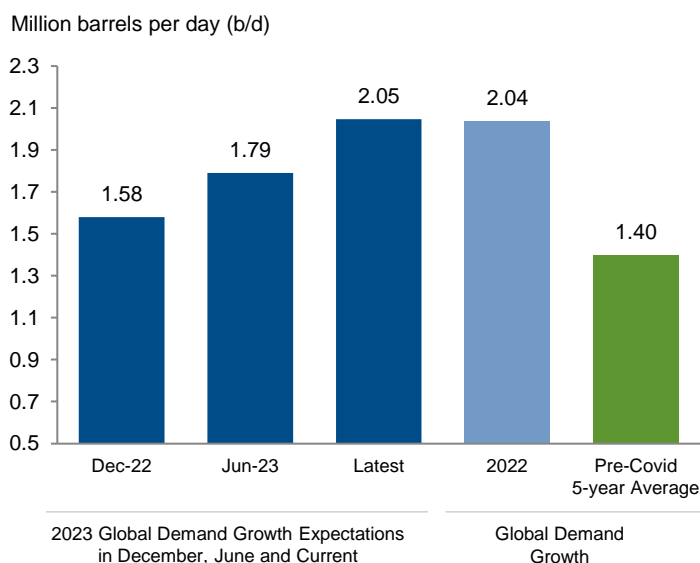


Oil Market Review and Outlook

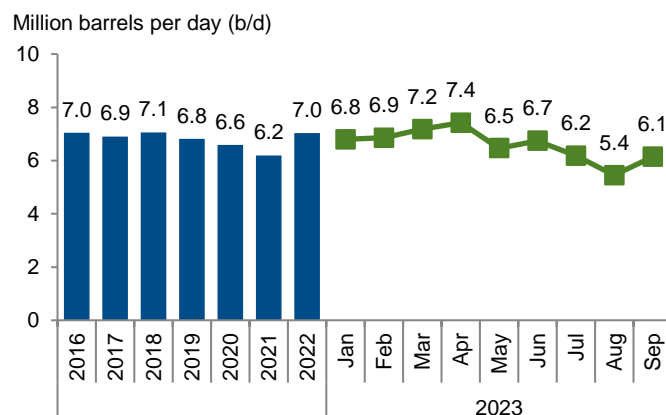
Oil prices remain volatile. Following a strong rally in the third quarter, oil prices are down 7% from their late September peak. Given continued supply restraint from OPEC+ and the risk of disruptions from the Israel-Hamas war, this note addresses the many questions we have received from clients on the outlook for oil.

Drivers of Recent Oil Price Moves

The Third Quarter Oil Rally. Oil prices rallied from June through September due to a combination of fundamental and technical factors. As shown in **Exhibit 1**, global oil demand expectations for 2023 have increased alongside better-than-expected global economic growth by 0.5 million barrels per day (b/d) compared to the start of the year. Growth this year is now anticipated to exceed 2 million b/d—well above the pre-Covid average annual of 1.4 million b/d. On the supply side, Saudi Arabia committed to its third oil production cut in June and Russia reaffirmed its plan to temporarily cut production by 0.5 million b/d. Both countries followed through—surprising the market as prior production cut announcements had not been fully implemented—with Saudi Arabia oil exports dropping by as much as 2 million b/d from April to August (see **Exhibit 2**).

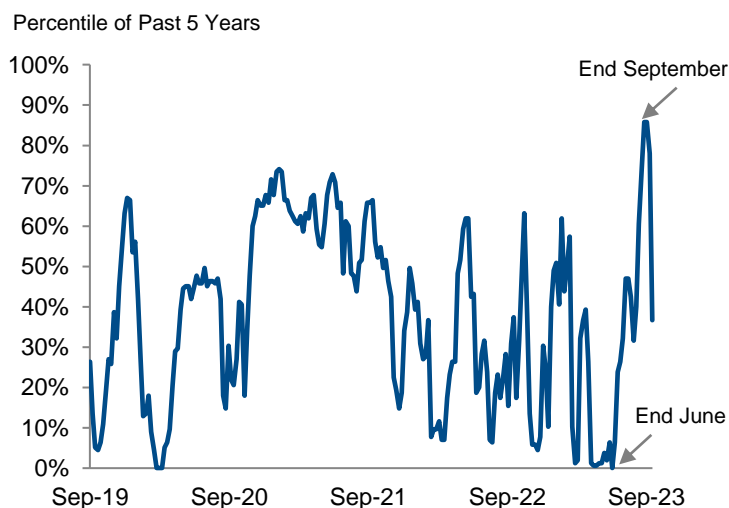
Exhibit 1: 2023 Global Demand Growth Expectations Compared to 2022 and Pre-Covid Annual Demand

Source: Investment Strategy Group, International Energy Agency, Department of Energy, OPEC, S&P Platts, Energy Aspects, JP Morgan, Citi, Morgan Stanley, Goldman Sachs Global Investment Research

Exhibit 2: Saudi Arabia's Crude Oil Exports

Source: Investment Strategy Group, Kpler.

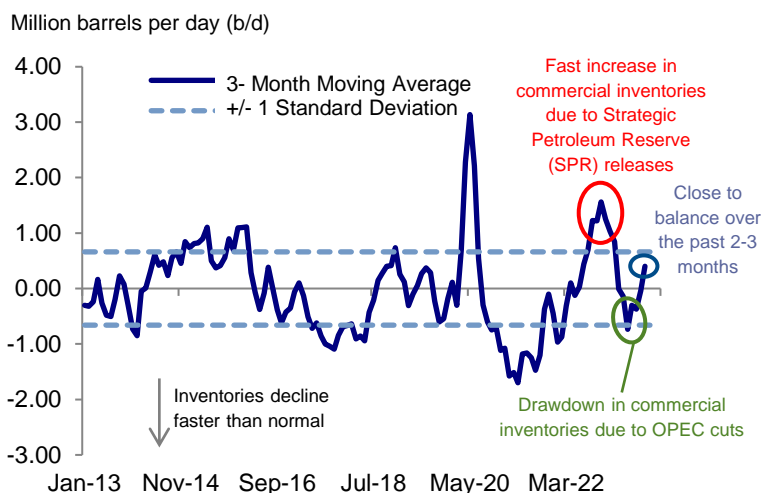
An improving technical backdrop and a reversal in bearish positioning also helped fuel the rally. As shown in **Exhibit 3**, managed money positioning in crude oil fell to multi-year lows in June before experiencing a sharp rebound as fundamentals improved and prices broke through key technical levels.

Exhibit 3: Crude Oil West Texas Intermediate (WTI) and Brent Net Managed Money Positioning

Source: Investment Strategy Group, Bloomberg

Early October Correction. As prices rose through September, the forward curve steepened into strong backwardation—a situation in which the spot price is higher than the upcoming futures prices—highlighting a scarcity of oil for prompt delivery. But that demand was ultimately dampened as prices rose beyond what was justified by inventory fundamentals. As seen in **Exhibit 4**, Organization for Economic Cooperation and Development (OECD) inventories have started to stabilize over the past three months, creating the conditions for a price correction.

Exhibit 4: 3-Month Rolling Change in OECD Commercial Petroleum Inventories Relative to 5-year Average

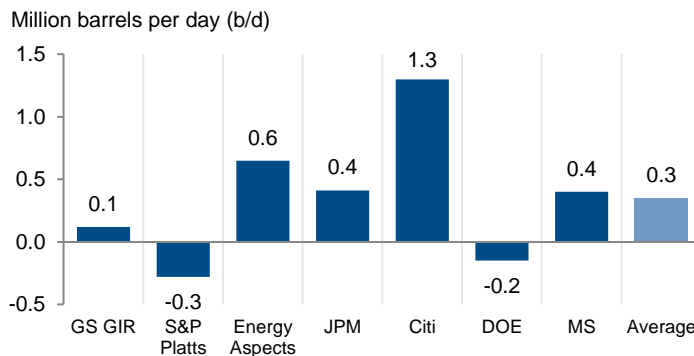


Source: Investment Strategy Group, Bloomberg, International Energy Agency

2024 Outlook

We Expect Prices to Trade in a Range of \$70-\$100 per Barrel. Oil demand is now above pre-Covid levels but demand growth is likely to slow given tightening financial conditions and still elevated recession odds—we assign a 30-40% probability of a US recession over the next 12 months. On the supply side, non-OPEC production growth is expected to be robust, especially outside of the US. Given this backdrop of slowing demand and improving supply, OPEC production policy and discipline are likely to be a key factor supporting the price path in 2024. Most forecasters anticipate that OPEC will be able to bring back some production (see **Exhibit 5**). In this context, we expect the market to remain balanced within a \$70-\$100 range, as has been the case this year. A stable price range does not preclude potential sharp price rallies and drawdowns, particularly given current macroeconomic uncertainties and heightened geopolitical risks.

Exhibit 5: 2024 OPEC Production Growth Forecasts

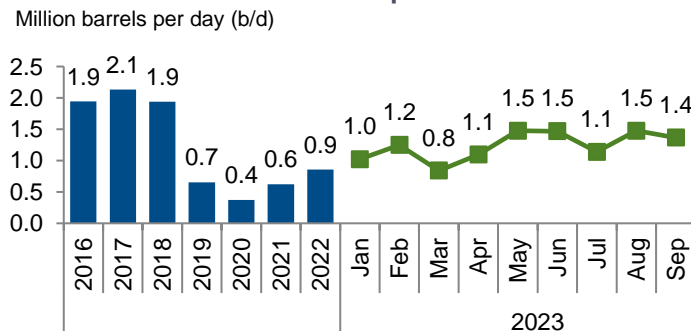


Source: Investment Strategy Group, International Energy Agency, Department of Energy (DOE), OPEC, S&P Platts, Energy Aspects, JP Morgan (JPM), Citi, Morgan Stanley (MS), Goldman Sachs Global Investment Research (GS GIR)

Implications of Israel-Hamas War for Oil

Potential Oil Supply Disruptions. Iranian crude oil exports fell in 2019 when the US imposed sanctions but have risen since 2020 (see **Exhibit 6**). In September, Iranian crude oil exports reached 1.4 million barrels per day, accounting for 1.4% global production. Should the Israel-Hamas war escalate, as discussed during an October 24th ISG client call with General Joseph F. Dunford Jr., 19th Chairman of the Joint Chiefs of Staff (2015-19), Sir Alex Younger, Former Chief of the British Secret Intelligence Service, MI6 EMEA Regional Advisor to Goldman Sachs, and Jan Hatzius, Goldman Sachs Chief Economist Head of Global Investment Research, spot oil prices may experience sharp but transitory price increases (see call [replay here](#)). Potential oil supply disruptions include tighter oil sanctions on Iran, Iran retaliating by attempting to block the Strait of Hormuz (which accounts for c. 20% of global oil supplies), an Arab oil embargo, and other Arab producers cutting back on production. Blocking the Strait of Hormuz has never been done and is unlikely to be successful for any extended period. As discussed on the client call, sea mines in the Strait of Hormuz can be cleared in several weeks.

Exhibit 6: Iranian Crude Oil Exports



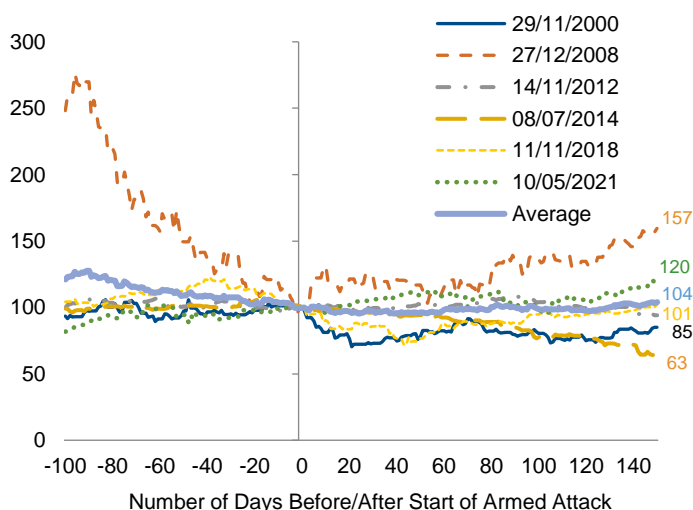
Source: Investment Strategy Group, Kpler, EIA

Oil Market in Context. We note that the oil intensity of the global economy—measured by barrels of oil required to generate a unit of GDP—has fallen by 60% since 1973, from 1.0 barrel per \$1,000 of GDP to 0.4 barrel. The Middle East also represented 55% of global oil exports in 1980 and 35% today. OECD petroleum stocks, representing 61 days of forward demand coverage, are within their top quartile since 1984. Moreover, OPEC+ effective spare capacity is historically high at 5.1 million barrels/day (excluding Russia and Iran).

Crude Oil Prices Around Major Israeli-Palestinian Conflicts Has Been Neutral on Average. While oil prices jumped more than 5% immediately following the Hamas attack, there has been no impact so far to oil supply. Since 2000, major episodes of violence between Israel and Palestine have on aggregate had a neutral impact on oil prices (see **Exhibit 7**). While the December 2008 and May 2021 episodes were followed by meaningful increases in oil prices, the market was being driven by other supply or demand and macro fundamentals. That being said, oil prices are volatile and can temporarily increase on mere fears of disruption, as experienced at the onset of the Russia-Ukraine war in 2022.

Exhibit 7: Crude Oil Prices Around Major Israeli-Palestinian Conflicts since 2000

100 = Oil Price at the Start of Armed Attack



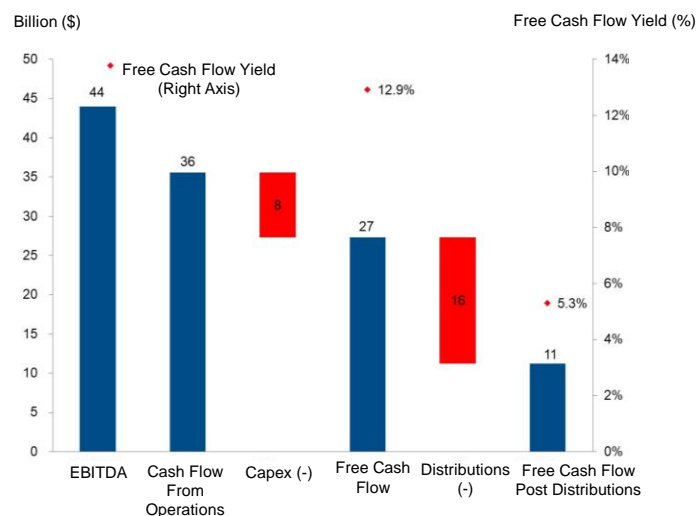
Source: Investment Strategy Group, Bloomberg, Macrobond.

Investment Views - US Energy Equities

Remain Tactically Overweight the Master Limited Partnership (MLP) Sector. The MLP sector produces a free cash flow (FCF) yield of 12.9% relative to its market capitalization after accounting for capital expenditures, much

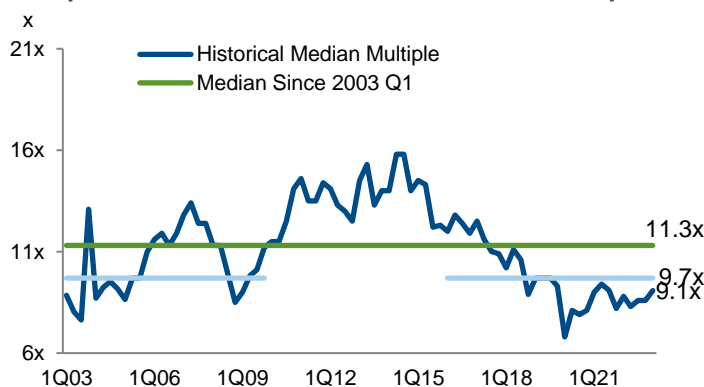
higher than the S&P 500's 4.8%. Even after paying out significant distributions to their unitholders, FCF yields for MLP's are still healthy at 5.3% (see **Exhibit 8**). The sector also trades at a valuation discount relative to history. As shown in **Exhibit 9**, the sector currently trades on a multiple of 9.1x, compared to the long run multiple of 11.3x and a long run multiple ex. 2010-2015 (the high inflow years during which sector valuations were substantially higher compared to history) of 9.7x.

Exhibit 8: Next 12-Month Consensus Estimates of EBITDA, Free Cash Flow and Distributions for US MLPs



Source: Source: Investment Strategy Group, Wells Fargo Research, Refinitiv Eikon. Consensus estimate data as of October 24, 2023.

Exhibit 9: Master Limited Partnership (MLP) Median Enterprise Value to Next 12-Month EBITDA Multiple



Source: Investment Strategy Group, Wells Fargo Research, Refinitiv Eikon

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