60%	0.99%	0.17%	-0.82%	-1.43%
2	1.57%	0.88%	0.25%	-0.63%	-1.32%
3	1.61%	0.87%	0.30%	-0.57%	-1.31%
5	1.69%	0.91%	0.38%	-0.53%	-1.31%
7	1.83%	1.04%	0.55%	-0.49%	-1.28%
10	1.92%	1.12%	0.67%	-0.45%	-1.25%
30	2.39%	1.67%	1.33%	-0.34%	-1.06%



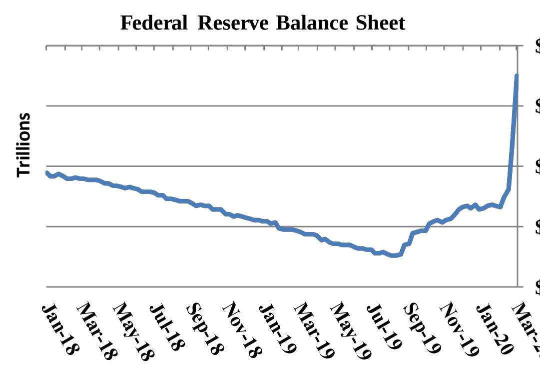


Leveraged Investors Face Margin Calls, Record Industry Outflows

Liquidity in fixed income markets became severely stressed in March as several large REITs, Hedge Funds, and other levered investors faced margin calls and were forced to sell what they could to reluctant buyers. Additionally, the more than 33% peak-to-trough decline in the S&P 500 triggered asset allocation rebalancing out of fixed income funds. After entering the year on the heels of record-setting inflows in 2019, ICI data predicts March 2020 (while still only reported through 3/25) will be the largest one-month outflow ever, greatly exceeding the negative flows of December 2018 (see chart at left). Conversely, as investors sought liquidity and safety, assets in Government-only money market funds surged by nearly $750B, bringing total assets north of $3.4 trillion.

Fed Cuts Rates to Zero Bound, Grows Balance Sheet at an Unprecedented Pace…

As the Fed saw the economy slowing and financial conditions tightening, it made an emergency 50bps cut in the first week of March. As conditions worsened and liquidity became challenged, the Fed made another emergency 100bps cut on Sunday, March 15th, bringing the fed funds rate back to the zero bound. Furthermore, the Fed *supersized* quantitative easing (QE4), announcing purchases of $500B of Treasury securities and $200B of Agency Mortgage Backed Securities (MBS) "over the coming months." However, by March 23rd the Fed expanded QE to "unlimited purchases" – buying up to $75B Treasuries and $50B MBS *per day* and adding Agency Commercial Mortgage Backed Securities to the list of eligible purchases. For comparison, QE3 had MBS purchases of $40B *per month* (after reinvesting paydowns). The astounding pace of QE purchases in just over two weeks, approximately $1 trillion has ballooned the Fed's balance sheet to its largest size ever, at $5.25 trillion.



…and Implements Several Massive Programs to Provide Market Liquidity

In response to challenged liquidity across fixed income markets, the Fed implemented numerous programs to thaw markets. The Fed rebooted several old programs used during the Great Financial Crisis (GFC) of 2008 including TALF (Term Asset-Backed Securities Loan Facility) to provide up to $100B in funding to facilitate investment in new issue AAA-rated ABS to ensure the availability of consumer credit. Other GFC facilities taken off the shelf were the Commercial Paper Funding Facility (CPFF) and Money Market Mutual Fund Liquidity Facility (MMLF) that will provide funding to the short-term markets in the form of collateralized loans. The Fed also announced new facilities such as the Primary Dealer Credit Facility (PDCF) that can provide $100B in liquidity for dealers to buy new issue, investment-grade corporate bonds with maturities of 4yrs or less, and the Secondary Market Corporate Credit Facility (SMCCF) that will offer another source of liquidity to facilitate the trading of previously issued investment-grade corporate bonds. The SMCFF also gives the Fed authority for the first time to buy bond ETFs to restore order to a new corner of the market that saw several ETFs trade at 20% discounts to their net asset value.

CARES Act – the Largest U.S. Fiscal Aid Package Ever

The $2.2T Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law shortly before month end to provide cash to people and companies specifically harmed by the aggressive virus mitigation measures and to stimulate the economy when these virus mitigation measures start to be slowly lifted some time in May or June. At 10% of GDP, it is the largest fiscal aid package ever and much larger than 2009 fiscal stimulus in response to the 2008 GFC. Distressed companies, states, and municipalities can receive support through $500B in loans and loan guarantees. Small business can receive support through $350B in aid while direct payments ($250B) and enhanced unemployment insurance payments ($250B) will help replace lost income for consumers. Furthermore, hospitals and health care providers are eligible for $150B in additional funding to help combat the pandemic.

Spreads Widen on Virus' Fundamental Impact, Corporate Issuance

Spreads widened dramatically across all sectors except for Agency mortgage pass-throughs, which ended the month only 6 bps wider. However, intra-month MBS widened 78 bps before the Fed dramatically increased its pace of QE purchases starting March 23. Asset-Backed Securities spreads were especially hard hit during the month as forced sellers turned disproportionately to AAA-rated ABS to meet cash needs as they were the only bonds that received bids during highly illiquid trading days. Investment Grade Corporate spreads gapped significantly wider as investors fled to the most liquid, highest quality asset classes like U.S. Treasuries and fundamental credit concerns surged in certain sectors (e.g. Energy). Furthermore, as credit markets began to thaw later in March, issuers moved very quickly to lock in funding, bringing gross issuance for the month to an all-time high of over $250B, and boosting supply roughly 40% ahead of the first quarter last year.

Option-Adjusted Spreads (in bps)

	12/31/19	2/29/20	3/31/20	1Mo Chg	Q1 Chg
U.S. Aggregate Index	39	50	95	45	56
U.S. Agency (non-mortgage)	10	13	49	36	39
Mortgage and ABS Sectors					
U.S. Agency Pass-throughs	39	54	60	6	21
U.S. Agency CMBS	53	50	116	66	63
U.S. Non-Agency CMBS	85	88	238	150	153
Asset-Backed Securities	44	37	213	176	169
Corporate Sectors					
U.S. Investment Grade	93	122	272	150	179
Industrial	99	131	276	145	177
Utility	97	116	254	138	157
Financial Institutions	80	107	268	161	188
Other Govt. Related	72	86	164	78	92
U.S. High Yield Corporates	336	500	880	380	544
Emerging Market Debt	573	691	1254	563	681

Source: Bloomberg Barclays Indices

Treasuries Outperform, Most Spread Sectors Post Negative Returns

U.S. Treasuries championed the month (+2.89%) and quarter (+8.20%) as nothing else could keep up amidst the flight for safety and liquidity. Agency Pass-throughs (+2.82%) was one of the few spread sectors other than Agency Debentures (+4.14%) and CMBS (+1.19%) to generate a positive return this quarter, thanks to the Fed's colossal purchases in this sector that had a negative return of nearly 2% earlier in March until the Fed scaled up its buying. Investment grade corporate bonds posted negative returns (-3.63%) as spreads widened sharply. Lower quality sectors such as High Yield (-12.68%) and Emerging Market Debt (-16.58%) were especially hard hit as some highly-levered entities faced margin calls and the issuers remain poorly positioned to weather virus-induced cashflow disruptions and the coming economic recession.

Total Returns of Selected Barclays Indices and Subsectors

Bloomberg Barclays Index/Sector	March	Q1	2019	Effective Duration (yrs)
U.S. Aggregate Index	-0.59%	3.15%	8.72%	5.69
U.S. Gov't/Credit Index	-1.11%	3.37%	9.71%	7.23
U.S. Intermediate Gov't/Credit Index	-0.44%	2.40%	6.80%	3.93
U.S. 1-3 Yr. Gov't/Credit Index	0.31%	1.69%	4.03%	1.87
U.S. Treasury	2.89%	8.20%	6.86%	7.02
U.S. Agency (Non-Mortgage)	0.98%	4.14%	5.89%	3.93
U.S. Agency Pass-throughs	1.06%	2.82%	6.35%	1.67
CMBS (Commercial Mortgage Backed Securities)	-3.13%	1.19%	8.29%	5.31
ABS (Asset-Backed Securities)	-2.07%	-0.21%	4.53%	2.07
U.S. Corporate Investment Grade	-7.09%	-3.63%	14.54%	7.98
U.S. High Yield Corporates	-11.46%	-12.68%	14.32%	4.06
Emerging Market Debt	-15.75%	-16.58%	10.90%	4.22
Municipal Bond Index	-3.63%	-0.63%	7.54%	5.36
TIPS (Treasury Inflation Protected Securities)	-1.76%	1.69%	8.43%	6.73

Outlook

All the stimulus launched by the Fed and Congress has had a huge impact and the bond market is recovering. While valuations will continue to be tested, we believe the worst of the dislocation in bonds is likely behind us. However, two big unknowns loom ahead of us: 1) how deep, how wide and how long will the impact of the coronavirus be and 2) how deep, how wide and how long will the impact of our efforts to stop/slow the spread of the virus be on our [global] economy? While we don't know the answer to either of these questions, we think it's important to acknowledge that the damage to our economy has been self-inflicted. We don't mean to imply that what has been done has been a mistake, but rather to emphasize that we have done it to ourselves (as opposed to some enemy inflicting it upon us) and we can therefore stop doing it to ourselves at some point when we either 1) deem it to have been successful or 2) we can no longer stand the pain. In light of this, the economic effects should be temporary (not easy to define) and we would like to believe we will ease the pain sometime before all or even a significant number of companies are left insolvent. Clearly, the longer the economic slowdown lasts, the more painful it will become for corporate America, but companies (BBBs included) have many levers they can pull (and already have started to pull) to maintain liquidity as well as their investment grade ratings (e.g. reduce CAPEX, halt share buybacks, reduce/eliminate dividends, draw on LOCs). While downgrades will occur, sending some BBBs to below investment grade, we do not believe this will be pervasive nor devastating for many companies. While undesirable and unpleasant, downgrades do not equate to defaults, and we believe many concerns along those lines are overblown at present.

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.