Fixed Income Market Review and Outlook

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Market Overview

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"Sell Mortimer, Sell" was a line attributed to Randolph Duke in the iconic 1980's comedy movie "Trading Places" about commodity traders. Although they were trading orange juice futures in the movie, the "Sell, Sell" advice that Randolph was yelling should have been given to all fixed income and equity investors at the end of 2021. The financial markets were crushed again in the 3rd quarter after declines in the first two quarters of the year with steep losses across most markets. Cash was again the best place to be.

The fixed income markets have just gone through probably the worst nine-month period ever. All sectors had negative returns for the quarter and double-digit losses for the first nine months of 2022. Long duration or short duration; Treasuries, corporates, or mortgages; high quality, or low quality: it didn't matter. There has been no place to hide in the fixed income markets so far in 2022.

Inflation remained close to the highest level in 40 years, the Federal Reserve remained very hawkish, global economic growth was sluggish, and the war continued in Ukraine. Treasury yields rose for all maturities and the yield curve inverted in July. Spreads did not change materially across all credit sectors, but returns were still poor due to the rise in Treasury yields. Cash was definitely king, once again, even with a yield not too much above 0%. The Federal Reserve raised the Funds Rate by 75 bps in September to the 3.00% - 3.25% range, the third straight 75 bp move.

In the 3rd quarter, the Bloomberg Aggregate Index had a return of -4.8% and -14.6% for the year. Most other sectors of fixed income fared even worse in the 3Q with mortgages down -5.2% and investment grade corporates down -5.1%. High yield was the best performer for the quarter but still posted losses of down -0.7%.

The following tables show the returns for the various fixed income sectors and rating categories for the 3rd quarter and YTD:

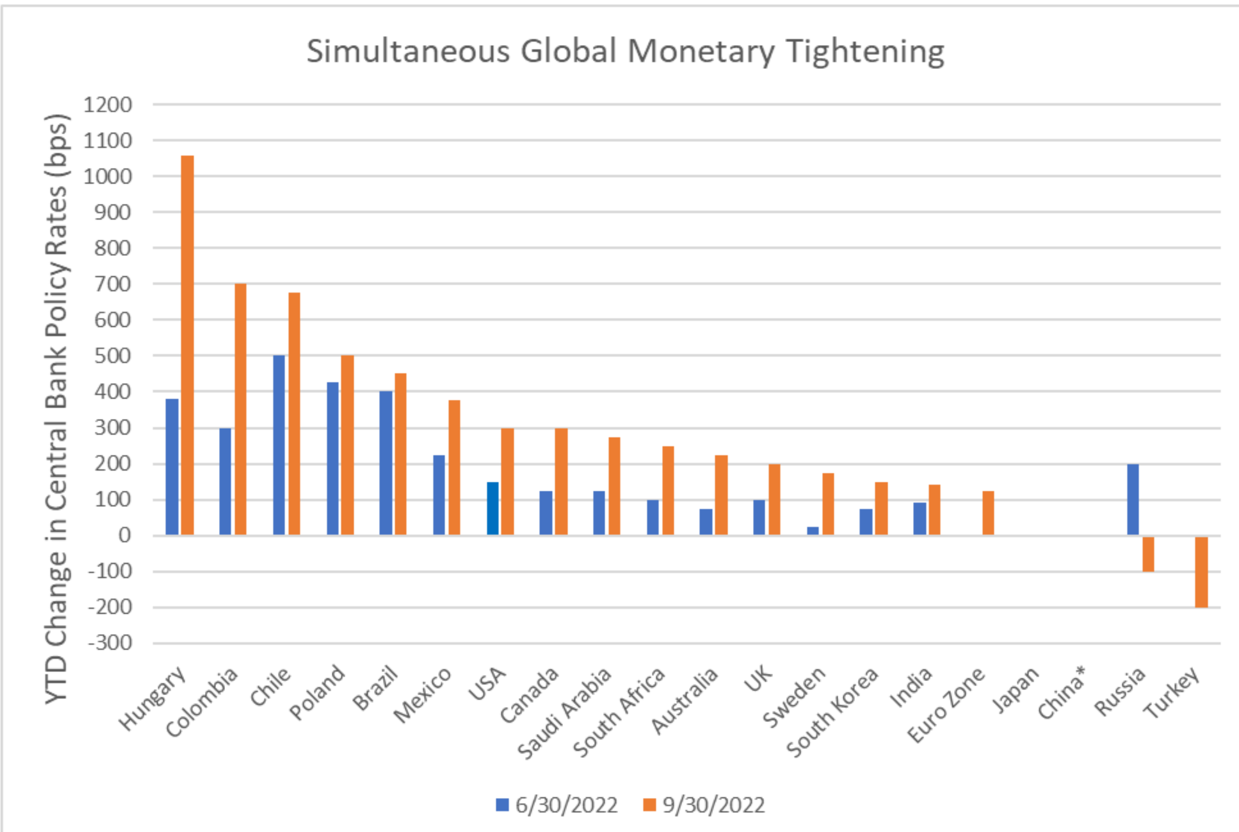
Sector	3Q Return*	YTD Return
U.S. Treasuries	-4.4%	-13.1%
MBS	-5.2%	-13.5%
Inv. Grade Corporates	-5.1%	-18.7%
High Yield	-0.7%	-14.7%
Emerging Markets Debt	-4.6%	-24.0%

Credit Rating	3Q Return*	YTD Return
AAA	-3.8%	-8.9%
AA	-5.6%	-12.3%
A	-6.5%	-13.3%
BBB	-7.9%	-15.2%
BB	-0.7%	-14.5%
B	-0.7%	-14.5%
CCC	-0.4%	-16.7%

Source: Bloomberg
* Returns are from Bloomberg indices except Emerging Markets Debt, which is from JP Morgan. All figures are as of 9/30/2022.

U.S. Treasuries

As mentioned earlier, Treasury yields rose significantly for all maturities in the 3rd quarter. Not only did interest rates rise in the U.S. but rates have also gone much higher in many countries across the world. The rise in rates has mostly been caused by the simultaneous global monetary tightening that has been done by Central Bank around the globe. Below is a chart that shows the year-to-date change in Central Bank Policy Rates in twenty major countries both for the first half of this year and year-to-date. As you can see, 16 of the 20 countries have increased rates this year with 12 of them hiking rates by 200 bps points or more. And, the rate hikes are not done. For example, the U.S. has raised the Federal Funds Rate by 300 bps so far in 2022 and the Fed is expected by make another 100 or 125 bp hike before year-end. The Eurozone, Canada, and several other countries are also expected to continue to move rates higher to combat inflation. It will be interesting to see what this chart looks like at year-end.



* China has not changed their Policy Rate this year but has lowered their Reserve Requirement Ratio.

As of September 30, 2022

Source: Bloomberg and FactSet

In the 3rd quarter, the 2-year yield rose by 128 bps and the 10-year rose by 83 bps. The yield curve inverted early in the 3rd quarter and remained inverted through the quarter. For the year, the 2-year has risen by 348 bps and closed at 4.21% with the 10-year up by 229 with a yield of 3.80%.

Spread Products

Spreads did not change materially in the 3rd quarter across the credit sectors of fixed income. However, returns were still very poor due to the rise in Treasury yields. Below is a table that shows spreads for investment grade corporates, high yield, and EMD as of year-end 2019 (pre-COVID), the 1st quarter of 2020 (after COVID hit), the end of 2021 and the end of the 2nd and 3rd quarters of 2022:

Sector	12/31/2019	3/31/2020	12/31/2021	6/30/2022	9/30/2022
Investment Grade Corporates	+96	+276	+96	+166	+172
High Yield	+357	+899	+321	+587	+562
Emerging Markets Debt	+291	+626	+369	+542	+559

* Spread data are from Bloomberg indices for IG Corporates and High Yield and from JP Morgan for Emerging Markets Debt.

Investment grade corporates widened by 6 bps in the 3rd quarter to 172 over Treasuries, much wider than the historical average of about +120. Financials outperformed utilities and industrials during the quarter, while longer duration corporates had much worse returns than shorter duration corporates. Corporate bond issuance declined later in the quarter as yields rose. The issuance in the first nine months of 2022 is down 7% as compared to 2021.

In mortgages, fixed-rate pass-through mortgages underperformed Commercial Mortgages (CMBS) and ABS. The CMBS market has greatly improved over the past two years despite some uncertainty in areas of CMBS due to the problems in retail and office space. Asset-backed securities declined slightly but held in better due to the shorter duration.

High yield held in better than other sectors of fixed income, which is surprising due to the weakness in the equity market and oil prices. Spreads tightened by 25 bps and ended the quarter at +562 which is wider than historical average of about +500. The yield of the index has risen from an all-time low of 3.75% at the end of June in 2021 to 9.68% just 15 months later. Higher-rated high yield slightly underperformed lower quality, with BBs returning -0.7% as compared to -0.4% for CCC-rated bonds. Default activity rose but continued to be low, with the twelve-month default rate increasing to 1.6%. This remains well below the historical default rate of 3.6%.

US Dollar Emerging Markets Debt declined due to weaker global economic growth and the rise in interest rates. Spreads widened by 17 bps over the quarter and closed at 559 bps over Treasuries. Higher quality countries underperformed lower-quality countries mostly due to the higher correlation with Treasuries. Overall, yields for US Dollar EMD rose by 100 basis points to 9.57%. Local currency EMD performed in-line with US Dollar sovereigns with a quarterly return of -4.7%.

The Economy

Economic activity picked up slightly in the 3rd quarter from the sluggish pace of the first half of the year. Consumer spending has slowed from the pace earlier in the year partly due to rising prices. Retail sales were up 0.3% in August after falling -0.4% in July. Manufacturing activity was positive but slower, with Durable Goods Orders showing small increases of +0.4%, +0.2% and +0.2% over the last three months. The ISM Manufacturing Index declined during the quarter from 53.0 to 50.9, a two-year low. The index was above 57 six months ago. In contrast, the ISM Services Index rose from 55.3 to 56.7 over the last three months illustrating that while manufacturing has slowed, services still show healthy growth. The housing market has slowed considerably after booming late in 2020 and 2021. Much higher home prices and the highest mortgage rates in about 15 years have greatly decreased demand.

The Federal Reserve Bank of Atlanta's GDPNow model, a running estimate of growth during the quarter, was projecting growth of +2.9% for the 3rd quarter as of October 7. Much of the strength came from a surge in exports which will most likely decline over the coming months. This mostly includes data from July and August so it could change significantly before the first official release at the end of October.

The non-farm payroll gains remained healthy but declined as the quarter progressed. September saw an increase of 263,000 jobs, which is the smallest increase since December of 2020. The increase is smaller than gains of 537,000 in July and 315,000 in August. The gains over the rest of this year will most likely decline as the jobs lost during the pandemic have been recovered. The unemployment rate came down slightly to 3.5% and is the same as the historically low pre-pandemic rate. Wage gains have declined slightly but remained strong with average hourly earnings rising by 5.0% year-over-year. The four-week moving average for new unemployment claims was 206,500 in early October, down by over 25,000 from last quarter. Claims did spike to 219,000 for the week ending October 1. As a reminder, claims were running slightly about 215,000 before the pandemic.

Inflation

Inflation remained painfully high over the last quarter and is the main focus for the Federal Reserve and investors. The Consumer Price Index (CPI) has risen 8.3% over the past year, close to the largest 12-month increase since December of 1981. Core CPI rose over the past three months and is now up 6.3% over the past year. Oil prices declined significantly over the quarter and are up only slightly for the year. West Texas Crude declined by $26 a barrel to $80, down from a peak of over $120 earlier in the year. Overall, other commodity prices declined, with the Bloomberg Commodity Index falling by -4% over the past three months but has still risen by 14% for the year. Although CPI data is the most commonly referred to data for inflation, the Fed's preferred measure is the price index for Personal Consumption Expenditures (PCE). This measure remained high over the last few months with an overall year-over-year increase of +6.2% and a Core PCE deflator increase of +4.9%. The core deflator has come down from 5.3% over the past six months. This will likely stay close to 4% or higher for 2022 and it will be a while before we get closer to the Fed's targeted rate of 2%.

PORTFOLIO POSITIONING

In the **Government** sector, our Core and Core Plus portfolios have durations that are in-line with the benchmark. We were positioned shorter than the benchmark for over a year but moved close to the benchmark after interest rates moved much higher earlier this year. We continue to have a large underweight to Treasuries as we find better value in the other sectors. We also hold a small position in inflation-indexed US Treasuries (TIPS).

In the **Mortgage** sector, higher rates have significantly impacted the housing market causing MBS spreads to move wider. The MBS basis began the 3rd quarter at 134 bps, tightened to 107 bps in early August, but quickly widened to finish the quarter at 162 bps as the impacts of higher rates and the elimination of Fed MBS purchases became apparent. The effective mortgage rate currently stands at 7.03% which is the highest in 16 years. Refi mortgage applications are the lowest since 2000 while purchase mortgage applications are the lowest since 2015. Building permits have fallen and existing home sales inventory has increased in each of the past six months. The year-over-year existing home price, which was +22% in April of this year has fallen to +8%. The past euphoria in the housing market has evaporated. The Fed's MBS purchases ceased in September leaving market participants wondering who will fill the demand void for MBS. Our overall mortgage exposure is positioned on the shorter side in terms of duration, and we have taken advantage of security structures that have provided higher yields while still maintaining credit risk protection. Most of our activity has been in the CMBS sector which is somewhat less sensitive to interest rate volatility.

Our **Investment Grade Corporate** strategy focuses on companies with the potential to outperform the benchmark on a risk-adjusted basis. Investment grade corporate spreads widened by six basis points during the quarter and are trading much wider than historical averages. We believe that investment grade corporate bonds represent the best value in the investment grade fixed income market. We currently hold an overweight of close to 10% to corporates in our Core Fixed Income portfolios. We favor the basic industry, insurance, communications, energy, and electric utility sectors. Regarding ratings, we are overweight BBB-rated corporates. In Long Duration, we had very little exposure to long corporates at the beginning of 2020 and greatly increased our allocation due to the much more attractive spreads. We continue to make additional purchases in long corporates as we find opportunities.

High Yield suffered in the 2nd quarter but held in well in the 3rd quarter despite a poor equity market. Spreads have widened significantly this year and are wider than long-term averages. We were very cautious coming into 2022 and had positioned the portfolio more defensively. We are selectively finding opportunities and continue to look to identify companies with attractive valuations that could provide strong returns over the long-term.

Emerging Markets Debt declined significantly again in the 3rd quarter due to higher interest rates, weaker economic growth in many countries, and the risk-off investment environment. Spreads for EM sovereigns widened by 17 basis points during the quarter and 190 bps for the year. It is prudent to be cautious, but opportunities exist due to the wider, more attractive spreads. Our research continues to focus on identifying key positive drivers for EM countries that could lead to future credit improvement. Currently our primary overweights are Brazil, Mexico, Argentina, Ukraine, and Turkey. We are underweight some of the higher quality countries such as Philippines, Qatar, and UAE. In local currency our main allocations are to Brazil, Mexico, South Africa, and Poland.

The Look Forward

For the first nine months of 2022, there was no place to hide in the financial markets to avoid negative returns. The combination of higher inflation, the Fed's hawkish stance, the war in Ukraine, and slower economic growth combined to crush both the equity and fixed income markets.

US economic growth was very sluggish over the first nine months of 2022 due to very high inflation, much higher global interest rates, supply chain problems, the Omicron variant, and the conflict in Ukraine. We expect US growth to continue to be sluggish over the next year. Persistent inflation and high interest rates will weigh on spending, both by consumers and businesses. Fortunately, the strong labor market should help keep the economy moving slowly forward. A recession is definitely a possibility, and the probability increases if the federal Reserve hikes the Funds Rate above 4.5%.

Inflation is at the highest level in 40 years. We expect inflation to start coming down over the next few months but will have difficulty getting close to the Fed's 2% target. Wages have increased 5.0% over the past year and price increases are widespread across the economy. Oil and other commodity prices have come down from their peaks, but OPEC recently cut production to halt the oil price decline.

The focus remains squarely on the Federal Reserve. When the Fed moved the Funds Rate to 0% in 2020 and was adding liquidity by purchasing Treasuries and mortgages, you consistently heard the comment "Don't fight the Fed." Well, we have found out this year that this philosophy should also be followed when the Fed raises rates and takes liquidity out of the market. As far as our outlook, the Federal Reserve will most likely move the Fed Funds Rate higher by 100 to 125 bps over the last two meetings of this year in November and December. This would bring the Funds Rate over 4% for the first time since January of 2008. The good news is that the Treasury market is already pricing in these rate hikes. In addition, we believe the Federal Reserve will start gradually shifting its hawkish tone late in December or January and stop raising rates early next year. Because of this, we believe that Treasury yields are close to fair value and may not move much higher over the next six months.

Two other issues are worth noting. First, the Fed commenced Quantitative Tightening (QT) early this year and increased it in September. It is hard to estimate how much QT impacts rates and the economy, but it could be the equivalent of an additional 50 bps in tightening. Second, the dollar has been extremely strong this year and is up 15% - 20% against a basket of currencies. A stronger dollar also has a tightening impact as our exports become much more expensive. So, when thinking about the amount that the Fed has tightened, you should not just focus on the Funds Rate, but also include QT and the stronger dollar.

For investment grade corporate bonds, spreads have widened significantly over the last nine months and are now wider than historical averages. High yield spreads have also moved much wider, and the markets reflect the weaker economic environment. We believe volatility could remain high in credit and that spreads could widen further if the economy heads into a recession. In all credit markets, security and country selection will be extremely important due to the increased volatility and uncertainty. We will continue to add credit positions to our portfolios as we find opportunities with good long-term value.

Fortunately, valuations in fixed income, across all sectors, are much cheaper than they were at year-end. While that is good news, the future course of interest rates and credit spreads are very uncertain. Inflation needs to be tamed and that will take time and a higher Fed Funds Rate. The Fed waited far too long before raising rates but are making up for its earlier mistake by hiking rates more aggressively. We are hopeful that much of the pain in fixed income has already occurred and that rates and spreads may not get much higher over the next few months. We will continue to keep duration close to the benchmark and will selectively buy credit as we find opportunities. It may soon be time for "Mortimer" to start buying again.

Summary

<u>To summarize our outlook:</u>

1) Economic growth was robust in 2021, but has slowed considerably in 2022. We do not expect a moderate or deep recession in the US this year as the strong labor market will help keep the economy moving despite problematic inflation and higher interest rates.
2) Inflation will start to mover lower over the next few months and get closer to 4% for all of 2022. Inflation will continue to come down in 2023 but will remain above the Fed's 2% target.
3) The Federal reserve will hike the Fed Funds Rate to at least 4% by year-end. However, we feel the Fed will discontinue rate hikes early next year as inflation moves to a more acceptable level.
4) US Treasury yields have risen significantly this year and already reflect additional rate hikes. Yields are currently close to fair value.
5) Corporate spreads have widened significantly and are much more attractive than at the beginning of the year. Spreads could widen further if the US has a recession.
6) Returns for fixed income have been horrible in 2022, but most of the pain may be over.
7) Valuations across fixed income are significantly improved and should provide good returns over the long-run. Caution is warranted as high inflation, sluggish economic activity, and geopolitical events will keep volatility elevated.

About our Firm

DuPont Capital Management is an SEC registered investment advisor based in Wilmington, Delaware. Since the firm's establishment in 1993, we've had a long history of developing global investment opportunities in both traditional and alternative strategies across equity, fixed income and alternative investments. Our investment team structure gives us the ability to be flexible and adapt to changing market conditions. DuPont Capital's focus is delivering consistent investment management results for our clients. Our history of institutional asset management is rooted back to 1942 when our former parent company, DuPont, established a pension plan for its employees. Corteva Inc. succeeded DuPont as sponsor of the DuPont Pension Plan in 2019. DuPont Capital is a wholly owned subsidiary of Corteva and continues to manage the legacy DuPont Pension Plan.

DuPont Capital's President and CEO, Valerie Sill believes in education and diversity of experience as represented in our investment teams which are comprised of PhDs, engineers, medical doctors, and scientists. We believe their global expertise creates a portfolio implementation edge that benefits our clients.

Fixed Income Team Summary

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

Fixed Income Capabilities

- Core Fixed Income
- Emerging Markets Debt

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