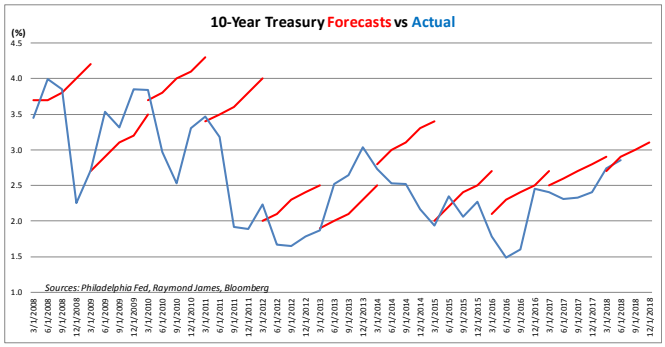
FixedIncomeQuarterly

MARKET PERSPECTIVES – FIXED INCOME SERVICES GROUP

So You Think You Are Smarter Than ____?



So you think you're smarter than the economists? Advisors? Financial Strategists? Wealthy investors? We all like to think that our investment prowess has an "edge" over the general population. You know, that special intuition or information whether acquired, calculated or researched that allows our investments to outperform the average market return. Through experience, specialized education and practice, financial experts likely do possess a broader and deeper knowledge of the markets, economic factors and/or statistical patterns and their potential impact on portfolio strategy.

So why are these same experts often inaccurate about where interest rates are headed? As the chart above depicts, the experts correctly predicted interest rate direction only about 20% of the time. Now before questioning their forecasts, there are numerous extenuating circumstances that help to edify the complexity of this task.

The domestic variables affecting the market alone are abundant and frequently shifting. In addition, the financial markets are no longer isolated entities influenced solely from within. Global politics, policies, currencies, products, demands, etc. can greatly influence domestic results.

Fortunately, there is some good news for investors and their portfolios. In a world of "unknowns", bonds offer a "known" to the mix. There is plenty of forecasting and reliance on future favorable changes with the portfolio assets allocated for growth, therefore it is refreshing to "*know*" that individual bonds held to maturity may provide: "a sort of what you see is what you get contract."

There are many world-wide events, evolutions and contagions, positives and negatives, assurances and apprehensions, all creating investor confusion. With a vast majority of investors thinking interest rates are more likely to rise, it is even more important to know why certain substitutes that may look and sound like the solution often cannot deliver the same preservation of wealth as individual bonds.

There is no forecasting needed with the assets allocated to wealth preservation when you know what you own and why you own it. We make the case as to why individual bonds are well suited for the task, especially in the current market environment. ▪

In this Report:

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The Case for Individual Bonds

With all the anticipation of rising interest rates, it is more important than ever to know *what* you own and *how* you own it. There are many differences between owning a portfolio of individual bonds versus owning a packaged product containing bonds. An awareness of the "knowns" as well as the "unknowns" may bring clarity for an investor debating optimal choices.

Individual bonds offer transparency of cash flow for the life of the portfolio. *Knowing*, down to the dollar and the day, the exact timing of cash flows for the life of a portfolio may reduce surprises and allow an investor to plan many years into the future. Conversely, cash flows are an *unknown* for many packaged products whose managers actively trade bonds causing fluctuations both up and down.

In the same manner, barring default or early redemption, individual bonds return their face value (a *known*) at maturity. In actively-managed packaged investments, the holdings can continually change. When investors pull out of a fund, a manager may be forced to liquidate some of the holdings to meet redemptions – perhaps at an inopportune time. The portfolio's composition and valuation are subject to change which may or may not create a change to the net asset value (NAV) putting invested principal (with no stated date of maturity) at risk.

These different approaches to holding bonds often serve different purposes. Individual bonds create a means for stable, predictable cash flow and income streams as well as an exact date when the face value will be returned. Investors generally choose individual bonds as an income producing ballast of their portfolio that they can plan the next 5, 10, or 20 years of their life around.

Rather than creating personalized portfolios of bonds selected to help meet an individual's specific needs and goals in life, managers of packaged products pool money from large groups of investors in an attempt to perform/outperform the market or particular indexes over an unspecified timeframe. Looking at holdings of broadly held funds, it is not uncommon to see some percentage of mortgage backed, corporate and/or government bonds in addition to sometimes cash allocations or even equities. These percentages may fit some investors but are very different from a custom built portfolio for a specific investor. For instance, some investors wanting to buy lower risk, more liquid bonds, may choose short CD's or Treasuries. For investors looking to take on a little more risk to pick up a little more yield, a corporate ladder may match their needs. Many distinct objectives can be pursued using a portfolio of individual bonds. While the one-size-fits-all approach of a packaged investment provides *exposure* to fixed income, it falls short of providing clients the *known* characteristics of tailored portfolio construction. As every investor has different risk tolerances, preferences, and objectives it is easy to see how individual bonds held in a custom-designed portfolio may provide investors with both the flexibility and the control to choose which bonds they own.

The chart below highlights the *known* cash flow, coupon payment and return of principal at maturity for an illustrative 5-10 year ~$1,000,000 bond ladder. This strategic structure may be adaptable to many maturity ranges and may alleviate day-to-day market concerns or other worries associated with packages lacking the *known* benefits of holding individual bonds to maturity.

Portfolio Statistics

YTW	Duration	Avg. Maturity	Avg. Rating	Avg. Coupon	Avg. Price	Total Cost
3.94%	6.211	7.25	BBB+/BBB	3.49%	97.319	1,001,873

	Ratings	Coupon	Coupon Freq	Maturity	Price	YTW	Market Valued	Accrued Interest	Total Cost
Bond A	Baa3/BBB	3.20%	Semi-Annual	2/15/2023	98.212	3.63%	166,960	-	166,960
Bond B	A2/A-	3.30%	Semi-Annual	9/9/2024	98.045	3.66%	166,677	2,431	169,108
Bond C	A3/BBB+	3.25%	Monthly	2/15/2025	95.65	4.01%	162,605	-	162,605
Bond D	Baa1/BBB+	3.40%	Semi-Annual	5/1/2026	95.95	4.02%	163,115	1,670	164,785
Bond E	Baa1/BBB	3.60%	Semi-Annual	9/1/2027	95.971	4.14%	163,151	2,788	165,939
Bond F	Baa2/BBB	4.20%	Semi-Annual	4/17/2028	100.08	4.19%	170,136	2,340	172,476

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year Total
2018									6,325	4,030	3,350	460	**14,165**
2019	460	3,180	6,325	4,030	3,350	460	460	3,180	6,325	4,030	3,350	460	**35,610**
2020	460	3,180	6,325	4,030	3,350	460	460	3,180	6,325	4,030	3,350	460	**35,610**
2021	460	3,180	6,325	4,030	3,350	460	460	3,180	6,325	4,030	3,350	460	**35,610**
2022	460	3,180	6,325	4,030	3,350	460	460	3,180	6,325	4,030	3,350	460	**35,610**
2023	460	173,180	6,325	4,030	3,350	460	460	460	6,325	4,030	3,350	460	**202,890**
2024	460	460	6,325	4,030	3,350	460	460	460	176,325	4,030	3,350	460	**200,170**
2025	460	170,460	3,060	3,570	2,890				3,060	3,570	2,890	-	**189,960**
2026			3,060	3,570	172,890				3,060	3,570			**186,150**
2027			3,060	3,570					173,060	3,570			**183,260**
2028				173,570									**173,570**
												Total:	**1,292,605**

Sources: Raymond James, BondWave LLC. As of 8/15/18

No matter what interest rates do, what happens in the domestic or global economy, what the Fed does, or what "bubbles" are created or popped, barring default the cash flow is *known*. This clarity, transparency, and predictability of individual bonds provides knowns versus the unknowns of many packaged products. ▪

Why Bond Ladders Still Make Sense

Over the past year, the short end of the yield curve has risen at a faster rate than the intermediate and long parts of the curve, leading to a flatter yield curve and more relative value in short maturity bonds than has been seen in the past 10 years. But when considering how to position fixed income allocation, it is important to consider both current value as well as long-term planning. This is why a popular strategy for some investors has been and may remain, the individual bond laddered structure.

First, what is a bond ladder? A bond ladder is a portfolio of bonds with maturities spread over regular intervals. The idea is that whenever a bond matures, the proceeds are reinvested back into the long end of the ladder, thereby maintaining the integrity of the portfolio's general structure.

Features of a Bond Ladder:

Mitigate Reinvestment Risk

Reinvestment risk is spread over a maturity range of years (or other time increment). Just as a properly constructed portfolio should not have too high of a concentration in any one issuer or sector, a bond ladder should generally not be overly concentrated in any maturity. Picking a small window of maturities or grouping of bonds with a seemingly desired trait (i.e. all short maturity bonds), may expose reinvestment risk due to the concentration of "like" bonds. A laddered structure permits diversification of maturities, sectors, coupons, or any other bond attribute.

Take Advantage of Rising Rates

A bond ladder takes advantage of a rising interest rate environment, while being fully invested and earning income all along the way. As interest rates rise, maturing principal is reinvested back into the bond ladder at the new higher interest rates, leading to a gradual increase in the overall yield of the portfolio over time.

Diversify Maturities

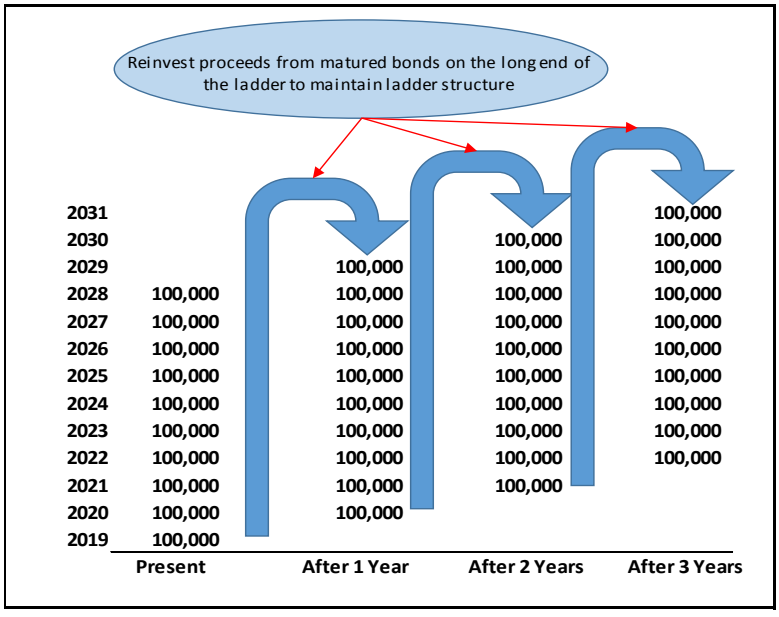
A bond ladder prevents the potential pitfalls of "betting" on a single future scenario (i.e. allocating all money to short maturity bonds). Betting like this, may "win" if rates quickly rise by allowing reinvestment in future higher rates, but "lose" if rates remain flat or fall by sacrificing current higher income associated with longer maturities. This exposes the reinvestment risk mentioned above by not having the "rolling liquidity" that a bond ladder provides. Equity allocation in one company concentrates the entire outcome to a single entity, an unlikely practice for most investors. Concentrating an entire fixed income portfolio to a single maturity might be an equally alarming practice.

Regular Liquidity

The diverse maturities in a bond ladder can provide an excellent liquidity source. This could prove advantageous in a case of unexpected expenses. For example, a ladder "roll off" may prevent an investor from being forced to liquidate a bond in an unfavorable market, taking a loss or losing its desirable income. The recurring maturities also provide the opportunity to reposition the portfolio (different asset classes, sectors, credit quality, maturity range, etc.) over time as deemed appropriate by changing investment objectives and/or market dynamics.

Takeaway: In this difficult to predict financial world, a laddered structure allows an investor several distinct features by mitigating risks associated with concentrations in specific bond traits. Although perhaps a more conservative approach, a laddered portfolio may position an investor with moderate risk and improved returns. ▪

How a Bond Ladder Works



Interest Rates… Push, Puff & Pull

After yet another year of higher interest rate projections, intermediate and long term rates have moved very little. Since the beginning in December, 2015, intermediate to long-term rates are struggling to keep pace with the 175 basis points (1.75%) or 7 implemented Federal Reserve rate hikes. There are a world of factors pushing, puffing and pulling rates in opposite directions: ▪

	U.S. Treasury Rates			Change Since	YTD
	12/14/2015	1/1/2018	8/16/2018	12/14/2015	Change
1 Mo	0.112%	1.225%	1.934%	182	71
3 Mo	0.203%	1.376%	2.053%	185	68
6 Mo	0.494%	1.527%	2.224%	173	70
1 Yr	0.669%	1.732%	2.439%	177	71
2 Yr	0.944%	1.883%	2.623%	168	74
3 Yr	1.247%	1.971%	2.693%	145	72
5 Yr	1.653%	2.206%	2.752%	110	55
7 Yr	2.012%	2.333%	2.820%	81	49
10 Yr	2.222%	2.405%	2.875%	65	47
30 Yr	2.952%	2.740%	3.035%	8	30

sources: Bloomberg LP, Raymond James

Fed 7+ years of zero interest rates

Inflation (has remained low)

World's Primary Central Banks Raise Money Supply Through Open Market Purchases

Created Money Supply Does Not Go To Products & Services But Into Investments

Foreign Interest Rates Remain Low

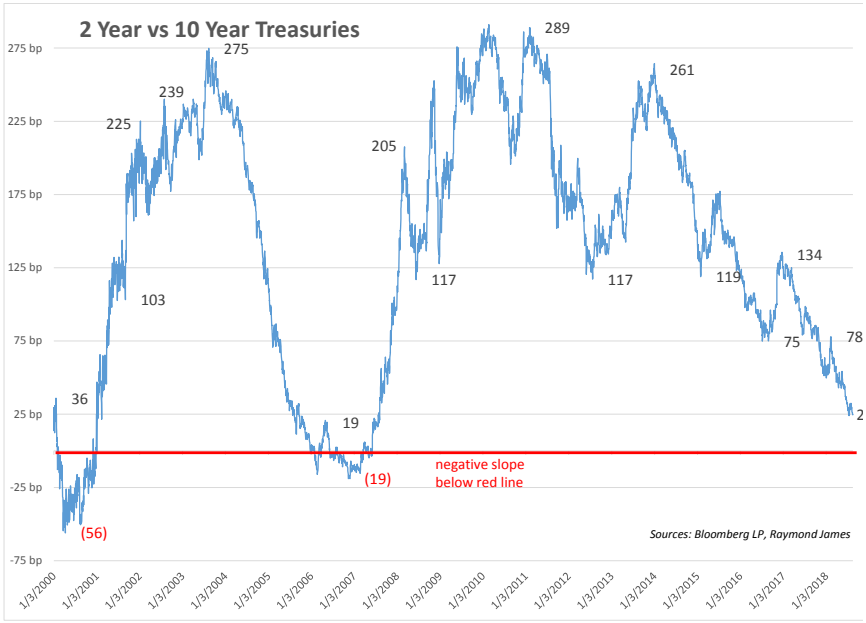
U.S. Economy Is Growing Steadily

Long-term Interest Rates Have NOT Followed the Fed's Lead. Since December 2015, the 10yr is +65bp, the 30yr is +8bp.

Since December 15, 2015, the Fed Has Raised the Fed Funds Rate 175bp

Consumer Spending Determines ~69% of U.S. GDP. Spending is Low

Aging Population Controls Disproportionate Amount of Wealth. Less Need For Goods & Services. More Likely to Invest.

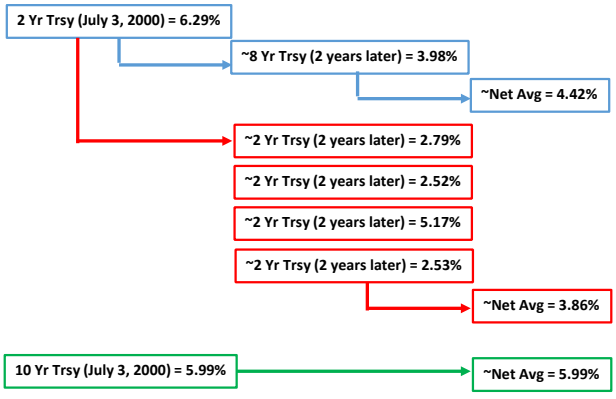


Investing in a Flattening Yield Curve

There is no certainty that we are headed for an inverted curve, inflation will run unhindered or that a recession is on the horizon. Several historically distinct aspects exist. The Fed, in 2008, began a series of unprecedented Quantitative Easing Programs, buying securities (Treasuries and Mortgage Securities) through open market purchases which influenced the intermediate and long end of the curve. The Fed lowered short term rates creating a zero interest rate environment (band of 0.00%-0.25%) that lasted for over 7 years. Eventually, interest rates had nowhere to go but up and the Fed had plenty of room to raise rates and remain in an accommodative state. The Fed has chosen to move very slowly and although we are more than 2.5 years from the Fed's initial rate hike in December of 2015, Fed Funds have only moved from 0.00%-0.25% to 1.75%-2.00%.

This relaxed pace has influenced mainly short-term rates. This is an important point, noting that the recent flattening of the yield curve has been driven mostly by rising short term rates. There is minimal correlation between the 2- and 10-year Treasury spread and the 10-year Treasury.

A common thought when the curve flattens is to shorten investment maturities. For example, on July 3, 2000, the 10-year Treasury was 5.99%. The 2-year was 6.29%. Pick-up yield AND shorten up! Two years later (July 3, 2002) when the 2-year Treasury matured, investors faced a much different rate environment with reinvestment choices on the 2- and 10-year at 2.79% and 4.76% respectively *(see below)*. Clearly hindsight divulges why an inverted curve does not necessarily dictate that staying short is the answer. When planning fixed income strategy/allocation, the impulse to predict future rates needs to acquiesce to long-term planning. Even with interest rates much lower across the board, geopolitical uncertainty, lack of inflation and interest rate disparity may be formidable barriers to higher domestic rates. ▪



Corporate Bond Spread Movement

So far in 2018, investment grade corporate yields have risen considerably. The yield of the Citi Broad IG Corporate index is about 75 basis points (bp) higher than it was at the beginning of 2018. The yield on a corporate bond is composed of the yield on its benchmark Treasury plus a spread. The benchmark Treasury for bonds with a similar maturity is going to be the same, so the component that differentiates one bond's yield from another is the *spread*.

Year-to-date, Treasury yields are higher. In addition, spreads on corporate bonds are also wider (higher). The combination of higher yielding Treasury bonds with wider corporate bond spreads has produced today's higher corporate yields. Different corporate sectors may move in dissimilar manners for a myriad of reasons which might include: demand, credit rating variations, supply, etc. The included chart highlights the year-to-date spread movement of the different sectors. This helps to identify which sectors are offering relatively more yield as well as which sectors may be exhibiting more relative risk *(yield can be an excellent indicator of how much risk the market is pricing into a specific investment)*.

The two columns on the far-right of this chart display the current index spreads broken down by how much spread is offered per year. Each sector has a different average maturity. By comparing the ratio of total spread to average maturity, the net result allows the use of spread as a measure of risk and level comparison of each sector. It indicates how much risk the market is pricing into a given sector. For example, finance has an overall spread of 111.26 bp, which puts it right in the middle of the pack as far as spreads go. The finance sector has an average maturity of just 7.44 years, whereas every other sector has an average maturity over 10 years; therefore the finance spread per year jumps from middle of the pack based on net spread to the top of the list based on spread/average maturity.

"An investment in knowledge pays the best interest." – Benjamin Franklin

Data points like spread, spread change, and spread per year should not be viewed in isolation when considering investment options, as each is just one part of the picture. A wider spread could mean more yield but it is also likely an indicator of relatively more risk. When working with your advisor to construct a portfolio, it is important to consider all relevant factors to determine the appropriate risk/reward combination. Keeping an eye on these trends is just one more tool to put in your toolbox when thinking about where to deploy your fixed income dollars. ▪

Corporate Bond Spreads by Sector (basis points)

	1/2/2018	8/17/2018	YTD Change	Maturity Avg. (Yrs)	Spread Per Year
Citi Broad IG Corp. Index	97.96	116.55	18.59	10.81	10.78
Industrials	99.55	116.34	16.78	11.55	10.07
Manufacturing	91.79	108.64	16.84	10.21	10.65
Energy	122.89	136.86	13.97	11.94	11.47
Service	101.55	115.61	14.06	12.37	9.35
Transportation	86.13	112.59	26.47	14.95	7.53
Consumer	85.93	111.09	25.17	11.12	9.99
Utilities	117.80	130.25	12.45	15.57	8.36
Finance	86.67	111.26	24.59	7.44	14.95

Source: Raymond James, YieldBook

Bond Market Bits

- Interest rate disparity continues. U.S. rates remain higher than many world sovereign rates keeping demand for domestic securities high.

World Bond Markets				
	2-Year	5-Year	10-Year	30-Year
United States	2.612	2.741	2.862	3.020
Canada	2.105	2.187	2.258	2.266
France	-0.429	0.008	0.667	1.566
Germany	-0.650	-0.269	0.305	0.970
Greece	1.403	-	4.341	-
Ireland	-0.497	-0.105	0.842	1.671
Italy	1.288	2.413	3.121	3.701
Japan	-0.129	-0.084	0.098	0.852
Netherlands	-0.637	-0.246	0.425	0.969
Spain	-0.303	0.425	1.449	2.558
Sweden	-0.535	-0.071	0.483	-
United Kingdom	0.708	0.986	1.236	1.723

** as of 08/17/2018*

Source: Bloomberg LP, Raymond James

- The breakeven inflation rate measures the nominal rate against the inflation-linked bond of the same maturity indicating the market's expectation of inflation for that time frame.

Breakeven Inflation Rate	
1 Year	0.78%
2 Year	1.60%
3 Year	1.79%
5 Year	1.96%
7 Year	2.12%
10 Year	2.09%
30 Year	2.11%

Breakeven inflation rates give us what rate of inflation the market is expecting over a specified time frame.

Source: Bloomberg LP. The rates are United States breakeven inflation rates. They are calculated by subtracting the real yield of the inflation linked maturity curve from the yield of the closest nominal Treasury maturity. The result is the implied inflation rate for the term of the stated maturity.

- It is important to know the tax implications of certain bonds. For instance, most municipal bonds are exempt from federal taxes. In-state issues are also typically exempt from state taxes (i.e. a Georgia issued municipal is state tax exempt to a tax payer who files in Georgia). There are five exceptions to this rule: Oklahoma, Utah, Iowa, Wisconsin and Illinois which *do* tax bonds issued within their respective states. Some bonds that are federally taxable are exempt from state taxes. Most taxable municipal bonds will carry a state tax exemption. Be sure to check on the specific issue to see if this applies. Treasuries are exempt from state income tax as well as a few agency bond issuers: Federal Home Loan Bank, Federal Farm Credit and Tennessee Valley Authority. Always consult your tax advisor. ▪

Tax Implications	Federally Tax Exempt	State Tax Exempt
Treasury	No	Yes
Federal Home Loan Bank	No	Yes
Federal Farm Credit	No	Yes
Tennessee Valley Auth	No	Yes
CDs	No	No
Corporate Bonds	No	No
Municipal (tax-exempt)	Yes	Yes, bond issued in home state except[1]: Oklahoma, Utah, Iowa, Wisconsin, Illinois
Municipal (taxable)	No	Check Particular Issue
Preferred Securities	No	No

[1] *The five states that tax their own state issued bonds have ocassionall allowances on certain issues where bond issues are double tax-exempt.*

Sources: Municipalbonds.com, TreasuryDirect, FINRA, Raymond James

- ***Know What You Can Own***

Many wealthy investors choose individual bonds to preserve their wealth. These laddered strategies can provide defined cash flows, steady income and the flexibility afforded by owning bonds with stated maturities. The table below summarizes a few illustrative portfolios to give investors an idea of current yields.

▪

		Portfolio Statistics				Credit Quality			
	Maturity Range	Avg. Maturity	Duration	Yield to Worst	TEY*	AAA	AA	A	BBB
Municipal Ladders	1 to 5	3	2.79	1.85%	3.12%	20%	60%	15%	5%
	1 to 10	5.5	4.85	2.16%	3.64%	20%	60%	15%	5%
	1 to 15	8	6.71	2.39%	4.03%	20%	60%	15%	5%
	5 to 10	7.5	6.34	2.41%	4.06%	20%	60%	15%	5%
	5 to 15	10	8.07	2.61%	4.40%	20%	60%	15%	5%
	5 to 20	12.5	9.63	2.75%	4.65%	20%	60%	15%	5%
	10 to 20	15	11.04	2.93%	4.95%	20%	60%	15%	5%
Corporate Ladders	1 to 5	3	2.75	3.34%				25%	75%
	1 to 10	5.5	4.77	3.67%				25%	75%
	1 to 15	8	6.58	3.92%				25%	75%
	5 to 10	7.5	6.22	3.95%				25%	75%
	5 to 15	10	7.86	4.16%				25%	75%
CD Ladders	1 to 2	1.5	1.42	2.58%					
	1 to 3	2	1.88	2.72%					
	1 to 4	2.5	2.32	2.83%					
	1 to 5	3	2.76	2.93%					

**TEY is based on the top federal tax bracket (37%) plus the Medicare surtax (3.8%)*
Yields shown are illustrative only, calculated using the arithmetic means based on the maturity range combined with the credit quality percentages, and are not inclusive of sales credit.
Sources: Raymond James, MMD, Bloomberg LP. As of 8/20/18

- ✓Identify acceptable risk factors.
- ✓Define desired income.
- ✓Create required cash flow.
- ✓Identify requisite redemption period.
- ✓Create needed liquidity.
- ✓Isolate personal biases.
- ✓Use appropriate asset mix.
- ✓Diversify.
- ✓Rebalance when applicable.

Diversification and strategic asset allocation do not ensure a profit or protect against a loss. Investments are subject to market risk, including the possible loss of principal. The process of rebalancing may carry tax consequences.

Additional Fixed Income and Strategy Resources

Doug Drabik - Sr. Fixed Income Strategist
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The Fixed Income Strategy Group provides market commentary, portfolio analysis and strategy to Raymond James advisors for the benefit of their clients. We are part of the larger 13 person Fixed Income Services Group (FISG) within Raymond James' Fixed Income Capital Markets Group of more than 500 fixed income professionals including trading and public finance experts in forty-three nationwide locations. This publication does not constitute Fixed Income research, but rather it represents commentary from a trading perspective.

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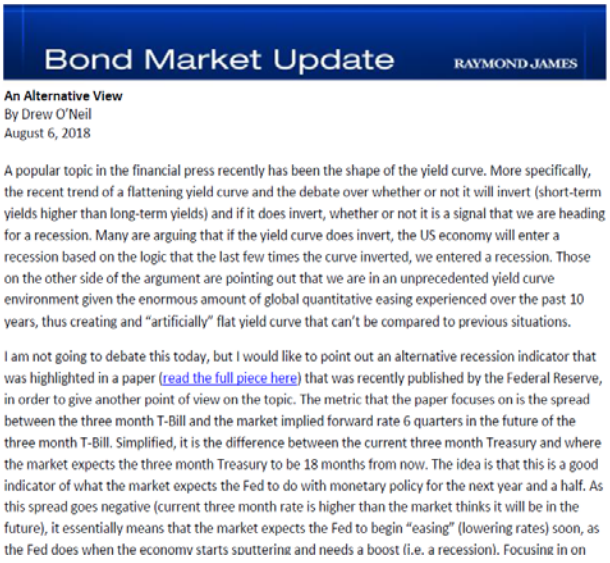
- **Weekly Bond Market Commentary**
- **Monthly Fixed Income Perspectives (PDF)**
- **Fixed Income Market Commentary by Kevin Giddis**
- **Fixed Income Weekly Primer (PDF)**
- **Municipal Bond Investor Weekly (PDF)**
- **Fixed Income Quarterly (PDF)**
- **Weekly Index Monitor (PDF)**
- **Weekly Interest Rate Monitor (PDF)**

Investment Types/Expertise Include:

- Treasuries/Agencies
- Brokered CDs
- Corporate bonds
- MBS/CMOs
- Tax-exempt municipals
- Taxable municipal bonds
- Preferred securities



Bond Market Update RAYMOND JAMES

An Alternative View
By Drew O'Neil
August 6, 2018

A popular topic in the financial press recently has been the shape of the yield curve. More specifically, the recent trend of a flattening yield curve and the debate over whether or not it will invert (short-term yields higher than long-term yields) and if it does invert, whether or not it is a signal that we are heading for a recession. Many are arguing that if the yield curve does invert, the US economy will enter a recession based on the logic that the last few times the curve inverted, we entered a recession. Those on the other side of the argument are pointing out that we are in an unprecedented yield curve environment given the enormous amount of global quantitative easing experienced over the past 10 years, thus creating and "artificially" flat yield curve that can't be compared to previous situations.

I am not going to debate this today, but I would like to point out an alternative recession indicator that was highlighted in a paper (read the full piece here) that was recently published by the Federal Reserve, in order to give another point of view on the topic. The metric that the paper focuses on is the spread between the three month T-Bill and the market implied forward rate 6 quarters in the future of the three month T-Bill. Simplified, it is the difference between the current three month Treasury and where the market expects the three month Treasury to be 18 months from now. The idea is that this is a good indicator of what the market expects the Fed to do with monetary policy for the next year and a half. As this spread goes negative (current three month rate is higher than the market thinks it will be in the future), it essentially means that the market expects the Fed to begin "easing" (lowering rates) soon, as the Fed does when the economy starts sputtering and needs a boost (i.e. a recession). Focusing in on

The author of this material is a Trader in the Fixed Income Department of Raymond James & Associates (RJA), and is not an Analyst.

Duration is the measure of a bond's price sensitivity relative to interest rate fluctuations. Investments are not FDIC insured or any other government agency, not guaranteed by the financial institution and are subject to investment risks, including possible loss of principal invested.

Diversification and strategic asset allocation do not ensure a profit or protect against a loss. Investments are subject to market risk, including possible loss of principal. The process of rebalancing may carry tax consequences.

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Should interest rates remain unchanged, increase, or even decline, a laddered approach to fixed income investing may help reduce risk, improve yields, provide flexibility and provide shorter-term liquidity. Risks include but are not limited to: changes in interest rates, liquidity, credit quality, volatility and duration.

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