Guinness Global Energy

Investment Commentary – April 2025

RISK

This is a marketing communication. Please refer to the prospectus, supplement and KID/KIID for the Funds, which contain detailed information on their characteristics and objectives and full information on the risks, before making any final investment decisions.

The Funds are equity funds. Investors should be willing and able to assume the risks of equity investing. The value of an investment and the income from it can fall as well as rise as a result of market and currency movement, and you may not get back the amount originally invested.

Past performance does not predict future returns.

ABOUT THE STRATEGY

Launch	31.12.1998
Index	MSCI World Energy
Sector	IA Commodity/Natural Resources
Managers	Will Riley Jonathan Waghorn Tim Guinness
EU Domiciled	Guinness Global Energy Fund
UK Domiciled	WS Guinness Global Energy Fund

INVESTMENT POLICY

The Guinness Global Energy Funds invest in listed equities of companies engaged in the exploration, production and distribution of oil, gas and other energy sources. We believe that over the next twenty years the combined effects of population growth, developing world industrialisation and diminishing fossil fuel supplies will force energy prices higher and generate growing profits for energy companies. The Funds are actively managed and use the MSCI World Energy Index as a comparator benchmark only.

CONTENTS

COMMENTARY

OIL

Spot prices moved higher in March

Brent and West Texas Intermediate (WTI) spot oil prices rose during the month on lower supply expectations, amplified by heightened geopolitical tensions in the Middle East/Russia and moderated by the threat of geopolitically related demand weakness. We also saw OPEC+ confirm plans to force countries that had overproduced to compensate with lower future production. Brent and WTI both rose, closing at $77/bl and $71.5/bl respectively.

NATURAL GAS

International gas prices moderate, US price up

International gas prices moderated in March, with the UK National Balancing Point price down by $0.7/mcf to $12.7/mcf and Japanese liquefied natural gas down $0.8/mcf to $13.1/mcf. A particularly cold snap in the United States has eased allowing inventories to rebuild despite record Liquefied natural gas (LNG) export volumes in March.

EQUITIES

Energy outperforms the broad market in March

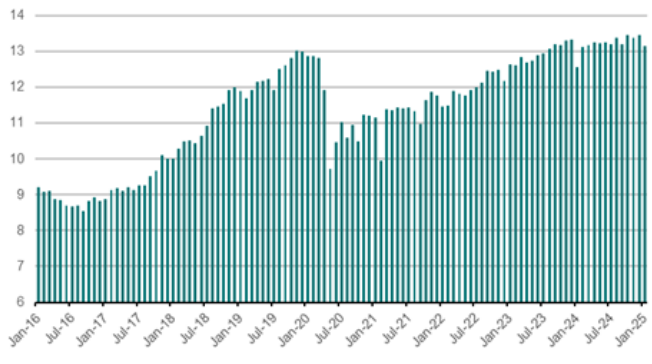
The MSCI World Energy Index (net return) rose by 4.7% (USD) in March, outperforming the MSCI World Index (net return) which fell by 4.4%.

CHART OF THE MONTH

US oil production growth losing momentum

After many years of positive momentum, US oil production growth appears to be moderating. Production has been essentially flat over the last 12 months and growth expectations for 2025 and beyond remain muted.

US oil production (m b/day)

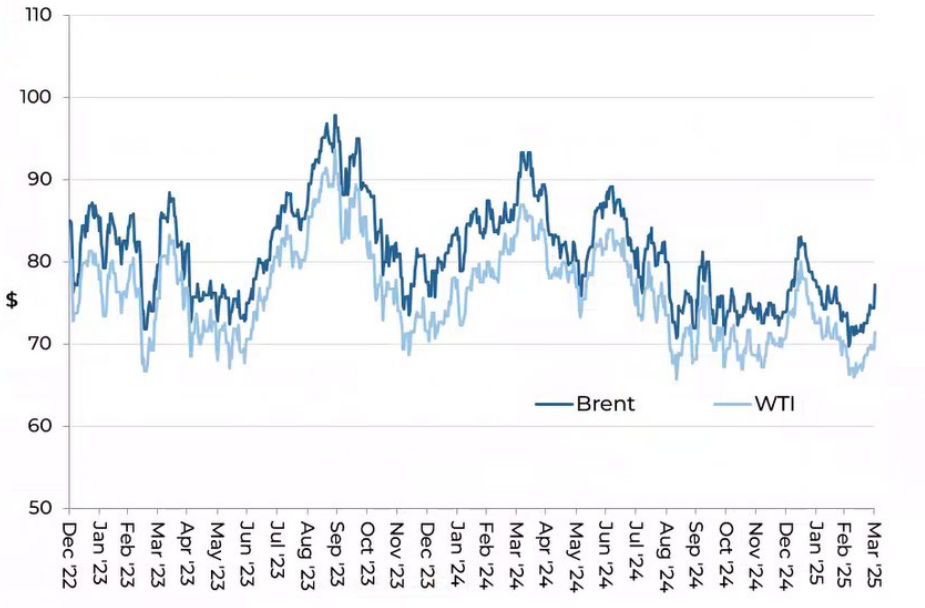


Source: DNB, April 2025

MARCH IN REVIEW

i) Oil market

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



Source: Bloomberg; Guinness Global Investors

The WTI oil price began March at $70/bl and, after dipping to a low of $66.3/bl on March 5th, rallied to close the month at $71.5/bl. WTI has averaged just over $71/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 $73/bl and moving higher, to close at $77.2/bl. Brent has averaged $75/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 widened over the month, ending March at $5.7/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 March:

- **Venezuelan oil production growth under threat**

Oil exports from Venezuela fell 11% in March versus February following US President Trump's announcement in February to cancel a "concession agreement" on Venezuela's energy sector that allowed Chevron to produce and export oil from the country. The concession had been put in place by President Biden in November 2022. The shutting down of Chevron's activities in particular threatens the supply of diluent, a substance produced by the company, which is used to thin out Venezuela's heavy oil, allowing it to be transported. Without the diluent supply, heavy oil production in the country is likely to fall sharply from here. Venezuela is currently producing around 1m b/day but production was as a low as 0.3m b/day in late 2020.

- **Signs of tighter oil supply/demand balance in 2025**

Over the first three months of 2025, we saw developing expectations of a tighter oil market for the rest of the year. The tighter oil balance has been driven by lower supply expectations, amplified by heightened geopolitical tensions in the Middle East and Russia and moderated by the threat of geopolitically related demand weakness. Nonetheless, the oil market still looks to be in oversupply for 2025.

Factors which weakened WTI and Brent oil prices in March:

- **OPEC+ production increases**

During March, OPEC-9 production increased to 26.9m b/day (from 26.4m b/day in February) with Iran, Iraq and Libya, Venezuela, UAE and Nigeria each adding nearly 0.1m b/day. From the start of April, a group of eight countries within OPEC+ (Saudi included), who have provided voluntary production cuts over the last two years, will start increasing production

monthly (by 140,000 b/day). Very early in April, the group announced its intention (from May) to increase the rate at which it returns withheld oil to the market. The group has stressed that it could be reversed at any time, should market conditions become looser

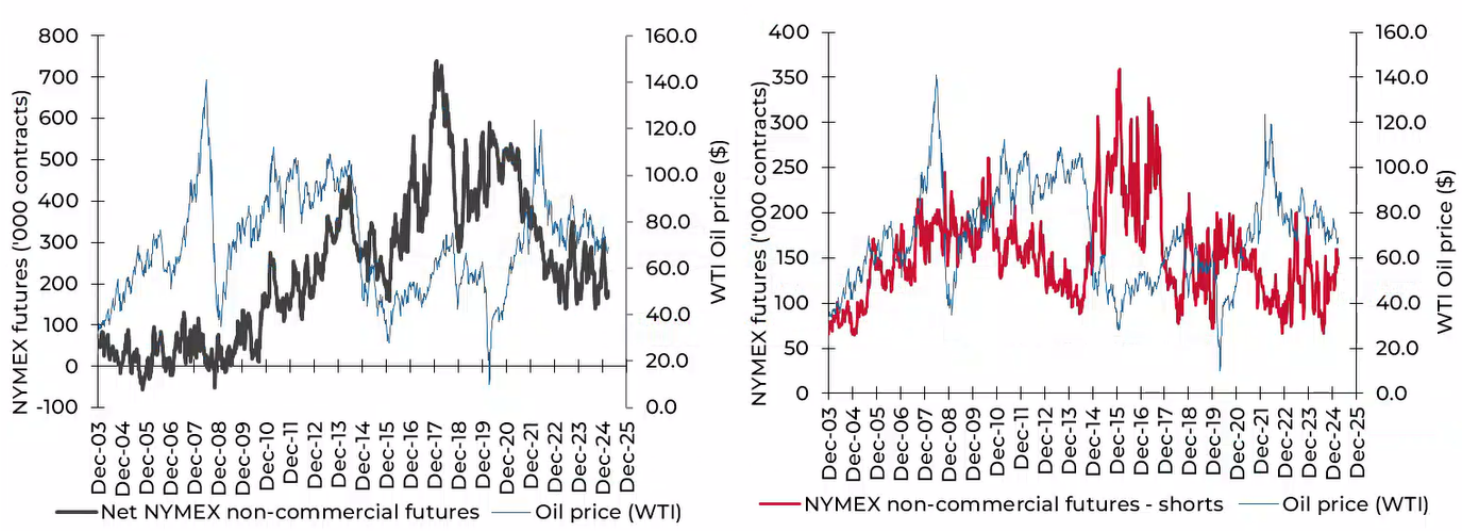
- **US tariffs causing concerns for global economic growth**

Since coming to power, President Trump has threatened and enacted a number of tariffs against various countries and industries. Early in April, he announced a further swathe of tariffs to come into immediate effect. These actions, part of a broader strategy to address trade imbalances and protect U.S. industries, remain fluid, but have brought into question whether world GDP will slow as a result. Correspondingly, oil demand growth may also be slower and the IEA noted in its most recent Oil Market Report that *"amid an unusually uncertain macroeconomic outlook, recent delivery data have been somewhat underwhelming"*.

Speculative and investment flows

The New York Mercantile Exchange (NYMEX) net non-commercial crude oil futures open position was 180,000 contracts long at the end of March versus 171,000 contracts long at the end of February. 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 decreased to 143,000 contracts at the end of March versus 160,000 at the end of the previous month.

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

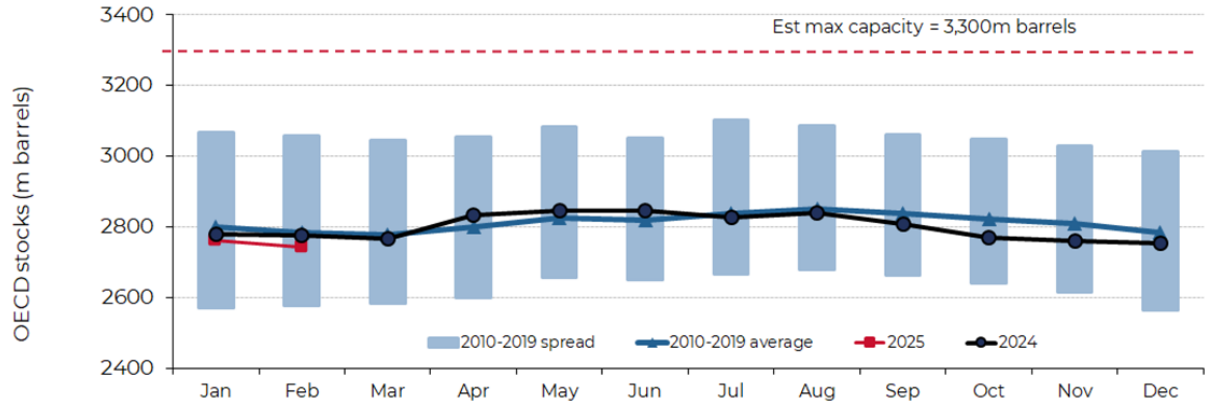


Source: Bloomberg LP/NYMEX/ICE (2025)

OECD stocks

OECD total product and crude inventories at the end of January (latest data point) were estimated by the IEA to be 2,762m barrels, up 10m barrels versus the level reported for the previous month. Preliminary data for February implies a decrease. The rise in January compares to a 10-year average (pre COVID) rise of 32m 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 and crude inventories, monthly, 2010 to Feb 2025



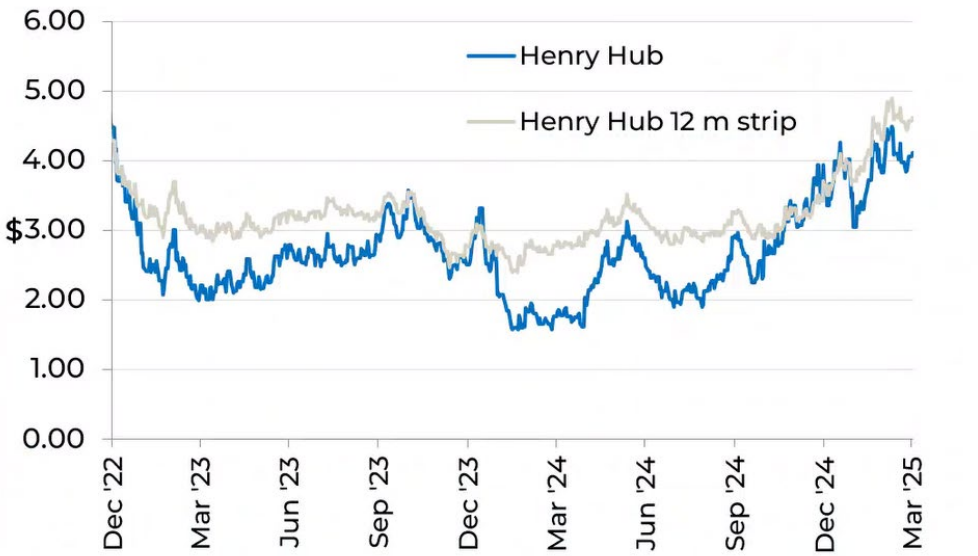
Source: IEA Oil Market Reports (March 2025 and older)

ii) Natural gas market

The US natural gas price (Henry Hub front month) opened March at $3.83/Mcf (1,000 cubic feet) and traded in a reasonably tight range over the month, closing slightly higher at $4.12/Mcf. The spot gas price has averaged $3.87/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 $4.31/Mcf and closing stronger, at $4.61/Mcf. The strip price has averaged $4.20/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 April 2025



Source: Bloomberg LP

Factors which strengthened the US gas price in March 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 rise slightly to 103 rigs at the end of March 2025. Overall, the low number of gas rigs operating has slowed gas production growth, though 'associated gas' production (a byproduct of shale oil) has continued to grow from the Permian basin.

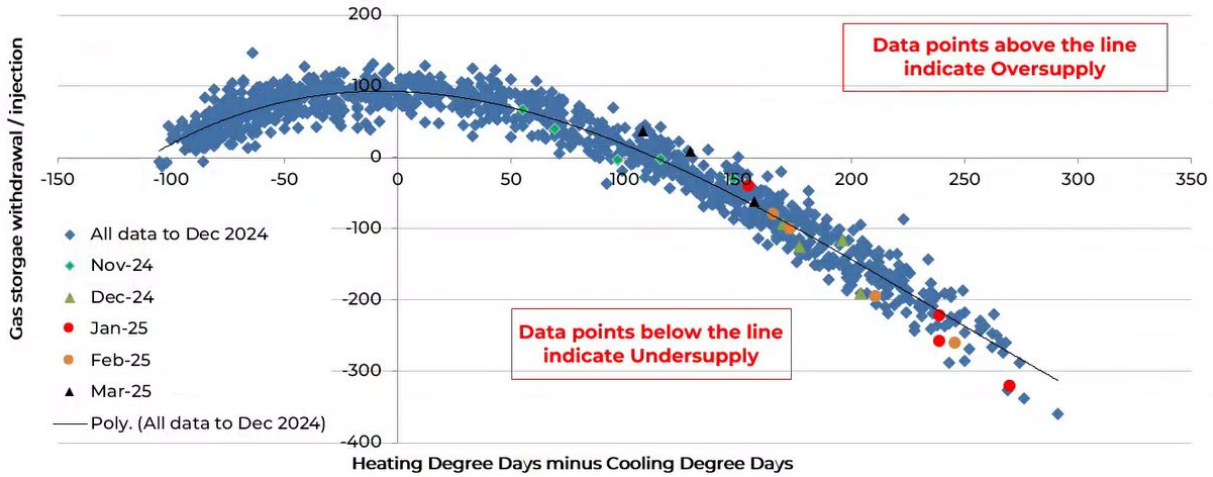
- **Record LNG exports**
  The US exported a record amount of liquified natural gas in March as Phase 1 of the new 3.2 Bcf/day Plaquemines LNG export terminal on the US Gulf Coast commenced operation. According to LSEG, total US LNG exports were 9.3 million tonnes in the month, up from the December 2023 record of 8.6 million tonnes.

Factors which were neutral or negative for the US gas price in March included:

- **Market fairly supplied (ex-weather effects)**

Adjusting for the impact of weather, the US gas market was, on average, in balanced supply during March. This is a change to the sharply undersupplied markets earlier in the year, as illustrated in the chart below.

Weather-adjusted US natural gas inventory injections and withdrawals

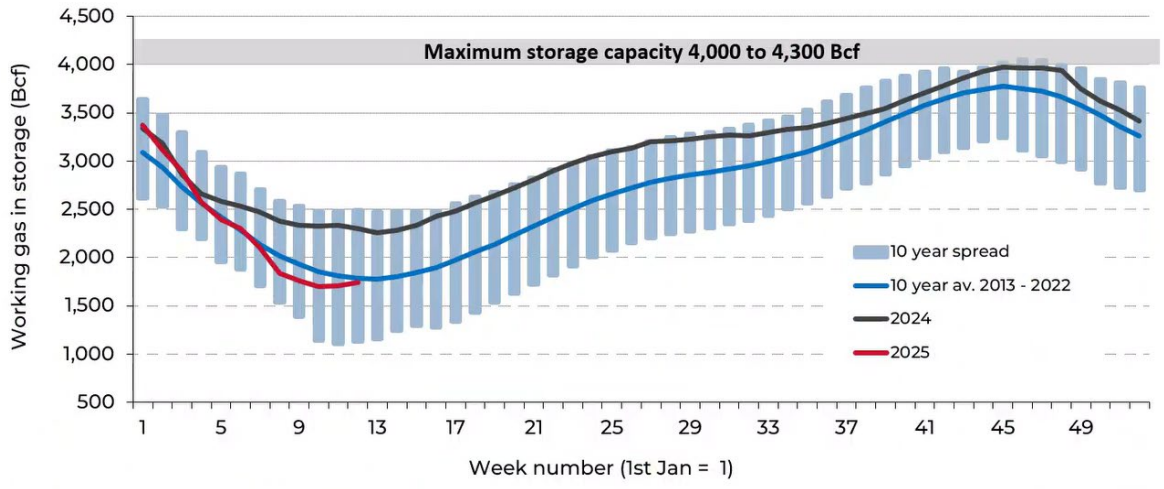


Source: Bloomberg LP; Guinness Global Investors, April 2025

- **Natural gas in inventories climbing 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 1Q 2025 as very cold weather arrived. At the end of March 2025, US natural gas inventories stood at 1.74 Tcf, recovering back to a little below the 10-year average.

Deviation from 10yr US gas storage norm



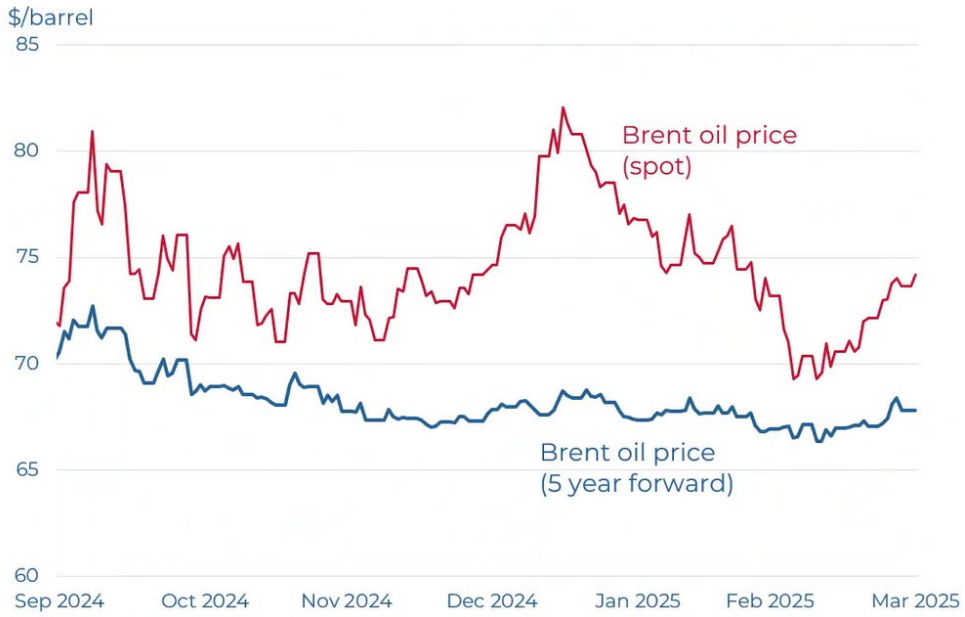
Source: Bloomberg; Energy Information Administration (EIA), April 2025

MANAGERS' COMMENTS

Global energy equities outperformed the broader market over the first quarter of 2025, as oil prices remained robust and the companies delivered consistent messages around cost control and free cash generation with less focus on low carbon energy investments. Here, we explore the key developments in energy markets and the fund over the period and consider the outlook.

Over the first three months of 2025, we saw developing expectations of a tighter oil market for the rest of the year. The tighter oil balance has been driven by lower supply expectations, amplified by heightened geopolitical tensions in the Middle East and Russia and moderated by the threat of geopolitically related demand weakness. The Brent spot oil price has averaged $75/bl since the start of the year, whilst the five-year forward Brent oil price has averaged nearly $68/bl.

Brent spot price vs 5 year forward price ($/bl), 6mths to March 2025



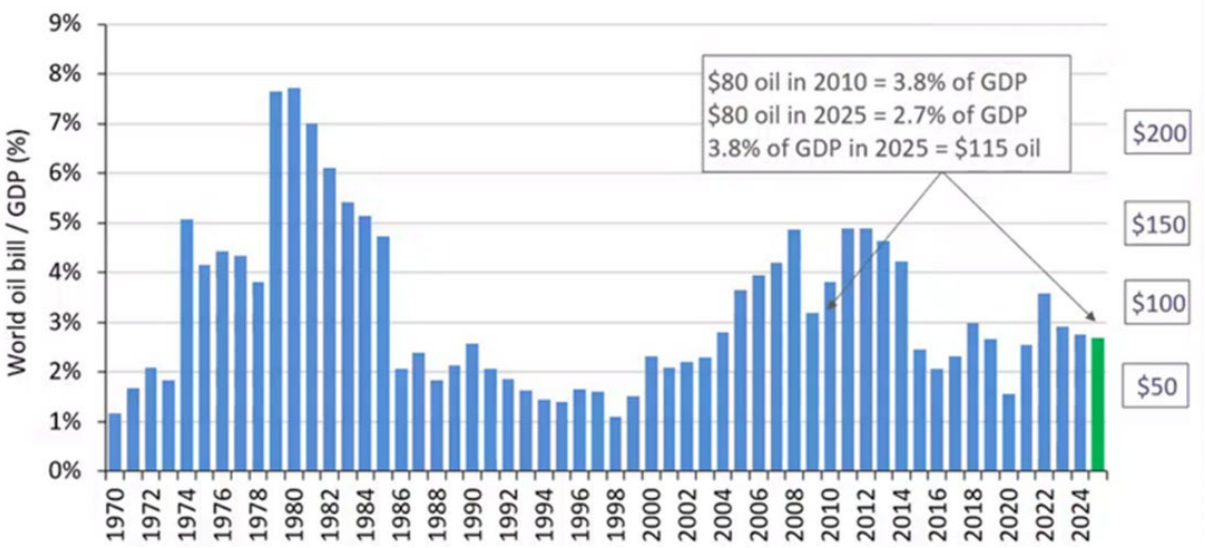
Source: Bloomberg; Guinness Global Investors; data as of 31.03.2025

Global oil demand growth for 2025 is estimated by the IEA to be 1.0m b/day (down slightly from the 1.1m b/day forecast at the start of the year but ahead of the 0.8m b/day growth seen in 2024) with the non-OECD up by 1.1m b/day and the OECD down by 0.1m b/day. The demand outlook has been impacted by geopolitical risks, especially the threat of tariffs from President Trump, leading the IEA to note in its most recent Oil Market Report that *"amid an unusually uncertain macroeconomic outlook, recent delivery data have been somewhat underwhelming"*.

Oil demand in 2025 of 103.9m b/day (unchanged from expectations at the start of the year) will be around 3.3m b/day above its previous peak in 2019. Unlike previous years, China is not expected to be the key driver of demand growth and at only 0.2m b/day, China's demand growth is in line with that expected from India, Other Asia and the Middle East.

When writing at the start of the year about the prospects for oil demand, we placed strong emphasis on the current affordability of oil as a driver of demand upgrades. Globally, we believe that oil remains a 'good value' commodity. Based on Brent oil price of around $80/bl in 2025, we calculate that the world would spend around 2.7% of GDP on oil, below the 30-year average of around 3% and well below the 3.8% seen in 2010 when oil also averaged $80/bl.

The world oil 'bill' as a percentage of world GDP



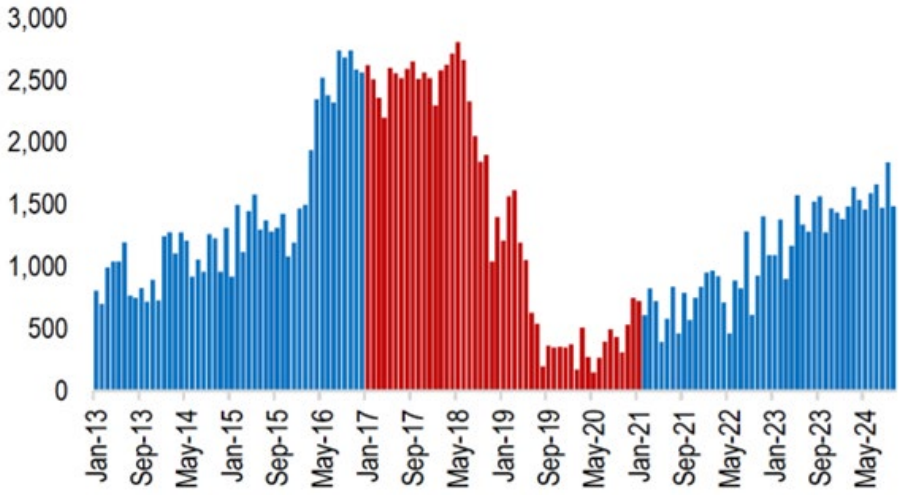
Source: Bloomberg; Guinness Global Investors; data as of 31.12.2024

On the **supply side**, forecasts for non-OPEC supply growth in 2025 have moderated by 0.2m b/day since the start of the year, although some of this reduction was related to very cold weather conditions affecting production in the United States. Nonetheless, the call on OPEC and OPEC+ production for the year has increased and, after a number of quarters of delays, OPEC+ confirmed plans in March to increase production monthly (by 140,000 b/day), starting in April. The oil to be added back into the market comes from a group of eight countries within OPEC+ (Saudi included), who have provided voluntary production cuts over the last two years, above formal quota adjustments.

Later in the month, the group announced stricter plans for its members to compensate for historic levels of overproduction (or non-compliance with quotas) with lower production in future months. The net effect of the two announcements is expected to be a small shorter term tightening of oil supply/demand as the compensation cuts are forecast to outweigh the return of withheld supply. OPEC+ continued to stress that its supply strategy could be amended at any time, should market conditions require it.

Geopolitical concerns persisted, dominated by the actions of the United States with respect to Russia, China, Iran and Venezuela. Early in February, incoming US President 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. Later in the quarter, the US put sanctions on a Chinese refinery (that represented a large share of the 1.6m b/d of Iranian oil that China imported in 2024) and carried out air strikes against the Houthi rebels in Yemen.

Iranian oil exports



Source: JP Morgan, Kpler; data as of 31.12.2024

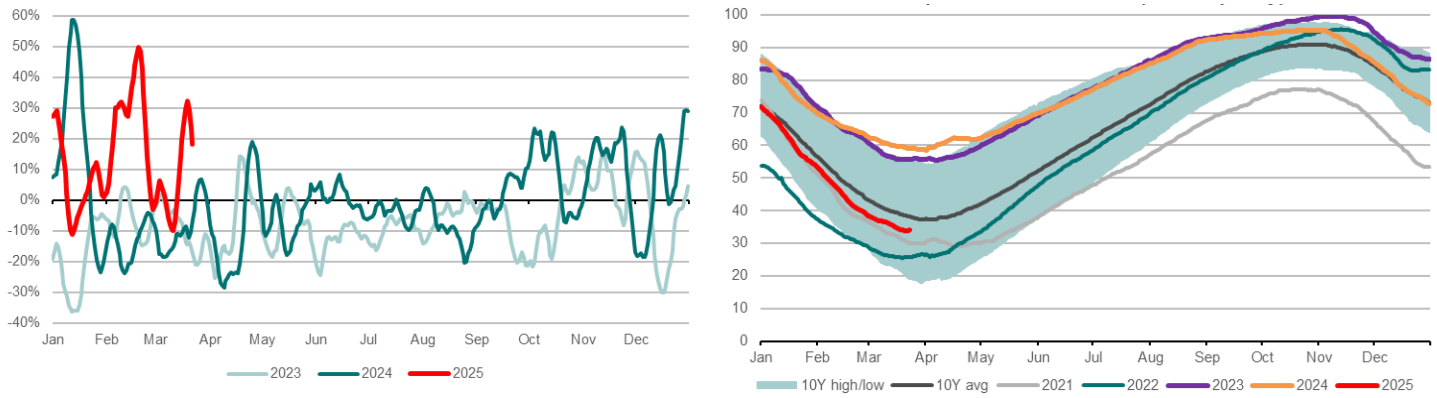
Earlier in the quarter, the US placed new sanctions on **Russian** oil producers Gazprom Neft and Surgutneftegas (representing 2m b/day of production and 1m b/day of exports) as well as a Chinese port operator and a large number of crude oil or oil product tankers that previously carried Russian and Iranian crude oil. The US also announced the cancellation of a "concession agreement" in **Venezuela** that allowed Chevron to produce export oil from the country. The concession had been put in place by President Biden in November 2022 and, since then, Venezuelan oil production has increased from 0.7m b/day to nearly 1.0m b/day. Seaborne crude oil exports are already starting to fall (-11.5% in March vs February) and we expect further declines in coming months.

As these actions have shown, we believe that Trump will 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 negatively impact supply from Russia, Venezuela and Iran and create sufficient space for OPEC+ to return some of their withheld volumes back to the market, in line with its current strategy.

International and US natural gas markets remained tighter than expected in 2025, thanks largely to industrial, LNG and power demand for natural gas together with colder than normal conditions (the US suffered the coldest January in a decade). US natural gas inventories drew to 9% below 10-year average levels as the first phase of the Plaquemines LNG terminal commenced operation, consuming 2 Bcf/day of natural gas (nearly 2% of total US gas demand) and helping to lift the Henry Hub gas price to over $4/mcf at the end of March. Milder weather allowed inventories to rebuild in the second half of March.

Similar tightening occurred in Europe where a combination of reduced Russian gas imports, colder weather, lower wind power and increased competition from Asia for LNG brought the largest winter drawdown in gas inventories in four years (falling to 33% full, 10ppts below the 5-year average level). This was in sharp contrast to the prior 24-month period during which Europe had been successful in building a surplus of natural gas in storage (preparing itself for higher demand winter periods). Returning inventories to 90% by the end of the injection season (October) will require an estimated 250 extra LNG cargoes.

European gas demand (7 day moving average change yoy) and natural gas inventories (% of capacity)



Source: DNB; data as of 31.03.2025

In terms of **company news** during the quarter, the BP strategy day highlighted a reset back towards growth in fossil fuels (at the expense of low carbon activities) while Shell showcased an attractive long-term outlook for LNG demand.

In the opening comments of his strategy day presentation, bp CEO Murray Auchincloss stated conviction that "*energy demand is growing over the next decade and beyond*" and that "*the world is in an 'energy addition' phase, consuming increasing amounts of both fossil fuels and low carbon energy*". Informing the decision to return to fossil fuel growth, bp believes that "*oil and gas will be needed for decades to come*" with oil and gas demand robust out to 2035, including strong growth in natural gas demand from emerging Asian economies (a point well covered in Shell's LNG event). As such, BP acknowledged its push into renewables over the last five years had been "*too far, too fast*" and the company announced plans to cut low carbon capex by nearly 80%.

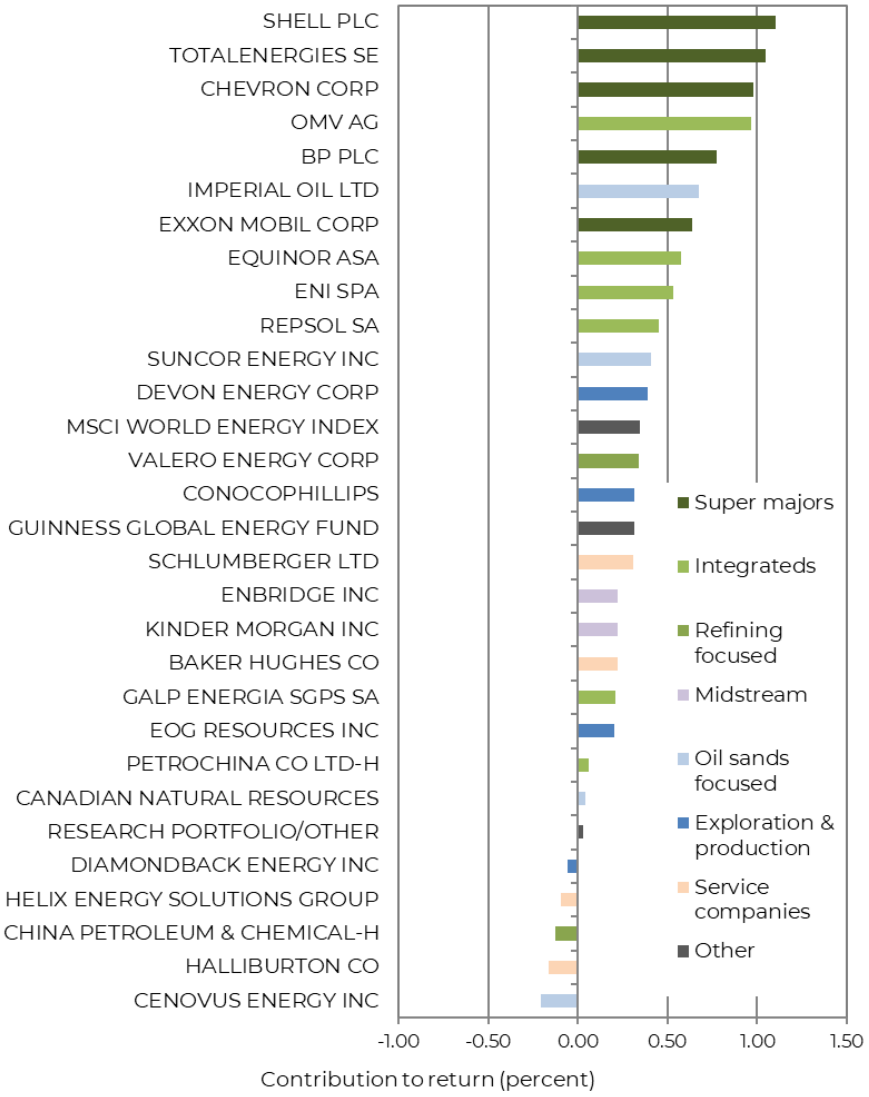
For companies operating in the key sectors held in our Global Energy Fund, the consistent themes being reported were operating cost control, free cash generation and capital expenditure restraint (with a bias away from low carbon activities). Within the fund over the quarter, strongest performers included:

- **European Integrateds:** seven of the top ten contributors were European integrateds, reflecting strength in broader European stock markets and a tilting away from low carbon investments back towards growth from fossil fuels
- **US super majors:** Exxon and Chevron were top ten performers as they delivered strong results and free cash flow generation and, accordingly, provided a safe haven opportunity for investors in US markets
- **US refining:** tighter refining capacity kept refining margins higher. Particular beneficiaries included Valero Energy and US major, Exxon.

Sectors in the portfolio that were relatively weaker over the quarter included:

- **Canadian integrateds:** Despite Canadian oil benchmarks strengthening versus WTI, our Canadian integrateds were generally weaker as a result of tariff concerns
- **Services:** Large cap diversified service companies Halliburton and Baker Hughes underperformed, driven by a flat US oil/gas rig count and continued capital discipline from E&Ps and integrated oils

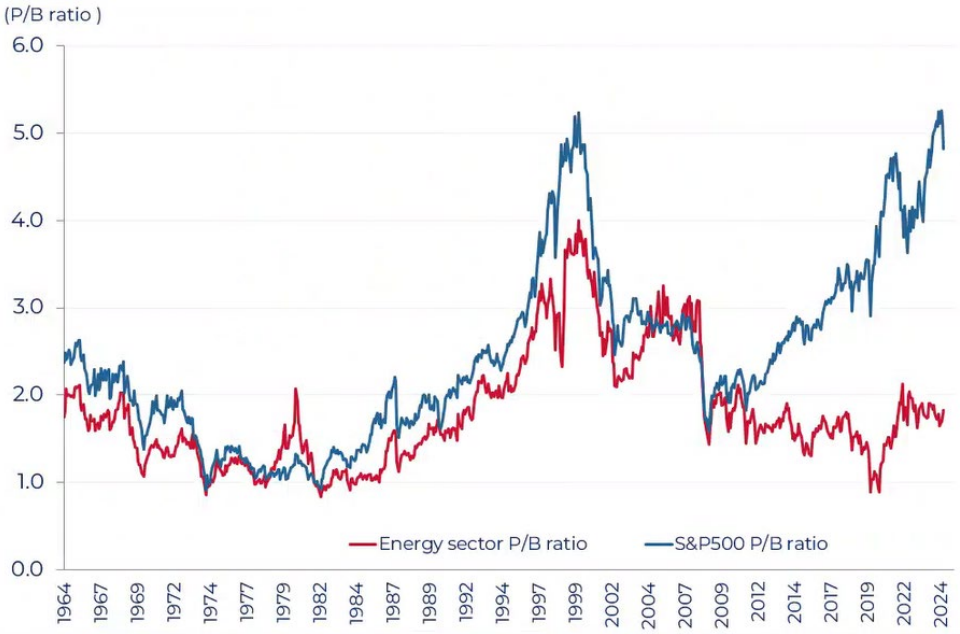
Guinness Global Energy fund contribution 1Q 2025



Source: Bloomberg, Guinness estimates; data as of 31.03.2025

Moves in energy equities lifted the price-to-book (P/B) ratio for the energy sector at the end of March 2025 to around 1.8x, versus the S&P 500 trading at 4.8x. On a relative P/B basis versus the S&P500, therefore, the valuation of energy equities now sits at around 0.38x (down from 0.51x at the end of 2022), and still more than two standard deviations below the long-term relationship.

P/B of energy sector versus S&P 500



Sources: Bernstein; Bloomberg; Guinness Global Investors; data as of 31.03.2025

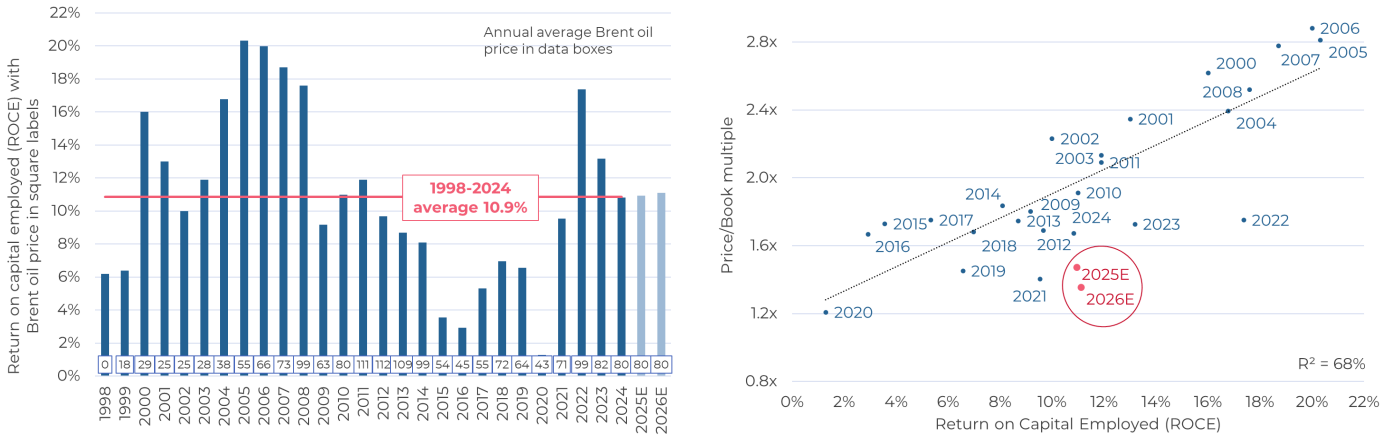
We keep a close eye on the relationship between the P/B ratio for the energy sector and its return on capital employed (ROCE) which, although having had a high correlation historically, has diverged since 2021. The divergence has closed somewhat year to date and potentially reflects a shift in market sentiment towards energy security and energy pragmatism at the expense of decarbonisation.

The bp and Shell events highlighted the attractive longer term demand outlook for oil and natural gas and they may help to support a re-rating of global energy equities as investors ascribe a more meaningful terminal value to oil and gas producers that provide growth within a disciplined cash flow framework.

With full year results now reflected, we see ROCE for the Guinness Global Energy portfolio in 2024 (with Brent oil averaging $80/bl) at around 10.8%, in line with the mid-cycle ROCE which we peg at 10.9%. With the Brent oil price averaging around $80/bl in 2025, we see ROCE at around 11.0%, a level that we expect to be maintained in 2026 with Brent at the same level.

Current P/B valuation implies that the long-term ROCE of our companies should average only around 3%, significantly below the mid cycle or long-term average level of nearly 11%. If ROCE remains at our 2025 forecast level of nearly 12%, and the market were to pay for it as it has done on average over the last 20 years, it would imply an increase in the equity valuation of around 35%.

Guinness Global Energy portfolio ROCE and P/B

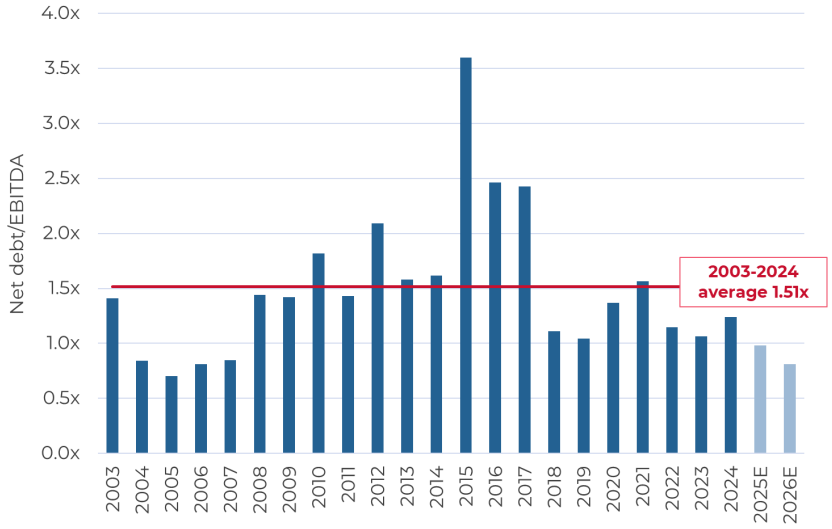


Sources: Bloomberg; Guinness Global Investors; data as of 31.03.2025

The higher ROCE is being supported by robust free cash generation. Assuming an average Brent oil price of $80/bl in 2025, we estimate the free cashflow yield of our portfolio, after capital expenditure, to be around 9.8% and note that the 2025 estimated gross dividend yield of the portfolio currently sits at around 4.4%. Fixed dividends in the portfolio have generally been growing, and have ample room to run further, given the high free cashflow yield.

The stronger free cash generation has helped the industry to shrink its outstanding debt. The main holdings in the Guinness Global Energy Fund now have average net debt/EBITDA at around 1.0x in 2025, assuming $80/bl Brent. This is lower than the 1.5x average of the last 20 years, reflecting management focus on maintaining healthier balance sheets. In 2025, it would take a reduction in EBITDA of nearly 50% to see net debt/EBITDA levels to get back to the 20-year average and a reduction of 75% to get back to the peak net debt/EBITDA levels seen in 2015.

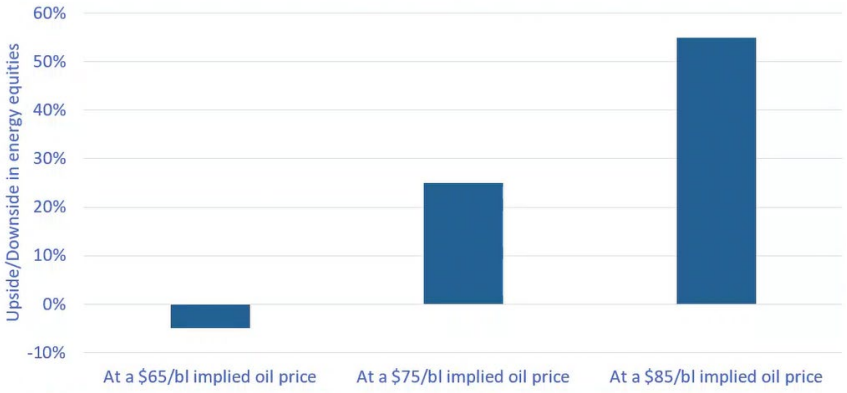
Net debt/EBITDA for current Guinness Global Energy Fund holdings



Source: Guinness Global Investors, data as of 31.03.2025

To consider valuation another way, we are often asked what oil price is implied in the portfolio, as a barometer of the expectation priced into the equities. At the end of March, we estimate that the valuation of our portfolio of energy equities reflected a long-term Brent/WTI oil price of around $68/bl. If the market were to price in a long-term oil price of $75/bl, it would imply around 25% upside while there would be around 55% upside at a long-term oil price of $85/bl Brent.

Upside/downside for Guinness energy portfolio (1 year forward view)



Source: Guinness Global Investors; data as of 31.03.2025

In summary, at $80/bl Brent in 2025, our portfolio continues to trade at a significant valuation discount to the broader equity market, despite high shareholder return yields. We see good confidence that dividends can continue to increase and will

be supplemented by share buyback programmes, all driven by a free cash flow yield of around 10% for the portfolio, much higher than the 3.5% seen in the portfolio over the last twenty years.

PERFORMANCE

The main index of oil and gas equities, the MSCI World Energy Index (net return), increased by 4.6% in March, while the MSCI World Index (net return) fell by 4.4% in USD.

Within the portfolio, March's strongest performers included OMV, Equinor, Canadian Natural Resources, Shell and ENI while the weakest performers included Helix, Halliburton, Baker Hughes, Sinopec and Schlumberger.

Past performance does not predict future returns.

Guinness Global Energy Fund
Performance (in USD) as at 31.03.2025

Cumulative returns	YTD	1 year	3 years ann.	5 years ann.	Launch of strategy* ann. (31.12.98)
Guinness Global Energy Fund	9.4%	-2.0%	6.4%	21.8%	8.1%
MSCI World Energy NR Index	10.1%	3.0%	9.0%	24.1%	6.3%

Calendar year returns	2024	2023	2022	2021	2020	2019	2018
Guinness Global Energy Fund	-1.3%	2.6%	32.4%	44.5%	-34.7%	9.8%	-19.7%
MSCI World Energy NR Index	2.7%	2.5%	46.0%	40.1%	-31.5%	11.4%	-15.8%
	2017	**2016**	**2015**	**2014**	**2013**	**2012**	**2011**
Guinness Global Energy Fund	-1.3%	27.9%	-27.6%	-19.1%	24.4%	3.0%	-13.7%
MSCI World Energy NR Index	5.0%	26.6%	-22.8%	-11.6%	18.1%	1.9%	0.2%
	2010	**2009**	**2008***	**2007***	**2006***	**2005***	**2004***
Guinness Global Energy Fund	15.3%	61.8%	-48.2%	37.9%	10.0%	62.3%	41.0%
MSCI World Energy NR Index	11.9%	26.2%	-38.1%	29.8%	17.9%	28.7%	28.1%
	2003*	**2002***	**2001***	**2000***	**1999***		
Guinness Global Energy Fund	32.3%	6.7%	-4.1%	39.6%	22.5%		
MSCI World Energy NR Index	25.9%	-6.4%	-7.2%	6.0%	22.0%		

Source: FE fundinfo, Guinness Global Investors and Bloomberg, bid to bid, net of fees, gross income reinvested, in US dollars

Calculation by Guinness Global Investors. *Simulated past performance prior to 31.03.2008, launch date of Guinness Global Energy Fund. The Guinness Global Energy investment team has been running global energy funds in accordance with the same methodology continuously since December 1998. These returns are calculated using a composite of the Investec GSF Global Energy Fund class A to 29.2.08 (managed by the Guinness team until this date); the Guinness Atkinson Global Energy Fund (sister US mutual fund) from 1.3.08 to 31.3.08 (launch date of this Fund), the Guinness Global Energy Fund class A (1.49% OCF) from launch to 02.09.08, and class Y (0.99% OCF) thereafter. Returns for share classes with a different OCF will vary accordingly.

Investors should note that fees and expenses are charged to the capital of the Fund. This reduces the return on your investment by an amount equivalent to the Ongoing Charges Figure (OCF). The fund performance shown has been reduced by the current OCF of 0.99% per annum. Returns for share classes with different OCFs will vary accordingly. Performance returns do not reflect any initial charge; any such charge will also reduce the return.

Past performance does not predict future returns.

WS Guinness Global Energy Fund
Performance (in GBP) as at 31.03.2025

Cumulative returns	YTD	1 year	3 years ann.	5 years ann.
WS Guinness Global Energy Fund	5.9%	-4.8%	6.5%	21.9%
MSCI World Energy NR Index	6.8%	0.8%	9.7%	23.1%

Calendar year returns	2024	2023	2022	2021	2020	2019	2018
WS Guinness Global Energy Fund	-0.8%	-2.3%	49.9%	45.7%	-35.7%	12.6%	-6.3%
MSCI World Energy NR Index	4.5%	-3.3%	64.4%	41.4%	-33.6%	7.2%	-10.6%

	2017	2016	2015	2013	2012
WS Guinness Global Energy Fund	-7.2%	65.2%	-29.6%	-26.6%	-4.7%
MSCI World Energy NR Index	-4.1%	51.0%	-18.3%	-6.1%	15.9%

Source: FE fundinfo, bid to bid, net of fees, gross income reinvested, in GBP

Investors should note that fees and expenses are charged to the capital of the Fund. This reduces the return on your investment by an amount equivalent to the Ongoing Charges Figure (OCF). The fund performance shown has been reduced by the current OCF of 0.96% per annum. Returns for share classes with different OCFs will vary accordingly. Performance returns do not reflect any initial charge; any such charge will also reduce the return. Fund launched 21.04.2011.

PORTFOLIO

Buys/Sells

In March, there were no buys or sells of full positions, but the portfolio was actively rebalanced.

Sector Breakdown

The following table shows the asset allocation of the Guinness Global Energy Fund at **March 31 2025**.

Asset allocation as %NAV	Current	*Change*	Last year end	Previous year ends								
	Mar-25		Dec-24	Dec-23	Dec-22	Dec-21	Dec-20	Dec-19	Dec-18	Dec-17	Dec-16	Dec-15	Dec-14
Oil & Gas	**99.3%**	***1.5%***	***97.8%***	**98.9%**	**97.4%**	**96.9%**	**94.8%**	**98.3%**	**96.7%**	**98.4%**	**96.7%**	**95.1%**	**93.7%**
Integrated	57.7%	*2.5%*	*55.1%*	54.7%	54.7%	57.7%	56.3%	51.1%	46.4%	42.9%	46.4%	41.5%	37.3%
Exploration & Production	18.9%	*-0.4%*	*19.3%*	23.2%	23.1%	23.7%	22.2%	29.6%	35.8%	36.9%	35.8%	36.5%	36.2%
Drilling	0.0%	*0.0%*	*0.0%*	0.0%	0.0%	0.0%	0.0%	0.1%	2.2%	1.9%	2.2%	1.5%	3.3%
Equipment & Services	9.4%	*-0.4%*	*9.8%*	10.0%	9.0%	4.0%	4.6%	9.6%	8.6%	9.5%	8.6%	11.4%	13.4%
Storage & Transportation	7.9%	*-0.1%*	*8.0%*	5.0%	4.8%	4.3%	4.4%	4.0%	0.0%	3.5%	0.0%	0.0%	0.0%
Refining & Marketing	5.4%	*-0.2%*	*5.6%*	6.0%	5.8%	7.2%	7.3%	3.8%	3.7%	3.7%	3.7%	4.2%	3.5%
Solar	0.0%	*0.0%*	*0.0%*	0.2%	0.7%	1.0%	1.8%	0.7%	0.9%	1.4%	0.9%	4.7%	3.7%
Coal & Consumable Fuels	0.0%	*0.0%*	*0.0%*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Construction & Engineering	0.0%	*0.0%*	*0.0%*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash	0.7%	*-1.5%*	*2.2%*	0.9%	1.9%	2.1%	3.3%	1.1%	2.4%	0.2%	2.4%	0.2%	2.6%

Source: Guinness Global Investors. Basis: Global Industry Classification Standard (GICS)

The Fund at end of March 2025 was on a price to earnings (PE) ratio for 2024/2025 of 10.6x/9.8x versus the MSCI World Index at 18.7x/16.8x as set out in the following table:

As at 31 March 2025	PE		
	2024	2025E	2026E
Guinness Global Energy Fund	11.5x	10.6x	9.8x
MSCI World Index	20.3x	18.7x	16.8x
Fund Premium/(Discount)	*-44%*	*-44%*	*-42%*

Source: Bloomberg; Guinness Global Investors

Portfolio holdings

Our integrated and similar stock exposure (c.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 March 31 2025, the median P/E ratio of this group was 10.1x 2025 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 holdings (c.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 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 / 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 two midstream holdings, Enbridge and Kinder Morgan, two of North America's largest pipeline companies. With the growth of hydrocarbon demand expected in the US and Canada over the next five years, we believe both companies are well placed to execute their pipeline expansion plans.

We have reasonable exposure to oil service stocks, which comprise nearly 10% 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.

Portfolio at February 28 2025 (for compliance reasons disclosed one month in arrears)

Guinness Global Energy Fund (28 February 2025)			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	5.5%	14.3x	14.7x	12.5x	8.1x	6.8x	6.2x	1.8x	1.8x	1.8x
Chevron Corp	US1667641005	5.8%	18.9x	14.8x	12.7x	8.3x	6.6x	5.7x	1.8x	1.9x	1.9x
Shell PLC	GB00BP6MXD84	5.7%	9.1x	8.6x	7.9x	4.2x	4.1x	4.1x	1.1x	1.1x	1.0x
Total SA	FR0000120271	5.3%	7.8x	7.6x	7.4x	4.0x	4.0x	4.0x	1.2x	1.1x	1.0x
BP PLC	GB0007980591	5.1%	11.2x	9.4x	8.3x	3.3x	3.8x	3.8x	1.5x	1.4x	1.3x
Equinor ASA	NO0010096985	3.1%	7.0x	6.9x	6.8x	1.6x	1.6x	1.7x	1.5x	1.4x	1.3x
ENI SpA	IT0003132476	3.4%	8.0x	8.0x	7.3x	3.7x	3.9x	3.8x	0.9x	0.8x	0.8x
Repsol SA	ES0173516115	3.2%	6.0x	5.1x	4.7x	4.1x	3.3x	3.1x	0.6x	0.5x	0.5x
Galp Energia SGPS SA	PTGAL0AM0009	3.3%	11.6x	15.5x	12.7x	4.3x	5.6x	4.8x	2.6x	2.4x	2.3x
OMV AG	AT0000743059	2.9%	11.1x	7.3x	7.0x	3.8x	3.7x	3.8x	0.9x	0.8x	0.8x
		43.2%									
Integrated / Oil & Gas E&P - Canada											
Suncor Energy Inc	CA8672241079	4.3%	10.8x	10.6x	10.2x	5.1x	5.0x	4.8x	1.5x	1.4x	1.3x
Canadian Natural Resources Ltd	CA1363851017	3.2%	11.3x	10.3x	10.0x	5.9x	5.2x	5.0x	2.1x	2.0x	1.9x
Cenovus Energy Inc	CA15135U1093	2.7%	11.3x	7.9x	7.8x	4.3x	4.0x	3.9x	1.2x	1.2x	1.1x
Imperial Oil Ltd	CA4530384086	3.7%	10.4x	11.1x	10.8x	6.2x	6.6x	6.5x	2.1x	2.0x	1.9x
		14.0%									
Integrated Oil & Gas - Emerging market											
PetroChina Co Ltd	CNE1000003W8	2.1%	5.9x	6.0x	5.8x	3.5x	3.5x	3.4x	0.6x	0.6x	0.6x
		2.1%									
Oil & Gas E&P											
ConocoPhillips	US20825C1045	4.6%	12.8x	12.2x	11.1x	6.3x	5.2x	5.0x	2.0x	1.9x	1.8x
EOG Resources Inc	US26875P1012	3.9%	10.9x	11.2x	10.5x	5.5x	5.4x	5.2x	2.4x	2.2x	2.0x
Diamondback Energy Co	US25278X1090	3.4%	10.0x	9.9x	9.8x	8.2x	5.6x	5.6x	1.2x	1.1x	1.1x
Devon Energy Corp	US25179M1036	2.7%	7.5x	7.6x	7.0x	4.3x	4.0x	3.9x	1.6x	1.4x	1.2x
		14.6%									
International E&Ps											
Pharos Energy PLC	GB00B572ZV91	0.2%	n.m.	n.m.	n.m.	1.2x	1.4x	1.4x	0.4x	0.3x	0.3x
		0.2%									
Midstream											
Kinder Morgan Inc	US49456B1017	4.1%	22.9x	21.4x	19.9x	13.9x	11.2x	10.8x	2.0x	1.9x	1.9x
Enbridge Inc	CA29250N1050	3.6%	20.1x	19.0x	17.6x	15.4x	12.3x	11.8x	2.3x	2.3x	2.2x
		7.8%									
Equipment & Services											
Schlumberger Ltd	AN8068571086	3.3%	11.3x	12.1x	11.0x	6.1x	7.1x	6.7x	2.8x	2.4x	2.3x
Halliburton Co	US4062161017	2.7%	9.1x	9.9x	8.6x	5.4x	6.2x	5.7x	2.2x	2.0x	1.8x
Baker Hughes a GE Co	US05722G1004	3.0%	19.5x	17.2x	14.8x	9.9x	9.6x	8.7x	2.6x	2.4x	2.2x
Helix Energy Solutions Group Inc	US42330P1075	0.9%	18.4x	10.8x	9.1x	4.1x	4.5x	4.1x	0.9x	0.8x	0.7x
		9.9%									
Oil & Gas Refining & Marketing											
China Petroleum & Chemical Corp	CNE1000002Q2	1.5%	8.3x	7.7x	7.0x	5.5x	5.2x	5.0x	0.6x	0.5x	0.5x
Valero Energy Corp	US91913Y1001	4.1%	15.2x	17.0x	11.7x	6.9x	7.1x	5.7x	1.6x	1.6x	1.5x
		5.6%									
Research Portfolio											
EnQuest PLC	GB00B635TG28	0.4%	2.1x	2.4x	1.9x	1.4x	1.6x	1.6x	0.6x	0.5x	0.5x
Diversified Energy Company	GB00BQHP5P93	0.3%	12.9x	7.1x	4.9x	5.4x	4.9x	3.8x	1.2x	1.0x	0.9x
Deltic Energy PLC	GB00BNTY2N01	0.0%	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Reabold Resources PLC	GB00B95L0551	0.0%	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
		0.7%									

The Fund's portfolio may change significantly over a short period of time; no recommendation is made for the purchase or sale of any particular stock.

OUTLOOK

i) Oil market

The table below illustrates the difference between the growth in world oil demand and non-OPEC supply since 2015:

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025E
											IEA
World Demand	***95.3***	***96.4***	***98.2***	***99.5***	***100.7***	***91.8***	***97.4***	***99.9***	***102.0***	***102.9***	***103.9***
Non-OPEC supply (inc NGLs)	*62.1*	*61.5*	*62.5*	*65.0*	*67.0*	*64.4*	*65.0*	*66.9*	*69.3*	*70.2*	*71.6*
OPEC NGLs	*5.2*	*5.3*	*5.4*	*5.5*	*5.3*	*5.2*	*5.3*	*5.4*	*5.5*	*5.6*	*5.7*
Non-OPEC supply plus OPEC NGLs	**67.3**	**66.8**	**67.9**	**70.5**	**72.3**	**69.6**	**70.3**	**72.3**	**74.8**	**75.8**	**77.3**
Call on OPEC (crude oil)	**28.0**	**29.6**	**30.3**	**29.0**	**28.4**	**22.2**	**27.1**	**27.6**	**27.2**	**27.1**	**26.6**
Congo supply adjustment	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Gabon supply adjustment	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Eq Guinea supply adjustment	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Call on OPEC-9 (crude oil)	**27.4**	**29.0**	**29.7**	**28.4**	**27.8**	**21.6**	**26.5**	**27.0**	**26.6**	**26.5**	**26.0**

Source: Bloomberg; IEA; Guinness Global Investors, April 2025

Global oil demand in 2019 was 13m b/day higher than the pre-Financial Crisis (2007) peak. The demand picture for 2020, down by around 9m b/day, was heavily clouded by the impact of the COVID-19 virus and efforts to mitigate its spread. Demand rebounded between 2020 and 2024 by over 11m b/day, leaving overall consumption in 2024 over 2m b/day higher than the 2019 peak.

OPEC

The last few years have proved testing for OPEC. They have tried to keep prices strong enough that OPEC economies are not running excessive deficits, whilst not pushing the price too high and over-stimulating non-OPEC supply.

The effect of $100+/bl oil, enjoyed for most of the 2011-2014 period, emerged in 2014 in the form of an acceleration in US shale oil production and an acceleration in the number of large non-OPEC (ex US onshore) projects reaching production. OPEC met in late 2014 and responded to rising non-OPEC supply with a significant change in strategy to one that prioritised market share over price. Post the November 2014 meeting, OPEC not only maintained their quota but also raised production significantly, up by 2.5m b/day over the subsequent 18 months. This contributed to an oversupplied market in 2015 and 2016.

In late 2016, faced with sharply lower oil prices, OPEC stepped back from their market share stance, announcing plans for the first production cut since 2008. The announcement included a cut in production from Russia (a non-OPEC country), creating for the first time the concept of an OPEC+ group.

OPEC-9 oil production to March 2025

('000 b/day)	31-Dec-19	28-Feb-25	31-Mar-25	Current vs Dec 2019	Current vs last month
Saudi	9,730	8,970	**8,950**	-780	-20
Iran	2,080	3,310	**3,350**	1,270	40
Iraq	4,610	4,160	**4,150**	-460	-10
UAE	3,040	3,300	**3,330**	290	30
Kuwait	2,710	2,470	**2,470**	-240	0
Nigeria	1,820	1,450	**1,500**	-320	50
Venezuela	730	980	**980**	250	0
Libya	1,110	1,290	**1,270**	160	-20
Algeria	1,010	910	**910**	-100	0
OPEC-9	**26,840**	**26,840**	**26,910**	**70**	**70**

Source: Bloomberg; Guinness Global Investors, 31.3.2025

The 2017-19 period continued to be volatile for OPEC, with further production cuts necessary to balance ongoing non-OPEC supply growth.

The challenge for OPEC+ then ballooned in 2020 with the onset of COVID around the world. Initially, OPEC and their non-OPEC partners failed to reach agreement around their response to demand from the spread of the virus, precipitating a fall-out between participants and a short-lived price war. In light of extreme oil market oversupply, OPEC and non-OPEC partners reconvened in April 2020 and confirmed a deal to cut their production by nearly 10m b/day.

In July 2021, with demand largely recovered after COVID, the OPEC+ group agreed to taper their quota cuts at 0.4m b/day each month until September 2022. The actions of OPEC through the pandemic gave us confidence that OPEC was looking to do 'what it takes' to keep the market in balance, despite extreme challenges. Since the end of 2022, OPEC have adjusted their production to match closely the prevailing call on the group.

OPEC-9 apparent production vs call on OPEC 2000 – 2025

Source: IEA Oil Market Report (March 2025 and prior); Guinness estimates

OPEC's actions in recent years have generally demonstrated a commitment to delivering a reasonable oil price to satisfy their own economies but also to incentivise investment in long-term projects. Saudi's actions at the head of OPEC have been designed to achieve an oil price that to some extent closes their fiscal deficit (c.$95/bl is needed to close the gap fully), whilst not spiking the oil price too high and over-stimulating non-OPEC supply.

In the shorter term, the COVID-19 and Russia/Ukraine crises have created particularly challenging conditions, adding to oil price volatility. Longer-term, we believe that Saudi seek a 'good' oil price, one that satisfies their fiscal needs. Overall, we reiterate two important criteria for Saudi:

1. Saudi is interested in the average price of oil that they get; they have a longer investment horizon than most other market participants.

2. Saudi wants to maintain a balance between global oil supply and demand to maintain a price that is acceptable to both producers and consumers.

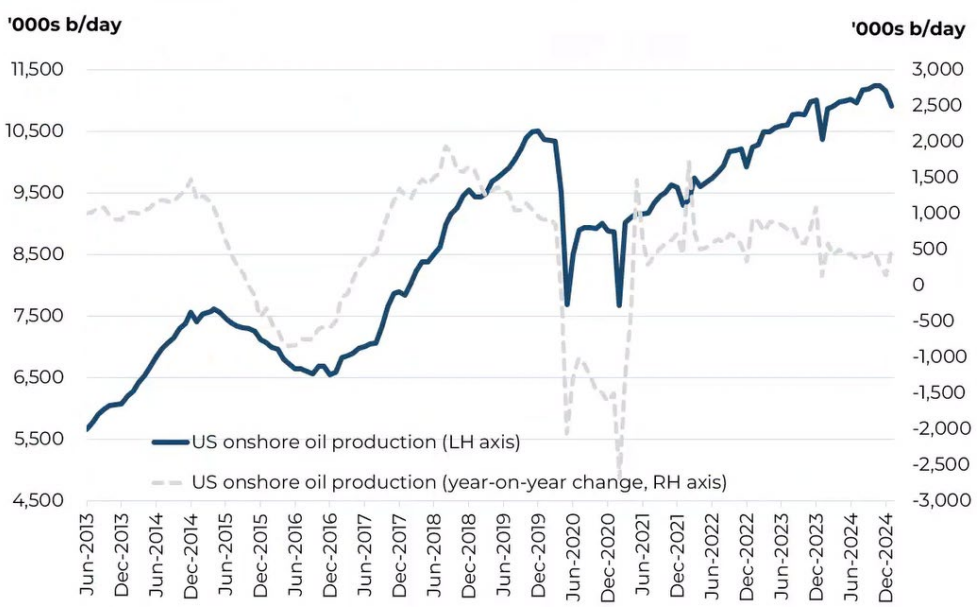
Nothing in the market in recent years has changed our view that OPEC can put a floor under the price – as they did in 2020, 2018, 2016, 2008, 2006, 2001 and 1998.

Supply looking forward

The non-OPEC world has, since the 2008 financial crisis, grown its production more meaningfully than in the period before 2008. The growth was 0.9% p.a. from 2001-2008, increasing to 1.7% p.a. from 2009-2024.

Growth in the non-OPEC region since the start of the last decade has been dominated by the development of shale oil and oil sands in North America (up around 8m b/day since 2010), implying that the rest of the non-OPEC region has barely grown over this period, despite the sustained high oil price until mid-2014.

US onshore oil production



Source: EIA; Guinness Global Investors, April 2025

The growth in US shale oil production, especially the Permian Basin, raises the question of how much more there is to come and at what price. Our assessment is that US shale oil is capital-intensive but some growth is viable, on average, at around $70 oil prices. In particular, there appears to be ample inventory in the Permian Basin to maintain volumes into the late-2020s. The rate of development is heavily dependent on the cashflow available to producing companies, which tends to be recycled immediately into new wells, and the underlying cost of services to drill and fracture the wells. Since 2019, we have seen increased shareholder pressure applied to US E&P companies to improve their capital discipline and to cut their reinvestment rates.

The collapse in oil prices at the start of 2020 to a level well below $50/bl changed the landscape, with US E&P companies reducing capital spending further as they attempted to live within their cashflows. Shale oil production dropped by nearly 3m b/day in 2020 (peak to trough) and took nearly three years to recover to the previous peak of late 2019.

Non-OPEC supply growth outside the US has been sustained in recent years, by a handful major project additions, notably in Guyana and Brazil. Net growth remains sluggish, however, as much of the new oil has been required to offset natural declines in more mature basins.

Future demand

The IEA estimate that 2025 oil demand will rise by around 1.0m b/day to 104.0m b/day, around 3.3m b/day ahead of the 2019 pre-COVID peak. Post the COVID demand recovery, the world is settling back into annual oil demand growth of plus or minus 1m b/day, led by increased use in the non-OECD region. China has been, and continues to be, a key – although no longer major - part of this growth and signs are emerging that India will also grow rapidly.

The trajectory of global oil demand over the next few years will be a function of global GDP, the pace of the 'consumerisation' of developing economies, the development of alternative fuels, and price. At $80/bl, the world oil bill as a percentage of GDP is around 2.7%, and this will still be a stimulant of further demand growth. If oil prices were in a higher range (say around $115/bl, representing 3.8% of GDP), we would probably return to the pattern established over the past five years, with a flatter picture in the OECD more than offset by growth in the non-OECD area. Flatter OECD demand reflects improving oil efficiency over time, dampened by economic, population and vehicle growth. Within the non-OECD, population growth and rising oil use per capita will both play a significant part.

We keep a close eye on developments in the 'new energy' vehicle fleet (electric vehicles; hybrids etc). Sales of electric vehicles (pure electric and plug-in hybrid electrics) globally were around 17m in 2024, up from 14m in 2023. We expect to see strong EV sales growth again in 2025, up to around 20m, exceeding 20% of total global sales. Even applying an aggressive growth rate to EV sales, we see EVs comprising only around 5-6% of the global car fleet by the end of 2025. Looking further ahead, we expect the penetration of EVs to accelerate, causing global gasoline demand to peak at some point in the middle of the 2020s. However, owing to the weight of oil demand that comes from sources other than passenger vehicles (around 75%), which we expect to continue growing linked to GDP, we expect total oil demand not to peak until around 2030.

Conclusions about oil

The table below summarises our view by showing our oil price forecasts for WTI and Brent in 2025 versus recent history.

Average WTI & Brent yearly prices, and changes

Oil price																			*Est*
12 month MAV	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
WTI	72	100	62	80	95	94	98	93	49	43	51	65	57	39	68	94	78	76	77
Brent	73	99	63	80	111	112	109	99	54	45	55	72	64	43	71	99	83	81	81
Brent/WTI (12m MAV)	**73**	**99**	**62**	**80**	**103**	**103**	**103**	**96**	**51**	**44**	**53**	**68**	**61**	**41**	**70**	**97**	**80**	**78**	**79**
Brent/WTI y-on-y change	-3%	37%	-37%	28%	29%	0%	0%	-7%	-47%	-13%	19%	29%	-11%	-32%	68%	39%	-17%	-2%	1%
Brent/WTI (5yr MAV)	59	72	75	78	83	89	90	97	91	80	70	63	55	53	58	67	70	73	81

Source: Guinness Global Investors estimates, Bloomberg, April 2025

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, well under the thirty-year average level of around 3%.

ii) 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	2025E
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	21.3	20.7	21.7
Power generation	24.9	22.3	22.3	26.5	27.3	25.3	29.0	30.9	31.7	30.9	33.1	35.4	36.3	37.0
Industrial	19.7	20.3	20.9	20.6	21.1	21.6	23.0	23.1	22.3	22.5	23.2	23.4	23.1	23.0
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	6.2	6.4
LNG exports	-	-	-	0.1	1.0	2.6	2.8	4.8	6.4	9.7	12.0	11.9	12.2	14.4
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	8.9	8.8	9.1
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**	**107.3**	**111.6**
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**	**0.3**	**4.3**

Source: EIA; GS; Guinness estimates, April 2025

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 2022 38% 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 2024 (including Mexican and LNG exports) was around 107.3 Bcf/day, up by 0.3 Bcf/day versus 2023 and 12 Bcf/day higher than the pre-COVID level in 2019. The biggest contributors to the growth in demand in 2024 were LNG exports and power generation.

We expect US demand growth in 2025 of 4.3 Bcf/day versus average growth of nearly 4 Bcf/day between 2021 and 2023. Growth is expected to be driven by higher LNG exports and greater power generation demand. Beyond 2025, 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 3 Bcf/day by the end of 2025 and a further 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	2025E
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	105.2
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	5.3	5.8	6.0
LNG imports & other	0.8	0.6	0.5	0.5	0.4	0.3	0.1	0.1	-	-	0.1	-	-	-
Total supply	**71.9**	**71.9**	**76.3**	**79.6**	**79.3**	**79.7**	**89.8**	**96.2**	**95.5**	**96.9**	**103.1**	**107.8**	**107.6**	**111.2**
Supply growth	**2.4**	**-**	**4.4**	**3.3**	**- 0.3**	**0.4**	**10.1**	**6.4**	**- 0.7**	**1.4**	**6.2**	**4.7**	**- 0.2**	**3.6**
(Supply)/demand balance	**- 0.2**	**1.7**	**- 1.5**	**- 1.8**	**0.8**	**1.2**	**-**	**- 1.0**	**- 0.5**	**1.4**	**1.5**	**- 0.8**	**- 0.3**	**0.4**

Source: EIA; GS; Guinness estimates, April 2025

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 just above 100 at the end of March 2025. However, offsetting the fall, the average productivity per rig has risen dramatically 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 2025 albeit at a slower pace (+0.8 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

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.

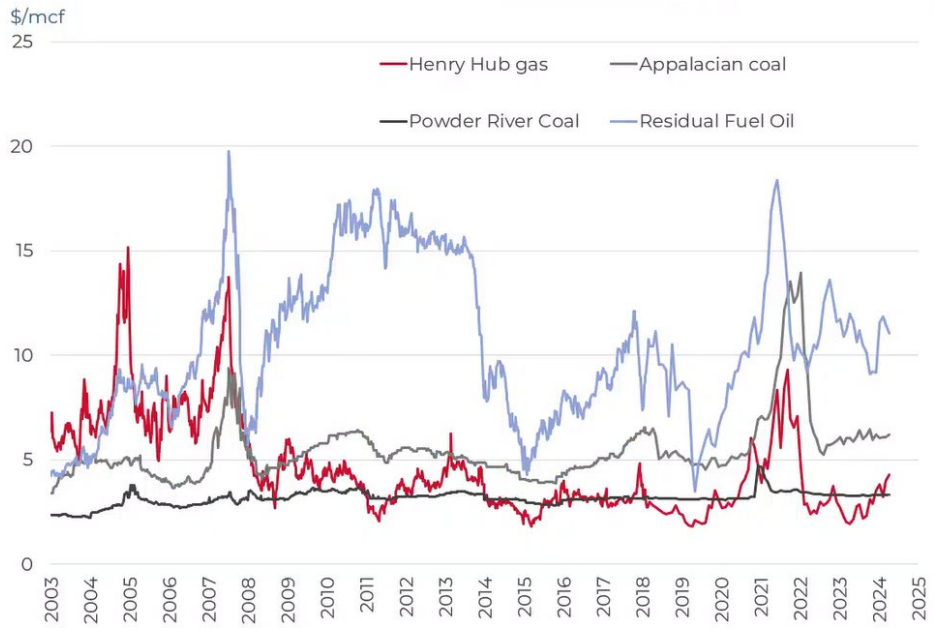
Global gas prices

Source: Bloomberg; Guinness Global Investors, April 2025

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 Global Investors, April 2025

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 2025, we expect a Henry Hub price at around this level.

APPENDIX: Oil and gas markets historical context

Oil price (WTI $) since 1989

Source: Bloomberg, April 2025

For the oil market, the period since the Iraq/Kuwait war (1990/91) can be divided into four distinct periods:

1) **1990-1998:** broadly characterized by decline. The oil price steadily weakened 1991 – 1993, rallied between 1994 – 1996, and then sold off sharply, to test 20-year lows in late 1998. This latter decline was partly induced by a sharp contraction

in demand growth from Asia, associated with the Asian crisis, partly by a rapid recovery in Iraq exports after the UN Oil for food deal, and partly by a perceived lack of discipline at OPEC in coping with these developments.

2) **1998-2014:** a much stronger price and upward trend. There was a very strong rally between 1999 and 2000 as OPEC implemented 4m b/day of production cuts. It was followed by a period of weakness caused by the rollback of these cuts, coinciding with the world economic slowdown, which reduced demand growth and a recovery in Russian exports from depressed levels in the mid 90's that increased supply. OPEC responded rapidly to this during 2001 and reintroduced production cuts that stabilized the market relatively quickly by the end of 2001.

   Then, in late 2002 early 2003, war in Iraq and a general strike in Venezuela caused the price to spike upward. This was quickly followed by a sharp sell-off due to the swift capture of Iraq's Southern oil fields by Allied Forces and expectation that they would win easily. Then higher prices were generated when the anticipated recovery in Iraq production was slow to materialise. This was in mid to end 2003 followed by a much more normal phase with positive factors (China demand; Venezuelan production difficulties; strong world economy) balanced against negative ones (Iraq back to 2.5 m b/day; 2Q seasonal demand weakness) with stock levels and speculative activity needing to be monitored closely. OPEC's management skills appeared likely to be the critical determinant in this environment.

   By mid-2004 the market had become unsettled by the deteriorating security situation in Iraq and Saudi Arabia and increasingly impressed by the regular upgrades in IEA forecasts of near record world oil demand growth in 2004 caused by a triple demand shock from strong demand simultaneously from China; the developed world (esp. USA) and Asia ex China. Higher production by OPEC has been one response and there was for a period some worry that this, if not curbed, together with demand and supply responses to higher prices, would cause an oil price sell off. Offsetting this has been an opposite worry that non-OPEC production could be within a decade of peaking; a growing view that OPEC would defend $50 oil vigorously; upwards pressure on inventory levels from a move from JIT (just in time) to JIC (just in case); and pressure on futures markets from commodity fund investors.

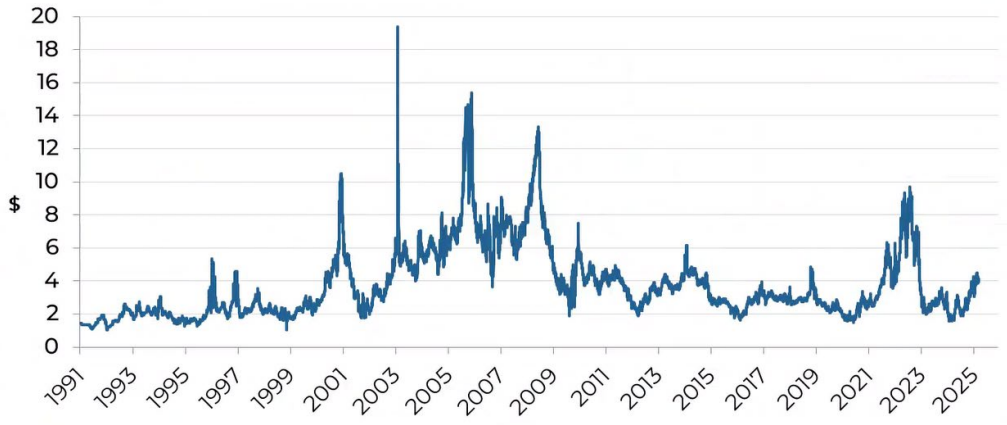
   Continued expectations of a supply crunch by the end of the decade, coupled with increased speculative activity in oil markets, contributed to the oil price surging past $90 in the final months of 2007 and as high as $147 by the middle of 2008. This spike was brought to an abrupt end by the collapse of Lehman Brothers and the financial crisis and recession that followed, all of which contributed to the oil price falling back by early 2009 to just above $30. OPEC responded decisively and reduced output, helping the price to recover in 2009 and stabilise in the $70-95 range where it remained for two years.

   Prices during 2011-2014 moved higher, averaging around $100, though WTI generally traded lower than Brent oil benchmarks due to US domestic oversupply affecting WTI. During this period, US unconventional oil supply grew strongly, but was offset by the pressures of rising non-OECD demand and supply tensions in the Middle East/North Africa.

3) **2014-2020:** a further downcycle in oil. Ten years of high prices leading up to 2014 catalysed a wall of new non-OPEC supply, sufficient that OPEC saw no choice but to stop supporting price and re-set the investment cycle. Oil prices found a bottom in 2016 (as a result of OPEC and non-OPEC partners cutting production again), but its recovery was capped by the volume of new supply still coming into the market from projects sanctioned pre the 2014 price crash. Average prices were pinned 2017-19 in the $50-70/bl range, with prices at the top end of this rang stimulating oversupply from US shale. The alliance between OPEC and non-OPEC partners fell apart briefly in March 2020 and, coupled with an unprecedented collapse in demand owing to the COVID-19 crisis, oil prices dropped back below $30/bl, before recovering to around $50/bl by the end of 2020 thanks to renewed OPEC+ action.

4) **2021 onwards:** Underinvestment in new oil capacity in the 2015-2020 period catalysed the start of a new cycle in 2021, pushing prices above $75/bl.

North American gas price since 1991 (Henry Hub $/Mcf)



Source: Bloomberg, April 2025

With regard to the US natural gas market, the price traded between $1.50 and $3/Mcf for the period 1991 - 1999. The 2000s were a more volatile period for the gas price, with several spikes over $8/mcf, but each lasting less than 12 months. On each occasion, the price spike induced a spurt of drilling which brought the price back down. Excepting these spikes, from 2004 to 2008, the price generally traded in the $5-8 range. Since 2008, the price has averaged below $4 as progress achieved in 2007-8 in developing shale plays boosted supply while the 2008-09 recession cut demand. Demand has been extremely strong over the last decade but this has been outpaced by continued growth in onshore production, driven by the prolific Marcellus/Utica field and associated gas as a by-product of shale oil production.

North American gas prices are important to many E&P companies. In the short term, they do not necessarily move in line with the oil price, as the gas market is essentially a local one. (In theory 6 Mcf of gas is equivalent to 1 barrel of oil so $60 per barrel equals $10/Mcf gas). It remains a regional market more than a global market, though the development of the LNG industry is creating a greater linkage.

IMPORTANT INFORMATION

Issued by Guinness Global Investors which is a trading name of Guinness Asset Management Limited which is authorised and regulated by the Financial Conduct Authority.

This report is primarily designed to inform you about the Guinness Global Energy Fund and the WS Guinness Global Energy Fund. It may provide information about the Funds' portfolios, including recent activity and performance. It contains facts relating to the equity markets and our own interpretation. Any investment decision should take account of the subjectivity of the comments contained in the report.

This document is provided for information only and all the information contained in it is believed to be reliable but may be inaccurate or incomplete; any opinions stated are honestly held at the time of writing but are not guaranteed. The contents of the document should not therefore be relied upon. It should not be taken as a recommendation to make an investment in the Funds or to buy or sell individual securities, nor does it constitute an offer for sale. OCFs for all share classes are available at www.guinnessgi.com. If you decide to invest, you will be buying units/shares in the Fund and will not be investing directly in the underlying assets of the Fund.

GUINNESS GLOBAL ENERGY FUND

Documentation
The documentation needed to make an investment, including the Prospectus, Supplement, the Key Investor Information Document (KIID), Key Information Document (KID) and the Application Form, is available in English from www.guinnessgi.com or free of charge from the Manager: Waystone Management Company (IE) Limited, 35 Shelbourne Rd, Ballsbridge, Dublin, D04 A4E0 Ireland; or the Promoter and Investment Manager: Guinness Asset Management Ltd, 18 Smith Square, London SW1P 3HZ.

Waystone IE is a company incorporated under the laws of Ireland having its registered office at 35 Shelbourne Rd, Ballsbridge, Dublin, D04 A4E0 Ireland, which is authorised by the Central Bank of Ireland, has appointed Guinness Asset Management Ltd as Investment Manager to this fund, and as Manager has the right to terminate the arrangements made for the marketing of funds in accordance with the UCITS Directive.

Investor Rights
A summary of investor rights in English, including collective redress mechanisms, is available here: https://www.waystone.com/waystone-policies/

Residency
In countries where the Fund is not registered for sale or in any other circumstances where its distribution is not authorised or is unlawful, the Fund should not be distributed to resident Retail Clients. **NOTE: THIS INVESTMENT IS NOT FOR SALE TO U.S. PERSONS**.

Structure & regulation
The Fund is a sub-fund of Guinness Asset Management Funds PLC (the "Company"), an open-ended umbrella-type investment company, incorporated in Ireland and authorised and supervised by the Central Bank of Ireland, which operates under EU legislation. If you are in any doubt about the suitability of investing in this Fund, please consult your investment or other professional adviser.

Switzerland
This is an advertising document. The prospectus and KID for Switzerland, the articles of association, and the annual and semi-annual reports can be obtained free of charge from the representative in Switzerland, Reyl & Cie SA, Ru du Rhône 4, 1204 Geneva. The paying agent is Banque Cantonale de Genève, 17 Quai de l'Ile, 1204 Geneva.

Singapore
The Fund is not authorised or recognised by the Monetary Authority of Singapore ("MAS") and shares are not allowed to be offered to the retail public. The Fund is registered with the MAS as a Restricted Foreign Scheme. Shares of the Fund may only be offered to institutional and accredited investors (as defined in the Securities and Futures Act (Cap.289)) ('SFA') and this material is limited to the investors in those categories.

Australia
For professional investors only

WS GUINNESS GLOBAL ENERGY FUND

Documentation
The documentation needed to make an investment, including the Prospectus, the Key Investor Information Document (KIID) and the Application Form, is available in English from www.waystone.com/our-funds/waystone-fund-services-uk-limited/ or free of charge from Waystone Management (UK) Limited, PO Box 389, Darlington DL1 9UF.
General enquiries: 0345 922 0044
E-Mail: wtas-investorservices@waystone.com

Waystone Management (UK) Limited is authorised and regulated by the Financial Conduct Authority.

Residency
In countries where the Fund is not registered for sale or in any other circumstances where its distribution is not authorised or is unlawful, the Fund should not be distributed to resident Retail Clients.

Structure & regulation
The Fund is an Authorised Unit Trust authorised by the Financial Conduct Authority.

Telephone calls will be recorded and monitored.