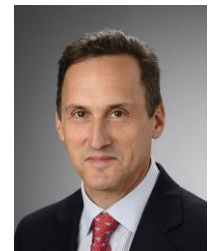


Allocations

October 2018

LOWER RANGE TO DRIVE STEALTH BULL MARKET IN BONDS

In our last interest rates [update in March 2018](#), long-term global rates were setting multi-year highs. Rather than the beginnings of a bear market, we suggested that developed market rates were likely to remain low and range bound—and that they were probably close to the top of the range. With strong economic growth and central banks either tightening or preparing to tighten monetary policy, some forecasters may think the bear case for DM rates has strengthened—and maybe it has in the short term with G3 yields ticking higher recently. On balance, however, we believe the evidence over the last several months supports a “low for longer” thesis for DM rates. Therefore, we consequently lowered our long-term central tendency on the U.S. 10-year Treasury yield to 2.50%, down from 2.75% previously. We also expect the 10-year JGB yield to remain under 50 bps and the 10-year bund yield to stay below 1.0% for several months, if not quarters, to come. If the “low for longer” thesis holds, then the stealth bull market in bonds that has run since the 2013 taper tantrum should continue to put bond market returns well ahead of the returns on cash.



Robert Tipp, CFA
Managing Director,
Chief Investment Strategist,
Head of Global Bonds

Figure 1: In the Stealth Bond Bull Market, Bonds Have Outperformed Cash Since the 2013 Taper Tantrum, and the Higher-Yielding Fixed Income Products Have Produced Respectable Returns.

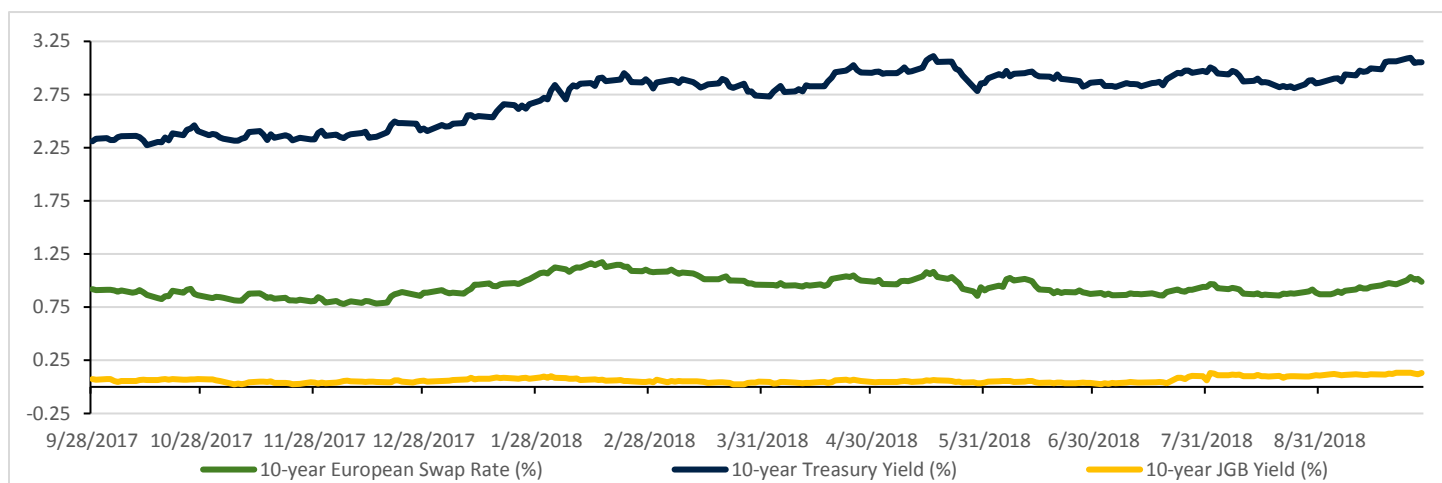
Cash Equivalent	Cumulative Return (%): 12/31/2013-06/30/2018	2018 Total Return (%): (6/30/18)	2017 Total Return	2016 Total Return	2015 Total Return	2014 Total Return
3m LIBOR	3.5	1.7	1.2	0.7	0.3	0.2
3m EURIBOR	-0.6	-0.4	-0.4	-0.3	0	0.2
3m JPY LIBOR	0.2	0	0	0	0.1	0.1
Fixed Income Multi-Sector		2018	2017	2016	2015	2014
Yen Aggregate	9.4	0.6	0.2	3.0	1.1	4.3
Global Aggregate (hedged)	16.5	0.1	3.0	4.0	1.0	7.6
U.S. Aggregate	11.5	-1.6	3.5	2.7	0.6	6.0
Euro Aggregate	17.0	0.3	0.7	3.3	1.0	11.1
Fixed Income Sectors		2018	2017	2016	2015	2014
U.S. High Yield Bonds	23.5	0.1	7.5	17.5	-4.6	2.5
Municipal Bonds	18.8	-0.3	5.5	0.3	3.3	9.1
U.S. Leveraged Loans	19.2	2.4	4.1	9.9	-0.4	2.1
Mortgage-Backed (Agency)	11.2	-1.0	2.5	1.7	1.5	6.2
U.S. Treasuries	8.3	-1.1	2.3	1	0.8	5.1
CMBS	10.4	-1.4	3.4	3.3	1.0	3.9
European Leveraged Loans	17.8	0.7	3.7	5.4	4.39	2.5
European IG Corporate	14.8	-0.6	2.4	4.7	-0.6	8.4
U.S. IG Corporate Bonds	16.6	-3.3	6.4	6.1	-0.7	7.5
European High Yield Bonds	23.1	-1.5	6.8	10.8	1.3	5.7
U.S. Long IG Corporates	28.1	-6.8	12.1	11	-4.6	15.7
EM Local (Hedged)	9.1	-1.3	3.7	4.7	-2.2	3.2
EM Debt Hard Currency	25.2	-5.2	10.3	10.2	1.2	7.4
EM Currencies	-4.2	-3.4	11.5	3.5	-7.6	-7.0

Past performance is not a guarantee or a reliable indicator of future results. See Notice for important disclosures. All investments involve risk, including possible loss of capital. Sources: Bloomberg Barclays except EMD (J.P. Morgan), HY (Merrill Lynch), Senior Secured Loans (Credit Suisse). Performance is for representative indices as of June 30, 2018. See Notice for full index names. An investment cannot be made directly in an index.

What's Happened Since March 2018?

While U.S. 10-year rates have risen substantially over the past year—thanks to accelerating GDP growth, Fed rate hikes, and fiscal stimulus—Japanese and European rates have remained quite low. Why? Rather than an anomaly, we see this as a drop in the equilibrium long-term level of rates that has been driven by a few, long-running secular trends.

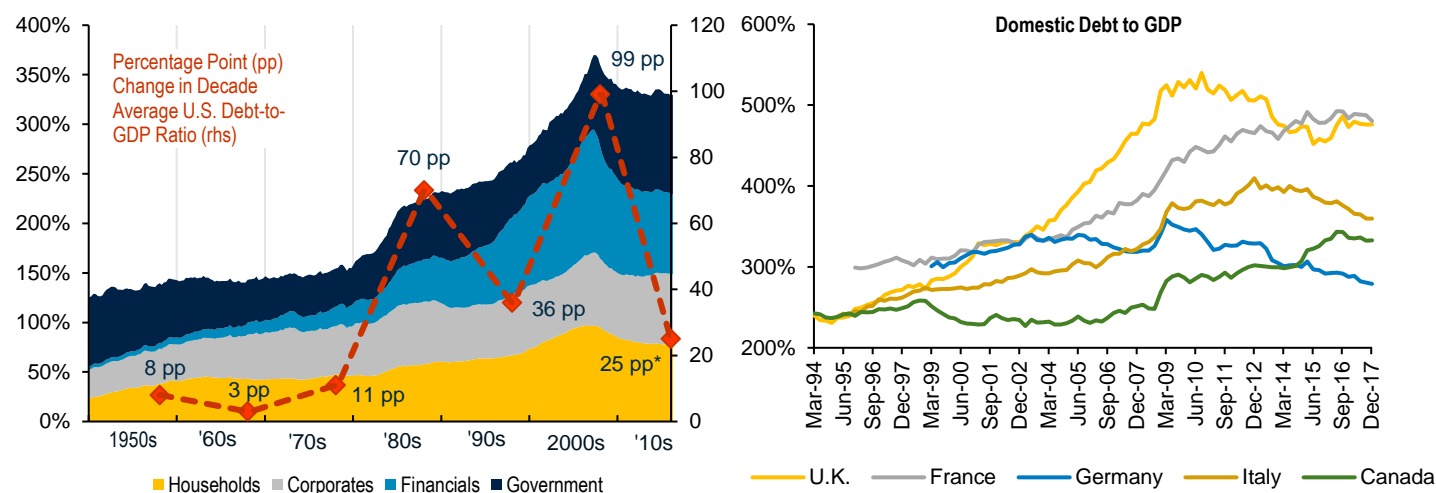
Figure 2: Although U.S. Rates Have Risen Substantially this Year, Japanese and European Rates Have Remained Quite Low.



Source: Bloomberg as of September 2018

For starters, the post-Global Financial Crisis combination of heightened regulation, slower nominal growth, aging demographics, and high debt levels appears to be reducing the demand for money. While these phenomena may sound like abstract concepts, their net result is plainly visible to the naked eye: after rising for decades, debt-to-GDP ratios have generally leveled off for many large DM economies around the world. And this has generally been the case for both public and private debt. In other words, debt growth is no longer keeping up with economic growth. In addition to the direct impact of reduced borrowing putting less upward pressure on rates, there is also the indirect effect of less consumption and investment and, therefore, slower economic growth, which again contributes to a lower equilibrium level of interest rates.

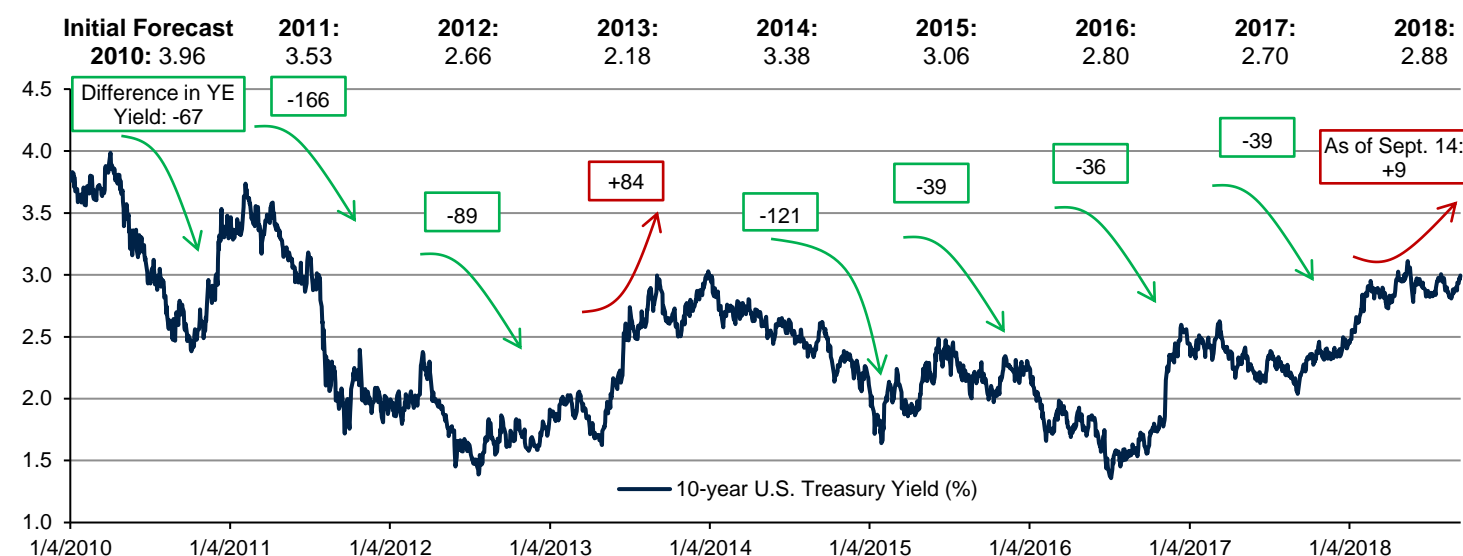
Figures 3 and 4: The Prolonged Rise in Global Debt-to-GDP Ratios Shows Signs of Leveling Off or Declining



Source: Bloomberg and Haver Analytics as of March 31, 2018 and December 31, 2017, respectively. *Through December 31, 2017.

Meanwhile, the global dynamic of an [aging demographic profile](#) may not only contribute to decreased borrowing, but it may also support investors' increased demand for bonds. Anecdotally, this demand can be seen in the ongoing [fixed income demand from individuals](#) and indirectly through the flows from pension and sovereign wealth funds that continue to scout the globe for attractive fixed income assets. The upshot for the bond market: lower long-term yields.

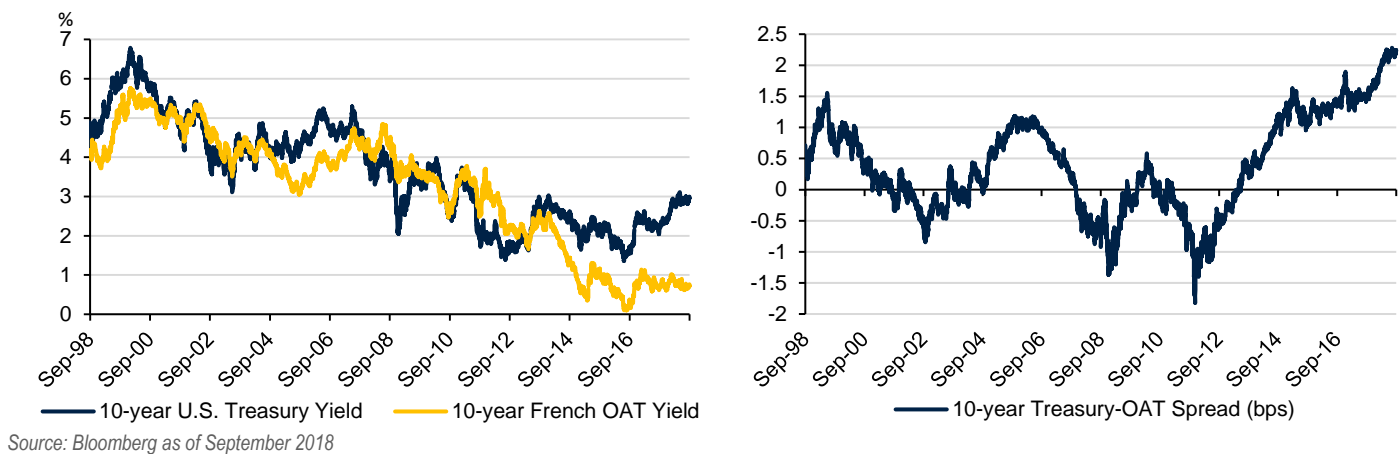
Figure 5: Median Beginning-Year U.S. 10-year Yield Forecasts Versus Actual Outcomes...Averaging 51 bps Too High Since 2010.



Source: Bloomberg as of September 2018

While rates in many developed markets have fallen this year, why have U.S. 10-year rates continued to trade up around 3.0%? One likely cause is an acceleration in growth—which may be a temporary result of fiscal stimulus. Another cause may be that the market is pushing up yields in anticipation of higher supply due to higher U.S. deficits and the Fed's balance sheet roll-off, which is still ramping up. While most forecasters (many of whom have had a consistently bearish bias in recent years, as observed in Figure 5) appear to believe that we are merely at a rest stop before U.S. yields move even higher, our thesis is that, at these levels, the markets are likely braced for the fiscal stimulus and balance sheet roll-off. Therefore, U.S. yields, which are at historically high levels relative to most DM rates (see Figure 6 and 7), may be primed to either remain around these levels, or more likely, to decline in the quarters and years ahead as the impact of fiscal stimulus diminishes, allowing the underlying bond-positive fundamentals—aging demographics and the generally high debt levels combined with the burden they impose on growth and confidence—to reassert themselves.

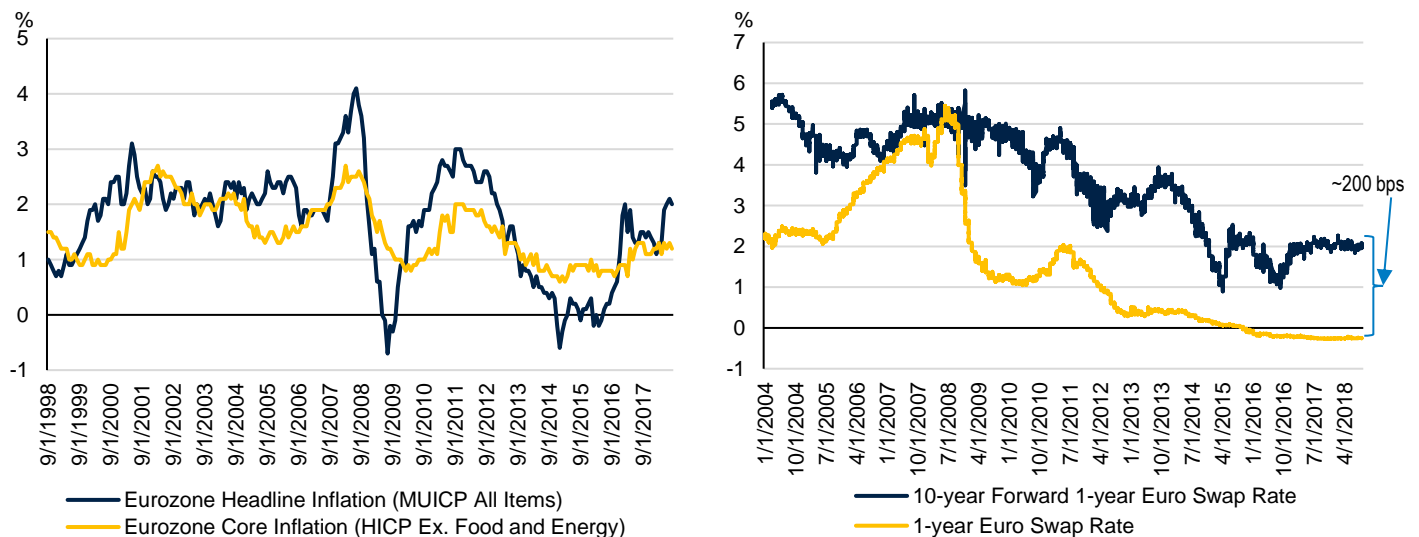
Figure 6 and 7: U.S. Yields are at Extended Levels Relative to Most DM Countries. Over the Past 20 Years U.S. Yields are at their Historic Wides Versus Core European Yields, Such as France's 10-year OAT.



But Are Non-U.S. Rates Too Low?

Could it be the case that U.S. rates are not too high, but rather that non-U.S. rates are simply too low? While DM economies are experiencing solid growth globally, inflationary pressures remain in check, i.e., they are not overheating. If anything, underlying inflation dynamics in most major economies appear quite stable at below-target levels. While this may change if and when economies pass into, or above, full employment conditions, so far it looks like the low level of rates in key economies, such as the Eurozone and Japan, [may be closer to equilibrium](#) than generally realized. As a result, we expect policy tightening by major central banks—to the extent that it occurs—to ultimately undershoot what is priced into the forward markets, allowing long-term fixed income in the major DM markets to outperform cash over the long run.

Figure 8 and 9: While Eurozone Headline Inflation has Risen to 2%, Core Inflation, Excluding the More Volatile Food and Energy Components, has Remained Around 1%, Suggesting That [Underlying Pressures Are Limited](#), and Rate Hikes May Be Slow in Coming. As Low as European Yields May Seem to Some, In Our View, They Include an Excessive Combination of Term Premia and Rate-Hike Expectations, Which Suggests Euro Denominated Fixed Income Should Significantly Outperform Cash Over the Intermediate to Long Term.



While not the primary focus for DM central bankers, it is noteworthy that even with the current low DM rate structure, some emerging economies appear to be [struggling to maintain stability](#). While this could be the result of trade tensions and [poor EM policy choices](#) coming home to roost, it could nonetheless point towards a lower-equilibrium level for rates globally at this point in time.

On the QT: An Ironic Positive for the Bond Market?

Over the course of 2018, the aggregate trend for major central banks' balance sheets will be a shift from expansion to contraction thanks to the ECB and BoJ's purchase reductions and the Fed's balance sheet roll-off (i.e. Quantitative Tightening). While it's tempting to assume that central banks' shrinking balance sheets will result in higher rates, looking at the Fed's three QE programs may suggest otherwise. Each program was preceded by falling rates. However, after QE was under way, a few market dynamics [occurred with some consistency](#): bear steepening of the Treasury curve, rising stock prices, and falling equity volatility. These market movements suggest that by the time the Fed's well telegraphed buying programs began, bond prices already fully reflected the bullish impact. As the programs progressed, rates subsequently rose along with equities, and market volatility declined. Conversely, it seems reasonable that with QT, we should expect roughly the opposite—namely that volatility will likely increase, risk markets may become more hesitant, and long-term rates could crest as the QT effect begins and accelerates through the end of 2018. While there's been instances of heightened market volatility and risk market weakness, we've yet to see yields decisively crest. Perhaps that will occur as the Fed's roll-off hits its peak rate in Q4 2018 and the major central bank balance sheets, in aggregate, switch from expansion to contraction. In short, our hypothesis on QT seems to be panning out given this year's bumpy ride in global equities and spreads. The next test will be long-term U.S. rates: will they stabilize and begin to fall?

Figure 10: Each U.S. QE Program Was Preceded by a Drop in Rates. Once the Programs Were Under Way, the Yield Curve Bear Steepened, While Equity and Spread Markets Performed Well Amid Low Volatility. Will QT Bring the Opposite—Bull Flattening and More Volatile Risk Markets?



Source: Bloomberg as of September 2018

What are the Risks to the Bullish Thesis?

Temporary GFC Headwinds Set to Fade? Clearly, our long-term positive view on the bond market is not without risks. First, it could turn out that rates are not depressed by current fundamentals, but rather are temporarily still depressed by the various headwinds created by the GFC. In that event, as those headwinds continue to fade, rates around the world could march higher. A similar threat could come from an upward surprise in growth that arrives with an improvement in productivity, or as the result of a specific driver, such as additional fiscal stimulus, for example.

U.S. Budget Deficit to Push Rates Higher? We would first note that while developed country government debt-to-GDP ratios have risen since the GFC, interest rates have generally fallen—calling into question the idea that big deficits would push rates higher. In fact, steadily rising debt-to-GDP ratios in DM countries and falling long-term nominal rates have been the general rule over much of the past 40 years, rather than the exception (see Figure 11). A more reasonable supposition is that rate levels have corresponded more closely to the rate of change of nominal GDP (see Figure 12), and we are not expecting an acceleration in nominal GDP across DM countries, which remains consistent with the hypothesis for “low and range bound” long-term rates. In terms of supply, however, it may be worth noting that although the U.S. budget deficit is poised to increase, deficits in many other major DM economies are actually quite modest and / or declining, resulting in much less of a change in issuance than generally recognized.

Figure 11: Fears of Rising Government Debt Pushing Yields Higher Over the Decades Have Generally Not Played Out...

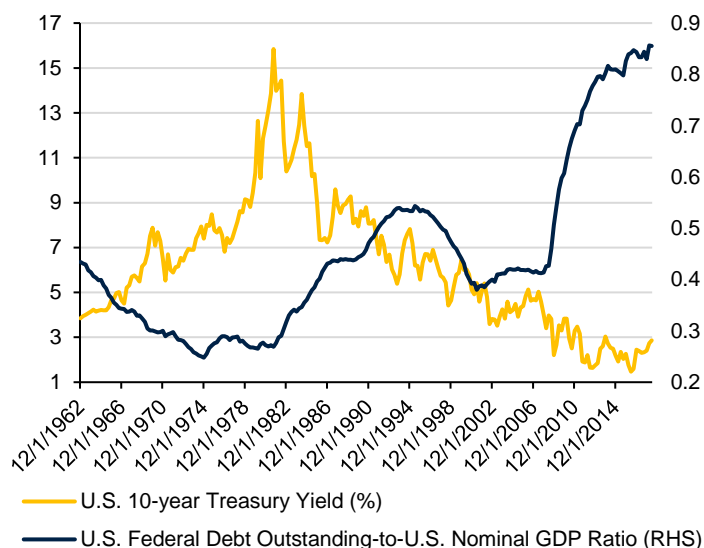
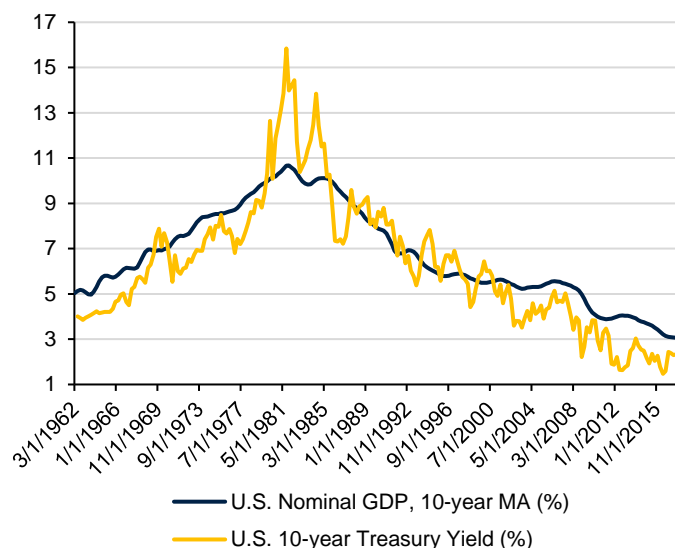


Figure 12: While Other Factors—Such as the Economy’s Nominal Growth Rate—Appear to be Much More Relevant Drivers of the Level of Interest Rates.



Source: Bloomberg as of September 2018.

Conclusion: Lower Range to Drive Stealth Bond Bull

In conclusion, despite the ongoing economic expansion and prospects for gradual central bank tightening, we remain generally bullish on DM bonds. **While there will undoubtedly be fluctuations as European growth rebounds from its mid-year slump (and, who knows...maybe the U.S. will have another fiscal stimulus package...) our bottom line is that, long term, we expect the central tendency for the U.S. 10-year Treasury to drop towards 2.5%. Additionally, we would expect to see correspondingly low ranges hold for the other major developed bond markets—e.g., a sub 1.0% 10-year bund and sub 50 bps 10-year JGB yield persisting for several months, if not quarters to come.**

Figure 13: Even If the Fed Stays on Its Course, We Expect the Central Tendency for the U.S. 10-year Treasury to Drop Towards 2.5% Over the Long Term.



Source: Bloomberg as of September 2018

NOTICE: IMPORTANT INFORMATION

Source(s) of data (unless otherwise noted): PGIM Fixed Income as of October 2018.

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Performance for each sector is based upon the following indices:

- U.S. Investment Grade Corporate Bonds: Bloomberg Barclays U.S. Corporate Bond Index
- European Investment Grade Corporate Bonds: Bloomberg Barclays European Corporate Bond Index (unhedged)
- U.S. High Yield Bonds: ICE BofAML U.S. High Yield Index
- European High Yield Bonds: ICE BofAML European Currency High Yield Index
- U.S. Senior Secured Loans: Credit Suisse Leveraged Loan Index
- European Senior Secured Loans: Credit Suisse Western European Leveraged Loan Index: All Denominations Unhedged
- Emerging Markets USD Sovereign Debt: JP Morgan Emerging Markets Bond Index Global Diversified
- Emerging Markets Local Debt (unhedged): JPMorgan Government Bond Index-Emerging Markets Global Diversified Index
- Emerging Markets Corporate Bonds: JP Morgan Corporate Emerging Markets Bond Index Broad Diversified
- Emerging Markets Currencies: JP Morgan Emerging Local Markets Index Plus
- Municipal Bonds: Bloomberg Barclays Municipal Bond Indices
- U.S. Treasury Bonds: Bloomberg Barclays U.S. Treasury Bond Index
- Mortgage Backed Securities: Bloomberg Barclays U.S. MBS - Agency Fixed Rate Index
- Commercial Mortgage-Backed Securities: Bloomberg Barclays CMBS: ERISA Eligible Index
- U.S. Aggregate Bond Index: Bloomberg Barclays U.S. Aggregate Bond Index

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