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MLPA – Global X MLP ETF

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GLOBAL X ETFs RESEARCH

# Energy & MLP Insights: U.S. Midstream Pipelines Are Still Attractive and Can Benefit From Global Catalysts

Global economic slowdown risks linger, but we expect the oil market to tighten in the coming quarters due to renewed supply risks and increased demand from China's reopening. In our view, the shifts in the energy markets last year have the U.S. oil and gas industry well positioned to benefit from these supply and demand dynamics. A result of the growth in U.S. oil and gas production is an increase in demand for midstream pipelines, storage facilities, and processing plants, a trend that can continue in 2023. Despite midstream's positive performance in recent years, we believe the sector still offers attractive fundamentals.

## Key Takeaways

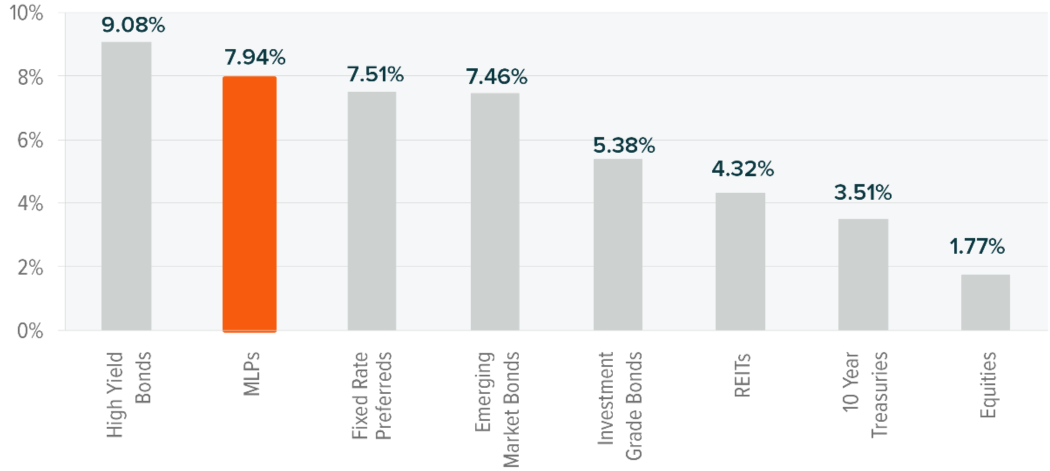
- Even after a prolonged upswing, we believe investors may find value in midstream companies due to their high distribution yields, cheap valuations, diversification potential, and inflation pass-through capabilities.
- Global catalysts such as increasing economic activity in China can provide support to energy demand while geopolitics keep supply tight.
- We believe the oil and gas markets' shift in the aftermath of Russia's invasion of Ukraine, has U.S. energy production well positioned this year in a tight supply environment.

## Positive Fundamentals for U.S. Midstream

Demand for midstream pipelines, storage facilities, and processing plants is high compared to historical levels, given the recent ramp up in U.S. shale oil and gas production.[1] Therefore, while midstream's multiyear rally[2] and the potential perception of a market saturation is a consideration, we believe that the sector can still present compelling opportunities for investors due to strong fundamentals. First, midstream pipelines currently offer higher yields (7.94%) compared to other sectors, which can be attractive to income-seeking investors.[3]

## MLP CURRENT YIELDS

Source: Global X ETFs with information derived from Bloomberg. Data as of 03/15/23.



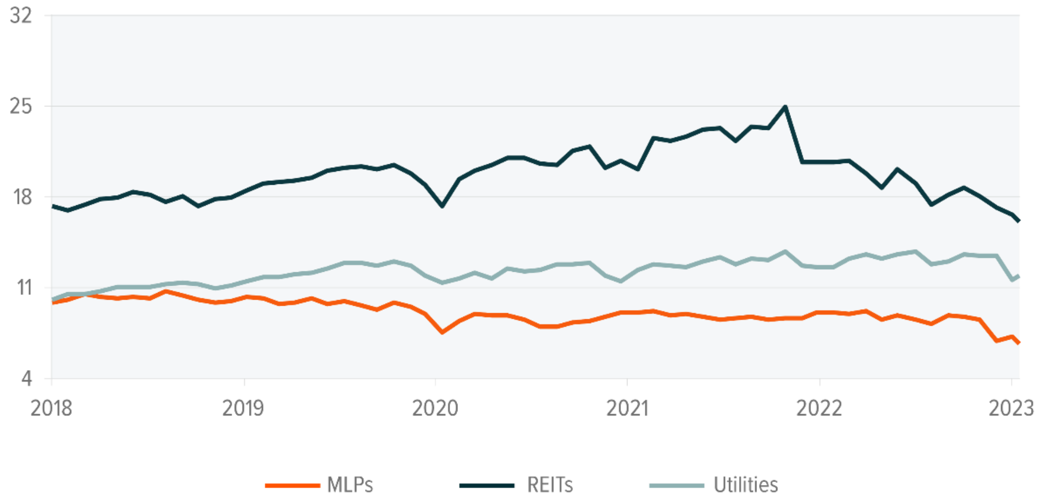

Asset class representations are as follows, MLPs, Solactive MLP Infrastructure Index; High Yield Bonds, Bloomberg US Corporate High Yield Total Return Index; Emerging Market Bonds, Bloomberg EM USD Aggregate Total Return Index; Fixed Rate Preferreds, ICE BofA Fixed Rate Preferred Securities Index; REITs, FTSE NAREIT All Equity REITs Index; Investment Grade Bonds, Bloomberg US Corporate Total Return Index; Equities, S&P 500 Index.

Note: Asset class representations are as follows, MLPs, Solactive MLP Infrastructure Index; High Yield Bonds, Bloomberg US Corporate High Yield Total Return Index; Emerging Market Bonds, Bloomberg EM USD Aggregate Total Return Index; Fixed Rate Preferreds, ICE BofA Fixed Rate Preferred Securities Index; REITs, FTSE NAREIT All Equity REITs Index; Investment Grade Bonds, Bloomberg US Corporate Total Return Index; Equities, S&P 500 Index.

Second, MLPs appear attractively valued when comparing EV/EBITDA to other high yield equity sectors like REITs and Utilities. MLPS show appealing valuations even compared to their own historical estimated forward earnings per share levels. For example, as of the beginning of March, Williams Cos stock traded at a lower 16.8x estimated forward earnings per share vs 20.6x for 2-year historical average while TC Energy Corp traded at a lower 13x estimated forward earnings per share vs 14.6x for 2-year historical average. On average, Midstream Equities traded at a lower 11.8x estimated forward earnings per share vs 17.1x for 2-year historical average.[4]

## EV/ EBITDA VALUATIONS SHOW MIDSTREAM EQUITIES TRADING AT ATTRACTIVE VALUATIONS (5 YEARS)

Sources: Global X ETFs with information derived from Bloomberg. Data as of 03/15/2023.



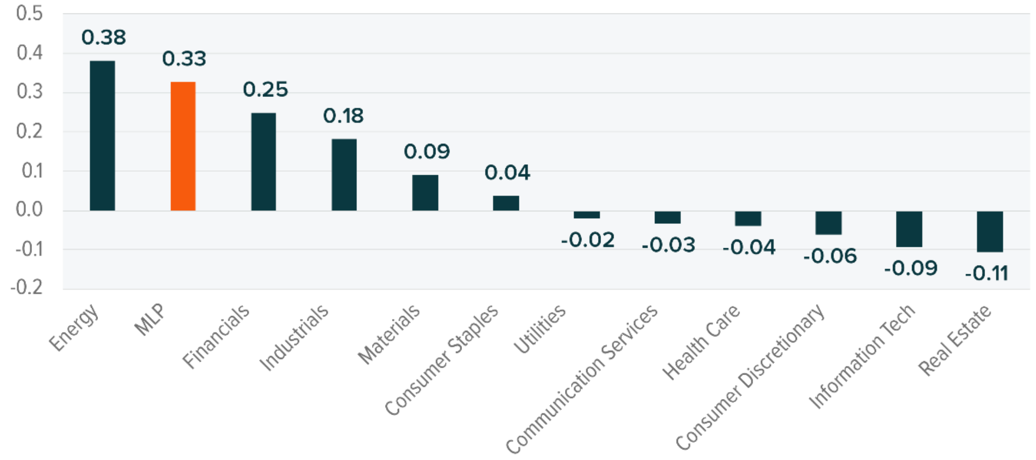

Asset class representations are as follows: MLPs, S&P MLP Index; REITs, FTSE NAREIT All Equity REITs Index; and Utilities, Utilities Select Sector Index. The abbreviations are as follows: EV/EBITDA, Enterprise value to earnings before interest, taxes, depreciation and amortization.; REITs, Real Estate Investment Trust.

Third, midstream pipelines can provide diversification benefits which can help investors manage risk in uncertain economic and market environments while potentially enhancing returns over the long term. More broadly, the Energy sector is expected to continue to attract investor attention because of the current uncertainties in the equity markets due to the global slowdown concerns. Recently, strong economic data prompted hawkish statements from US Federal Reserve (Fed) chair Jerome Powell, which led the markets to anticipate that US interest rates would remain higher for a longer period of time.

Fourth, exposure to real assets and index-linked contracts may reduce inflation risk and provide steady income, and midstream companies may be better able to handle inflation than other industries. U.S. inflation remains well above the Fed's 2% objective and continues to indicate a broad-based increase in the general price level, notably for services and housing [5]. MLPs historically exhibit a positive correlation with 10-Year Treasury, attributable to their commodities exposure and inflation protection provisions in their contracts.[6] Contracts with inflation escalators enable operators to pass on increasing costs, therefore MLPs can hedge against inflation.

## CORRELATIONS WITH US 10-YEAR TREASURY

Sources: Global X ETFs with information derived from Bloomberg LP. Data from December 02/28/2018 to 02/28/2023.




Asset class representations are as follows, MLPs, Solactive MLP Infrastructure Index; Financials, S&P 500 Financials GICS Level 1 Index; Industrials, S&P 500 Industrials GICS Level 1 Index; Energy, S&P 500 Energy GICS Level 1 Index; Materials, S&P 500 Materials GICS Level 1 Index; Health Care, S&P 500 Health Care GICS Level 1 Index; Real Estate, S&P 500 Real Estate GICS Level 1 Index; Consumer Staples, S&P 500 Consumer Staples GICS Level 1 Index; Consumer Discretionary, S&P 500 Consumer Discretionary GICS Level 1 Index; Communication Services, S&P 500 Communication Services GICS Level 1 Index; Information Technology, S&P 500 Information Technology GICS Level 1 Index; Utilities, S&P 500 Utilities GICS Level 1 Index.

Fifth, Mergers and acquisitions (M&A) can help midstream companies maximize returns, accelerate expansion, and cut expenses. Some examples of recent companies' strategic activity include Enbridge Inc's four M&A deals, four investments in the past year and TC Energy Corp's five M&A deals, three investments in the past three months.[7]

### Energy Demand Has Support, Geopolitics Keeps Supply Tight

The lifting of lockdown restrictions in China may be a key catalyst for oil prices and the energy sector. Record Chinese oil consumption is forecasted this year as economic activity and demand for oil picks back up.[8] In 2022, China's oil demand fell by a record 440,000 barrels per day, or 3%. China's crude oil imports fell by 0.9% year-over-year (YoY) last year, and its refineries processed 30 million tonnes less crude, a 4% YoY fall.[9] This year, relaxed travel restrictions might have a strong impact again but in the opposite direction, boosting oil demand.

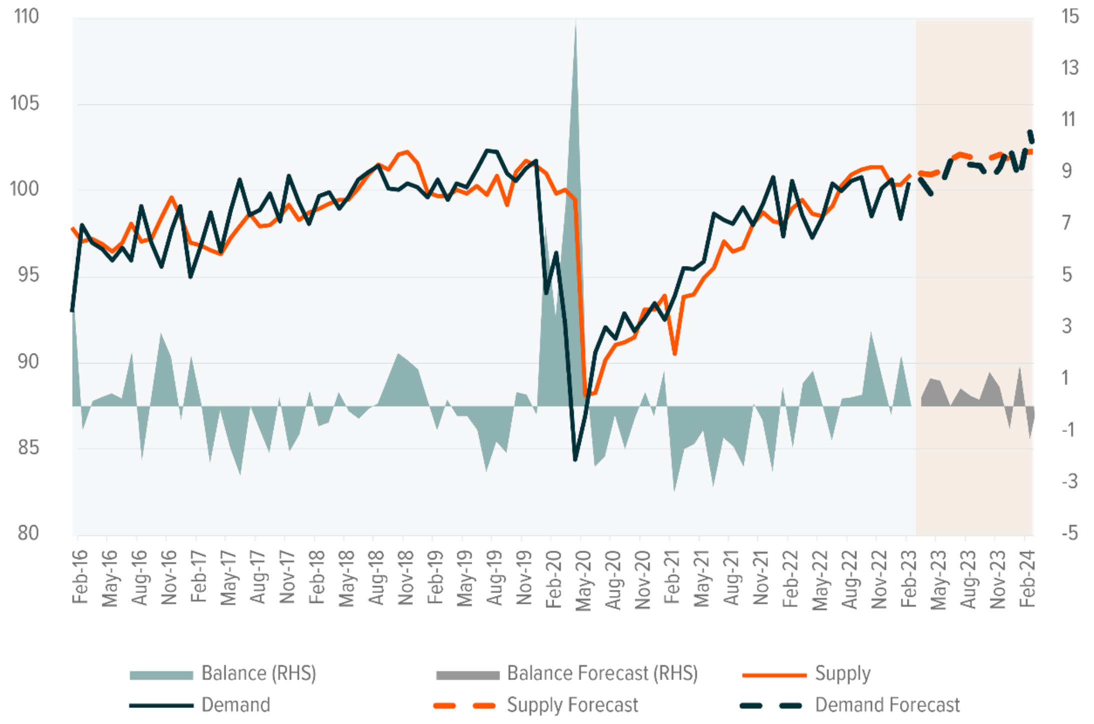
Signs of revival in Chinese demand are visible already: the move to loosen restrictions led to a significant increase in domestic flights, and traffic in major cities surged.[10] These bounces come after road passengers plummeted by 72% and air passengers by 62% in the first eleven months of 2022.[11]

On the supply side, sanctions affecting Russia's energy production and OPEC+'s conservative policies could continue to tighten the oil markets. OPEC+ bolstered the oil producer group's output policy, keeping production cuts to 2 million barrels per day (b/d), as agreed in October last year, to prop up the market in the face of escalating Chinese demand and uncertainties in Russian supply prospects.[12] The necessity of reserving production capacity is among the main reasons behind the cut, indeed, Saudi Arabia has often raised the alarm that the group's spare production capacity is extremely low.[13]

The energy policy tit for tat between Russia and the West continues. Russia may cut oil exports from its western ports by up to 25% in March 2023 on a month of month basis.[14] The move doesn't come as a surprise, as this type of retaliation was one of the main consequences of western sanctions identified by the markets. In addition to the price cap on Russian crude and the EU's embargo on imports of Russian oil by sea that went into effect in December 2022 [15], the EU and G7 nations imposed a price cap on refined Russian products beginning in February 2023.[16]

## WORLD CRUDE OIL & LIQUID FUEL SUPPLY & DEMAND (MMB/D MILLION BARRELS PER DAY)

Sources: Global X ETFs with information derived from EIA, monthly data from February 2016 to February 2023 and monthly forecasts from March 2023 to February 2024. Published as of March 2, 2023.




## U.S. Oil & Gas Industry Appears Well Positioned in 2023

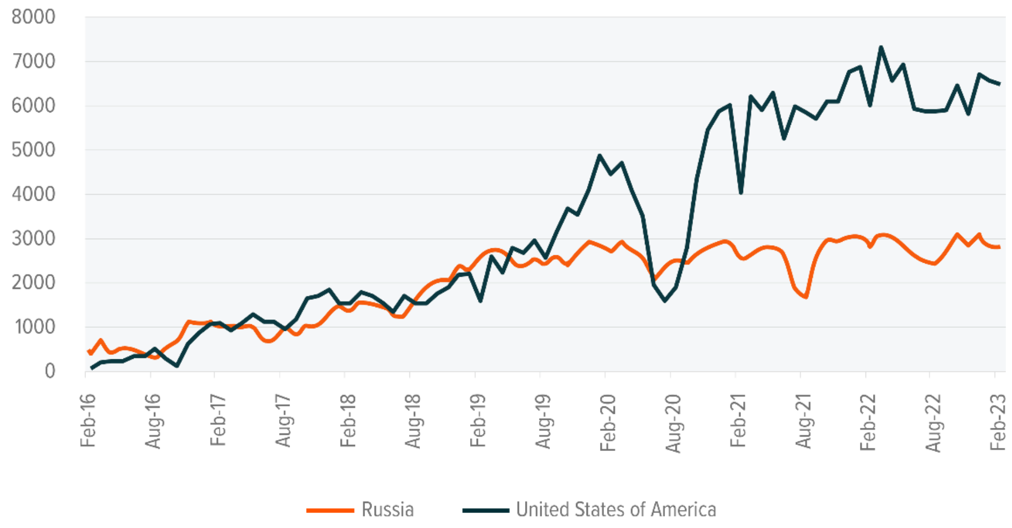
Rising U.S. natural gas output can fill supply gaps in the energy market, particularly in Europe. After Russia shut off most of their supply, Europe avoided the worst of its energy crisis due to the warmer-than-usual weather and importing record volumes of liquid natural gas (LNG).[17] In 2021, the European

Union imported 83% of its natural gas, including 45% from Russia. In November 2022, Russia's share of EU gas imports was only 12.9%.[18] The United States was the European Union's top LNG supplier in 2022, representing 41% of the region's LNG supplies, and U.S. LNG can continue to be a relevant source for Europe going forward.[19]

In February, Russia's oil and gas revenue dropped by 46% year-over-year,[20] the ramifications of which are significant when considering that pre-invasion Russia was the world's second-largest oil-exporting nation and comprising 10% of the global oil supply.[21,22] We expect Russia's supply level to decline even further in 2023, and OPEC+ seems unwilling to increase production to compensate for the gap.

## RUSSIA AND U.S. LNG EXPORTS (KILO METRIC TON)

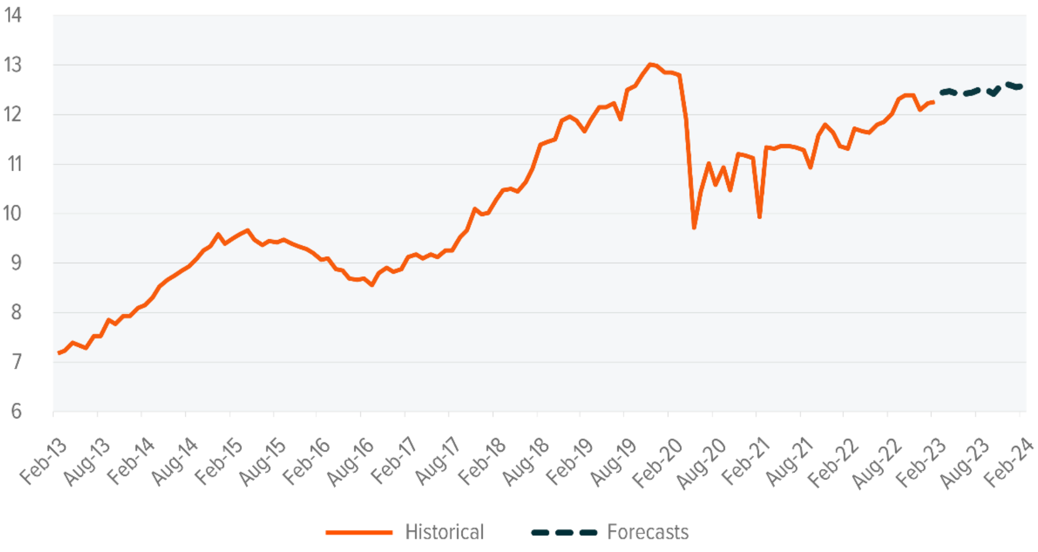
Sources: Global X ETFs with information derived from Bloomberg LP, monthly data from February 2016 to February 2023.




Against this backdrop, the outlook for U.S. energy businesses appears favorable. In 2023, U.S. natural gas output may increase by around 2% YoY to 100–101 billion cubic feet per day (bcf/d)[23] and crude oil production may surpass the record high set in 2019 by averaging 12.4 million b/d.[24] In 2022, U.S. crude production averaged 11.9 million b/d, mostly as a result of increased output in the Permian basin. Oil output in this region is forecast to increase by another 470,000 b/d in 2023 to an average of 5.7 million b/d. As new natural gas pipelines are finished, producers will be able to transport more of the extracted associated-dissolved natural gas to the market, removing a possible barrier to crude oil production.[25]

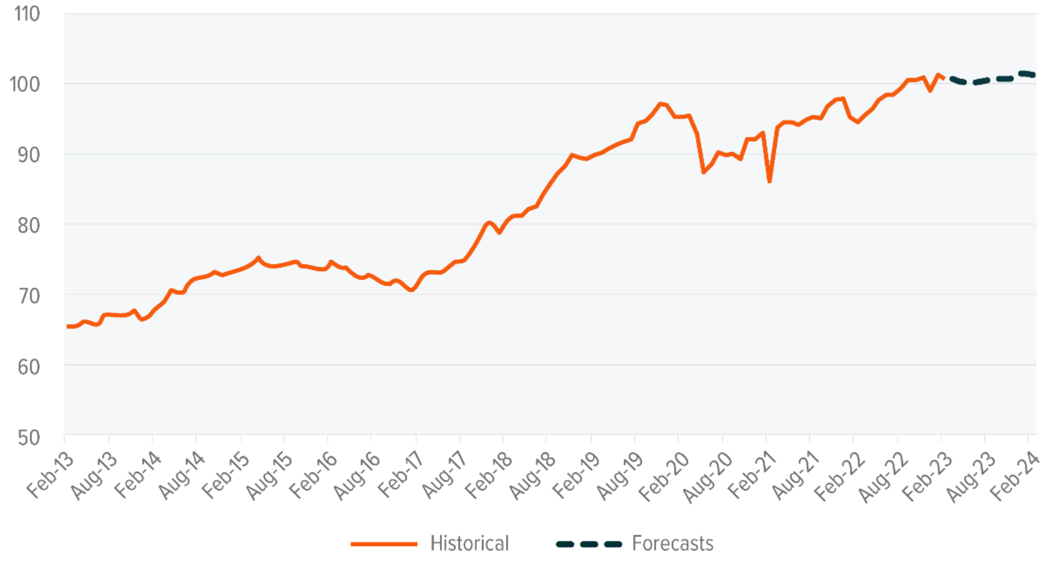
## U.S. FIELD PRODUCTION OF CRUDE OIL (MILLION B/D)

Sources: Global X ETFs with information derived from EIA, monthly data from February 2013 to February 2023 and monthly forecasts from March 2023 to February 2024. Published as of March 2, 2023.



## U.S. NATURAL GAS PRODUCTION (BCF/D)

Sources: Global X ETFs with information derived from EIA, monthly data from February 2013 to February 2023 and monthly forecasts from March 2023 to February 2024. Published as of March 2, 2023.




## Conclusion: Midstreams Appears Attractive

Oil markets might tighten due to geopolitical-induced supply concerns and the burgeoning turnaround in economic activity in China. The events of 2022, including those that accelerated the energy markets shift, such as the war in Ukraine, has the U.S. oil and gas industry positioned to benefit, in our view. From a midstream perspective, higher U.S. oil and gas production increases the need for infrastructure, including pipelines, storage facilities, and processing plants. We expect this trend to persist and potentially provide opportunities for investors to benefit from a sector that may offer yield and an inflation and interest rate hedge at reasonable valuations.

### Footnotes

1. U.S. Energy Information Administration (2023, March) Short-Term Energy Outlook 2023. Dataset from January 2019 to February 2023.
2. Global X ETFs (2022, December 31). Price and Performance History of Global X MLP & Energy infrastructure ETF (MLPX)
3. Bloomberg LP. Yield Dataset as of March 15th, 2023. Asset class representations are as follows: MLPs, Solactive MLP Infrastructure Index; High Yield Bonds, Bloomberg US Corporate High Yield Total Return Index; Emerging Market Bonds, Bloomberg EM USD Aggregate Total Return Index; Fixed Rate Preferreds, ICE BofA Fixed Rate Preferred Securities Index; REITs, FTSE NAREIT All Equity REITS Index; Investment Grade Bonds, Bloomberg US Corporate Total Return Index; Equities, S&P 500 Index.
4. Bloomberg LP. Dataset as of March 5th, 2023. Global X MLP & Energy infrastructure ETF (MLPX) average of holdings estimated forward earnings per share.
5. Board of Governors of the Federal Reserve System (2023, March 3rd) Monetary Policy Report.
6. Bloomberg LP. 10- Year Correlation dataset from December 02/28/2018 to 02/28/2023. Asset class representations are as follows, MLPs, Solactive MLP Infrastructure Index; Financials, S&P 500 Financials GICS Level 1 Index; Industrials, S&P 500 Industrials GICS Level 1 Index; Energy, S&P 500 Energy GICS Level 1 Index; Materials, S&P 500 Materials GICS Level 1 Index; Health Care, S&P 500 Health Care GICS Level 1 Index; Real Estate, S&P 500 Real Estate GICS Level 1 Index; Consumer Staples, S&P 500 Consumer Staples GICS Level 1 Index; Consumer Discretionary, S&P 500 Consumer Discretionary GICS Level 1 Index; Communication Services,

S&P 500 Communication Services GICS Level 1 Index; Information Technology, S&P 500 Information Technology GICS Level 1 Index; Utilities, S&P 500 Utilities GICS Level 1 Index.

7. Bloomberg LP. (2023, March 14) Terminal Function: Key Insights.
8. S&P Global Commodity Insights (2023, March 15) World oil demand to hit fresh highs in 2023 as China rebounds: IEA.
9. J.P. Morgan (2023, January 19) China reopening: $90 is a target, $100 is a stretch.
10. Reuters (2023, March 15) China, air travel rebound set to supercharge oil demand -IEA; BloombergNEF (2023, March 20) Oil Price Indicators Weekly.
11. J.P. Morgan (2023, January 19) China reopening: $90 is a target, $100 is a stretch.
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13. Ibid.
14. Reuters (2023, March 7). Oil loadings from Russia western ports to fall -sources, Reuters calculations.
15. European Council (2023, February 13) Impact of Russia's invasion of Ukraine on the markets: EU response.
16. Ibid.
17. U.S. Energy Information Administration (2023, March 15) Europe was the main destination for U.S. LNG exports in 2022.
18. European Council (2023, February 7) Infographic - Where does the EU’s gas come from?
19. Kpler (2023, January 4). EU LNG imports reach all-time highs in December and 2022.
20. Bloomberg LP. (2023, March 3) Russia’s Revenue from Oil and Gas Almost Halved in February.
21. New York Times (2022, March 10) Why Russian Oil and Gas Matter to the Global Economy.
22. IEA (2022, February 24). Oil Market and Russian Supply.
23. U.S. Energy Information Administration (2023, March). Short-Term Energy Outlook.
24. Ibid.
25. U.S. Energy Information Administration. (2023, January 25). U.S. crude oil production will increase to new records in 2023 and 2024.

## Glossary

**Associated-dissolved natural gas:** Natural gas that occurs in crude oil reservoirs either as free gas (associated) or as gas in solution with crude oil (dissolved gas).

**Correlation:** A measure of the degree to which two securities move in regard to one another. A positive correlation exists when two variables work in tandem, such that as one rises or falls, the other follows suit. A negative correlation occurs when two variables move in opposite directions, such that when one rises, the other lowers. The correlation coefficient ranges from -1 to 1. A coefficient of 1 means there is a perfect correlation, 0 means there is no correlation, and -1 means there is a perfect opposite relationship.

**Estimated forward earnings per share**: The estimated forward PE ratio includes the forecasted earnings per share of the company over the next 12 months for determining the price-earnings ratio. One may calculate it by dividing the price per share by forecasted earnings per share over the next 12 months.

Diversification does not ensure a profit or guarantee against a loss. Current and future holdings are subject to risk.

Investing involves risk, including possible loss of principal. 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.

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). The Global X MLP Funds 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 Funds are non-diversified.

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. MLPA is taxed as a regular corporation for federal income tax purposes, which differs from most investment companies. Due to its investment in MLPs, the fund will be obligated to pay applicable federal and state corporate income taxes on its taxable income as opposed to most other investment companies. The fund expects that a portion of the distributions it receives from MLPs may be treated as tax-deferred return of capital. The amount of taxes currently paid by the fund will vary depending on the amount of income and gains derived from MLP interests and such taxes will reduce an investor's return from an investment in the fund. The fund will accrue deferred income taxes for any future tax liability associated certain MLP interests. Upon the sale of an MLP security, the fund may be liable for previously deferred taxes, which may increase expenses and lower the fund's NAV.

Bonds and bond funds 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. Real estate and REIT investments are subject to changes in economic conditions, credit risk and interest rate fluctuations. Emerging markets involve heightened risks related to the same factors as well as increased volatility and lower trading volume. 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. U.S. Treasury securities are considered to be of high credit quality and are backed by the full faith and credit of the U.S. government. U.S. Treasury securities, if held to maturity, guarantee a return of principal while no other securities mentioned in this material offer such a guarantee.

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.

***Carefully consider the Funds' investment objectives, risk factors, charges, and expenses before investing. This and additional information can be found in the Funds' summary and full prospectuses, which may be obtained at www.globalxetfs.com. Read the prospectus carefully before investing.***

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