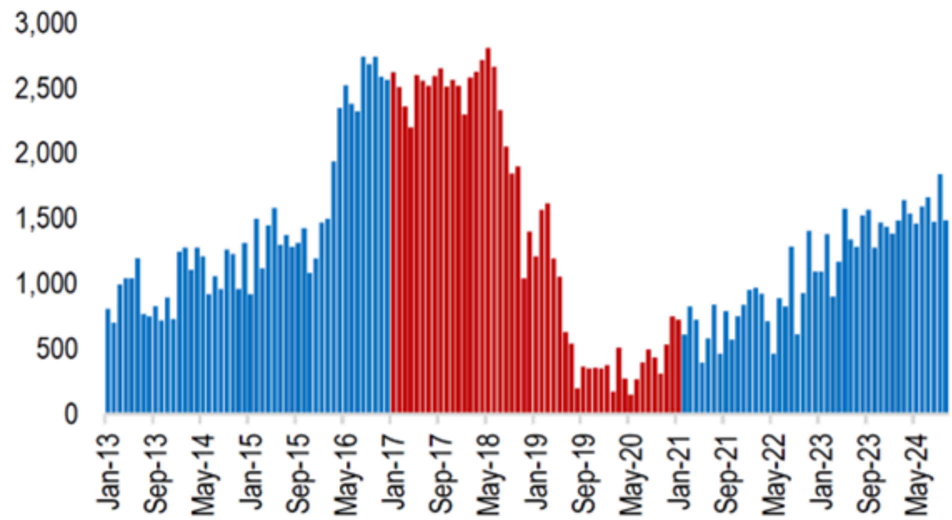
CHART OF THE MONTH
Trump returns to "maximum pressure" against Iran

Early in February, Donald Trump signed an executive order requiring the US Treasury Secretary to impose "maximum economic pressure" on Iran. The move is a return to the approach he took during his last presidency, which caused Iranian exports to fall by around 2m b/day.

Iranian oil exports (monthly, kb/d)



Source: JP Morgan, Kepler, January 2025

OIL
Spot prices rally but close broadly flat in January

Brent and WTI spot oil prices rallied during the month as the US introduced new sanctions against oil infrastructure related to Russia, China and Iran. Brent reached $82/bl mid-month but a ceasefire announcement between Israel and Hamas brought prices lower, closing at $72.5/bl. At the end of the month, OPEC met and reiterated existing plans to return withheld oil to the market from the end of Q1 2025.

NATURAL GAS
International gas prices move higher

International gas prices continued to rise in January, with the UK National Balancing Point price up by $1.4/mcf to $16.7/mcf and Japanese liquefied natural gas up $0.2/mcf to $14.4/mcf. Cold weather, low wind speeds, and robust European and Asian demand combined to push prices higher. Inventories in the US have been drawn down towards 10-year average levels.

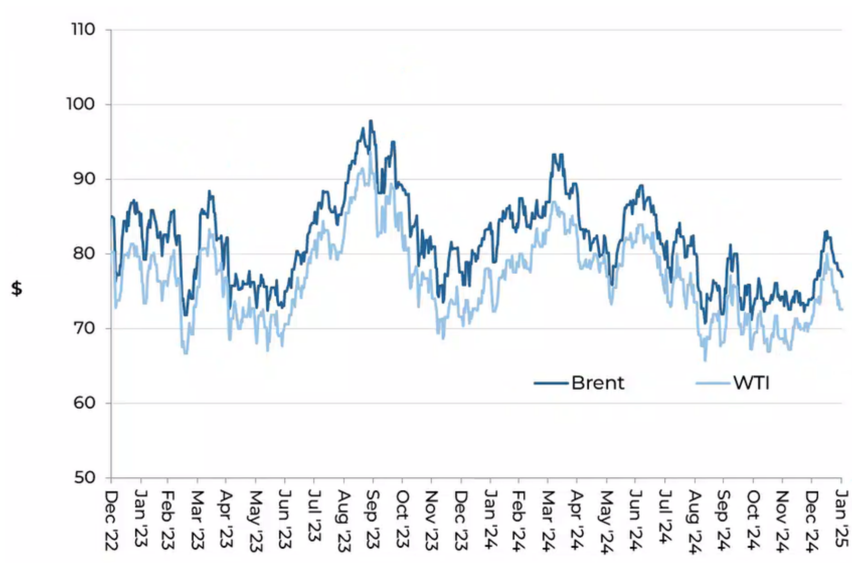
EQUITIES
Energy underperforms the broad market in January

The MSCI World Energy Index (net return) rose by 2.6% in January, lagging the MSCI World Index (net return) which rose by 3.5%.

January in Review

OIL MARKET

Oil price (WTI and Brent $/barrel)
December 2022 to January 2025



Source: Bloomberg, Guinness Atkinson Funds. Data as of January 2025.

The West Texas Intermediate (WTI) oil price began January at $72/bl and strengthened mid-month to reach $80/bl before trading weaker and settling at the end of the month at $72.5/bl. WTI has averaged just under $75/bl so far this year, having averaged $76/bl in 2024 and $78/bl in 2023. Brent oil traded in a similar shape, opening at nearly $75/bl and peaking at $82/bl, before closing at nearly $77/bl. Brent has averaged $78/bl so far in 2025, having averaged $80/bl in 2024 and $83/bl in 2023. The gap between the WTI and Brent benchmark oil prices continued to close over the month, ending January at $4.25/bl. The Brent-WTI spread averaged $5/bl in 2024 after averaging a similar amount in 2023.

Factors which strengthened WTI and Brent oil prices in January:

- **Broad US sanctions on Russian tankers**
  The US placed new sanctions on Russian oil producers Gazprom Neft and Surgutneftegas (representing 2m b/day of production and 1m b/day of exports), a Chinese port operator and also over 180 vessels, of which 157 were crude oil or oil product tankers. In 2024, these vessels carried around 1.7mb/d of oil, more than 85% delivered to China and India. Over 95% of this oil originated from Russia, although these tankers also carried small amount of Iranian oil. These changes will impact imports of Iranian, Russian and Venezuelan commodities but we expect buyers to find new ways to circumvent the sanctions over time.
- **Signs of tighter oil supply/demand balance in 2025**
  Looking into 2025, the International Energy Agency (IEA) estimate demand growth of 1.1m b/day (based on GDP growth of 3.2%) with the non-OECD (Organization for Economic Cooperation and Development) up by 1.2m b/day and the OECD down by 0.1m b/day, ahead of the 0.8m b/day growth seen in 2024. Oil demand in 2025 of 103.9m b/day will be around 3.2m b/day above its previous peak in 2019 but, unlike previous years, China is not expected to be the key driver of

demand growth. At only 0.2m b/day, China's demand growth is in line with that expected from India, Other Asia and the Middle East. In its January Oil Market Report, the IEA upped global demand by 0.1m b/day and reduced 2025 non-OPEC oil supply by 0.1m b/day. 2024 oil demand was increased by a similar amount although this appeared to be mostly weather-related.

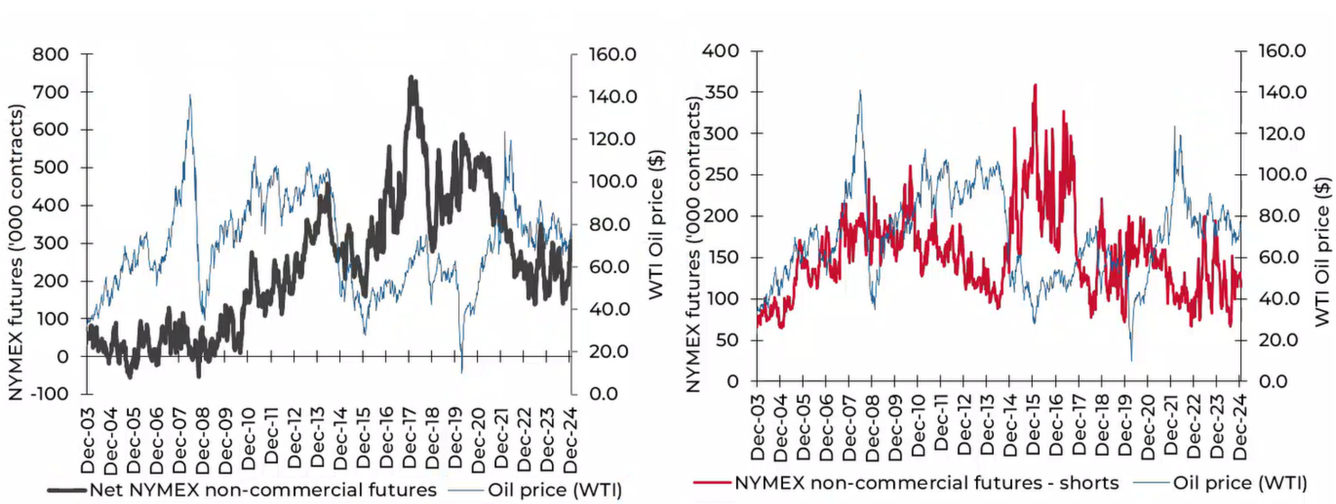
Factors which weakened WTI and Brent oil prices in January:

- **Ceasefire between Israel and Hamas**
  A ceasefire agreement between Israel and Hamas was reached on January 17th, 2025, came into effect on January 19th, and appeared to hold. This has eased tensions in the region somewhat, and associated fears around the disruption of oil supply.
- **Weaker Chinese demand data**
  Chinese demand data has been running weaker for several months and Chinese oil demand is currently forecast by the IEA to have been 0.2m b/day in 2024. The timing and size of the peak in Chinese oil demand remains a critical issue for the oil market in the coming years. Late in 2024, the Chinese government brought forward its expectation of peak oil demand to 17.9m b/day in 2025, around 1.1m b/day higher than the current IEA estimate for the year. We note that the Chinese forecast has not been particularly accurate in recent years, but it does show that demand growth will slow and ultimately achieve a peak.

Speculative and investment flows

The New York Mercantile Exchange (NYMEX) net non-commercial crude oil futures open position was 264,000 contracts long at the end of January versus 254,000 contracts long at the end of December. The net position peaked in February 2018 at 739,000 contracts long. Typically, there is a positive correlation between the movement in net position and movement in the oil price. The gross short position fell to 115,000 contracts at the end of January versus 126,000 at the end of the previous month.

NYMEX Non-commercial net and short futures contracts:
WTI January 2004 – January 2025

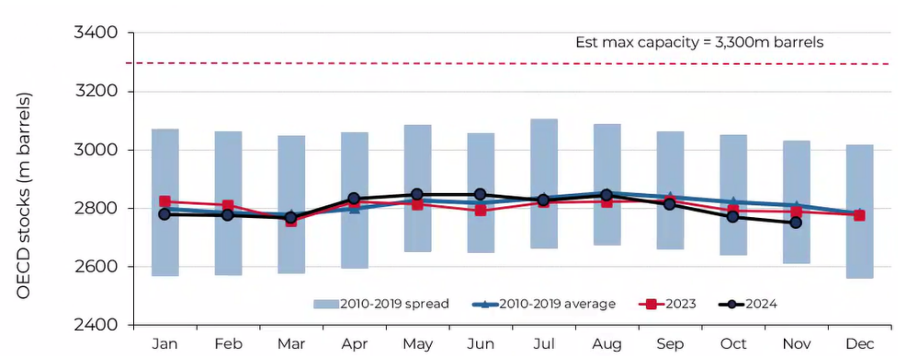


Source: Bloomberg LP/NYMEX/ICE (2025)

OECD Stocks

OECD total product and crude inventories at the end of November (latest data point) were estimated by the IEA to be 2,749m barrels, down by 20m barrels versus the level reported for the previous month. The fall in November compares to a 10-year average (pre COVID) fall of 12m barrels, implying that the OECD market was tighter than normal. The significant oversupply situation in 2020 pushed OECD inventory levels close to maximum capacity in August 2020 (c.3.3bn barrels), with subsequent tightening taking inventories below normal levels.

OECD Total Product & Crude Inventories
Monthly, 2010 to November 2024



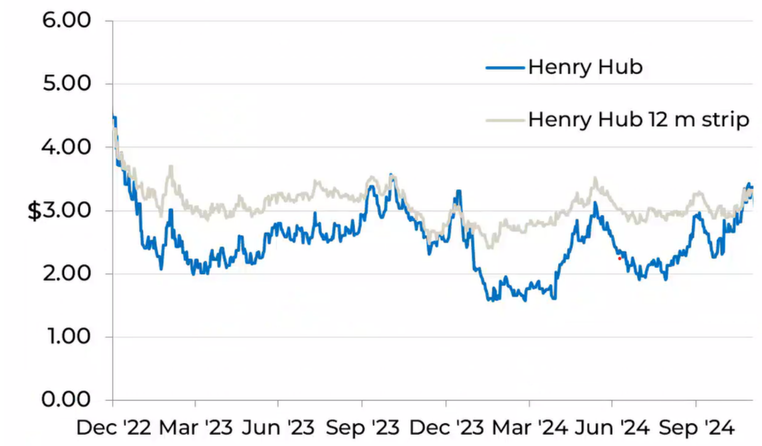
Source: IEA Oil Market Reports (January 2025 and older)

NATURAL GAS MARKET

The US natural gas price (Henry Hub front month) opened January at $3.60/Mcf (1,000 cubic feet) and traded steadily higher over the month to reach $4.30/Mcf mid-month, before slipping to close lower at $3.04/Mcf. The spot gas price has averaged $3.72/Mcf so far in 2025, having averaged $2.41/Mcf in 2024 and $2.67/Mcf in 2023.

The 12-month gas strip price (a simple average of settlement prices for the next 12 months' futures prices) traded in a similar pattern, opening at $3.65/Mcf but closing stronger, at $3.80/Mcf. The strip price has averaged $3.76/Mcf so far in 2025, having averaged $2.98 in 2024 and $3.19 in 2023.

Henry Hub gas spot price and 12m strip ($/Mcf)
December 2022 to January 2025

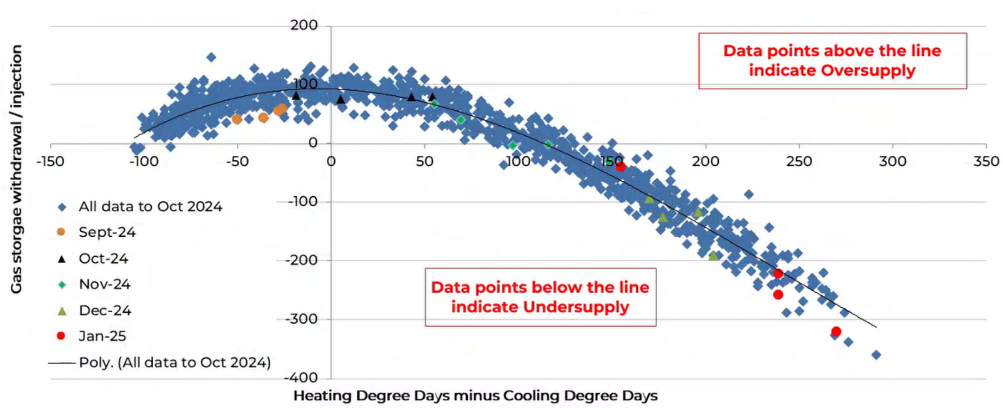


Source: Bloomberg LP. Data as of January 2025.

Factors which strengthened the US gas price in November included:

- **Falling rig count**
  The number of rigs drilling for natural gas in the US has fallen from 160 in the middle of 2022 to a low of 94 in mid-September 2024. It has since averaged around 100 rigs, although dropped to only 98 rigs at the end of January 2025. This has slowed gas production growth, though "associated gas" production (a byproduct of shale oil) has continued to grow from the Permian basin.
- **Market undersupplied (ex-weather effects)**
  Adjusting for the impact of weather, the US gas market was, on average, around 1.5 Bcf (billion cubic feet) per day undersupplied during January. This is similar to the undersupply for December, as illustrated in the chart below.

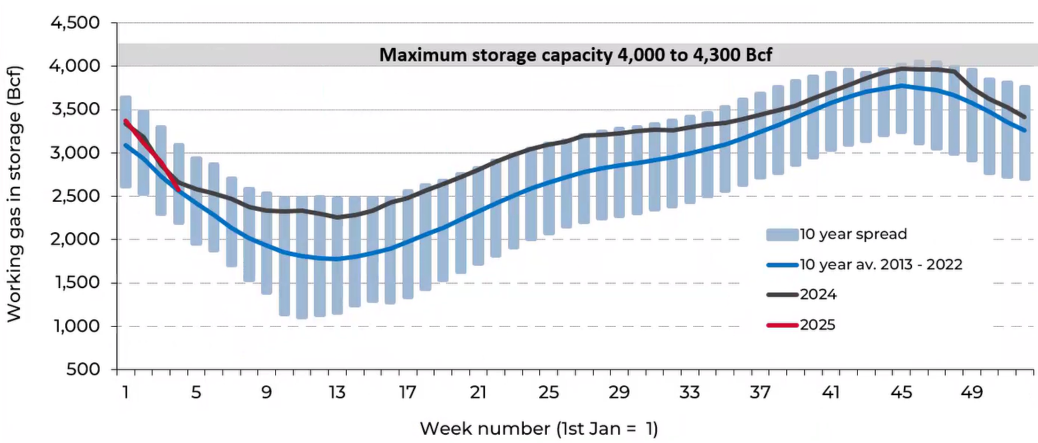
Weather-adjusted US natural gas inventory injections and withdrawals



Source: Bloomberg LP, Guinness Atkinson Funds. Data as of January 2025.

- **Natural gas in inventories falling back to the ten-year average**
  US natural gas inventories ran higher than seasonal norms throughout 2024, driven by a warmer-than-expected 2023/24 winter and early spring that brought lower-than-expected heating demand. Inventory levels moved to the top of the 10-year range but tightened in 4Q 2024 and further in Q1 2025 as very cold weather arrived. At the end of January 2025, US natural gas inventories stood at 2.571 Tcf, in line with the 10-year average.

Deviation from 10yr US gas storage norm



Source: Bloomberg, Energy Information Administration (EIA). Data as of January 2025.

Factors which weakened the US gas price in November included:

- **Expectations of warmer weather**
  The temperature outlook for the United States improved for February. Above-average temperatures were forecast across the southern and eastern parts of the nation, as well as in northern and western Alaska. This follows a very cold January, during which temperatures averaged below normal from coast to coast with periodic intrusions of Arctic air bringing particularly cold weather to the central and eastern states.

Manager's Comments

One month into his presidency, Donald Trump is already having an impact on global energy markets. This month, we review the executive orders that he announced on his first day in office and the potential impact of tariffs on energy imports from Canada and Mexico that were threatened at the end of January.

Executive Orders relating to Energy

Many of the executive orders from January 20th, the first day of President Trump's new term, relate to the energy sector. We provide a summary here of some of the key ones relating to the outlook for the upstream oil and gas industry:

- **Declaring a national energy emergency**
  This order calls for using emergency powers to facilitate the leasing, siting, production, transportation, refining and generation of energy. In essence, Trump is seeking the authority to i) reduce environmental restrictions on existing energy infrastructure and ii) ease permitting for new transmission and pipeline infrastructure in order to expedite the completion of infrastructure and natural resource projects.
- **Arctic oil & gas exploration and production**
  This order repeals Biden's efforts to block oil drilling in the Arctic and along large portions of the American coast. Trump also repealed a 2023 memo that barred oil drilling in some 16 million acres (6.5 million hectares) of the Arctic.
- **Refilling of the Strategic Petroleum Reserve**
  This order states that Trump plans to fully refill the US Strategic Petroleum Reserve (SPR). The SPR has been drawn down to multi-decade lows in response to high oil prices post the start of the Russia-Ukraine conflict in 2022. Storage levels currently sit at 394 MMbbls (million barrels) vs a peak of 727 MMbbls in 2010. Refilling the SPR to peak levels at a cost of $70/bl would cost the United States government around $23bn.
- **Resuming the permitting of new LNG export schemes**
  This order calls for the resumption of liquefied natural gas (LNG) export permit applications from new LNG projects supplying Asia and Europe, effectively reversing a pause Biden put in place in early 2024 to study the environmental and economic effects of the export schemes. The US is the world’s largest exporter of LNG and, as part of his orders, Trump also called for the development of LNG in Alaska.

Other orders associated with the longer-term outlook for the oil and gas industry included the **withdrawal from the Paris Agreement** and the **revocation of Biden’s 2021 electric vehicle (EV) targets**. The withdrawal from Paris was much expected and was indeed a repeat of the withdrawal made in his first term. Trump has previously called climate change a hoax, and says the accord puts the United States at a competitive disadvantage to geopolitical rivals like China. Trump said "I'm immediately withdrawing from the unfair, one-sided Paris climate accord rip-off," and "The United States will not sabotage its own industries while China pollutes with impunity." The revocation of EV targets was also widely expected and was accompanied by a halting of unspent government funds for vehicle charging stations and the removal of a waiver which allows certain states (California and 11 others) to adopt zero-emission vehicle rules by 2035. Trump also said his administration would consider ending EV tax credits.

Trump’s proposed tariffs relating to energy

At the end of January, Trump threatened a series of tariffs on key trading partners, thereby delivering on a key election campaign promise. Of specific relevance to the energy industry, there were 10% tariffs on Canadian and 25% tariffs on Mexican energy imports, effective from February 4th, 2025, although these tariffs were later delayed by one month. The size and the nature of the tariffs was broader than many had anticipated, and their duration remained unclear as they are related to the delivery of tighter border restrictions with both Canada and Mexico.

In terms of quantum, the US imports around 4 million barrels per day of Canadian oil (representing around 60% of total US crude oil imports) and around 70% of this oil is processed in refineries in the US Midwest. Mexican oil imports are less significant, with around 0.45 million barrels per day of Mexican oil being imported mainly for refineries concentrated around the Gulf Coast.

Over 90% of this imported crude oil is heavy in nature (with an API gravity in the 20-25 degree range) and, if implemented, the tariffs will likely cause wider differentials between different US crude oil grades. Heavy oil is typically not easy to replace and, since the north American oil logistics system is very highly integrated, it is likely that the extra burden of around $5-6/bl of tariff would be suffered across the value chain and shared across producers, midstream companies, refiners and consumers. At this stage, we do not expect any supply shocks.

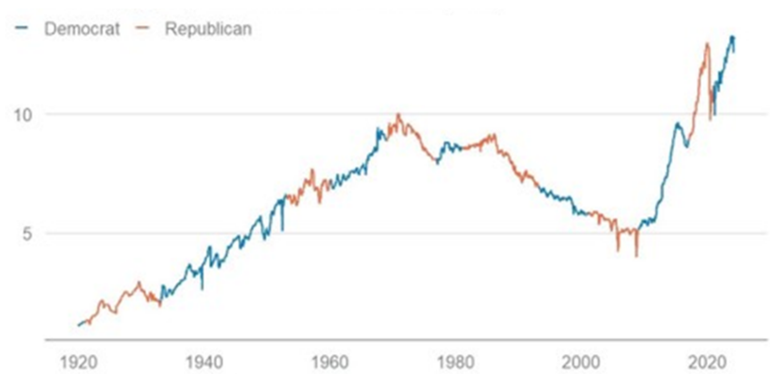
At the final moment, the Canadian and Mexican governments promised to improved border controls and the tariffs were delayed by a month. However, an extra 10% tariff against Chinese imports did proceed as planned and the Chinese government retaliated with 15% tariffs on the import of US coal and liquefied natural gas plus a 10% tariff on US oil imports. We note that Chinese imports of US energy are quite small, being around 0.23m b/day of crude oil (around 2% of total US oil exports) and around 4mtpa of LNG (around 6% of total US LNG exports).

The likely impact of Trump's executive orders and tariffs

In summary, it is clear from his executive orders that Trump is seeking to rapidly develop the potentially abundant and cheap energy resources of the United States, with the aim of achieving complete energy independence and energy security. Easing the development of oil and gas resources could provide high quality upstream employment and would facilitate growing manufacturing industries that would create further jobs and support economic growth. These aims are quite clearly being prioritized over environmental concerns, and his proposed tariffs indicate that he is willing to tolerate potentially greater inflation in order to rebalance the trading position of the United States.

Although his inauguration speech included a reference to "drill baby, drill", Trump's executive orders did not directly reference the phrase. While looser US oil field regulations and greater federal lands will help investment at the margin, we do not believe that it will derail the industry's focus on free cashflow over growth. Historically, the politics of the US President have not impacted US oil production levels, and we do not expect that trend to change.

US onshore oil production 1920-2024 (m b/day)



Source: Morgan Stanley, 2024.

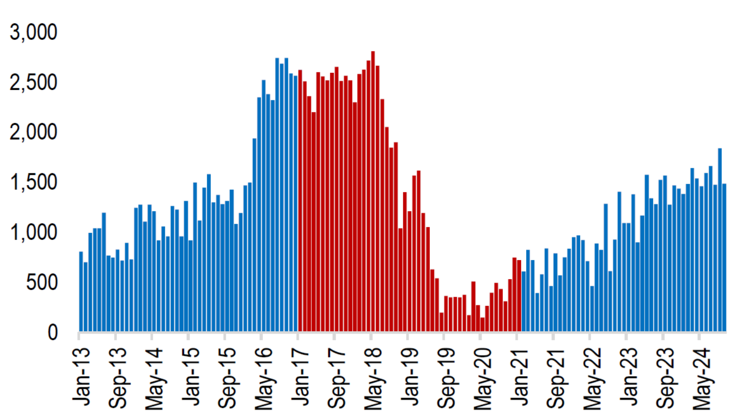
In contrast, we believe that Trump could have more of an impact on international oil markets in 2025 than he can have on his own domestic oil market. His actions in 2025 could materially impact supply, most likely negatively, from **Russia, Venezuela** and **Iran** and potentially allow OPEC+ some room to return some of their withheld volumes back to the market:

Regarding Venezuela, Trump stated that his administration would likely stop buying oil from Venezuela and was looking "very strongly" at the South American country. Shortly after his inauguration, Trump said that "Venezuela was a great country 20 years ago, and now it's a mess," and that "We don't have to buy their oil. We have plenty of oil for ourselves".

In regards to Iran and Russia, Trump was relatively quiet in his first few days. In his campaigning, Trump was very clear in his hawkish stance towards Iran and his pick for national security advisor, Mike Waltz, promised "maximum pressure" on Iran. We note that during Trump's presidency, Iranian exports fell by around 2m b/day in less than two years as a result of his harder line on sanctions. Consistent with his campaigning, early in February, Trump signed an executive order requiring the US Treasury secretary to impose "maximum economic pressure" on Iran.

Iranian oil exports (monthly, kb/day)

Red denotes Trump presidency; blue denotes Obama and then Biden



Source: JP Morgan, Kepler, January 2025.

In conclusion, while the quantum and rapid delivery of his executive orders was impressive, overall, we find these **announcements are consistent with his election campaign and there are not many positive or negative surprises** that would affect our view of the oil supply demand outlook for 2025.

Performance

as of 1/31/2025	YTD	1 Year	3 Years	5 Years	10 Years
GAGEX	2.47%	2.55%	7.00%	8.38%	1.38%
MSCI World Energy Index NR	2.59%	6.45%	10.94%	10.74%	4.41%

as of 12/31/2024	YTD	1 Year	3 Years	5 Years	10 Years
GAGEX	-1.72%	-1.72%	10.64%	5.40%	0.67%
MSCI World Energy Index NR	2.70%	2.70%	15.40%	8.09%	3.57%

All returns after 1 year annualized.

Inception 06.30.2004 Expense ratio* 1.47% (net); 2.13% (gross)

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 redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance quoted. Performance data current to the most recent month end may be obtained by visiting www.gafunds.com or calling 800-915-6566.

* The Advisor has contractually agreed to reduce its fees and/or pay Fund expenses (excluding Acquired Fund Fees and Expenses, interest, taxes, dividends on short positions and extraordinary expenses) in order to limit the Fund's Total Annual Operating Expenses to 1.45% through June 30, 2027. To the extent that the Advisor absorbs expenses to satisfy this cap, it may recoup a portion or all of such amounts absorbed at any time within three fiscal years after the fiscal year in which such amounts were waived or absorbed, subject to the expense cap in place at the time recoupment is sought, which cannot exceed the expense cap at the time of the waiver. The expense limitation agreement may be terminated by the Board of the Fund at any time without penalty upon 60 days' notice.

Top 10 Fund Holdings as of 1/31/2025:

1.	Chevron Corp	5.89%
2.	Shell PLC	5.89%
3.	Exxon Mobil Corp	5.33%
4.	TotalEnergies SE	5.18%
5.	BP PLC	4.63%
6.	ConocoPhillips	4.52%
7.	Suncor Energy Inc	4.27%
8.	Kinder Morgan Inc	4.27%
9.	Valero Energy Corp	4.24%
10.	EOG Resources Inc	3.89%

MSCI World Energy Index is designed to capture the large and mid cap segments across 23 Developed Markets countries. All securities in the index are classified in the Energy sector as per the Global Industry Classification Standard.

MSCI World Index captures large and mid cap representation across 23 Developed Markets countries. With 1,546 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country.

Brent Crude is the price benchmark used for the light oil market in Europe, Africa, and the Middle East, originating from oil fields in the North Sea between the Shetland Islands and Norway.

West Texas Intermediate (WTI) is the price benchmark for the US light oil market and is sourced from US oil fields.

Long futures position in oil is when a trader buys an oil futures contract in the belief that the price of oil will increase.

Short futures position in oil is when a trader sells an oils future contract in the belief that the price of oil will decrease before the contract expires.

Organization for Economic Cooperation and Development (OECD) is an intergovernmental organization with 38 member countries meant to stimulate economic progress and world trade.

OPEC+, or the Organization of the Petroleum Exporting Countries Plus, is a loosely affiliated entity consisting of 12 OPEC members and 10 of the world's major non-OPEC oil-exporting nations.

Permian Basin is a large oil and gas-producing area in the United States that spans parts of West Texas and southeastern New Mexico.

New York Mercantile Exchange (NYMEX) is the world's largest physical commodity futures exchange.

Henry Hub is a natural gas pipeline located in Erath, Louisiana, that serves as the official delivery location for futures contracts on the New York Mercantile Exchange (NYMEX).

Free cash flow represents the cash that a company generates after accounting for cash outflows to support its operations and maintain its capital assets.

Capital Expenditure (CapEx) are payments that are made for goods or services that are recorded or capitalized on a company's balance sheet rather than expensed on the income statement.

Return on Capital Employed (ROCE) is a financial ratio that measures a company's profitability in terms of all of its capital.

Net Debt/EBITDA is a debt ratio that shows how many years it would take for a company to pay back its debt if net debt and EBITDA are held constant.

Fund holdings and/or sector allocations are subject to change at any time and are not recommendations to buy or sell any security.

One cannot invest directly in an index. Dividends are not guaranteed and dividend payments, if any, may fluctuate.

Earnings Growth is not a measure of future performance. Dividends are not guaranteed and dividend payments, if any, may fluctuate.

Opinions expressed are subject to change, are not guaranteed and should not be considered investment advice.

The Guinness Atkinson Global Energy Fund's investment objectives, risks, charges and expenses must be considered carefully before investing. The statutory and summary prospectuses contain this and other important information and can be obtained by calling 800- 915-6565 or visiting www.gafunds.com. Read and consider it carefully before investing.

The Fund invests in foreign securities which will involve greater volatility and political, economic and currency risks and difference in accounting methods. The risks are greater for investments in emerging markets. The Fund also invests in smaller and mid-cap companies, which will involve additional risks such as limited liquidity and greater volatility than larger companies. The Fund's focus on the energy sector to the exclusion of other sectors exposes the Fund to greater market risk and potential monetary losses than if the Fund's assets were diversified among various sectors.

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