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Related ETFs

Please click below for fund holdings and important performance information.

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[QYLD - Global X NASDAQ 100 Covered Call ETF](#)

[XYLD - Global X S&P 500 Covered Call ETF](#)

[RYLD - Global X Russell 2000 Covered Call ETF](#)

[DJIA – Global X Dow 30 Covered Call ETF](#)

[EMBD - Global X Emerging Markets Bond ETF](#)

[PFFD – Global X U.S. Preferred ETF](#)

[PFFV – Global X Variable Rate Preferred ETF](#)

[MLPA – Global X MLP ETF](#)

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GLOBAL X ETFs RESEARCH

Income Outlook: Finding Alternative Income Potential as Interest Rates Expected to Begin Peaking

The Global X Income Outlook for Q1 2023 can be [viewed here](#). This report seeks to provide macro-level data and insights across several income-oriented asset classes and strategies.

Last quarter, we discussed the ongoing trends of inflation pulling back in tandem with the Federal Reserve (Fed) slowing down the pace of rate hikes. These trends became more pronounced in the fourth quarter of 2022 and into the first part of 2023 as the U.S. Consumer Price Index (CPI) increased 6.0% in February, year-over-year, which is a significant decrease in percentage growth from the June 2022 inflation rate of 9.1%.¹ Overall, rate hikes decelerated from four consecutive increments of 75bps, easing to 50bps in December and followed by a 25bps hike in February.² Despite employment and consumer spending data continuing to reflect a relatively robust economic landscape, we believe that investors have various options to pursue higher levels of income via alternative income strategies. These approaches can provide diversification and may prove to be resilient in this market environment.

Key Takeaways

- Implementing a strategy that can monetize market uncertainty or volatility while maintaining partial upside potential, as market returns tend to remain elevated during the recovery period, may be an interesting approach for investors. A covered call and growth strategy that allows for equity upside may be one such strategy.
- The December shift in fixed income may benefit long-duration assets and strategies with built-in credit risk. Preferred stock for income potential has become an increasingly popular strategy, as well as emerging market (EM) debt, which presents a compelling case given positive real yields and strong GDP growth forecasts.
- Energy assets that derive their value from the velocity of energy rather than solely from price, such as master limited partnerships (MLPs) and energy infrastructure equities, possess strong fundamentals in this environment.

Derivative Markets Suggest Inflation Is Subsiding

Entering 2023, U.S. equity indices have experienced a level of volatility due to concerns about prolonged high interest rates and geopolitical tensions. Recent government data shows that US consumer prices (measured by CPI) increased by 6.0% in February from the previous year, surpassing consensus estimates and remaining significantly above the Fed's target of 2% annual inflation.³ However, there is still room for optimism in the current market landscape. The chart below illustrates that 10-year breakevens, the difference in yields between the most currently issued, 10-year U.S. treasury bonds and their equivalent maturity inflation-linked bonds, suggest CPI is closer to reaching the Federal Reserve's 2% target, inflation rate.⁴ We believe this signal potentially mitigates the probability of an economic hard landing. Therefore, as investors continue to evaluate their portfolios in the early onsets of 2023, alternative income strategies in the options and fixed income markets may provide potential benefits amidst this positive sentiment shift.



US INFLATION EXPECTATIONS – 10 YEAR BREAKEVENS

Source: Global X ETFs with information derived from Morningstar Direct. [Data Set]. Data measured from 03/01/2018 through 02/28/2023 and accessed on March 13, 2023 from Global X Morningstar Direct License.



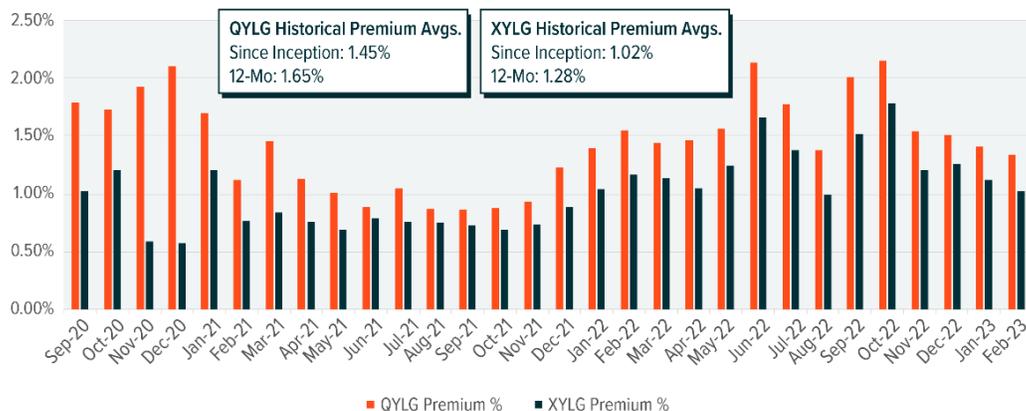
A Covered Call and Growth Strategy as a Potential Balance

One short-term impact from the recent policy shifts of expected, lower rate hikes, has been a level of positive performance amongst interest rate sensitive segments of the equity markets. As of 02/28/2023, the S&P 500 (+3.69%), Nasdaq 100 (+10.26%), and Russell 2000 (+7.89%) have reversed course after significant underperformance in 2022.⁵ Income investors seeking to achieve a blend of both high income with potential growth upside may find that a covered call & growth strategy on a broad equity index can help provide a blended strategy within an income portfolio. This type of call writing strategy is implemented at Global X by investing in the underlying securities of an index while selling “at-the-money” call options on approximately 50% of the value of the portfolio of stocks in the same index or an ETF tracking the underlying equity index. Of this segment of the Global X Covered Call ETF suite, QYLG, which implements the aforementioned call writing strategy on the Nasdaq 100, and XYLG, which does the same on the S&P 500, are the longest tenured covered call & growth ETFs. In addition to their ability to provide a degree of upside participation, both ETFs demonstrated attractive distribution yields of 6.75% (QYLG) and 6.68% (XYLG), respectively, as of 02/28/2023.⁶



HISTORICAL PREMIUMS RECEIVED SINCE INCEPTION – QYLG & XYLG

Source: Global X ETFs. Data as of February 17, 2023. Inception date for both funds is 09/18/20.



In addition to a covered call & growth strategy, a covered call strategy that covers 100% of its portfolio with call options may still be an option for income investors seeking a higher level of potential income. If there is a spike in implied volatility in the market or sideways market movements, fully covered call strategies may be able to monetize this level of market volatility through the sale of call options at higher premiums while maintaining equity allocations. Funds like QYLD, XYLD, RYLD, & DJIA are examples of this type of a 100% covered call strategy on major equity indexes.

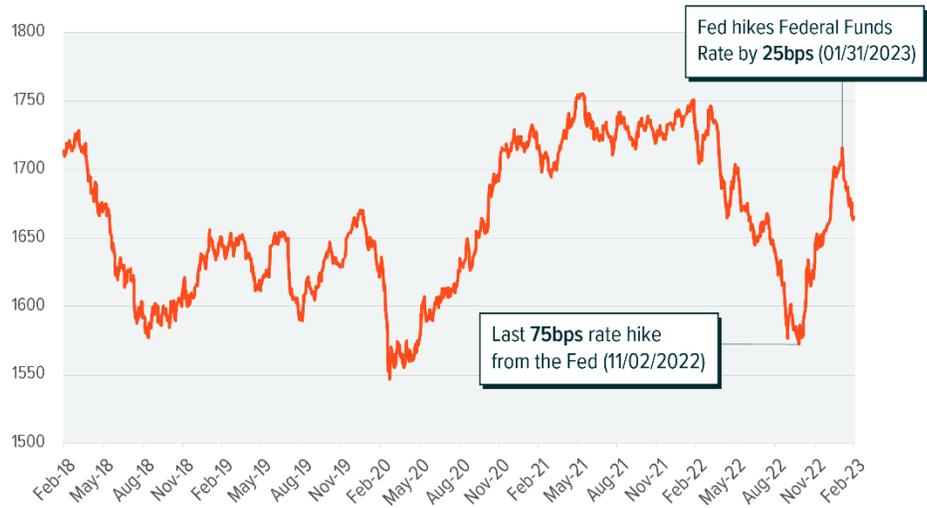
Conditions for Emerging Market Debt Appear Favorable

In 2022, investors turned risk averse and sought more “risk-off” investments which led to underperformance within the EM debt asset class. The sluggish performance was primarily due to tighter financial conditions in the United States, which increased the costs of servicing dollar-denominated debt thus negatively impacting issuers, as borrowing became more expensive. However, the prospects for EM debt also appear promising, buoyed by the robust 2023 GDP growth projection. According to J.P. Morgan, EM GDP growth in 2023 is expected to be robust, reaching 2.9% - a considerable increase compared to the 1% projected for the United States and 0.8% for developed markets.⁷ This positive expectation is further reinforced by the anticipated decrease in EM ex-China and Turkey inflation from 7.9% at the end of 2022 to 4.3% by year-end 2023.⁸ Despite the current global growth outlook and potential headwinds pressuring commodity prices, prices have remained resilient as China, the second largest commodity importer, lowered COVID-19 restrictions thus expanding a new demand cycle. The reopening of the Chinese economy may increase overall demand, raising exports and GDP figures for EM countries with a trade surplus, even as demand from developed nations moderates. Another tailwind for EM countries is now coming from the weakening of the US dollar. Additional clarity about a potential end to the Fed’s rate hiking regime has given investors a level of confidence that a dollar peak may have emerged. We believe this development will help alleviate concerns about dollar-denominated debt for EM countries as the Federal Reserve seeks to slow its pace of interest rate hikes.



MSCI EM CURRENCY INDEX

Source: Bloomberg. Data from 02/28/2018 to 02/28/2023.



However, not all emerging markets will perform equally as the world continues to navigate the ongoing energy and food price shocks. Commodity-exporting nations appear better positioned to weather the current economic conditions than commodity importers. However, policy responses to these shocks vary, the result of which is larger debt burdens and higher inflation for certain EMs, which increases the credit risks of sovereign debt.

Considering the fluid nature of these factors, an actively managed strategy may be prudent for exposure to EM debt. One strategy that takes such an approach is the Global X Emerging Markets Bond ETF (EMBD). Since EMBD's inception on 06/01/2020 to 02/28/2023, EMBD has outperformed its benchmark, the J.P Morgan EMBI Global Core Bond Index, by 2.89%, on an annualized, total return basis, utilizing net asset value returns.⁹ Income potential within this bond market segment appear to be attractive too, in which U.S.-dollar denominated emerging market debt exhibited yield-to-worst numbers above historical averages.¹⁰



USD-DENOMINATED EM DEBT YIELDS (YIELD-TO-WORST)

Source: Morningstar Direct. Data measured from 02/28/2018 to 02/28/2023. USD-Denominated EM Debt is represented as Bloomberg USD EM Broad Aggregate Index.



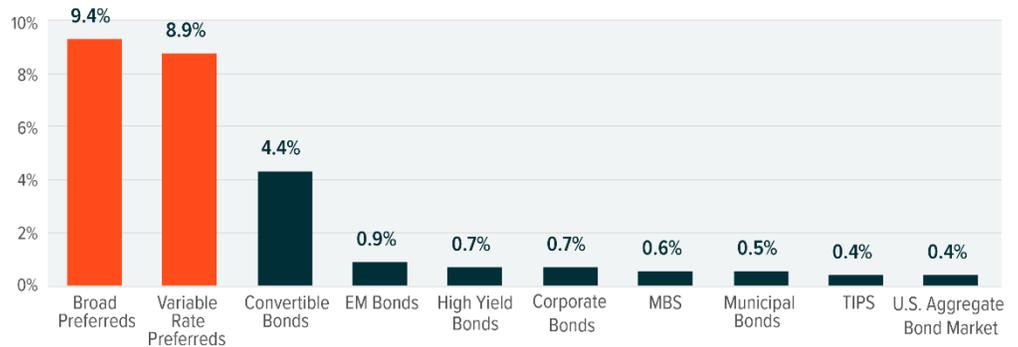
Preferreds Are Off to a Strong Start in 2023

Similar to the impacts observed on Emerging Market Debt, the Preferred securities market has experienced a level of positive sentiment from the recent deceleration of rate hikes. While variable rate preferreds provided a better backdrop against interest rate risk in 2022, the broader preferred stock market, which primarily consists of longer duration, fixed rate preferreds, has outperformed a handful of fixed income counterparts, year-to-date.¹¹ While slower rate hikes has been one part of this equation, preferreds are typically issued by large financial institutions with strict capital requirements. Because of this, financial sector performance can play a significant role in preferred stock market performance too.



YEAR-TO-DATE TOTAL RETURNS

Source: Bloomberg. [Data Set]. Data as of 02/28/2023 and accessed on March 1st, 2023 from Global X Bloomberg Terminal. Asset class representations are as follows: Variable Rate Preferreds, ICE US Variable Rate Preferred Securities Index; MBS, Bloomberg US Mortgage Backed Securities Index; High Yield Bonds, Bloomberg US Corporate High Yield Bond Total Return Index; Broad Preferreds, ICE BofA Diversified Core US Preferred Securities Index; Municipal Bonds, Bloomberg US Municipal Index; Convertible Bonds, Bloomberg US Convertibles Composite Index; EM Bonds, Bloomberg EM USD Aggregate Total Return Index; TIPS, Bloomberg US Treasury Inflation Notes TR Index; Corporate Bonds, Bloomberg US Corporate Total Return Index; U.S. Aggregate Bond Market, Bloomberg US Aggregate Bond Index.



Within the Global X U.S. Preferred ETF (PFFD), the majority of holdings are comprised of large-cap U.S. banks, in which the aggregation of preferred stocks issued by the Top 10 banks held within the fund have credit qualities on long-term obligations of BBB or better, based on ratings assigned by Standard & Poor's.¹² Additionally, the ratio of preferreds to total capital is relatively low, indicating that preferred share dividend payments have a minor impact on the companies' balance sheets.¹³ These factors assume heightened significance as defaults continue to increase, with the total percentage of North American defaults, including defaults and selective defaults, soaring to 1.1% of total bonds from 0.5% at the beginning of 2022.¹⁴ If this trend of rising defaults persists, it may prompt the Fed to retract the contractionary monetary policies currently in place, resulting in a decline in risk-free rates and the widening of option-adjusted spreads for non-investment grade bonds as creditors flee towards less risky investments, thus making preferreds a compelling option for investors seeking yield and total return from high-quality constituents.

TOP 10 PREFERRED ISSUERS BY WEIGHT % IN GLOBAL X U.S. PREFERRED ETF

Source: Global X ETFs with information derived from: Bloomberg (n.d.). [Data Set], Data as of 01/31/2023 and accessed on February 28, 2023 from Global X Bloomberg Terminal. Holdings are Subject to Change.

Global X U.S. Preferred ETF					
Company	Portfolio Weight %	Issuer Credit Rating	Capital		
			Equity %	Preferred Stock %	Debt %
Bank of America Corp	9.71%	A-	30.01%	3.22%	66.77%
Wells Fargo & Co	8.48%	BBB+	38.70%	4.94%	56.35%
JPMorgan Chase & Co	6.76%	A-	43.24%	3.01%	53.75%
Morgan Stanley	4.87%	A-	26.71%	1.45%	71.84%
AT&T Inc	3.54%	BBB	45.33%	0.00%	54.67%
US Bancorp	2.86%	A+	45.62%	4.80%	49.57%
Public Storage	2.74%	A	81.40%	7.21%	11.39%
Capital One Financial Corp	2.53%	BBB	40.22%	5.50%	54.28%
Firs Republic Bank	2.22%	A-	52.19%	8.49%	39.32%
Goldman Sachs Group Inc.	1.99%	BBB+	18.63%	1.73%	79.63%

MLPs Expected to Perform Amid Tight Energy Markets

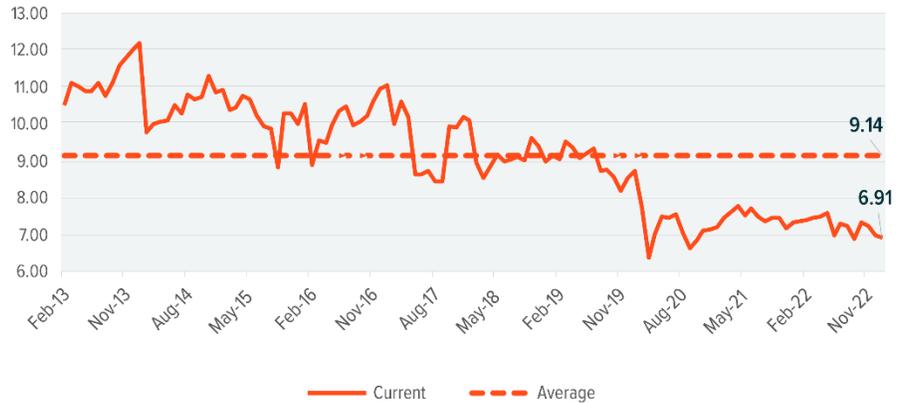
Despite the impressive rally in 2021 and 2022, we believe that midstream equities still have upside potential, driven by a combination of attractive valuations, strong balance sheets, elevated commodity prices, and favorable asset class tailwinds during inflationary periods. This view is potentially supported by a few indicators.

One indicator is that MLP EV/EBITDA ratios remain low relative to historical averages, while cash flow has consistently increased since 2013.¹⁵ This positive trend may represent an attractive opportunity to invest in midstream equities. The continued execution of elevated cash flows, returning excess cash to investors through dividend increases and buybacks, can also provide additional support for the sector. Furthermore, the trend of generous shareholder returns is expected to garner attention and potentially drive demand for midstream MLPs within portfolios.



MLP EV/EBITDA VALUATIONS

Source: Global X ETFs with information derived from: Bloomberg (n.d.). [Data Set], Data as of 01/31/2023 and accessed on February 28, 2023 from Global X Bloomberg Terminal. MLPs are represented by the S&P MLP Index.



The potential for companies to increase or maintain dividends consistently has been in the spotlight too since sectors less equipped to mitigate inflationary pressures were negatively impacted throughout 2022, relative to those who were able to pass rising input costs to their customers. It was reported by S&P Dow Jones Indices that net dividend changes were lower for 2022 vs. 2021, indicating negative headwinds facing certain dividend payers.¹⁶ Furthermore, common equity dividend decreases were up 63% to \$14.3B in 2022, compared to \$8.8B in 2021.¹⁷ Naturally, this has made income investors more selective in choosing companies and strategies that maintain steady, dividend payout ratios.

Given the significant increase in energy prices in 2022, midstream companies who operate pipelines and other energy infrastructure assets, offering real asset exposure and inflation adjustments built into contracts, generated higher levels of free cash flow throughout 2022. This translated into distribution increases throughout the MLP landscape in which 73% of the constituents within the Solactive MLP Infrastructure Index saw an increase in distributions over the past 12 trailing months for an average distribution increase of 16% over the same timeframe.¹⁸ This is much higher than the dividend growth rate of 7.6% for the 1,200 largest U.S.-listed firms by market cap, for 2022.¹⁹ This demonstrates a significant level of confidence within the midstream sector.

SOLACTIVE MLP INFRASTRUCTURE INDEX - NUMBER OF CONSTITUENT MLPS INCREASING, DECREASING, OR SAW NO CHANGE IN DISTRIBUTIONS IN THE PAST 12 TRAILING MONTHS

Source: Global X ETFs with information derived from: Bloomberg (n.d.). [Data Set], Data as of 02/28/2023 and accessed on March 1st, 2023 from Global X Bloomberg Terminal. Past performance is not a guarantee of future results.



Outside of these positive midstream fundamentals, supply and demand have recovered to pre-COVID levels while oil inventories remain significantly below historical averages.²⁰ Goldman Sachs estimates that an additional 1.0 million barrels per day of demand could come online in 2023 as Chinese demand continues to recover from the economy reopening, while Russian supply is expected to decline by more than 0.5 million barrels per day.²¹ This combination suggests further oil market tightness and provides upside support for crude oil production.

Although many market participants remain uncertain about the future demand for energy, data indicates that tight energy markets are expected to remain constructive, providing pockets of growth opportunities for master limited partnerships. The Energy Information Administration (EIA) forecasts U.S. oil production will increase by 0.5 million barrels per day to an average of 12.4 million barrels per day in 2023, allowing these companies to capitalize on higher oil prices.²² Similarly, solid demand and steady production growth are expected to benefit the midstream sector.

Conclusion: Potential Opportunities for Alternative Income

The investing landscape may offer more questions than answers in 2023, but we believe investors have opportunities to help their portfolios find footing. Among them, is the potential to turn volatility into both income and capital appreciation through a covered call and growth strategy. Looking beyond the U.S. bond market as a matter of course can be prudent and improving emerging market forecasts may present opportunities in the emerging market debt market. Preferred securities can offer a way to capture favorable profitability conditions in the banking sector. And while the world grapples with tight energy markets, MLPs may continue to reap benefits. When it seems like there are too many questions, focusing on investment vehicles that can provide access to different markets and methods of income generation can potentially improve a broader income portfolio.

Performance data quoted represents past performance. Past performance does not guarantee future results. The investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than their original cost and current performance may be lower or higher than the performance quoted. For



performance current to the most recent quarter- or month-end, please click the fund name in the Related ETF section.

Footnotes

1. Bloomberg. [Data Set]. Data as of 03/14/2023 and accessed on March 15, 2023 from Global X Bloomberg Terminal.
2. Ibid.
3. Ibid.
4. Global X ETFs with information derived from Morningstar Direct. [Data Set]. Data measured from 02/01/2018 through 01/31/2023 and accessed on February 27, 2023 from Global X Morningstar Direct License.
5. Morningstar Direct. [Data Set]. Data as of 02/28/2023 and accessed on March 01, 2023 from Global X Morningstar Direct License.
6. Global X ETFs. Data as of 02/28/2023. QYLD & XYLG collect dividends from the Nasdaq 100 Index companies and monthly options premium from selling Nasdaq 100 (NDX) Index options in which portions have been passed to shareholders as monthly distributions. The Funds realize capital gains from writing options and capital gains or losses whenever it sells securities. Any net realized long-term capital gains are distributed to shareholders as "capital gain distributions." A portion of the distribution may include a return of capital. These do not imply rates for any future distributions.
7. JPMorgan Chase & Co. (2023). Market outlook. JPMorgan Chase & Co. Retrieved February 28, 2023, from <https://www.jpmorgan.com/insights/research/market-outlook>
8. Ibid.
9. Global X ETFs. Data measured from 06/01/2020 through 01/31/2023 in which EMBD returns are measured using NAV returns.
10. Bloomberg. [Data Set]. Data as of 01/31/2023 and accessed on March 01, 2023 from Global X Bloomberg Terminal.
11. Bloomberg. [Data Set]. Data as of 02/28/2023 and accessed on March 01, 2023 from Global X Bloomberg Terminal.
12. Bloomberg. [Data Set]. Data as of 01/31/2023 and accessed on February 27, 2023 from Global X Bloomberg Terminal.
13. Bloomberg. [Data Set]. Data as of 01/31/2023 and accessed on February 27, 2023 from Global X Bloomberg Terminal. The ratio of preferreds to total capital is measured by taking the percentage of preferred stock issued and dividing it by the total amount of issued common equity, preferred equity, and debt.
14. Ibid.
15. Bloomberg. [Data Set]. Cash Flow is being measured by Free Cash Flow Yield. MLPs are measured by the S&P MLP Index. Data measured from 02/01/2013 to 01/31/2023 and accessed on February 27, 2023 from Global X Bloomberg Terminal.
16. S&P Dow Jones Indices. (2023, January 04). S&P Dow Jones Indices Reports US Common Indicated Dividend Payments Increased \$14.6 Billion During Q4 2022 and \$68.2 Billion in 2022. Retrieved March 1, 2023.
17. Ibid.
18. Global X ETFs with information derived from: Bloomberg (n.d.). [Data Set], Data as of 02/28/2023 and accessed on March 1st, 2023 from Global X Bloomberg Terminal.
19. Janus Henderson Investors. (2023). Janus Henderson Global Dividend Index Edition 37 – March 2023. Retrieved March 1, 2023.



20. Goldman Sachs Asset Management. (n.d.). GSAM US Energy and Infrastructure Quarterly Update. Retrieved March 1, 2023.
21. Ibid.
22. U.S. Energy Information Administration. (2023, January 25). U.S. crude oil production will increase to new records in 2023 and 2024. Retrieved March 1, 2023.

Glossary

Consumer Price Index (CPI): CPI measures the average change in prices that consumers pay for a defined basket of goods and services.

Correlation: A measure that shows how two securities move in relation to each other. A correlation of 1 implies that the securities will exhibit the same price movements. A correlation of 0 means the securities demonstrate completely unrelated price movements. A negative 1 correlation implies that the securities move in same size and opposite directions from one another.

Duration: A measure of a bond's price sensitivity to changes in interest rates. In general, the higher the duration, the more a bond's price will drop as interest rates rise (and the greater the interest rate risk).

Credit Spreads: The difference in yield between a risky (i.e., non-government issued) security and a risk-free security.

S&P 500: S&P 500 Index tracks the performance of 500 leading U.S. stocks and captures approximately 80% coverage of available U.S. market capitalization. It is widely regarded as the best single gauge of large-cap U.S. equities.

Russell 2000: The Russell 2000 Index is a U.S. small-cap stock market index of the bottom 2,000 stocks in the Russell 3000 Index. The index is maintained by FTSE Russell, a subsidiary of the London Stock Exchange Group.

Nasdaq 100: The Nasdaq-100 Index includes 100 of the largest domestic and international non-financial companies listed on The Nasdaq Stock Market based on market capitalization. The Index reflects companies across major industry groups including computer hardware and software, telecommunications, retail/wholesale trade and biotechnology. It does not contain securities of financial companies including investment companies.

Option Adjusted Spread (OAS): is a measure of the yield spread of a bond relative to a benchmark yield curve, considering the bond's embedded options. Embedded options are features of a bond that give the bondholder the right to take certain actions, such as calling the bond (i.e., redeeming it before it matures) or converting it into equity. These options can affect the bond's yield and price, and OAS is a way to account for these effects to compare the bond's yield to that of other bonds or to a benchmark yield curve.

Bloomberg US Mortgage Backed Securities Index: tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). The index is constructed by grouping individual TBA-deliverable MBS pools into aggregates or generics based on program, coupon and vintage.

ICE US Variable Rate Preferred Securities Index: tracks the performance of floating rate and fixed-to-floating rate exchange-listed U.S. dollar denominated preferred and convertible preferred securities publicly issued in the U.S. domestic market.

Bloomberg US Corporate High Yield Bond Total Return Index: The Bloomberg U.S. Corporate High Yield Bond Index measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on Bloomberg EM country definition, are excluded.

ICE BofA Diversified Core US Preferred Securities Index: tracks the performance of exchange-listed U.S. dollar denominated preferred stock and convertible preferred stock publicly issued by corporations in the U.S. domestic market.

Bloomberg Municipal Bond Index: Covers the USD-denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds and prerefunded bonds.



Bloomberg US Aggregate Bond Index: The Bloomberg U.S. Aggregate Bond Index is a broad-based benchmark that measures the investment grade, U.S. dollar-denominated, fixed-rate taxable bond market. The index includes Treasuries, government-related and corporate securities, MBS (agency fixed-rate and hybrid ARM pass-through), ABS and SMBS (agency and non-agency).

Bloomberg US Treasury Inflation Notes Index: Measures the performance of the US Treasury Inflation Protected Securities (TIPS) market. Federal Reserve holdings of US TIPS are not index eligible and are excluded from the face amount outstanding of each bond in the index.

Bloomberg US Corporate Total Return Index: The Bloomberg U.S. Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility, and financial issuers.

Yield-to-Worst: measures the lowest yield that is expected to be received from a bond that fully operates within the terms of its contract without defaulting.

Bloomberg USD EM Broad Aggregate Index: The Bloomberg EM USD Aggregate Bond Index is a flagship hard currency Emerging Markets debt benchmark that includes USD-denominated debt from sovereign, quasi-sovereign, and corporate EM issuers.

Bloomberg US Convertibles Composite Index: The Bloomberg US Convertibles Composite Index is designed to represent the market of U.S. convertible debt securities.

Distribution Yield: The annual yield an investor would receive if the most recent fund distribution remained the same going forward. The yield represents a single distribution from the fund and does not represent total return of the fund. The distribution yield is calculated by annualizing the most recent distribution and dividing by the most recent fund NAV.

S&P MLP Index: S&P MLP Index provides investors with exposure to the leading partnerships that trade on the NYSE and NASDAQ. The index includes both master limited partnerships (MLPs) and publicly traded limited liability companies (LLCs), which have a similar legal structure to MLPs and share the same tax benefits.

Bloomberg Emerging Markets Investment Grade Index: The Bloomberg Emerging Markets Investment Grade Index measures debt securities found within the Bloomberg USD EM Broad Aggregate Index with a credit quality of investment grade. Credit quality is determined as the middle rating of Moody's, Fitch, and S&P; when a rating from only two agencies is available, the lower is used; if only one agency rates a bond, that rating is taken.

Bloomberg Emerging Markets High Yield Index: The Bloomberg Emerging Markets High Yield Index measures debt securities found within the Bloomberg USD EM Broad Aggregate Index with a credit quality below investment grade. Credit quality is determined as the middle rating of Moody's, Fitch, and S&P; when a rating from only two agencies is available, the lower is used; if only one agency rates a bond, that rating is taken.

Solactive MLP Infrastructure Index: The Solactive MLP Infrastructure Index is intended to give investors a means of tracking the performance of the energy infrastructure MLP asset class in the United States. The index is composed of Midstream MLPs engaged in the transportation, storage, and processing of natural resources.

EBITDA: Earnings before interest, tax, depreciation and amortization (EBITDA) is a measure of a company's operating performance. Essentially, it's a way to evaluate a company's performance without having to factor in financing decisions, accounting decisions or tax environments.

Enterprise Value (EV): EV is a measure of a company's total value, often used as a more comprehensive alternative to equity market capitalization. Enterprise value can be thought of as the theoretical takeover price if the company were to be bought.

Free Cash Flow Yield: Free cash flow is generated cash by a company after taking cash outflows from operations into consideration. Free cash flow yield explains how much free cash flow is available in relation to a company's market capitalization.

J.P. Morgan EMBI Global Core Bond Index: A benchmark used for emerging markets debt that includes USD-denominated debt from sovereign and/or quasi-sovereign EM issuers.



Index returns are for illustrative purposes only and do not represent actual fund performance. Index performance returns do not reflect any management fees, transaction costs or expenses. Indices are unmanaged and one cannot invest directly in an index.

This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. This information should not be relied upon by the reader as research or investment advice regarding the funds or any stock in particular. There is no guarantee that strategies discussed will be successful. Please consult your financial advisor for further information.

Investing involves risk, including possible loss of principal. Diversification does not ensure a profit nor guarantee against a loss. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles, or from economic or political instability in other nations. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume.

QYLD, XYLD, RYLD, DJIA, QYLG, and XYLG engage in options trading. An option is a contract sold by one party to another that gives the buyer the right, but not the obligation, to buy (call) or sell (put) a stock at an agreed upon price within a certain period or on a specific date. A covered call option involves holding a long position in a particular asset and writing a call option on that same asset with the goal of realizing additional income from the option premium. By selling covered call options, the funds limit their opportunity to profit from an increase in the price of the underlying index above the exercise price, but continues to bear the risk of a decline in the index. A liquid market may not exist for options held by the fund. While the fund receives premiums for writing the call options, the price it realizes from the exercise of an option could be substantially below the indices current market price. Concentration in a particular industry or sector will subject Funds to loss due to adverse occurrences that may affect that industry or sector. Investors in the Funds should be willing to accept a high degree of volatility in the price of the fund's shares and the possibility of significant losses.

Preferred stock is subject to many of the risks associated with debt securities, including interest rate risk. In addition, preferred stock may not pay a dividend, an issuer may suspend payment of dividends on preferred stock at any time, and in certain situations, an issuer may call or redeem its preferred stock or convert it to common stock. High yielding stocks are often speculative, high-risk investments. These companies can be paying out more than they can support and may reduce their dividends or stop paying dividends at any time, which could have a material adverse effect on the stock price of these companies and the Fund's performance.

Variable and Floating Rate Securities may have limits on the maximum increases in coupon rates and may lag behind changes in market rates. A downward adjustment in coupon rates may decrease PFFV's income as a result of its investment in variable or floating rate securities.

Investments in securities of MLPs involve risk that differ from investments in common stock including risks related to limited control and limited rights to vote on matters affecting the MLP. MLP common units and other equity securities can be affected by macro-economic and other factors affecting the stock market in general, expectations of interest rates, investor sentiment towards MLPs or the energy sector, changes in a particular issuer's financial condition, or unfavorable or unanticipated poor performance of a particular issuer (in the case of MLPs, generally measured in terms of distributable cash flow). MLPA and MLPX invest in the energy industry, which entails significant risk and volatility. The Funds invest in small and mid-capitalization companies, which pose greater risks than large companies.

The amount of cash that each individual MLP can distribute to its partners will depend on the amount of cash it generates from operations, which will vary from quarter to quarter depending on factors affecting the energy infrastructure market generally. Available cash will also depend on the MLPs' level of operating costs (including incentive distributions to the general partner), level of capital expenditures, debt service requirements, acquisition costs (if any), fluctuations in working capital needs, and other factors. The MLP holdings of the Fund expect to generate significant investment income, and the Fund's investments may not distribute the expected or anticipated levels of cash, resulting in the risk that the Fund may not have the ability to make cash distributions as investors expect from MLP-focused investments. Past distributions are not indicative of future distributions. There is no guarantee that dividends will be paid.

The potential tax benefits from investing in MLPs depend on them being treated as partnerships for federal income tax purposes. If the MLP is deemed to be a corporation then its income would be subject to federal taxation at the entity level, reducing the amount of cash available for distribution to the Fund which could result in a reduction of the Fund's value.

MLPA has a different and more complex tax structure than traditional ETFs and investors should consider carefully the significant tax implications of an investment in the Fund.

Bonds will decrease in value as interest rates rise. High yield bonds involve greater risks of default or downgrade and are more volatile than investment grade securities, due to the speculative nature of their investments. EMBD is actively managed, which could increase its transaction costs (thereby lowering its performance) and could increase the amount of taxes you owe by generating short-term gains, which may be taxed at a higher rate.

As an actively managed Fund, EMBD does not seek to replicate a specified index and is subject to increased credit and default risk, where there is an inability or unwillingness by the issuer of a fixed income security to meet its financial obligations, debt extension risk, where an issuer may exercise its right to pay principal on an obligation later than expected, as well as interest rate/maturity risk, where the value of the Fund's fixed income assets will decline because of rising interest rates.

EMBD may invest in securities denominated in foreign currencies. Because the Fund's NAV is determined in U.S. dollars, the EMBD's NAV could decline if currencies of the underlying securities depreciate against the U.S. dollar or if there are delays or limits on repatriation of such currencies. Currency exchange rates can be very volatile and can change quickly and unpredictably.

QYLD, QYLG, RYLD, DJIA, PFFD, PFFV, MLPA, MLPX and EMBD are non-diversified.

There is no guarantee a municipal bond's income will be exempt from federal or state income taxes. Capital gains, if any, are subject to capital gains tax. Income from municipal bonds may be subject to the alternative minimum tax. Mortgage-backed securities are subject to prepayment and extension risk and therefore react differently to changes in interest rates than other bonds. Small movements in interest rates may quickly and significantly reduce the value of certain mortgage-backed securities. TIPS can provide investors a hedge against inflation, as the inflation adjustment feature helps preserve the purchasing power of the investment. Because of this inflation adjustment feature, inflation protected bonds typically have lower yields than conventional fixed rate bonds and will likely decline in price during periods of deflation, which could result in losses.

Shares of ETFs are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns.

This material must be preceded or accompanied by the funds' prospectus. Read the prospectus carefully before investing.

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