RISE OF THE TREASURY YIELD

US 10-Year Treasury Yield Hits 7-Year High

Aman Murba
Research Analyst

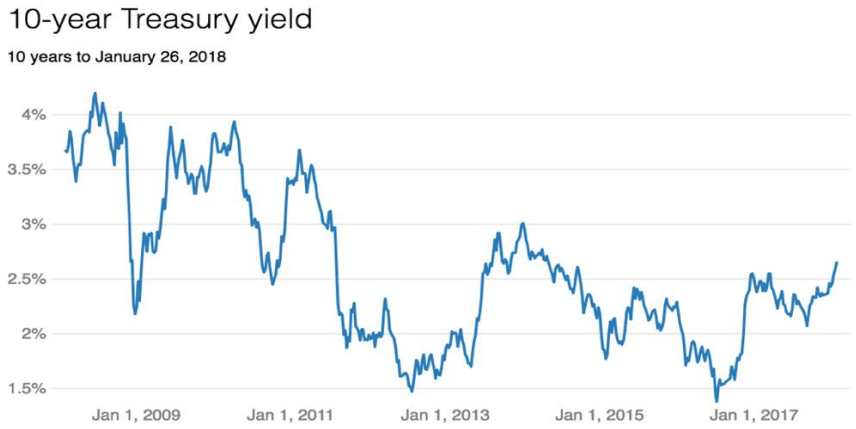
The 10-Year Treasury Yield is the interest rate the US government pays on its debt obligations. Amid reports detailing strong retail figures over the last couple months, the 10-year treasury yield briefly topped 3.1% on Wednesday May 16th. The reports signaled that the economy has enough momentum to grow at a steady pace. This yield increase followed after a bond market sell-off on Tuesday May 15th. With record low unemployment rates, traders pay close attention to retail sales and mean hourly earnings to predict inflationary pressures.[1] This is because as wages increase, employers must increase prices of their goods and services to maintain a steady level of corporate profits. However, this has a circular effect since as the cost of goods increases, higher wages are needed to compensate. This is formally known as wage push inflation.

On Tuesday, the two-year yield touched its peak-level since 2008 at 2.589% and the 30-year yield hit a high of 3.22% which is the highest since April 26, 2018. Long-term yields are typically higher than short-term yields because the long-term horizon makes it more likely that a rise in interest rates will result in a larger capital loss. Thus, investors want to be compensated for their level of risk accordingly.

Investors pay significant attention to the 10-year yield as it reflects rates in financial instruments such as mortgages. Moreover, the 10-year yield is particularly significant because when confidence is high, investors believe that they're able to find better investments for their money and don't feel the need to play it safe.

However, lower investor confidence results in an increase in price as there is an increased demand from investors for a safe investment. This generally results in a decrease in bond yields. When other countries are impacted by geopolitical situations, the US bond demand rises due to foreign investors thereby lowering yields.

[2]



[1] https://www.cnbc.com/2018/05/16/us-treasurys-tick-higher-after-reaching-multi-year-highs.html

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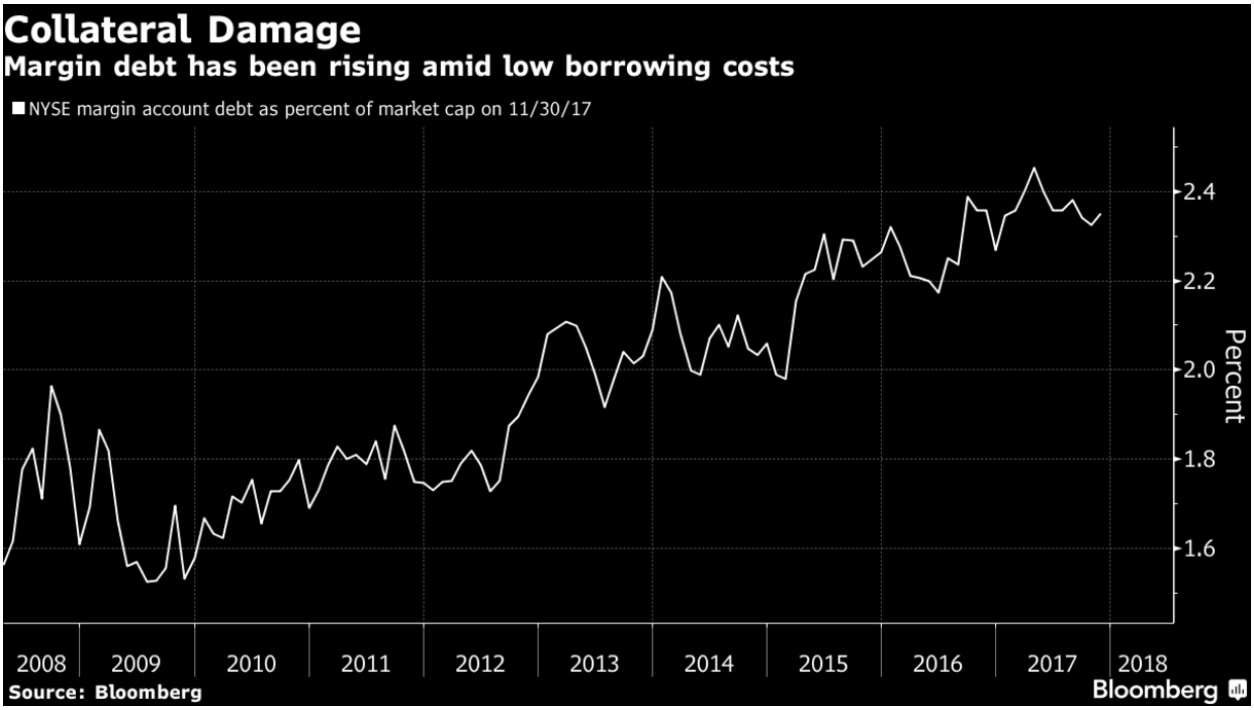
10 year yields are followed very closely. It is crucial to have knowledge of the historical pattern in order to understand how today's compare. In general, rates are not widely dispersed. However, when rates change by more than 1% over a short period of time, the change can redefine the economic landscape. Jamie Dimon, CEO of JP Morgan sees the 10-year yield eventually approaching 4%.[3]

In terms of consumers, a higher 10-year yield affects 15-year mortgage and banks and other lenders charge more interest for mortgages. This makes housing less affordable, thus depressing the housing market. This can result in slower GDP growth.

The S&P 500 Index tracks the return on 500 large companies listed on the NYSE and NASDAQ. Investors and economists track the difference between the S&P 500 to compare returns on equities and bonds. Currently, the spread between the S&P 500 Index yield and that of the 10-year Treasury is approaching the lowest levels in eight years. Many investors consider this a sign of worry in a time where rumors of trade wars flood media outlets and signs of slowed global growth emerge.

In terms of corporate credit, companies that are least creditworthy have benefitted from low benchmark yields. However, if borrowing costs rise, debt becomes more expensive which may pose a risk to corporations with high leverage.

The US dollar will likely strengthen against most other major currencies according to Neil Dutta of Renaissance Macro Research LLC. He attributes the increase in real yields and relative increase in dollar value to the US economy's brighter outlook compared to the rest of the world.



[3] https://www.bloomberg.com/news/articles/2018-05-08/dimon-says-prepare-for-4-yields-sees-potential-volatility-rise

High Interest-Rate Vs. Low Interest-Rate DCF Comparison

Cost of Debt

Interest Rate	5.00%
Tax Rate	30.00%
After-tax cost of debt	3.50%

Weights		
	Amount	Weight
Value of Debt	$[illegible]50.00	50.00%
Value of preferred shares	$[illegible]25.00	25.00%
Value of common shares	$[illegible]25.00	25.00%

WACC	**5.292%**

Cost of Equity: Preferred Shares

Price/preferred share	$[illegible]3.00
Annual Dividend	$[illegible]0.20
Cost of preferred shares (%)	6.67%

Cost of Equity: Common Shares

CAPM

Risk-free rate	5.00%
Beta	0.50
Market return rate	10.00%
Cost of equity	7.50%

Value of the company = present value of cash flows + liquadation of redundant assets (not earning operational income)

	Discount Rate (WACC):	5.29%
Year	Free Cash Flow	P/V
0		[illegible]
1	49992	[illegible]47,479.54
2	49992	[illegible]45,093.35
3	49992	[illegible]42,827.08
4	49992	[illegible]40,674.71
5	49992	[illegible]38,630.52
6	49992	[illegible]36,689.05
7	49992	[illegible]34,845.16
8	49992	[illegible]33,093.94
9	49992	[illegible]31,430.73
10	49992	[illegible]29,851.11
	PV of Regular Cash Flows:	[illegible]380,615.21

Constant Growth Part (Terminal Period)	
Cash flow starting constant growth	[illegible]54,992.00
Growth Rate	0.00%
Year constant growth starts	11
Present Value of Constant growth	[illegible]620,536.07

Rendundant Assets	

Company Value Today		[illegible]1,001,151.29

Company Value	$[illegible]1,001,151.29
Market Value of Debt	$[illegible]93,949.00
Number of Shares	40000
Price of Shares	$[illegible]22.68

An increase in interest rates decreases the present value of FCF's of a leveraged firm, all other variables held equal. This is because an increase in interest rates generally increases the cost of debt, therefore increasing the WACC.

Cost of Debt

Interest rate	2.00%
Tax Rate	30.00%
After-tax cost of debt	1.40%

Cost of Equity: Preferred Shares

Price/preferred share	$ 3.00
Annual Dividend	$ 0.20
Cost of preferred shares (%)	6.67%

Weights		
	Amount	Weight
Value of Debt	$ 50.00	50.00%
Value of preferred shares	$ 25.00	25.00%
Value of common shares	$ 25.00	25.00%

WACC	3.867%

Cost of Equity: Common Shares

CAPM

Risk-free rate	2.00%
Beta	0.50
Market return rate	10.00%
Cost of equity	6.00%

Value of the company = present value of cash flows + liquadation of redundant assets (not earning operational income)

	Discount Rate (WACC):	3.87%
Year	Free Cash Flow	P/V
0		-
1	49992	48,130.94
2	49992	46,339.16
3	49992	44,614.08
4	49992	42,953.22
5	49992	41,354.19
6	49992	39,814.69
7	49992	38,332.50
8	49992	36,905.49
9	49992	35,531.60
10	49992	34,208.86
	PV of Regular Cash Flows:	408,184.72

Constant Growth Part (Terminal Period)	
Cash flow starting constant growth	54,992.00
Growth Rate	0.00%
Year constant growth starts	11
Present Value of Constant growth	973,197.17

Rendundant Assets	

Company Value Today		1,381,381.89

Company Value	$ 1,381,381.89
Market Value of Debt	$ 93,949.00
Number of Shares	40000
Price of Shares	$ 32.19