Fixed Income Market Review and Outlook

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Market Overview

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In my 3rd quarter commentary, I referred to "How the Grinch Stole Christmas" and stated that investors were ignoring "All the noise, noise, noise, noise" in financial markets as they continued to move money into equities and equity-like markets such as high yield. The "noise" I was referring to included much higher U.S. interest rates, the trade war with China, growing U.S. budget deficits, continued rate hikes by the Federal Reserve, political problems in Italy, Germany, and France, weaker growth in some countries outside of the U.S., and less global liquidity. Well, investors finally decided to take notice of this "noise" in the 4th quarter and financial markets reversed course quickly and harshly.

The S&P declined over -13% and global equity markets did not fare much better. High yield returned -4.5% and spreads widened significantly. These declines occurred despite continued healthy economic growth in the U.S., lower inflation and good corporate earnings. The "Grinch" stole Christmas in the 4th quarter for most investors.

In fixed income, the Bloomberg/Barclay's Capital Aggregate Index had the best quarter since the 2nd quarter of 2016 with a return of +1.64%. Treasury prices rose and provided the highest return within all sectors of fixed income (+2.57%) as investors dumped equities and riskier fixed income for the safety of Treasuries. Mortgages also performed well while corporate bonds lagged the other segments of investment grade fixed income with a return near 0%. High Yield was hit hard due to falling equity and oil prices. U.S. Dollar Emerging Markets Debt (EMD) declined, but EMD local currency bonds rallied, partly due to the weaker U.S. dollar.

The following tables show the returns for the various fixed income sectors and rating categories for the 4th quarter and for all of 2018:

Sector	4th Quarter 2018 Return*	2018 Return*	Credit Rating	4th Quarter 2018 Return*	2018 Return
U.S. Treasuries	2.57%	0.86%	AAA	2.32%	0.93%
Agencies	1.13%	0.52%	AA	1.33%	0.09%
MBS	2.04%	0.99%	A	0.35%	-2.33%
Inv. Grade Corporates	-0.18%	-2.51%	BBB	-0.90%	-2.92%
High Yield	-4.53%	-2.08%	BB	-2.91%	-2.41%
Emerging Markets Debt	-1.26%	-4.26%	B	-4.35%	-1.31%
EMD — Local	2.11%	-6.21%	CCC	-9.28%	-3.84%

* Returns are from Barclays' indices except Emerging Markets Debt, which is from JP Morgan. All figures are as of 12/31/2018.

U.S. TREASURIES

Treasury yields rose for the first five weeks of the quarter before abruptly declining for all maturities over the last seven weeks of the year. On November 8, the 2-year and 10-year Treasuries closed at 2.98% and 3.24%, respectively. At year-end, these yields declined to 2.48% and 2.69%. The spread between the two -year Treasury and ten-year Treasury flattened by 3 bps for the three-month period, ending at 21 basis points, the flattest level since 2007. The Federal Reserve hiked the Funds Rate 25 bps in December despite protests from President Trump and some economists, bringing the rate up to 2.25% - 2.50%. The Fed is forecasting two more hikes in 2019, down from the previous forecast of three. Based on current Treasury yields, the market <u>is not pricing in any hikes</u> in 2019. The Fed also continued its very measured process of unwinding its balance sheet.

For the entire 4th quarter, the two-year Treasury declined by 33 bps while the five-year, ten-year, and 30-year Treasuries declined by 43, 36 and 17 bps, respectively. As mentioned, the yield of the two-year note ended the quarter at 2.48% while the ten-year Treasury finished at 2.69%. Yields in most other developed countries also fell, but most did not fall as much as the U.S. Below is a table that shows the five and ten-year yields for the U.S. and several other major developed countries as of December 31, 2018. Yields in the U.S. remain well above other developed countries.

	5 Year	10 Year
United States	2.51%	2.69%
Japan	-0.15%	0.00%
Germany	-0.31%	0.24%
France	0.04%	0.71%
Spain	0.33%	1.42%
United Kingdom	0.90%	1.28%

Source: Bloomberg

Spread Products

Spreads widened significantly across the board during the quarter as volatility rose and investors became more concerned about future economic growth. High yield was greatly impacted by the large decline in equity prices and spreads moved wider by an astounding 207 bps. The huge decline in oil prices was another cause of the movement in spreads as energy companies make up 14% of the Bloomberg Barclays U.S. High Yield Index. Investment grade corporates also widened substantially to +154, the widest level in 2 ½ years. EMD was very volatile, and U.S. Dollar EMD widened by 80 bps due to the increased volatility, the trade war with China, and concerns about weaker global economic growth. Local currency EMD rallied in the 4th quarter, mostly due to the weaker U.S. dollar. Below is a table that shows spreads for investment grade corporates, high yield, and EMD as of year-end 2015, 2016, 2017, and the end of the third and fourth quarters of 2018:

Sector	12/31/2015	12/31/2016	12/31/2017	9/31/2018	12/31/2018
Investment Grade Corporates	+172	+127	+96	+108	+154
High Yield	+707	+442	+364	+334	+541
Emerging Markets Debt	+415	+342	+285	+335	+415

*Spread data are from the Barclays U.S. Corporate Index for IG Corporates, Barclays U.S. High Yield Index for high yield and from the JP Morgan EMBI Global Diversified Index for Emerging Markets Debt.

Investment grade corporates widened by 46 basis points for the quarter and 58 for the year. Financials and utilities outperformed industrials, while shorter duration corporates had higher returns than longer duration corporates. New issuance was lighter in the 4th quarter and -10% lower for all of 2018. In mortgages, fixed rate pass-through mortgages outperformed Commercial Mortgages (CMBS) and Asset-backed Securities (ABS). In general, mortgages posted positive returns aided by rising Treasury prices.

High yield performed very poorly in the 4th quarter after holding in well over the first nine months of the year despite rising interest rates. All rating categories posted negative returns, but lower quality bonds were hit particularly hard. The average high yield bond fell over 6 points to $92.8. High yield spreads widened 207 bps from 334 to 541 over Treasuries. The current spread for high yield is now wider than long-term averages after finishing the 3rd quarter at the lowest level since before the financial crisis. The yield-to-worst rose by 171 bps to 7.95%; the much wider spreads were only slightly offset by the fall in Treasury yields. Default activity continued to be light during the quarter and the twelve-month default rate decreased to 1.8% at the end of December. This is much lower than the historical average of 3.5% and we expect it to stay below this level if U.S. economic activity remains above 2% and commodity prices do not decline significantly. The recent decline in oil prices could lead to an increase in defaults in 2019 for the energy sector.

U.S. Dollar Emerging Markets Debt also had a tough quarter with spreads widening by 80 bps for the quarter and 130 for the year. Local currency EMD rallied in the 4th quarter, mostly due to the weaker U.S. dollar and increased interest in non-U.S. assets. For the entire quarter, US Dollar EMD returned -1.3% while EMD local currency rose +2.1%. The trade war with China, weaker growth in Europe and China, uncertainty about future Federal Reserve rate hikes, continued problems in Argentina and Venezuela, and new leaders in Mexico and Brazil kept investors on edge. Yields for U.S. Dollar EMD rose by 45 basis points to 6.86%.

The Economy

Fourth quarter U.S. economic growth remained healthy, but below the torrid pace of the past six months. Growth continued to be fueled by the strong labor market, good consumer spending and the tax cuts. Growth in the third quarter was revised to +3.4%, and 4th quarter growth looks to be between 2% to 3%. The first official estimate of GDP growth for the 4th quarter will be released on January 30th. The Federal Reserve Bank of Atlanta has a model, GDPNow, that forecasts growth during the quarter and is revised every few days as economic data are released. As of January 8, this model estimated growth of +2.8% in the 4th quarter. The final number could change significantly before the first official estimate is released. Most estimates are in the range of 2.5% to 3.0%.

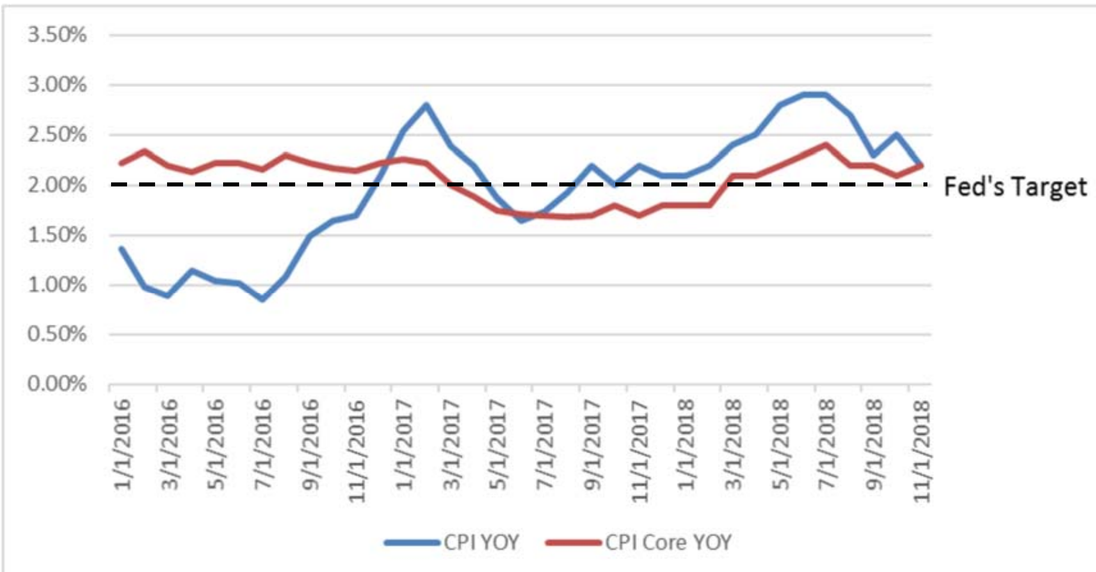
Retail sales and consumer spending data remained firm, driven by the tax cuts, high consumer confidence numbers, and the strong labor market. Confidence declined later in the quarter as the stock market suffered. The housing market continued to be somewhat sluggish and has not contributed to overall economic growth. Both new and existing homes sales were soft. Housing prices did not increase like they were earlier in 2018 as prices were up +5.0% year-over-year as measured by the S&P/Case-Shiller Home Price Index, as compared to +5.9% last quarter. The combination of high home prices and higher mortgage rates could keep housing activity on the weaker side in 2019. Measures of manufacturing activity were mostly softer, and the trade war has resulted in companies being more cautious.

The non-farm payroll gains have been strong over the last several months. In December, payroll gains were 312,000, one of the strongest of the entire expansion. October and November were also revised much higher. The payroll gains in October, November and December were 274,000, 176,000 and 312,000, respectively, averaging 254,000. The unemployment rate rose from 3.7% to 3.9%, but the increase was due to a large increase in the number of people looking for jobs. Average hourly earnings have risen 3.2% year-over-year, which is a new expansion high. Initial jobless claims have moved higher, but remain historically low with the 4-week moving average at 218,750. This is up from 207,000 at the end of September, which was close to the lowest level since 1969.

Inflation

Commodity prices were mostly down for the quarter, with oil prices much lower. West Texas Crude was down -38% to $45.4 dollars a barrel. For the year, oil was down -24%. The Bloomberg Commodity Index declined -9% amid trade frictions, much lower oil prices, and concerns over a possible decline in Chinese demand. Copper and cotton declined while gold, corn and wheat posted gains. For the year, the index was down over -11%.

The Fed targets an overall annual inflation rate of 2%, a pace it views as appropriate for economic growth and price stability. Current inflation, as measured by the year-over-year Consumer Price Index (CPI) and Producer Price Index (PPI), was steady for the core data (ex-food and energy) over the last three months, but lower for the headline data. The CPI was up +2.2% year-over-year. Core CPI also grew by +2.2% over the past year. The PPI increased +2.5%, with Core PPI up +2.7% year-over-year. Below is a chart that shows the CPI since the end of 2015.



Source: Bloomberg

Although the CPI data mentioned above is the most commonly referred to data for inflation, the Fed's preferred measure of inflation is the price index for Personal Consumption Expenditures (PCE). This measure moved higher earlier this year, but declined below the Fed's target over the last few months, with an overall year-over-year increase of 1.8% and a Core PCE deflator increase of +1.9%. In summary, inflation has declined over the last few months, and is close to the Fed's target.

PORTFOLIO POSITIONING

In the **Government** sector, our Core and Core Plus portfolios have durations that are shorter than the benchmark by about -0.5 years. We continue to have a large underweight to Treasuries as we find better value in the other sectors. We also hold a very small position in inflation-indexed U.S. Treasuries (TIPS).

Our **Mortgage** positioning did not change materially during the quarter. Within the mortgage market, the current coupon 30-yr FNMA peaked at 4.1% on November 8th and then fell to 3.5% by year-end in response to weak economic signals and falling treasury rates. The current coupon spread peaked in late November at +107 bps, finishing up the year at +98 bps. Thirty-year mortgage contract rates finished 2018 at 4.84%, which is 1.6 standard deviations above the 5-year average rate. Higher rates have reduced the refinancing percent of total loan applications to 42.7%, 1.1 standard deviations below the 5-year average. Higher mortgage rates, higher home prices, low sales inventory and fewer affordable loan products have reduced home affordability by 30% since March of 2013.

The recent rate rally resulted in a strong +1.8% return in December for the mortgage benchmark. Structured non-agency mortgages underperformed in November and December as they could not keep up with the rapid fall in rates. We like this segment of the mortgage market and continue to search for value in non-agency mortgages. We believe the higher yields of these issues will help position our portfolios well in 2019. Our overweight CMBS exposure continues to slowly decline through gradual pay-downs as we have abstained from adding additional CMBS at the current tight spread levels. We are underweight Asset-Backed-Securities.

Our **Investment Grade Corporate** strategy focuses on issues with the potential to outperform the benchmark on a risk-controlled basis. Although not cheap, we continue to believe that investment grade corporate bonds represent the best value in the investment grade fixed income markets and hold an overweight of about 3% to this sector in our Core portfolio. This overweight was reduced in 2017 as corporates performed well and spreads tightened significantly. We believe that corporates should provide slightly higher returns than mortgages and Treasuries due to the yield advantage and supportive credit fundamentals. We are currently overweight basic industry and insurance companies where we find some good value. The portfolios are underweight technology, banking and consumer non-cyclicals. Regarding ratings, we are overweight BBB and AA-rated corporates and underweight AAA. We are also overweight intermediate maturities and underweight longer corporates. Security selection will be important due to the uncertainty of rate hikes and the effect of the new tax policies, both of which could have an impact on specific industries and companies.

High Yield was hit hard and performed poorly during the quarter, mostly due to significant decline in equity prices, the fear of weaker growth in 2019, higher volatility and the large fall in oil prices. With the massive widening of spreads, the high yield market is much more fairly valued, but we remain cautious. If equities continue to decline or if economic growth shows recessionary signs, high yield could widen further. In our high yield portfolios, we are maintaining some liquidity, but we are selectively deploying cash in restructuring situations as well as in more liquid investments that we believe will add value in the long-term.

Emerging Markets Debt was very volatile and investors remain skittish. For EMD, the short-term outlook is cloudy, but we are positive for the long-term as the fundamentals for most countries have not changed much while valuations have cheapened significantly. The big questions over the next few months are whether China's growth will decline further and whether they will come to an agreement with the U.S. on trade. In addition, there is increased uncertainty over future growth in the U.S. and Europe and how much tightening, if any, will be conducted by these countries' Central Banks. The problems in Argentina and Turkey have not gone away, but spreads in Turkey's bonds have stabilized. We believe that Turkey and Argentina are undervalued and could provide a strong return for long-term investors. Our research continues to focus on identifying key positive drivers for EM countries that could lead to future credit improvement. Currently, we see good opportunities in Brazil, Mexico, Ukraine, Argentina and Turkey. We have increased our exposure to Turkey over the second half of 2018 as prices declined. In local currency, our main exposures are in Brazil, Mexico, Poland, and Russia.

The Look Forward

What a difference a quarter makes. Investor's perception of economic growth, U.S. interest rates, future rate hikes by the Federal Reserve, and corporate earnings seemed to change drastically in the 4th quarter as financial markets fluctuated wildly. U.S. equity markets were battered and volatility spiked. Interest rates declined markedly and growth expectations for 2019 were lowered by many forecasters.

The widely used definition of a recession is at least two straight quarters of negative growth. Using this definition, we do not believe there will be a recession in the U.S. in 2019. However, we believe there is a strong possibility that we will see at least one quarter of negative growth this year and this short-term contraction could come as early as the first quarter. Why, you ask? This "holiday hangover" would be caused by several factors, including people reviewing their year-end financial statements that will reflect the -13.5% decline of the S&P in the 4th quarter; effects from the prolonged government shutdown; weak growth in China, Japan and much of Europe; malaise in the housing market; the trade war with China; and weaker manufacturing activity. One or two severe snowstorms in the Northeast and Midwest and the probability of a negative first quarter will be even higher.

For all of 2019, we believe growth will be at or below +2% and that inflation will be moderate and hover around the Fed's target of 2%. Headline year-over-year inflation could fall below the target in 2019 due to the significant decline in oil prices. This could lead the Federal Reserve to pause or stop in its gradual and consistent path of rate hikes. We believe the Fed will most likely not raise rates in 2019, but we see a chance of one more hike later in the year if growth perks back up.

Outside of the U.S., growth in Japan and Germany contracted in the 3rd quarter of 2018 and prospects are not much better heading into 2019. China's growth also slowed and will most likely get worse during the first half of 2019, partly due to the ongoing trade war. We think that the U.S. and China will come to an agreement on trade sometime in the first half of 2019. Both countries are experiencing slower growth and declining equity markets and will feel the need to get something done. We also believe China will increase both monetary and fiscal stimulus to combat the slower growth. The political landscape is not good in Europe, with issues in France (anti-government protests), Germany, Italy and the United Kingdom (Brexit). Japan is plagued by an aging population and chronic slow growth.

As noted earlier, U.S. interest rates fell significantly late in the year with the ten-year declining from a peak of 3.24% to the year-end level of 2.69%. This lower level of interest rates already reflects expectations of weaker 2019 economic growth and moderate inflation. With this in mind, we expect ten-year Treasury yields will not fall much further early in 2019 as growth slows. For the year, we expect rates to rise modestly from current levels. In our fixed income portfolios for Core, Core Plus, Emerging Markets Debt, and High Yield, we are positioning our interest rate duration to be slightly shorter than their respective benchmarks.

Despite the higher volatility, we did not make many changes to our portfolios in the 4th quarter. However, investment grade corporates, high yield and emerging markets debt are all much cheaper than earlier in the year and many more opportunities exist. We believe returns will be in the low single digits for investment grade fixed income over the next year, with the potential for continued high volatility. Corporate bonds, both investment grade and high yield, are trading above long-term averages and should outperform Treasuries. Emerging markets debt, both U.S. dollar and in local currency, declined in 2018 and valuations are much more attractive. We have been gradually adding positions to our EMD portfolios over the past six months and are monitoring the asset class closely to look for an opportunity to add more positions. Overall in fixed income, we are cautious, but see much more value in some sectors, countries, and specific securities.

Just like the Grinch, investors will continue to hear the "Noise, Noise, Noise" in 2019 and we believe volatility will remain high. However, valuations in the credit markets are much more attractive and the Fed rate hikes could be at or near the final stages. Returns should be better in fixed income in the coming year.

Summary

To summarize our outlook:

1. Although growth should remain positive in 2019, the economy could experience negative growth for one quarter in 2019. This might occur in the first quarter as consumers experience a "holiday hangover" and pull back on spending partly due to robust spending over the past several months and the significant decline in stock prices in the 4th quarter.
2. China, Europe and Japan had weaker growth in 2018, and 2019 may not be any better. China will likely increase fiscal stimulus in 2019 to try to jump start growth.
3. We believe the Federal Reserve will pause early this year and may not need to raise rates in 2019; we believe there will be no more than one hike for the year.
4. The trade war with China will likely be resolved in some fashion during the first half of 2019 as both sides have increased incentives to work out a deal as growth in both countries fades.
5. We expect that core inflation will rise slightly in 2019, but will remain close to the Fed's 2% target due to strong global competition, technology advances and demographics.
6. Volatility will likely continue in the short-run, but any further widening in spreads could lead to a very good buying opportunity.
7. Despite weaker growth in 2019, we expect interest rates to move slightly higher over the year, giving back some of the recent decline in rates.
8. Continued caution is warranted, but the fixed income credit markets are much cheaper and more opportunities exist.

About our Firm

DuPont Capital has a long history of institutional asset management. Our parent company, DuPont (a wholly owned subsidiary of Dow-DuPont) established a retirement pension plan for employees in 1942, and in 1975 created a separate pension management division.

In 1993, DuPont Capital was established and became an SEC registered investment advisor. We share our parent company's history of innovation and, over the years, have been on the forefront of developing global investment opportunities in both traditional and alternative strategies across equity, fixed income, and alternative investments.

Fixed Income Team Summary

- 8 Portfolio Managers
- 4 Research Analysts/Traders
- 1 Portfolio Specialist

Fixed Income Capabilities

- Core Fixed Income
- Core Plus Fixed Income
- Emerging Markets Debt
- High Yield
- Stable Value

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