GAGEX

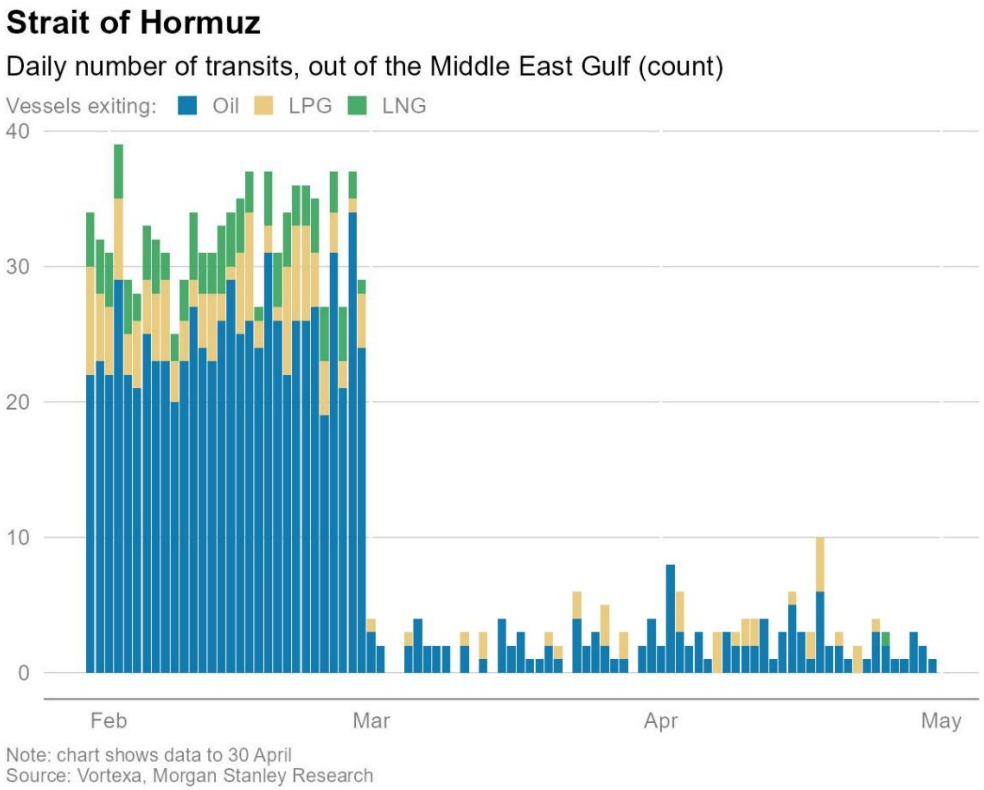
Guinness Atkinson Global Energy Fund

May 2026 Update

GUINNESS ATKINSON FUNDS

Chart of the Month: Daily number of transits out of the Middle East Gulf

The number of oil, LPG and LNG tankers exiting the Strait of Hormuz averaged around two vessels in April. Pre-conflict, the Strait saw an average of around 35 vessels entering and exiting. For detailed commentary on the Middle East, please see our Managers' Comments.



News

OIL

Spot prices highly volatile on Iran war

The WTI and Brent spot oil prices moved initially higher in early April as investors assessed the impact on oil supply of the ongoing closure of the Strait of Hormuz. Prices dropped sharply on April 17 when President Trump declared a ceasefire and that the Strait was 'open', but climbed again into the end of the month as tanker traffic remained at a minimum. Oil demand destruction is appearing and higher prices will be needed to force the market to balance if the disruption continues. Further details below, in our Managers' Comments.

NATURAL GAS

Global gas prices moderate despite LNG disruption

Asian and European liquefied natural gas (LNG) prices fell by around 15% during April but remain around 50-70% higher than at the start of the year. The market is weighing up the continued shutting-in of LNG in the Middle East (20% of global LNG supplies transit the Strait of Hormuz) versus a ramp-up of supply elsewhere.

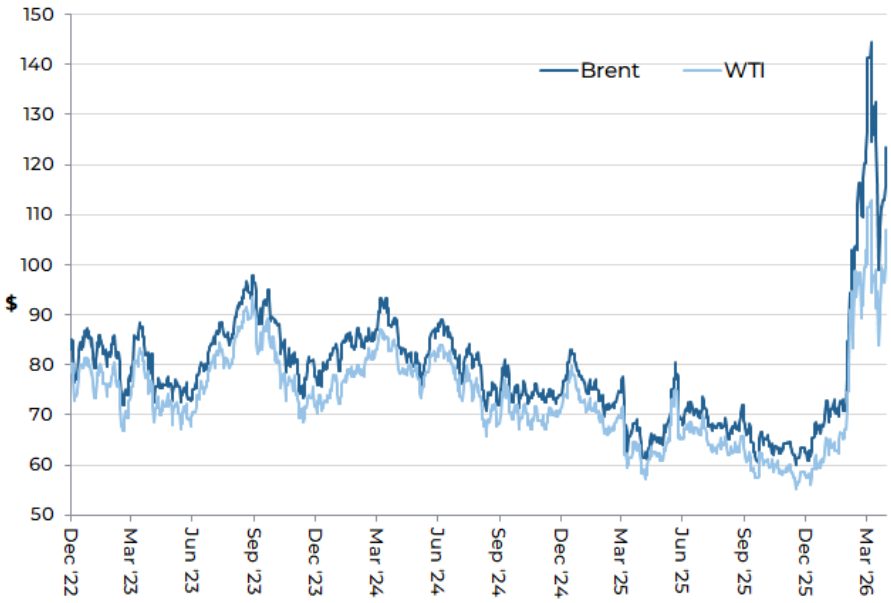
EQUITIES

Energy underperforms the broad market in April

To compare energy equities to the broader market, the MSCI World Energy Index (net return) fell by 2.1% (USD) in April, underperforming the MSCI World Index (net return), which rose by 9.6%. Year-to-date, the MSCI World Energy Index is up 34.0% versus the MSCI World Index up by 5.7%.

April in Review

Oil price (WTI and Brent $/barrel): December 2022 to April 2026



Source: Bloomberg; Guinness Atkinson, data as of 04.30.2026

The West Texas Intermediate (WTI) oil price began April at $101/bl and strengthened during the first week of the month, reaching $113/bl on 7th April. With a resolution announced to the Strait of Hormuz closure on 17th of April, the WTI price fell to $84/bl, before strengthening again to close the month at $105/bl as it became clear that the Hormuz closure was persisting. WTI has averaged just over $79/bl so far this year, having averaged $57/bl in 2025, $76/bl in 2024 and $78/bl in 2023. Brent oil traded in a similar shape, but to more extreme levels, with the Brent spot price spiking to $144/bl on April 17, dropping mid-month to $97/bl, then rallying to close at $123/bl. Brent has averaged $91/bl so far in 2026, having

averaged $69/bl in 2025, $81/bl in 2024 and $83/bl in 2023. The gap between the WTI and Brent benchmark oil prices narrowed over the month, ending April at around $12/bl. The Brent-WTI spread has averaged around $5/bl in recent years.

Factors which strengthened WTI and Brent oil prices in April:

War in the Middle East

War in the Middle East brought sharply higher global oil prices as closure of the Strait of Hormuz caused oil exports from the Middle East to be shut off. Please refer to our Managers' Comments section for detailed analysis of the current situation.

Factors which weakened WTI and Brent oil prices in April:

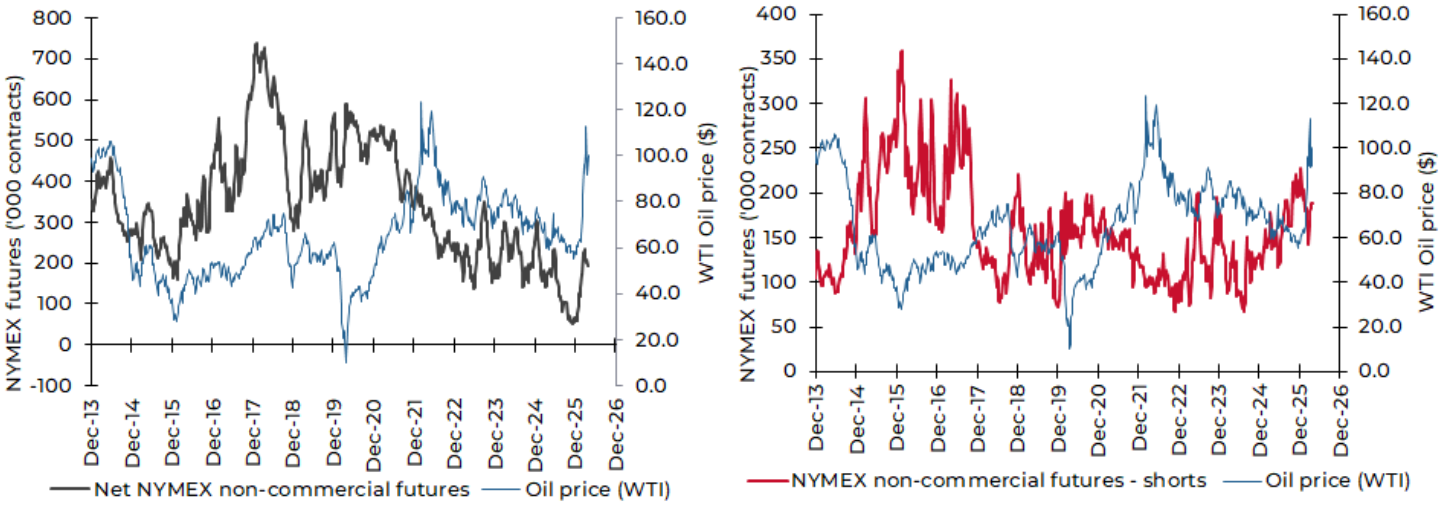
UAE's withdrawal from OPEC

On 28th April, the United Arab Emirates announced that it will be leaving OPEC and OPEC+, effective from May 1, 2026. Although not imminently expected, the announcement follows a number of years of growing tensions from the UAE with respect to its production quota within OPEC. The timing of the decision appears to have been affected by the significant increase in Middle East tensions as a result of the Iran war, and the significant economic impact that the war is currently having on the UAE. Please see our Managers' Comments for more.

Speculative and investment flows

New York Mercantile Exchange (NYMEX) net non-commercial crude oil futures open position was 192,000 contracts long at the end of April versus 214,000 contracts long at the end of March. 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 rose to 188,000 contracts at the end of April versus 165,000 at the end of the previous month.

NYMEX Non-commercial net and short futures contracts: WTI January 2004 – April 2026

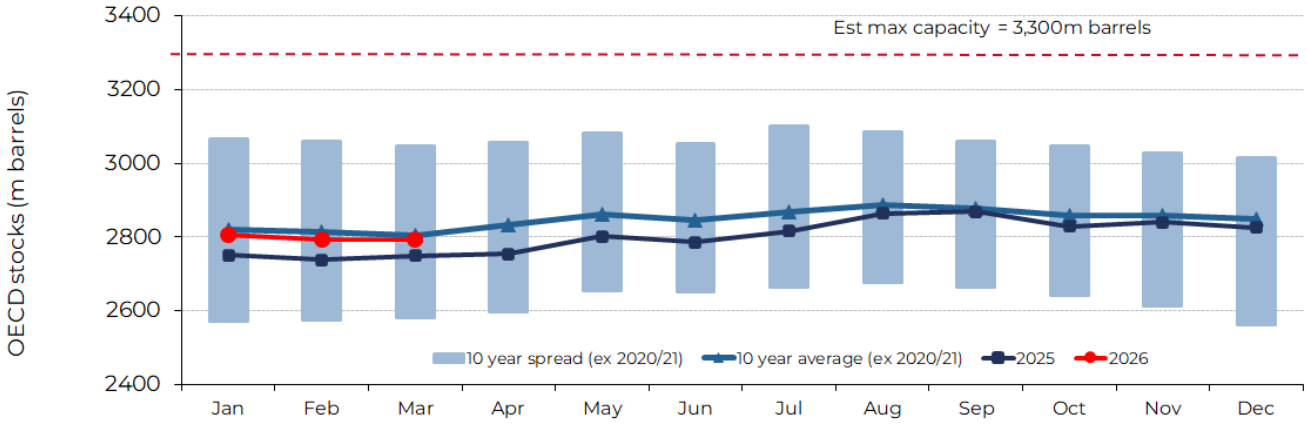


Source: Bloomberg LP/NYMEX/ICE (2026)

Organization for Economic Cooperation and Development (OECD) stocks

OECD total product and crude inventories at the end of March (latest data point) were estimated by the International Energy Agency (IEA) to be 2,793m barrels, down by 2m barrels versus the level reported for the previous month. The move in March compares to a 10-year average (pre-COVID) draw of 8m barrels. Oil was still arriving in OECD commercial inventories in March as it had shipped before the start of the US-Iran conflict, but we expect to see significant draws start to show up in April. At the end of March, the overall level of OECD inventories sat close to the 10-year average.

OECD total product and crude inventories, monthly, 2010 to March 2026



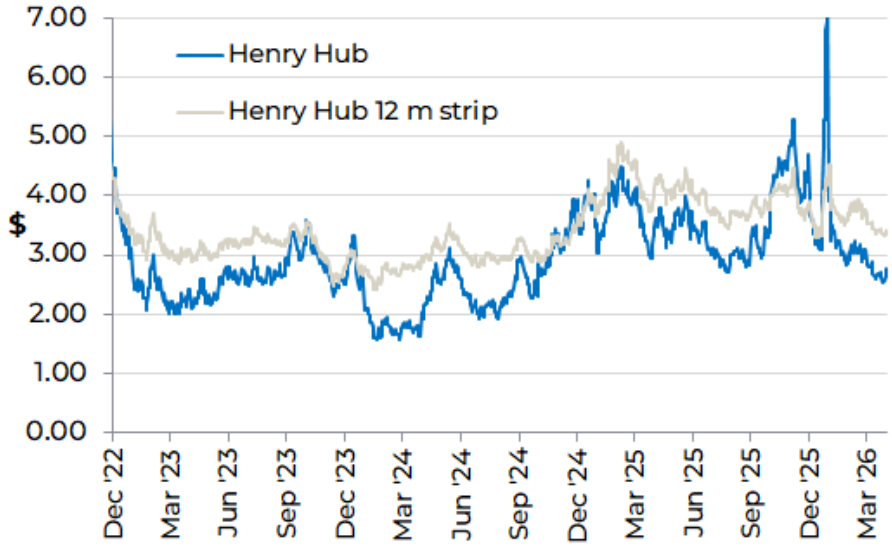
Source: IEA Oil Market Reports (April 2026 and older)

Natural gas market

The US natural gas price (Henry Hub front month) opened April at $2.88/Mcf (1,000 cubic feet) and generally trended lower over the month, to a low of $2.52/Mcf on 26 April 2026 before rallying into the end of the month to close at $2.77/Mcf. The spot gas price has averaged $3.26/Mcf so far in 2026, having averaged $3.63/Mcf in 2025, $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 but less extreme pattern, opening at $3.60/Mcf and closing at $3.41/Mcf. The strip price has averaged $3.66/Mcf so far in 2026, having averaged $4.00 in 2025, $2.98 in 2024 and $3.19 in 2023.

Henry Hub gas spot price and 12m strip ($/Mcf): December 2022 to April 2026



Source: Bloomberg LP, May 2026

Factors which strengthened global gas prices in April:

- War in the Middle East

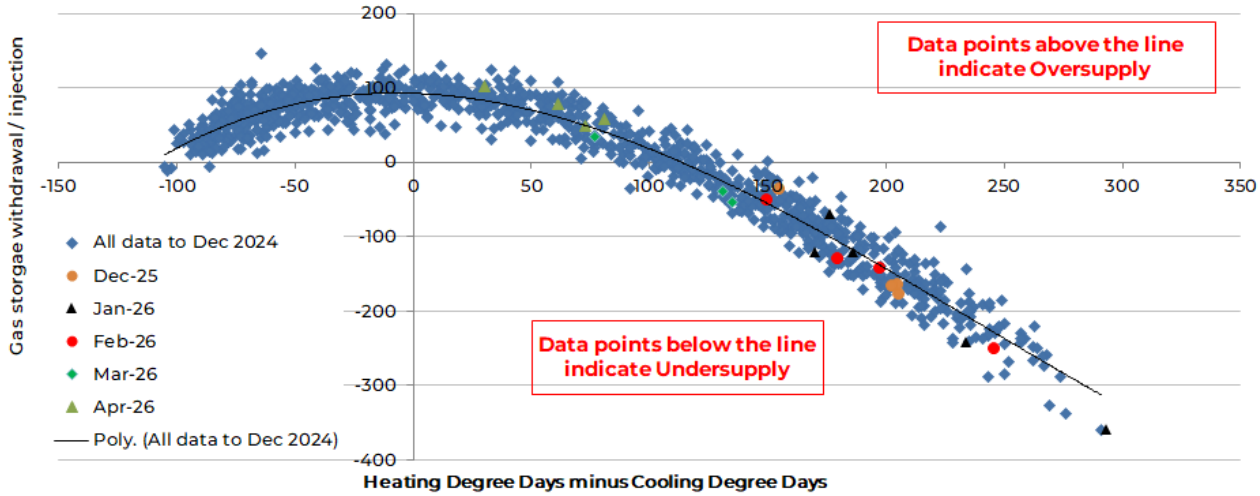
The Strait of Hormuz typically sees the passage of around 10-11 billion cubic feet (Bcf) per day of LNG, around 20% of the global LNG market. The largest producer, QatarEnergies, shut in production very shortly after the start of the war as available inventory capacity was limited. The loss of 10-11 Bcf/day of LNG is equivalent to around 75% of the Russian pipeline gas lost by Europe in 2022. Moreover, during the month, two processing lines at the Qatari LNG facility were damaged by Iranian attacks and the company has confirmed that they will be offline for three to five years. Once the Strait reopens, it is unlikely that supplies will restart for at least two weeks, since it takes that time frame to ramp facilities back up to full production.

Factors which weakened global gas prices in April included:

- US market oversupplied (ex-weather effects)

Adjusting for the impact of weather, the US gas market was, on average, around 1 bcf/day oversupplied during April.

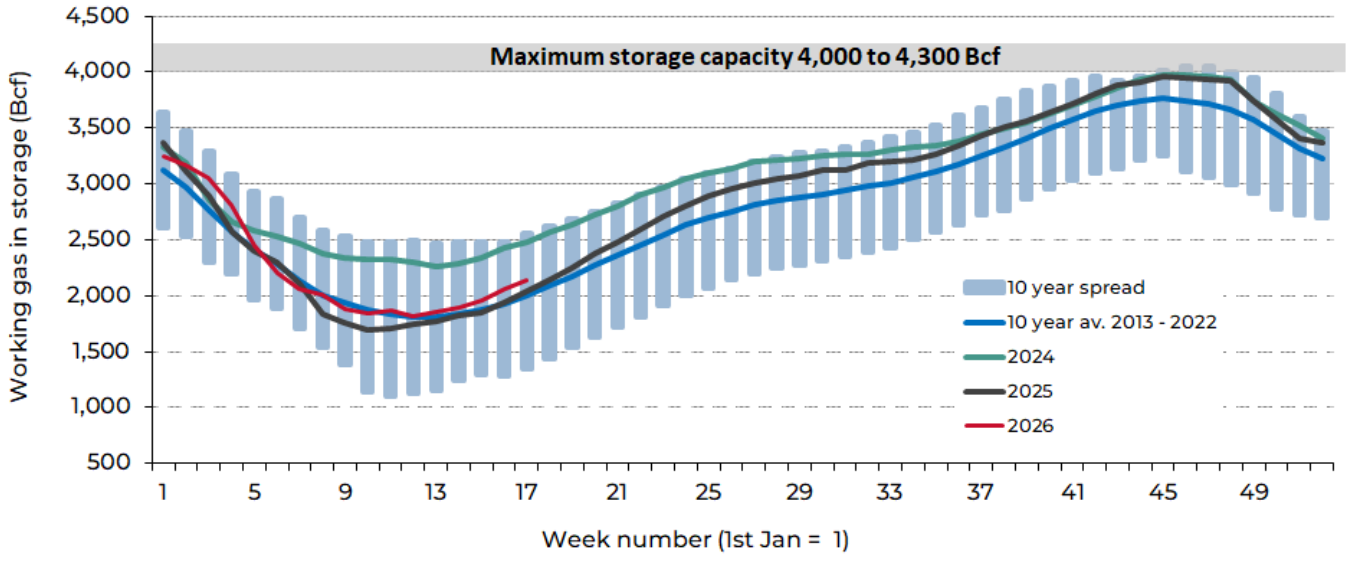
Weather-adjusted US natural gas inventory injections and withdrawals



Source: Bloomberg LP; Guinness Atkinson; May 2026

US natural gas inventories started April just above 10-year average levels. With the US market somewhat insulated from the supply disruption in the international and Asian gas markets, inventories built slightly relative to the 10-year average during the month.

Deviation from 10-year US gas storage norm



Source: Bloomberg; Energy Information Administration (EIA), May 2026

MANAGERS' COMMENTS

The global oil market faces a major supply shock through the rest of 2026, even if the Strait of Hormuz reopens shortly. Weaker demand is partly offsetting the imbalance, but inventories – both commercial and strategic – are drawing rapidly and absorbing much of the shock. These stocks will need to be rebuilt and likely expanded, implying tighter fundamentals and higher prices into 2027–2028 than previously expected.

The continued blockage of the Strait of Hormuz has removed around 12m b/day of oil and products from global supply for the past 66 days – nearly 0.8bn barrels in total, rising by around 0.36bn barrels for each additional month of disruption. Reopening the Strait remains critical, as there are no viable alternative routes for these Middle Eastern volumes to reach global markets.

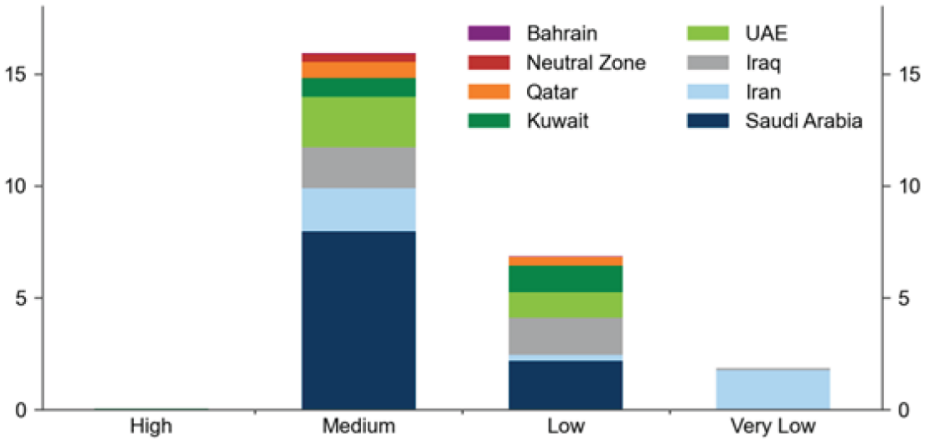
A longer blockage means a slower production recovery

Each month of disruption tightens the market while also complicating and delaying the restart process, leading to slower recovery and greater ultimate supply losses. Reservoirs left idle for weeks require increasing time and effort to restore previous output, with each additional day adding to the challenge. Surface infrastructure must be restarted carefully, and the wider supply chain – tankers, pipelines, and storage – will take time to normalize.

> Every oil field is different, but according to the IEA in mid-April, "An estimated 50% of Gulf country upstream fields have sufficient reservoir pressure and fluid characteristics to return to pre-war levels within approximately two weeks, rising to 80% around one month later. This is contingent upon the security situation in each country, the ability of companies to mobilise skilled labor and contractors, and the normalisation of supply chains, all of which could significantly constrain the return to pre-war production rates. The remaining 20% of fields face more complex restart challenges, such as pressure depletion or flow impairment from wax or asphaltene deposition."

Put another way, analysis from Rystad Energy shows that around 16m b/day (64%) of Middle East crude and condensate production has medium-pressure support, 7m b/day (28%) has low-pressure support and 2m b/day (8%) has very low-pressure support. Those reservoirs with lower reservoir support will require more energy to restart them and will likely have a slower supply response with potential longer-term negative capacity implications. On their analysis, most countries have a mix of medium and low-pressure reservoirs.

Gulf crude and condensate production (m b/d) split by reservoir pressure support

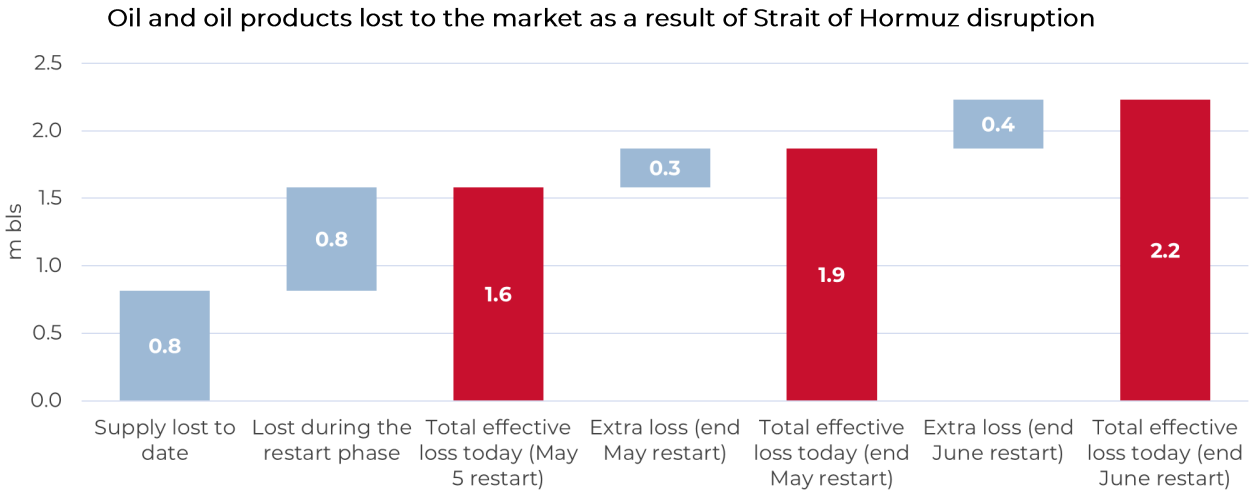


Source: Rystad Energy, April 2026

In engineering terms, the production restart of a lower-pressure field will require higher levels of water or gas for reinjection as well as more intense well workovers, requiring more skilled personnel, equipment and services. Based on the Rystad data, Kuwait has a broadly equal mix of medium and low-pressure, but Sheikh Nawaf, CEO of Kuwait Petroleum Corporation, was quoted in March as saying "Kuwait would take three to four months to return output to full production levels even if the war were to end today."

We think it is important to reiterate that there is no historic precedent for the speed of recovery from a situation like this; this is the first time that such a wide range of facilities in a broad region have been shut in for such a sustained period. However, taking a sensible mid-point from the analysis that we see, a reasonable assumption seems be around 70% of lost production being recovered three months after reopening and around 90% being recovered after six months. If correct, this implies an **additional about 0.8bn barrels of supply losses** during the recovery phase over the six months to the end of 2026.

So, even if the Strait were to re-open today (we are writing this on May 7), the total inventory loss will likely be around 1.6bn barrels (i.e. allowing for the barrels already lost and the phased return of production as detailed above). Should flow through the Strait not restart until the end of May or June, the total loss would increase to around 1.8bn or 2.2bn barrels respectively.



Source: Guinness Atkinson estimates, April 2026

The market balances through demand reductions and inventory reductions

Since the start of the conflict, the global oil market has adjusted to the 12m b/day supply disruption broadly in two forms:

- First, **demand has fallen** due either to higher prices or the practical inability to consume oil and products. We distinguish between temporary demand loss (which recovers as prices normalize or supply returns) and structural demand destruction (where consumers permanently switch away from oil consumption). While the balance between the two will only become clear over time, current evidence suggests the impact has so far been more temporary than structural. We estimate global oil demand fell by around 4m b/day in April (about 4% of world demand), with further reductions likely if the disruption persists. If the blockage ended today, we estimate demand reduction could offset around 0.5bn barrels of the existing 1.6bn barrel supply shock.

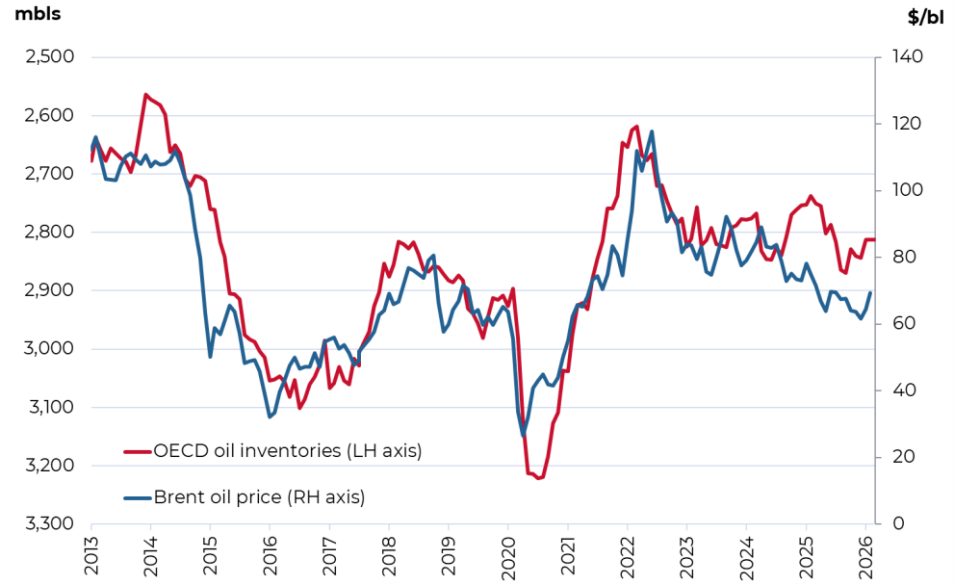
- Secondly, **inventory draws** of around 8m b/day have helped offset the loss of supply. Here, we distinguish between **strategic** and **commercial** inventories. Recent data suggests strategic releases are running at around 2m b/day, implying commercial stocks are drawing at roughly 6m b/day. Given inventory data is incomplete and lagged, our estimates are based on disrupted supply volumes rather than reported stock changes. On this basis, inventories could decline by more than 1bn barrels by end-2026 in response to the supply shock.

Impact of inventories on oil prices

Regular readers of our updates will know that we often refer to OECD oil and oil product inventory levels. We do this because there is a good-quality historic data set (reported monthly by the IEA since 1984) and because there is a very

strong inverse correlation between the level of OECD inventory and the price of Brent oil. OECD inventories were at 2.8bn barrels at the end of 2025.

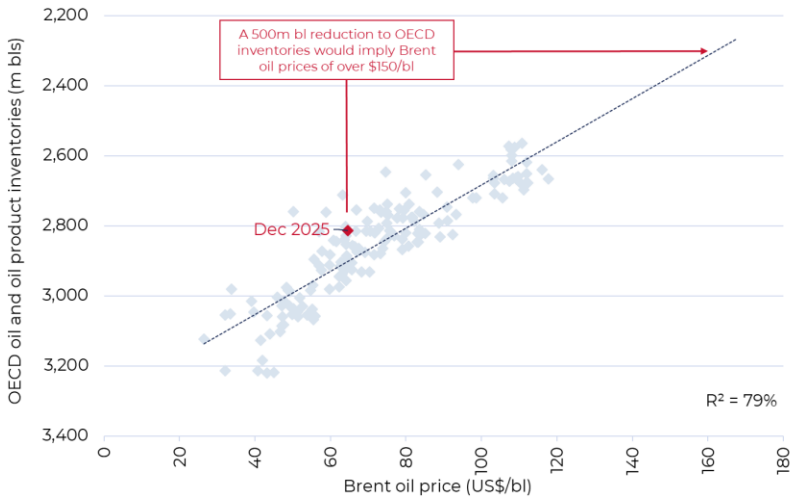
OECD oil and oil product inventories (inverted) together with Brent oil prices



Source: IEA, Bloomberg; data to 12.31.2025

OECD inventories do not capture the full oil market. Inventories in the non-OECD have grown (in line with non-OECD demand growth) and we estimate that combined global oil and oil product inventories (including commercial and strategic on land and on water but excluding inventories in transit) are now around 6.6bn barrels. If the 1bn barrels inventory reduction that we envisage were to be split pro-rata across the OECD and non-OECD, it would imply an **OECD oil and oil production inventory fall of around 0.5bn barrels.** Based on the historic monthly price/inventory relationship since 2013, that would imply Brent oil prices of around $150/bl.

OECD oil and oil product inventories correlated to Brent oil prices



Source: Bloomberg, IEA, Guinness Atkinson estimates; data to 12.31.2025

A tighter market ahead as inventories need to be rebuilt

Looking further out, once the Strait is open and flows return to more normal levels, the longer-term job of rebuilding global oil and oil product inventory begins. We make the simple assumption here that long-term demand and supply is unaffected by the Hormuz closure and we focus our analysis purely on the rebuilding of the 1.0bn barrels of lost inventory (as of today). If this were rebuilt over 2027 and 2028, it would imply an additional 1.4m b/day of oil demand, an increase of around 1.3% to global oil demand forecasts in 2027 and 2028, all else being equal.

However, we think that this probably underestimates the scale of inventory rebuild. Given the severity of this supply shock, we believe that many governments will seek higher levels of inventories in the future, providing an additional buffer to cover potential future supply shocks. Should governments request levels of commercial and strategic inventories that are 10% higher (0.6bn barrels) or 20% higher (1.3bn barrels) it would imply a further 1m or 2m b/day of demand respectively over 2027 and 2028, a further 1-2% increase to demand, assuming no other negative demand side effects.

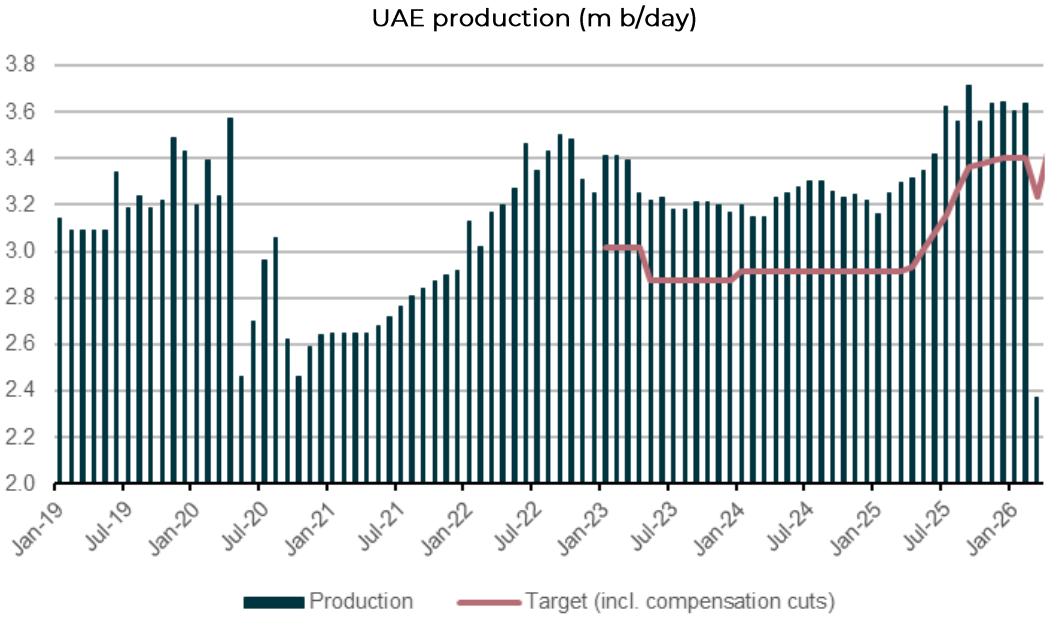
Combined, a rebuild and growth in inventory levels would bring an increase to global oil demand of around 3% in 2027/2028, implying substantially tighter markets and requiring a higher oil price than was envisioned prior to the conflict.

UAE announces its decision to leave OPEC and OPEC+

With this in mind, it does not come as too much of a surprise that the United Arab Emirates announced on April 28th that it will be leaving OPEC and OPEC+, effective from 1st May 2026. The UAE joined OPEC in 1967, seven years after its creation, and became the fourth largest producer in 2025 (behind Saudi Arabia, Iran and Iraq).

The announcement follows a number of years of growing tensions from the UAE with respect to its production quota within OPEC. These were most pronounced in 2021, when the country threatened to leave OPEC unless it received a quota increase (which was ultimately granted). The UAE's unhappiness had been clear for a long period, with the country regularly overproducing by 0.2-0.3m b/day versus its production quota.

The UAE stated that it would "continue to act responsibly, bringing additional production to market in a gradual and measured manner, aligned with demand and market conditions" and that "this decision does not alter the UAE's commitment to global market stability or its approach based on cooperation with producers and consumers".

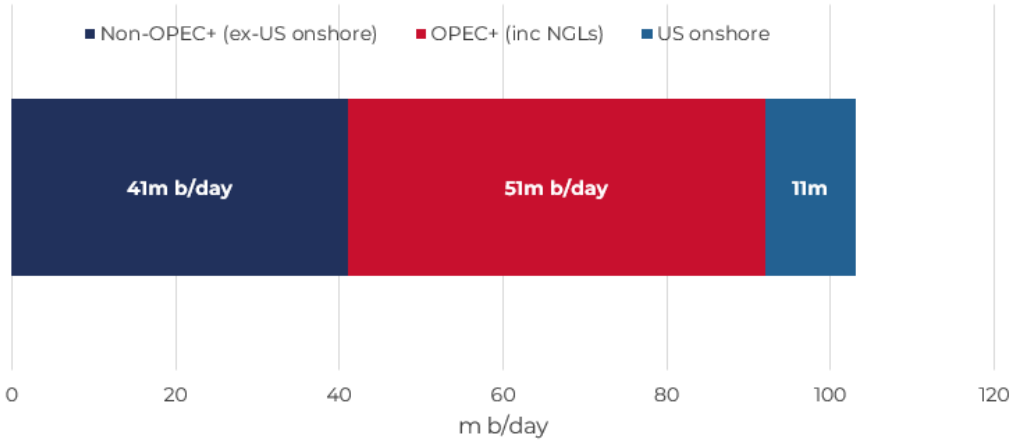


Source: DnB Carnegie, May 2026

Oil prices barely reacted to news of the UAE's departure, with developments around the Iran conflict remaining the dominant near-term driver. We therefore expect limited immediate impact, as the UAE cannot raise production while the Strait of Hormuz remains blocked. Once flows resume, the UAE is likely to maximize output to help restore supply and rebuild inventories. We expect other Middle Eastern OPEC producers to act similarly, and do not believe the UAE's response would differ materially had it remained within OPEC. Indeed, incremental UAE supply could play an important role in offsetting the post-restart production losses outlined above.

Over the longer term, the move could set a precedent for other members and raises questions about OPEC's future cohesion. While several countries have exited before (Indonesia, Qatar, Ecuador and Angola), the UAE is the most significant departure to date, leaving Saudi Arabia accounting for 38% of remaining OPEC crude production and 24% of OPEC+. Despite this, OPEC+ remains substantial; (around 48m b/day, or 45% of 2025 global oil and natural gas liquids supply), with Saudi Arabia and Russia still broadly aligned in both scale and commitment to the group.

Global oil supply in 2025, including UAE in OPEC+ (m b/day)



Source: IEA, as of May 2026

In one respect, Saudi Arabia may now benefit from simpler decision-making within OPEC, but will also shoulder a greater share of production management. The UAE's exit reduces OPEC spare capacity from about 3.1m b/day to about 2.5m b/day, concentrated in Saudi Arabia (1.7m b/day), Kuwait (0.4m b/day) and Iraq (0.3m b/day), leaving the group with less flexibility and reduced pricing power.

Time will tell whether this decision has positive or negative outcomes for the UAE. The outcome will be closely monitored by other OPEC members, who will assess whether there is more benefit to them being outside the group than within it. As such, the next few OPEC meetings are likely to be more significant than usual.

Conclusion

The table below summarizes our view by showing our oil price forecasts for WTI and Brent in 2026 versus recent history.

Average WTI & Brent yearly prices, and changes

Oil price ($/bl)	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025 Est	2026 Est
WTI	75	72	100	62	80	95	94	98	93	49	43	51	65	57	39	68	94	78	76	76	85
Brent	75	73	99	63	80	111	112	109	99	54	45	55	72	64	43	71	99	83	81	81	90
Brent/WTI average	**75**	**73**	**99**	**62**	**80**	**103**	**103**	**103**	**96**	**51**	**44**	**53**	**68**	**61**	**41**	**70**	**97**	**80**	**78**	**78**	**88**
Brent/WTI y-on-y change (%)	15%	-3%	37%	-37%	28%	29%	0%	0%	-7%	-47%	-13%	19%	29%	-11%	-32%	68%	39%	-17%	-2%	0%	12%
Brent/WTI (5yr MAV)	51	59	72	75	78	83	89	90	97	91	80	70	63	55	53	58	67	70	73	81	84

Source: Guinness Atkinson estimates, Bloomberg, May 2026

We believe that Saudi's long-term objective remains to maintain a 'good' oil price, something north of $80/bl. The world oil bill at around $80/bl represents 2.7% of 2024 global GDP, lower than the thirty-year average level of around 3%.

Natural gas market

US gas demand

On the demand side for the US, industrial gas demand and power generation gas demand (each about 25-35% of total US gas demand) are key. Commercial and residential demand, which make up a further quarter, have been fairly constant on average over the last decade – although yearly fluctuations due to the severity of winter weather can be marked.

US natural gas demand

Bcf/day	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026E
US natural gas demand:															
Residential/commercial	19.2	22.4	23.4	21.4	20.5	20.9	23.4	23.5	21.5	21.5	23.2	21.5	21.0	23.1	23.1
Power generation	24.9	22.3	22.3	26.5	27.3	25.3	29.0	30.9	31.7	30.9	33.1	35.3	36.7	35.8	36.6
Industrial	19.7	20.3	20.9	20.6	21.1	21.6	23.0	23.1	22.3	22.5	23.2	23.3	23.3	23.5	23.8
Pipeline exports (Mexico)	1.8	1.9	1.9	2.7	3.8	4.0	4.6	5.1	5.4	5.9	5.7	6.1	6.4	6.6	6.9
LNG exports	-	-	-	0.1	1.0	2.6	2.8	4.8	6.4	9.7	12.0	12.6	13.1	16.5	18.9
Pipeline/plant/other	6.1	6.7	6.3	6.5	6.4	6.5	7.0	7.8	7.7	7.8	7.4	8.2	7.9	7.9	8.3
Total demand	71.7	73.6	74.8	77.8	80.1	80.9	89.8	95.2	95.0	98.3	104.6	107.0	108.4	113.4	117.6
Demand growth	3.1	1.9	1.2	3.0	2.3	0.8	8.9	5.4	- 0.2	3.3	6.3	2.4	1.4	5.0	4.2

Source: EIA; GS; Guinness Atkinson estimates, April 2026

Industrial demand (of which around 35% comes from petrochemicals) trends up and down depending on the strength of the economy and the differential between US and international gas prices. Electricity gas demand (i.e. power generation) is affected by weather, in particular by warm summers, which drive demand for air conditioning, but the underlying trend depends on GDP growth and the proportion of incremental new power generation each year that goes to natural gas versus the alternatives of coal, nuclear and renewables. Gas has been taking market share in this sector: in 2025 40% of electricity generation was powered by gas, up from 22% in 2007. The big loser here is coal, which has consistently given up market share.

Total gas demand in 2025 (including Mexican and LNG exports) was around 113.4 Bcf/day, up by 5.0 Bcf/day versus 2024 and ~18 Bcf/day higher than the pre-COVID level in 2019. The biggest contributor to the growth in demand in 2025 was LNG exports.

We expect US demand growth in 2026 of around 4.2 Bcf/day. Growth is expected to be driven by higher LNG exports and greater power generation demand. Beyond 2026, we expect to see a material increase in US LNG export capacity as higher international gas prices incentivise new LNG export investment. Proposed projects imply capacity growth of around 5-6 Bcf/day in 2026-2028, bringing total export capacity to over 20 Bcf/day by 2028.

US gas supply

Overall, whilst gas demand in the US has been strong over the past five years, it has been overshadowed by a rise in onshore supply, holding the gas price lower.

The supply side fundamentals for natural gas in the US are driven by three main moving parts: onshore and offshore domestic production, pipeline imports of gas from Canada, and LNG imports. Of these, onshore supply is the biggest component, making up over 90% of total supply.

US natural gas supply

Bcf/day	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026E
US natural gas supply:															
US (onshore & offshore)	65.7	66.3	70.9	74.2	73.4	73.6	84.3	91.4	91.1	91.8	97.4	102.5	101.8	106.5	110.6
Net imports (Canada)	5.4	5.0	4.9	4.9	5.5	5.8	5.4	4.7	4.4	5.1	5.6	5.2	5.8	5.8	5.7
LNG imports & other	0.8	0.6	0.5	0.5	0.4	0.3	0.1	0.1	-	-	0.1	-	0.6	0.6	0.9
Total supply	71.9	71.9	76.3	79.6	79.3	79.7	89.8	96.2	95.5	96.9	103.1	107.7	108.2	112.9	117.2
Supply growth	2.4	-	4.4	3.3	- 0.3	0.4	10.1	6.4	- 0.7	1.4	6.2	4.6	0.5	4.7	4.3
(Supply)/demand balance	- 0.2	1.7	- 1.5	- 1.8	0.8	1.2	-	- 1.0	- 0.5	1.4	1.5	- 0.7	0.2	0.5	0.4

Source: EIA; GS; Guinness Atkinson estimates, April 2026

Since 2010, the weaker gas price in the US reflects growing onshore US production driven by rising shale gas and associated gas production (a by-product of growing onshore US oil production). Interestingly, the overall rise in onshore production has come despite a collapse in the number of rigs drilling for gas, which has dropped from a 1,606 peak in September 2008 to a trough of 68 in July 2020, before recovering to 134 at the end of March 2026. However, offsetting the fall, the average productivity per rig has risen dramatically since 2020 as producers focus their attention on the most prolific shale basins, whilst associated gas from oil production has grown handsomely.

The outlook for gas production in the US depends on three key factors: the rise of associated gas (gas produced from wells classified as oil wells); expansion of the newer shale basins, principally the Marcellus/Utica, and the decline profile of legacy gas fields.

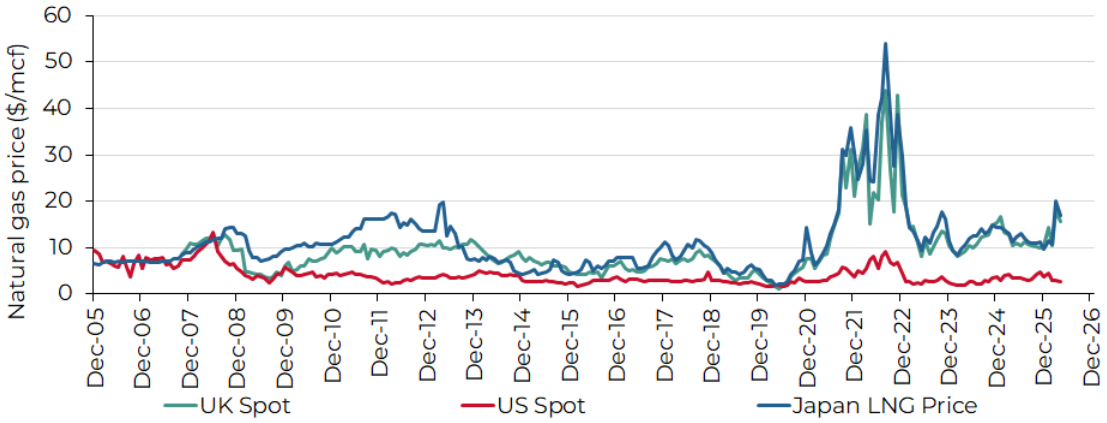
Associated gas production is expected to rise again in 2026 albeit at a slower pace (around 1 Bcf/day) than in 2022 (+5.5 Bcf/day) and 2023 (+3.6 Bcf/day). Lower supply growth is expected from onshore properties as weaker natural gas prices have brought a lower rig count and lower investment.

Outlook for US LNG exports – global gas arbitrage

In the short-term we have seen a spike in LNG prices, a response to Qatari natural gas being shut in behind the Strait of Hormuz. We expect the LNG market is going to be quite finely balanced over the next couple of years. In the event of moderate Chinese LNG demand and "normal" European winters, LNG supply and demand appear to be roughly in balance and global LNG prices appear to be fairly priced at around $10/Mcf. However, stronger Asian demand (including South Korea and Japan as well as China) or a colder than expected European winter could easily see LNG in tight supply and cause international gas prices spike, although it is unlikely that they revert to the $40-$50 levels seen in winter 2022/2023.

Looking further ahead, we see international gas prices settling in a $9-11/Mcf range. This price range should be sufficient to incentivise new US LNG supply to come online from 2025. It would also allow Europe to displace permanently almost all its Russian gas imports. An international gas price in the $9-11/Mcf is well down on the highs seen in 2022, but would leave the market at a higher price point than that seen in the few years prior to COVID and the Russian invasion of Ukraine.

Global gas prices

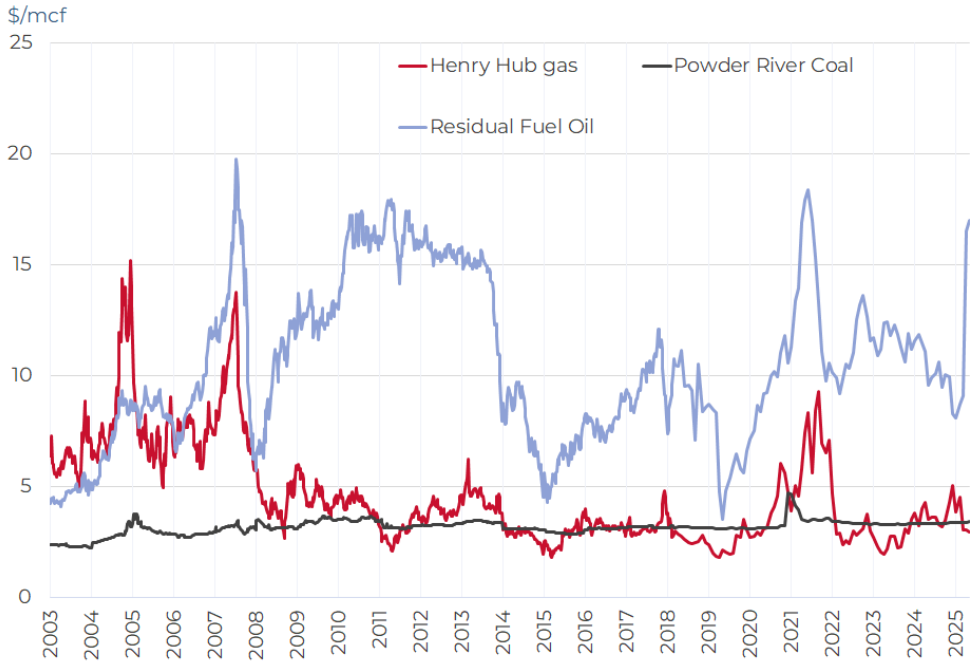


Source: Bloomberg; Guinness Atkinson, May 2026

Relationship with oil and coal

The following chart of the front month US natural gas price against heating oil (No 2), residual fuel oil (No 6) and coal (Sandy Barge adjusted for transport and environmental costs) seeks to illustrate how coal and residual fuel oil switching provide a floor and heating oil a ceiling to the natural gas price. When the gas price has traded below the coal price support level (2012 and 2016), resulting coal-to-gas switching for power generation was significant.

Natural gas versus substitutes (fuel oil and coal) - Henry Hub vs residual fuel oil, heating oil, Sandy Barge (adjusted) and Powder River coal (adjusted)



Source: Bloomberg; Guinness Atkinson, May 2026

Conclusions about US natural gas

The US natural gas price since 2010 has mainly fluctuated between $2 and $4/Mcf. The extremes of this range have tended to coincide with warm and cold winters, and any sustained recovery over $3.50/Mcf has generally been muted by strength in gas supply. With inflationary pressures, we estimate that new onshore supply has an incentive price of around $3.50/Mcf. Assuming normal weather in 2026, we expect a Henry Hub price at around this level.

Portfolio holdings

Our integrated and similar stock exposure (about 55%) is comprised of a mix of mid-cap, mid/large-cap and large-cap stocks. Our five large-caps are Chevron, BP, ExxonMobil, Shell and TotalEnergies. Mid/large and mid-caps are ENI, Equinor, GALP, Repsol and OMV. At 30 April 2026, the median PE ratio of this group was 9.4x 2026 earnings. We also have three Canadian integrated holdings, Suncor, Cenovus and Imperial Oil. All three companies have significant exposure to oil sands in addition to downstream assets.

Our exploration and production (E&P) holdings (about 19%) give us exposure most directly to rising oil and natural gas prices. We include in this category non-integrated oil sands companies, as this is the Global Industry Classification Standard (GICS) approach. The stock here with oil sands exposure is Canadian Natural Resources. The pure E&P stocks have a bias towards the US (EOG, Diamondback and Devon), with one other name (ConocoPhillips) having a mix of US and international production. One of the key metrics behind a number of the E&P stocks held is low enterprise value relative to proven reserves.

We have exposure to two emerging market stocks, Petrochina and Sinopec, which in total represent around 4% of the portfolio.

The portfolio contains four midstream holdings, Enbridge, Kinder Morgan, Williams Cos and TC Energy. These represent four of North America's largest pipeline companies. With the growth of hydrocarbon demand expected in the US and Canada over the next five years, especially natural gas, we believe each company is well placed to execute its pipeline and energy infrastructure expansion plans.

We have reasonable exposure to oil service stocks, which comprise around 11% of the portfolio. The stocks we own provide exposure to both North American and international oil and natural gas development.

Our independent refining exposure is currently in the US in Valero, the largest of the US refiners. Valero has a reasonably large presence on the US Gulf Coast and is benefitting from a recovery in refining margins.

GAGEX

Guinness Atkinson Global Energy Fund

May 2026 Update

GUINNESS ATKINSON FUNDS

Guinness Atkinson Global Energy Fund (3/31/26)			P/E			EV/EBITDA			Price/Book		
Stock	**ISIN**	**% of NAV**	**2024**	**2025E**	**2026E**	**2024**	**2025E**	**2026E**	**2024**	**2025E**	**2026E**
Integrated Oil & Gas											
Exxon Mobil Corp	US30231G1022	5.3%	21.8x	24.3x	19.8x	11.5x	9.4x	9.4x	2.8x	2.7x	2.5x
Chevron Corp	US1667641005	4.7%	24.7x	33.3x	23.0x	12.2x	8.9x	8.6x	2.4x	2.3x	2.3x
Shell PLC	GB00BP6MXD84	4.5%	12.5x	15.7x	12.8x	5.0x	5.3x	5.3x	1.6x	1.5x	1.4x
Total SA	FR0000120271	4.8%	11.7x	12.3x	11.5x	5.8x	5.7x	5.8x	2.0x	1.7x	1.6x
BP PLC	GB0007980591	4.7%	17.4x	25.7x	12.8x	5.7x	4.5x	4.8x	2.1x	2.0x	1.9x
Equinor ASA	NO0010096985	4.1%	14.1x	17.7x	11.3x	2.8x	2.6x	3.0x	2.8x	2.4x	2.2x
ENI SpA	IT0003132476	3.6%	17.7x	18.4x	11.9x	5.7x	5.1x	5.2x	1.6x	1.5x	1.4x
Repsol SA	ES0173516115	3.8%	13.3x	15.2x	8.0x	6.8x	4.9x	5.1x	1.3x	1.0x	0.9x
Galp Energia SGPS SA	PTGAL0AM0009	3.0%	15.5x	13.7x	12.9x	5.5x	5.1x	5.2x	3.8x	2.9x	2.7x
OMV AG	AT0000743059	3.1%	8.9x	29.9x	9.7x	4.2x	4.6x	4.8x	1.4x	1.3x	1.3x
		41.6%									
Integrated / Oil & Gas E&P - Canada											
Suncor Energy Inc	CA8672241079	3.8%	18.4x	19.1x	17.9x	5.6x	7.1x	7.4x	2.7x	2.3x	2.3x
Canadian Natural Resources Ltd	CA1363851017	3.9%	23.5x	19.9x	18.2x	9.8x	8.4x	8.5x	3.7x	3.1x	3.0x
Cenovus Energy Inc	CA15135U1093	3.4%	21.5x	16.7x	18.5x	8.1x	7.3x	6.9x	2.4x	2.0x	1.9x
Imperial Oil Ltd	CA4530384086	3.6%	19.9x	28.1x	21.5x	11.0x	11.5x	12.3x	4.0x	3.7x	3.6x
		14.7%									
Integrated Oil & Gas - Emerging market											
PetroChina Co Ltd	CNE1000003W8	2.6%	9.9x	10.4x	9.7x	5.2x	4.9x	5.0x	1.2x	1.0x	1.0x
		2.6%									
Oil & Gas E&P											
ConocoPhillips	US20825C1045	4.3%	17.0x	21.4x	19.0x	7.7x	6.7x	6.6x	2.6x	2.4x	2.4x
EOG Resources Inc	US26875P1012	3.3%	12.4x	14.1x	11.9x	6.4x	5.9x	5.9x	2.7x	2.4x	2.2x
Diamondback Energy Co	US25278X1090	3.3%	12.5x	13.6x	14.8x	10.2x	7.2x	7.0x	1.5x	1.3x	1.2x
Devon Energy Corp	US25179M1036	3.3%	10.4x	12.8x	11.8x	5.2x	4.1x	3.3x	2.3x	1.4x	1.2x
		14.2%									
Midstream											
Kinder Morgan Inc	US49456B1017	2.5%	28.3x	25.5x	24.3x	16.0x	12.5x	12.0x	2.4x	2.3x	2.3x
Enbridge Inc	CA29250N1050	2.3%	21.3x	25.4x	24.9x	18.3x	13.6x	12.9x	2.9x	2.9x	2.9x
TC Energy Corp	CA87807B1076	2.3%	22.3x	28.2x	23.3x	18.4x	13.9x	13.4x	3.7x	3.5x	3.5x
Williams Cos	US9694571004	2.5%	38.8x	33.4x	31.6x	21.2x	14.5x	13.1x	7.2x	6.7x	6.3x
		9.7%									
Equipment & Services											
Schlumberger Ltd	AN8068571086	2.8%	13.9x	17.7x	18.2x	8.0x	10.0x	9.1x	3.4x	2.8x	2.7x
Baker Hughes a GE Co	US05722G1004	2.4%	26.7x	23.5x	23.9x	13.2x	13.1x	11.6x	3.6x	2.9x	2.7x
Halliburton Co	US4062161017	3.0%	13.4x	15.8x	17.5x	7.2x	9.7x	8.7x	3.2x	2.9x	2.7x
Helix Energy Solutions Group Inc	US42330P1075	0.7%	21.1x	32.5x	34.3x	4.2x	6.3x	5.1x	1.0x	0.9x	0.9x
		8.9%									
Oil & Gas Refining & Marketing											
China Petroleum & Chemical Corp	CNE1000002Q2	1.1%	9.9x	12.7x	10.2x	6.5x	6.0x	5.6x	0.6x	0.6x	0.5x
Valero Energy Corp	US91913Y1001	4.9%	28.8x	23.5x	13.4x	11.8x	7.9x	9.0x	3.2x	3.0x	2.9x
		6.0%									
Cash	**Cash**	**2.3%**									
Portfolio	Total	**100.0%**	**16.5x**	**19.1x**	**15.0x**	**7.3x**	**6.5x**	**6.6x**	**2.3x**	**2.0x**	**1.9x**

Within the Fund, the strongest performers were Baker Hughes, Petrochina, TC Energy, Schlumberger and Cenovus while the weakest performers were Exxon, Equinor, Chevron, Repsol and ConocoPhillips.

GAGEX

Guinness Atkinson Global Energy Fund

May 2026 Update

GUINNESS ATKINSON FUNDS

Performance

As of 4/30/2026	YTD	1 Year	3 Years	5 Years	10 Years
GAGEX	39.00%	68.20%	18.29%	21.22%	7.41%
MSCI World Index NR	5.68%	29.16%	19.68%	11.28%	12.65%
As of 3/31/2026	YTD	1 Year	3 Years	5 Years	10 Years
GAGEX	37.85%	47.60%	19.07%	20.98%	8. 52%
MSCI World Index NR	-3.57%	18.90%	16.75%	10.26%	11.79%

All returns after 1 year annualized.

Inception 06.30.2004 Expense ratio* 1.47% (net); 2.27% (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, 2029. 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 4/30/26:

1.	Exxon Mobil Corp	5.09%
2.	BP PLC	4.80%
3.	TotalEnergies SE	4.74%
4.	Chevron Corp	4.58%
5.	ConocoPhillips	4.34%
6.	Shell PLC	4.32%
7.	Valero Energy Corp	4.30%
8.	Suncor Energy Inc	3.98%
9.	Canadian Natural Resources Ltd	3.88%
10.	Cenovus Energy Inc	3.72%

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.

The MSCI World Index (Net Return) measures the performance of large and mid-sized companies across 23 Developed Markets countries. It reflects both share price movements and dividends, with dividends reinvested after accounting for local withholding taxes.

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.

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 (e.g., Russia, Kazakhstan, Mexico, Oman, Malaysia) oil-exporting nations.

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).

The International Energy Agency (IEA) is an international intergovernmental organization based in Paris that was established in 1974. Its stated mandate is to maintain the stability of the international oil supply, although its mission has expanded to emphasize the promotion of renewable energy sources.

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.

Earnings Growth is not a measure of future performance.

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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