When growth no longer pays

Re-thinking value for oil and gas companies



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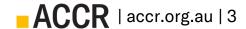
Executive Summary

Over the past fifteen years, the energy sector has underperformed every other MSCI sector. The major oil and gas companies are pledging a new era of "capital discipline" to create long-term value. Yet while their shareholder distributions have risen as a share of cash use over the past 10 years, company strategies remain firmly anchored to continuing exploration and growing production.

Building on recent research that focused on BP's value-erosive strategy,² ACCR assessed ten major oil and gas companies. We tested whether exploration and production growth is really the best way for these companies to deliver value. For each company, we compared the value of proceeding with planned upstream investment to returning capital to shareholders. In every case, we found that returning capital delivered greater value.

Global conventional oil and gas exploration is becoming less successful, more expensive and is taking longer. Project execution – a critical driver of value – has typically been poor, with projects delivered late and over budget. The addressable market for oil and gas is diminishing as more sectors electrify. Despite this, the oil and gas majors are assuming that oil prices in 2030 will be around 17% higher than those implied by the forward curve.

While ceasing upstream investment comes with significant complexities – many beyond the financial – this research provides a compelling case for ending exploration and sharply curtailing investment in discovered fields. It is intended to support investors in their discussion about how to steward the oil and gas industry, in the face of increasing uncertainty, and with fewer options for creating shareholder value.



^{1.} See slide 23 for more detail.

^{2.} ACCR, Moving BP from rhetoric to action on capital discipline, November 2025, https://www.accr.org.au/research/moving-bp-from-rhetoric-to-action-on-capital-discipline/

Key findings

- Our analysis of ten oil and gas companies shows that ceasing conventional upstream exploration and development is more valuable than continuing it. Looking at these companies' conventional exploration and development portfolios planned to 2035, we found:
 - ceasing exploration and development and returning cash to shareholders would create a \$78 billion¹ uplift in net present value (NPV)
 - across all ten companies, avoided exploration costs are the largest source of potential value
 - all ten companies would be more valuable as a production company than as an exploration and production company.
- If all ten companies analysed ceased developing new conventional projects, they would remain large oil and gas producers for decades. Cumulative production would reduce by 10% to 2050, compared to continuing a BAU strategy.
- The financial case for exploration is weak and getting worse. We found that, on average, every \$1 spent on global conventional exploration by the sector since 2000 has eroded \$0.71c. Conventional exploration is five times more expensive and taking almost twice as long compared to three decades ago.

Ceasing conventional upstream exploration and development is more valuable than continuing it

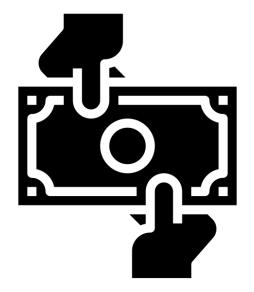


Returning cash to shareholders offers more value than proceeding with conventional projects for ten major oil and gas companies

We assessed ten major oil and gas companies, looking at their conventional oil and gas projects slated for final investment decision (FID) before 2035.

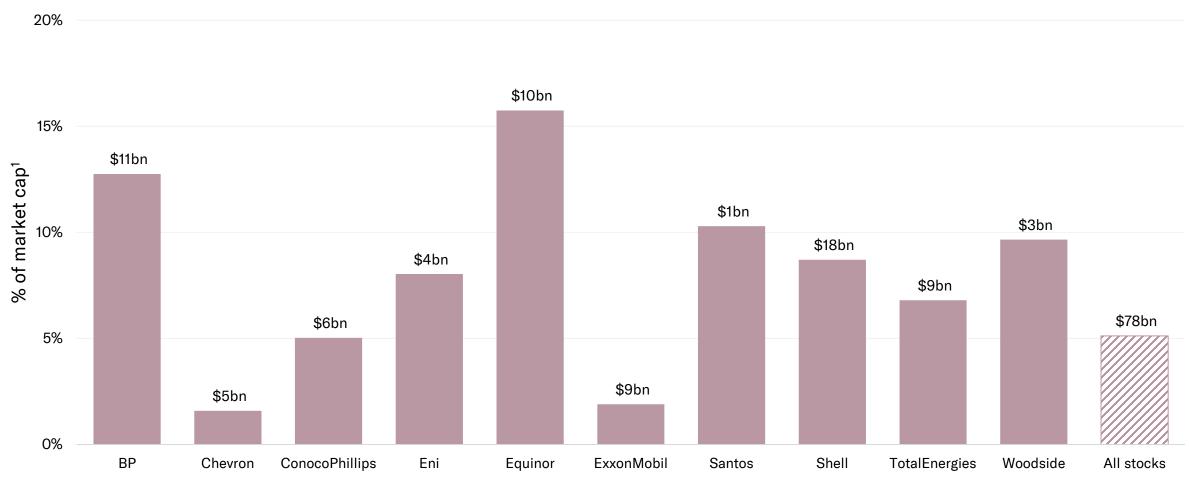
For each company, we modelled two scenarios:

- 1. Conventional developments and exploration continue.
- 2. Conventional developments and exploration cease, and cash is returned to shareholders.



For every company, returning cash to shareholders offers more value.

These ten companies could see a combined \$78 billion net present value (NPV) uplift if they stopped the exploration and development of conventional oil and gas¹



Source: ACCR analysis, based on data from Damodaran, Rystad Energy, Bloomberg Finance LP and company reports.

 $^{{\}bf 1.}\ {\bf Data\ labels\ are\ absolute\ NPV\ benefit\ of\ ceasing\ conventional\ exploration\ and\ development.}$

Stopping exploration and the sanctioning of pre-FID conventional projects creates value throughout the business











Avoided project execution risks

Lower risk

Avoided exploration

Leaner organisation

Potential for increased buybacks

Oil and gas projects are typically late and over budget

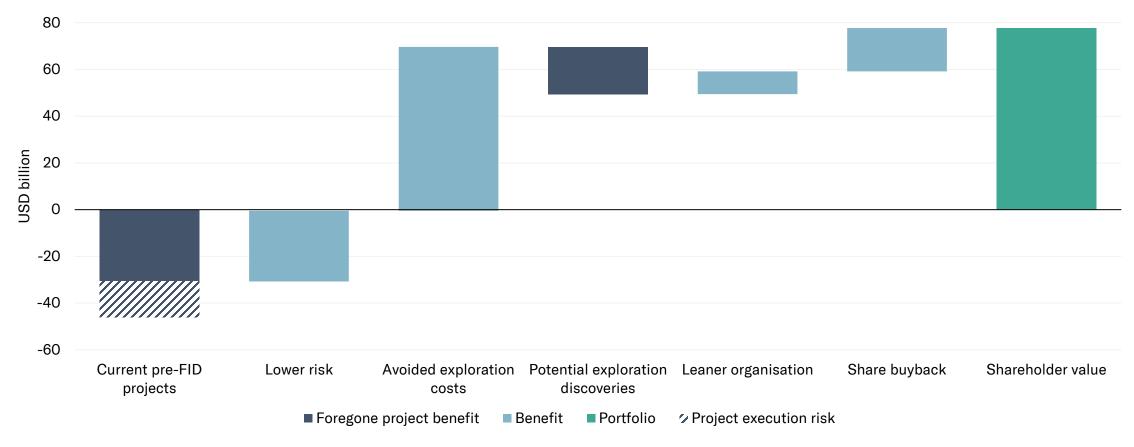
A company building fewer projects is simpler and less risky Exploration is costly and a major destroyer of value

A simpler business has lower corporate overheads

Buybacks can be funded from cost savings

Across the ten companies, avoided exploration costs are the largest source of potential value¹

Ten companies could be \$78 billion more valuable if they stopped exploring for and developing conventional projects¹



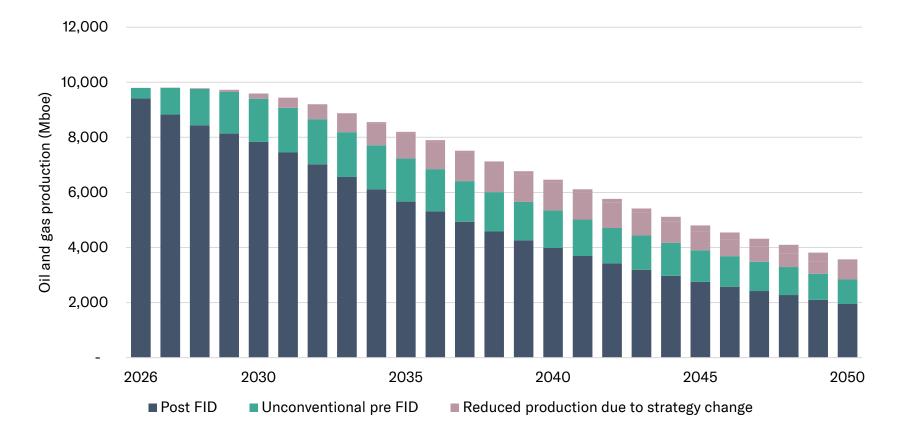
 $^{1. \} The \ model's \ assumptions \ and \ a \ high \ price \ sensitivity \ are \ in \ Appendix \ 1. \ Individual \ company \ data \ is \ in \ Appendix \ 2.$

Even if all ten companies ceased developing new conventional projects, they would remain large oil and gas producers for decades

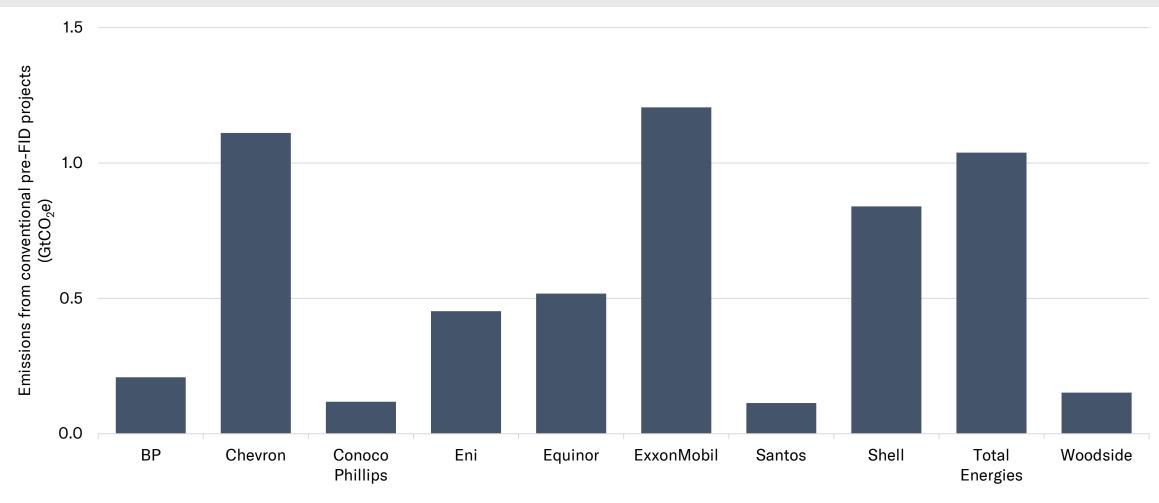
If all ten companies ceased new conventional projects, their collective oil and gas production would reduce by ~10% to 2050, relative to a business-as-usual strategy.

The ten companies would still produce 2.8 billion boe in 2050.

Ceasing conventional development would reduce production to 2050 by 10% for these companies¹



Across all ten companies, ceasing development of conventional oil and gas projects would avoid 6 GtCO₂e of emissions – similar to the United States' emissions in 2024¹



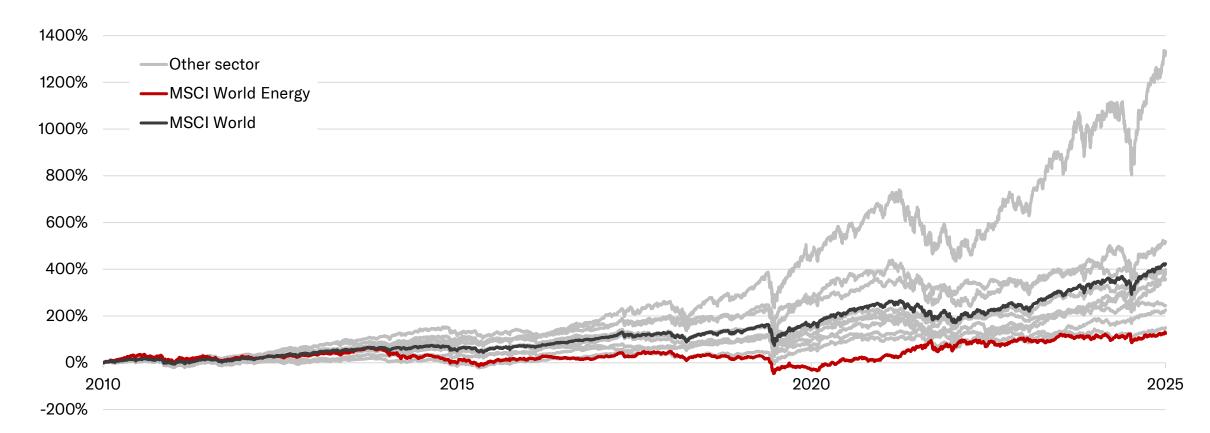
^{1.} UNEP, Off target: Continued collective inaction puts global temperature goal at risk, 2025, p. 11, https://wedocs.unep.org/rest/api/core/bitstreams/4830e1a8-14c0-44a5-a066-cdd2ba5b3e10/content

The oil and gas sector is a chronic underperformer

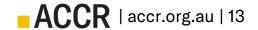


The oil and gas sector is a consistent underperformer

Energy has underperformed every other MSCI sector over 15 years^{1, 2}



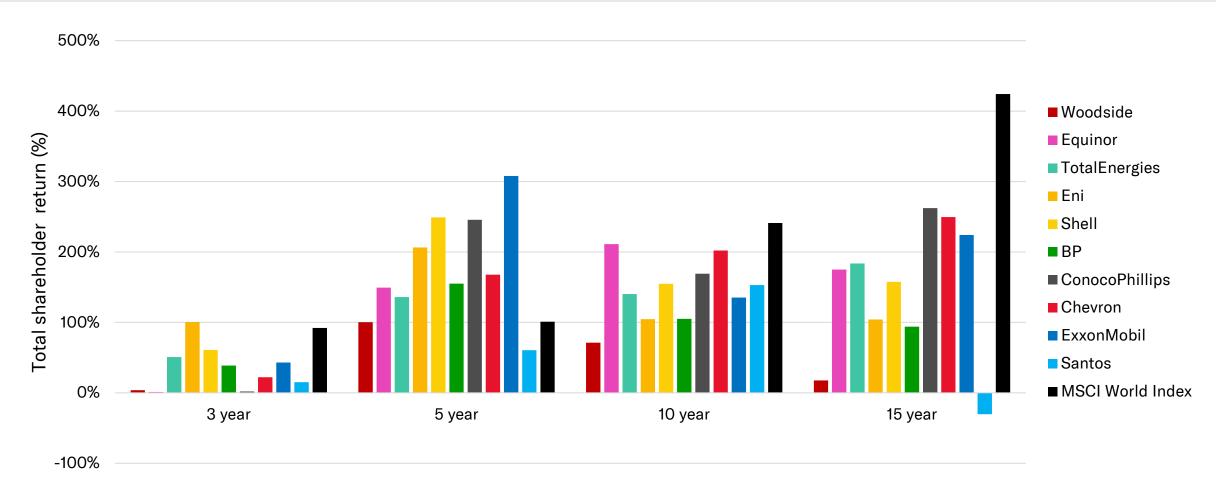
Source: Bloomberg Finance LP, used with permission of Bloomberg Finance LP.



^{1.} USD basis for 15 years ending 30 September 2025.

^{2.} Integrated O&G, and O&G exploration and production stocks, make up just over 70% of the MSCI World Energy index as of October 2025.

All ten companies we assessed underperformed the equities market over ten and 15 years



Source: Bloomberg Finance LP, used with permission of Bloomberg Finance LP.

^{1.} USD basis, all periods end on 30 September 2025.

Oil and gas projects are, on average, delivered late and over budget

Most oil and gas companies do not systematically disclose their project execution performance, but research shows that poor project execution is a feature of the sector.

Professor Bent Flyvbjerg study

Oil and gas megaprojects are an average of 34% over budget. 19% exceed budgets by more than 50%.1

EY

Assessed oil and gas projects were, on average, 59% over budget. 64% of projects faced cost overruns and 73% reported schedule delays.²

ACCR

Eight Australian LNG projects that reached FID between 2007 and 2012 were all delivered late and. on average, **35%** over budget.3

Independent Project Analysis (IPA)

Only 22% of assessed oil and gas megaprojects could "reasonably be called successful". The remaining projects had an average 33% cost overrun and 30% schedule slip.4

Bain & Company

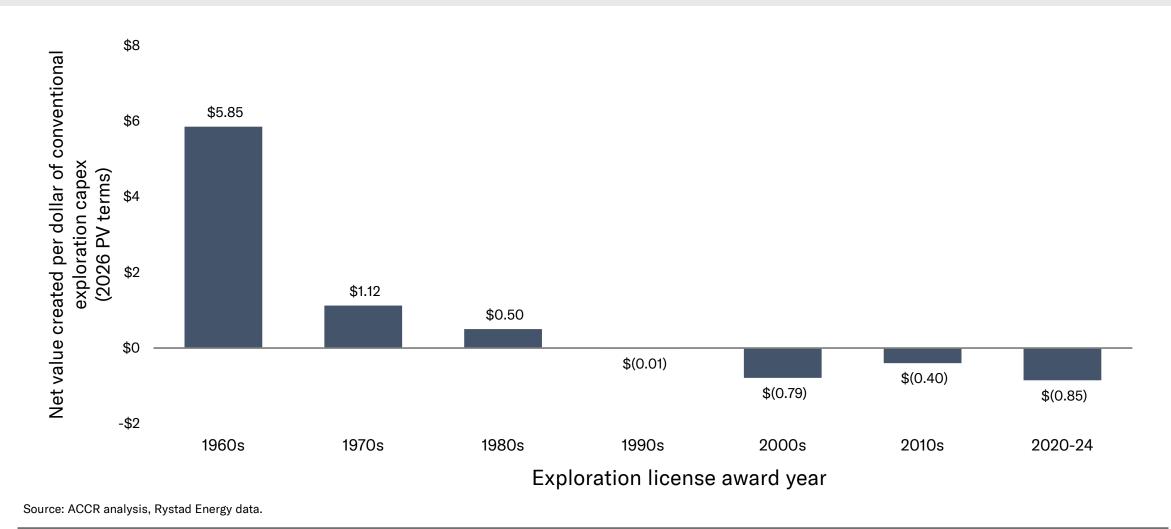
From 2015 to 2019. upstream and midstream oil and gas projects were an average of **2.5** years late and 17% over budget.⁵

^{1.} Flyvbjerg and Gardner, How Big Things Get Done, 2023, p. 216. See Appendix 2 to compare to other sectors.

^{2.} EY, Spotlight On Oil and Gas Megaprojects, 2014, pp. 4, 6.

^{3.} ACCR, Australia's LNG growth wave - did it wash for shareholders, 2023, p. 8.

On average, every dollar spent on global conventional exploration since 2000 has destroyed 71 cents¹



^{1.} Calculated as the NPV of projects from FID, divided by the NPV of exploration expenses. Historic costs discounted at 10%. Future costs discounted at 10% plus country risk.

The oil and gas sector faces a more challenging future

"Overall, the oil and gas industry is navigating a complex landscape of evolving political risks, legal challenges, and the accelerating energy transition. While demand for oil and gas is expected to persist, the rise of alternative energy technologies coupled with heightened political and legal risks are reshaping market dynamics."

- UBS Asset Management, The Case for Higher Returns, August 2025

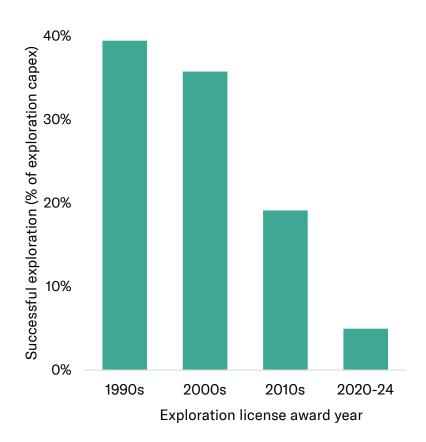
"We're being more selective in exploration because the easy barrels are gone — success rates are lower, costs are higher, and investors expect discipline."

- BP CFO Murray Auchincloss, BP Capital Markets Day presentation, November 2023

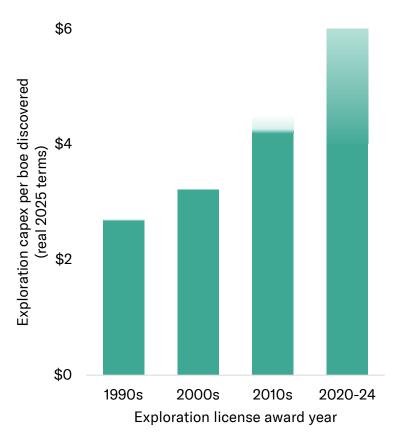


Conventional exploration is becoming less successful, more expensive and taking longer

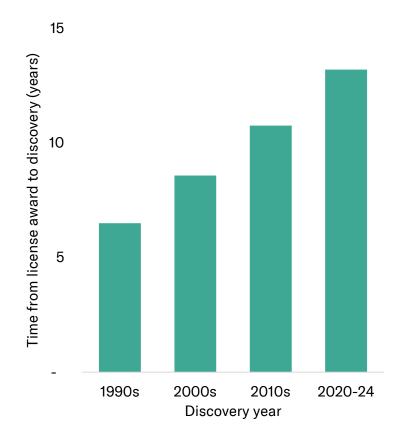
Conventional exploration success halved in the 2010s and halved again in the 2020s¹

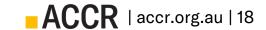


Conventional discovery costs have doubled since the 2000s^{1, 2}



Conventional discoveries take twice as long as they did in the 1990s



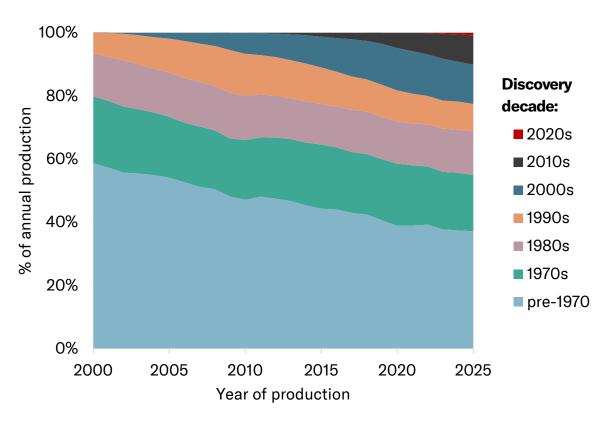


^{1.} Values included modelled future costs and discoveries. Discoveries are calculated as total modelled production.

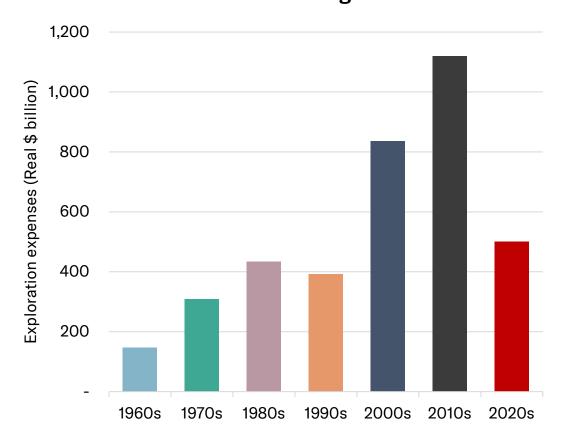
^{2.} The range is based on forecast exploration capex and discoveries relative to outcomes to date.

Discovered volumes are decreasing, despite higher exploration budgets in recent decades

Over 75% of conventional oil and gas production was discovered last century



Conventional exploration expenses in the 2000s and 2010s were two-to-three times higher than in the 1990s

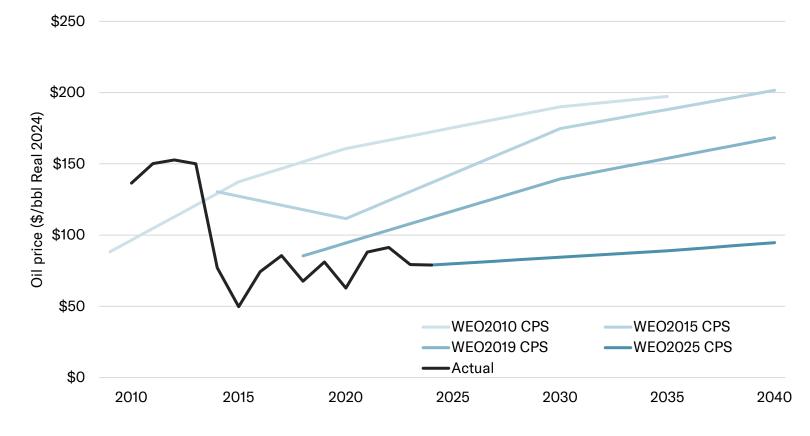


Over time, actual oil prices have been significantly lower than projections under the IEA's Current Policies Scenario

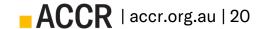
Analysis of the IEA's Current Policies Scenario (CPS) – which assumes, implausibly, that climate policy stagnates – shows that oil price projections under this scenario have:

- chronically exceeded the actual oil price
- decreased 56% since 2010.¹

Change in 2030 Brent oil price in the IEA's CPS between the 2010 World Energy Outlook (WEO) and 2025 WEO



Source: IEA WEO extended datasets, ACCR modelling.



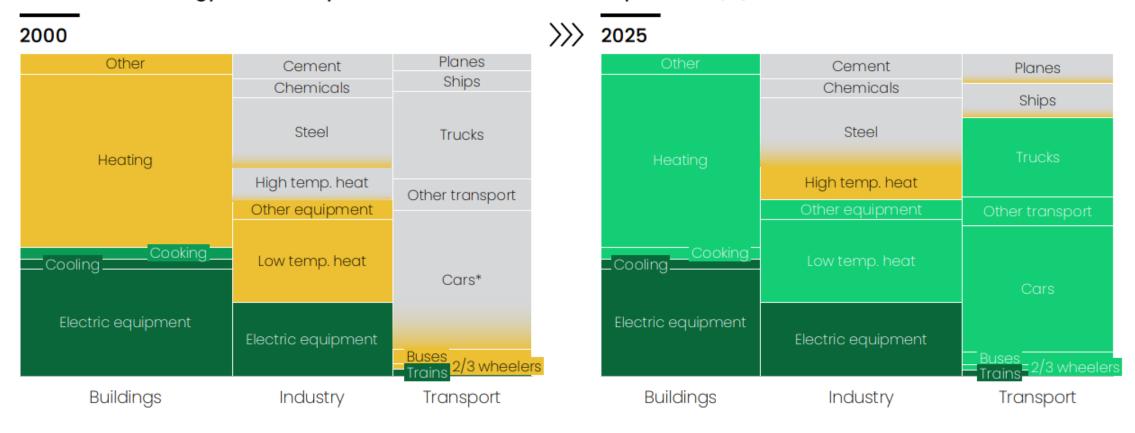
The addressable market for oil and gas is diminishing as more sectors electrify

Over 75% of the global energy system can now be electrified

Already (largely) electrified



Share of final energy demand by subsector and electrification potential (%)



Despite the rhetoric on capital discipline, the oil and gas sector is continuing to bet on a future that may never arrive



Oil and gas majors are recognising the need for capital discipline

66 33

Now I recognize the industry's allocation of capital has not always been effective. Primarily because it hasn't been focused on the fundamental or sources of structural advantage. I can't defend that, but we can change it, and today, we'll show you that we have. Capital discipline for us is not about investing less. Discipline is investing in projects of low cost of supply and high returns, driven by unique advantages ...

Darren Woods, ExxonMobil CEO Corporate Plan Update and Upstream Spotlight, December 2024 6677

We decided to course-correct, challenge internal dogmas, while undertaking a cultural reset ... We sought to drive improved performance, embed cost and capital discipline, and make fundamental decisions across our portfolio.

Wael Sawan, Shell CEO Capital Markets Day, 2025

6677

You know that capital discipline and cost discipline are near and dear to my heart and they always matter in a commodity business.

Mike Wirth, Chevron CEO Q2 2024 Earnings Call, 2024

66 77

We're going to invest with discipline in the energy transition, focusing on key growth markets and being more selective with our investment to ensure we deliver the returns our shareholders expect.

Murray Auchincloss, BP CEO Capital Markets Day, 2025

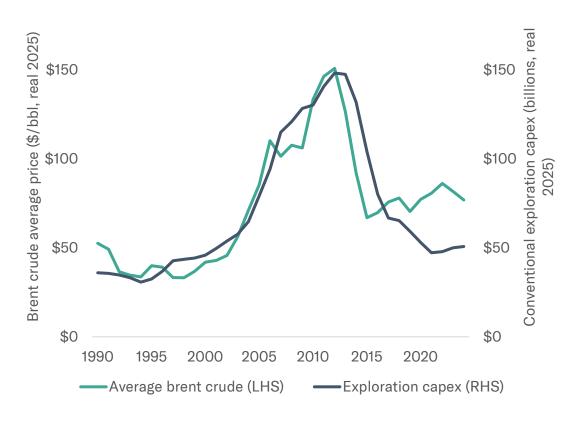
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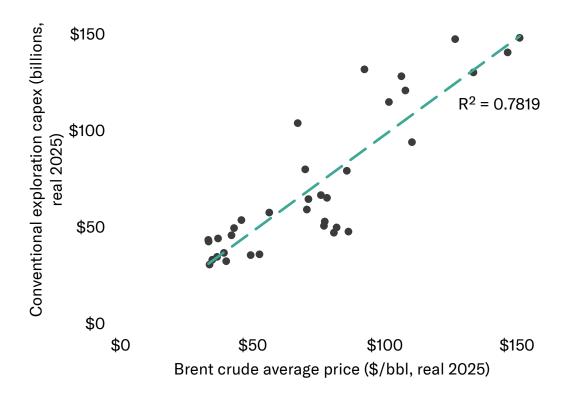
Our industry has got a habit of blowing themselves up when they go into growth mode.

Kevin Gallagher, Santos CEO 2018 Investor Briefing Day

Past exploration budgets appear to have been driven by available cash, rather than the multidecade strategy appropriate for such a long investment cycle

Globally, company spending on exploration has closely correlated with oil prices for at least 35 years¹





Source: ACCR analysis, Rystad Energy data.

Source: ACCR analysis, based on Rystad Energy.

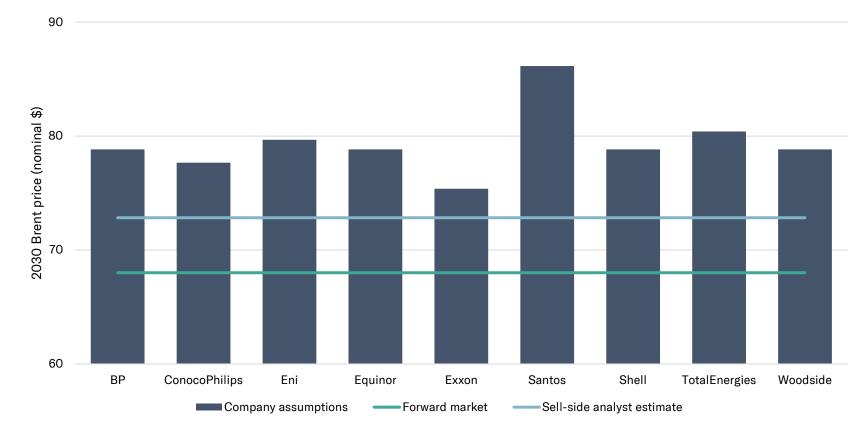
^{1.} Both graphs use three-year averages.

The ten oil and gas companies we assessed hold optimistic price assumptions – posing a risk of capital misallocation

These companies' Brent price assumptions overstate their oil projects' revenue by 17% relative to forward prices.

This may facilitate investments in projects that deliver a negative NPV under forward conditions.

These companies currently assume a ~17% higher Brent price in 2030 than the forward market¹



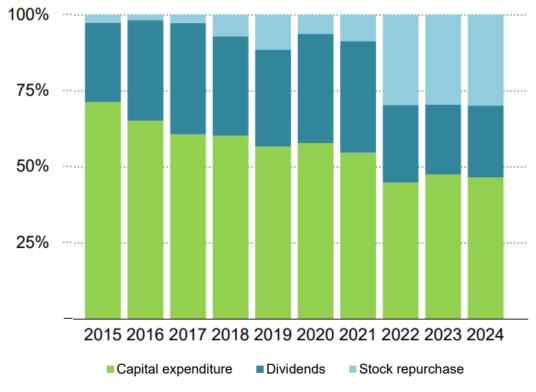
Source: Company disclosures; Bloomberg Finance LP, used with permission of Bloomberg Finance LP.

The oil and gas sector has begun to return a greater percentage of cash back to shareholders and could accelerate this trend in a value-accretive manner

The oil and gas majors have begun to return a greater percentage of cash to shareholders, progressively increasing distributions over the last decade.

By ceasing exploration and pre-FID projects, they could accelerate this trend in a valueaccretive manner.

The oil and gas majors' capex was less than half of cash utilisation from 2022 to 2024



Source: IEA, World Energy Investment, 2025, p. 54.

Tighter capital discipline is a proven strategy

"Should you find yourself in a chronically leaking boat, energy devoted to changing vessels is likely to be more productive than energy devoted to patching leaks."

- Warren Buffett, Berkshire Hathaway Chairman's Letter, 1985



Case study: Warren Buffett's playbook involved aggressive buybacks within a disciplined capital allocation strategy

Berkshire Hathaway

27% p.a. total shareholder return (TSR) 1965 - 1985

Originally a 100-year-old textile company bought in a hostile takeover for \$20 million.

Buffett identified the textile business as low-returning and chose to harvest all excess capital to deploy elsewhere.

Key competitor Burlington deployed all excess capital back into the business.

Burlington delivered 0.6% p.a. from 1965-1985 (when Berkshire closed). Berkshire Hathaway delivered a TSR of 27% p.a.

This highlights the importance of:

- · capital allocation
- being in businesses with attractive returns on capital
- not reinvesting free cash flow into low-returning businesses.

General Dynamics

87% p.a. TSR 1991 - 1993

Bill Anders became CEO in 1991 when the defence industry faced excess capacity following the Iraq War.

The company adopted three key tenets:

- 1. Only be in businesses where it had the #1 or #2 market position.
- 2. Stick to businesses they knew well.
- 3. Exit commodity businesses with low returns.

The company reshaped focus from engineering to shareholders.

In the first few years, focused on growing earnings per share (EPS), even though this meant shrinking the company by more than half.

Most proceeds were distributed to shareholders, including a 30% stock repurchase in 1992.

Capital Cities Broadcasting

20% p.a. TSR 1966 - 1996

One of the biggest investments Buffett ever made.

A large acquirer of radio and TV stations in the US through the 1960s and 70s, a successful example of a roll-up.

Bought back close to 50% of its shares during the mid-1970's and early 80s bear market.

Bought ABC Networks in 1984, at the time the largest non-oil and gas acquisition in history.

Sold the business in the mid-1990s to Disney, having grown \$1 of shareholder capital invested in 1966 to \$204 in 1995.

Teledyne

20% p.a. TSR 1963 - 1990

Managed by Henry Singleton.

Disciplined acquirer, never paying more than 12x earnings to purchase a company.

Between 1972-84 bought back 90% of outstanding

shares. "No one has ever bought in shares more aggressively," said Charlie Munger.

During this time EPS grew 40x.

\$1 invested in 1963 was worth \$181 in 1990.

"Henry is a manager that all investors, CEOs, would be CEOs and MBA students should study.

"In the end he was 100% rational and there are very few CEOs about whom I can make that statement."

- Warren Buffett

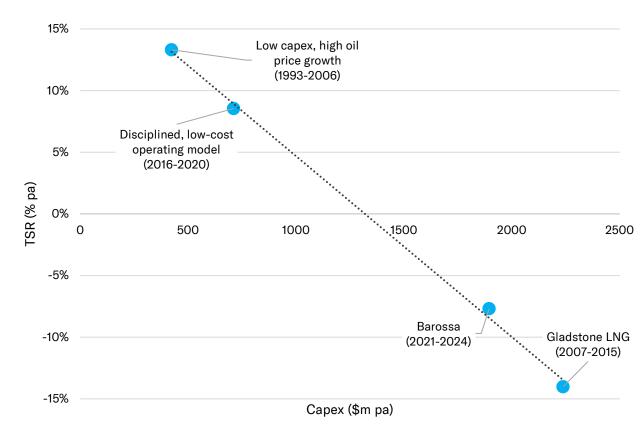
Case study: Santos has outperformed the local market when constraining its capex

Santos has gone through intense capital investment phases, which have been associated with material underperformance:

- **1. 1993-2006** With low capex and rapid oil price growth, Santos delivered significant returns prior to 2006.
- 2. 2007-2015 A major project (Gladstone LNG) was poorly executed, and over eight years, Santos underperformed the local market by 14% p.a.
- **3. 2016-2020** A new CEO established a new "disciplined, low-cost" operating model, with no major FIDs. The company outperformed the local market by 9% p.a.
- 4. 2021-2024 Despite warning that "our industry has got a habit of blowing themselves up when they go into growth mode",² the CEO embarked on another major growth campaign. Santos underperformed the local market by 7% p.a. over this period.

A similar relationship applies when looking at absolute TSR.

Santos' TSR is inversely correlated to its capex³



Source: TSR from Bloomberg Finance LP, used with permission of Bloomberg Finance LP. Capex from S&P.

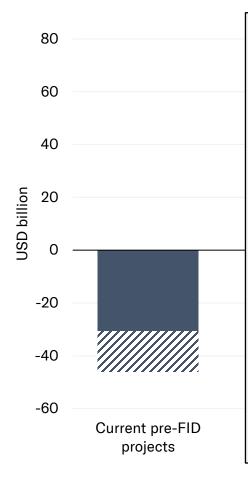
^{1.} Santos, 2016 Half-year results, p. 17.

^{2.} Santos CEO, Kevin Gallagher, 2018 Investor Briefing Day.

^{3.} Updated analysis based on ACCR, Santos' growth strategy: will it deliver for shareholders, March 2024

Appendix 1: Enhanced capital returns model





If a company stops building conventional new projects, it forgoes the potential value of these projects.

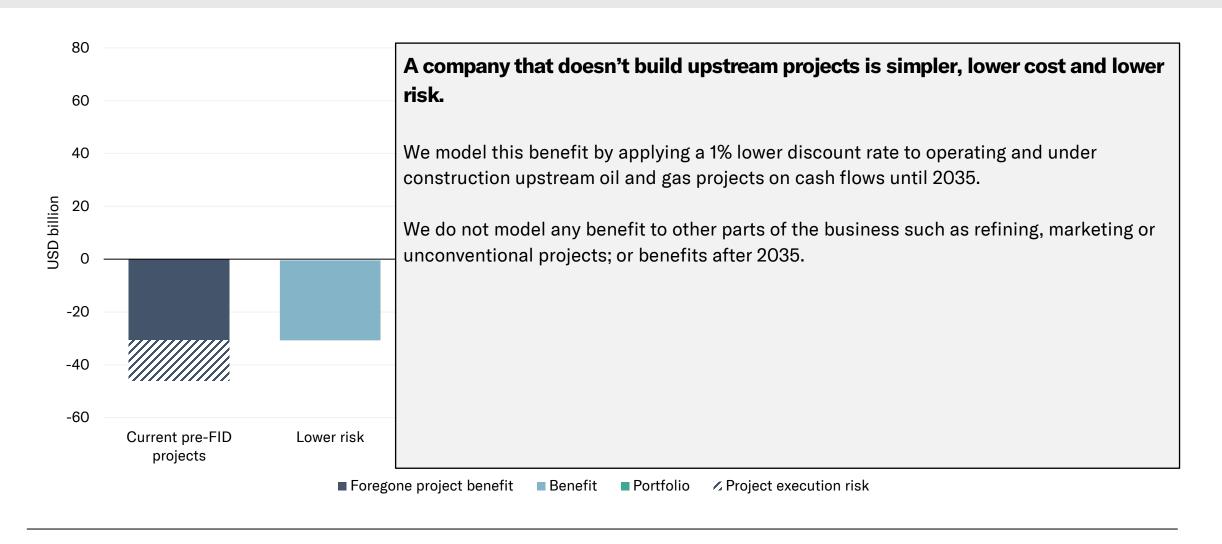
For projects that would have reached FID by 2035, we assume:

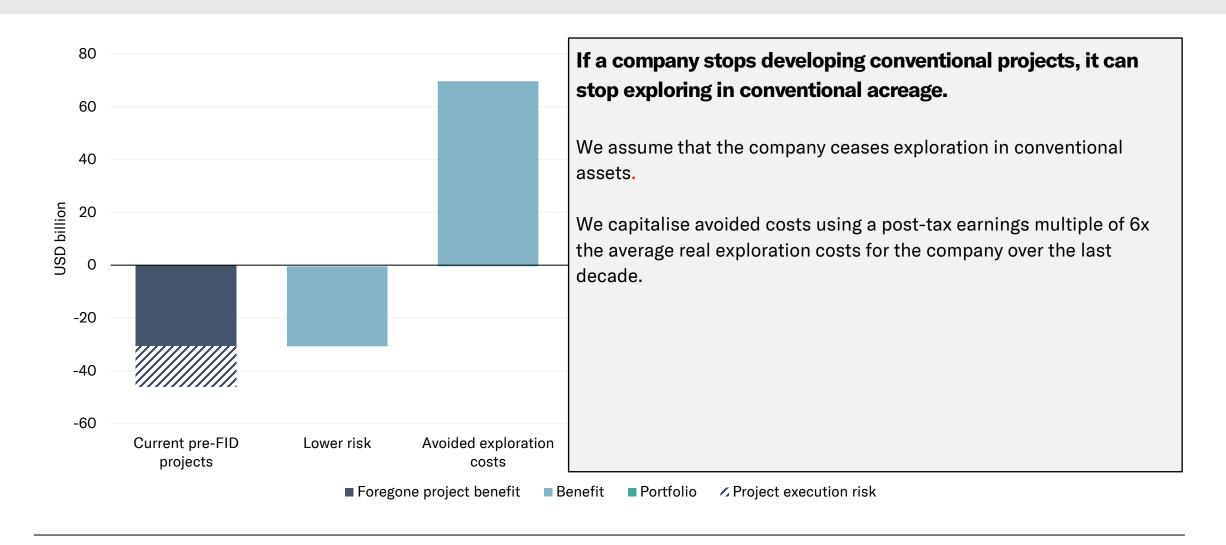
- revenue based on Rystad's forward price deck
- Rystad cost, schedule and production profiles
- a discount rate of 10% plus country risk
- that companies would only have invested in assets that meet these screening criteria:
 - Rystad's commerciality criteria (VIR > 1.1) at forward prices
 - Disclosed company investment criteria (for Woodside, BP and Shell)
 - 15% internal rate of return at forward prices where no investment criteria disclosed (all other companies)
 - NPV > 0 under forward prices, one-year delay and 20% capex overrun
- unconventional assets are excluded from the scope because they more closely reflect an incremental "manufacturing" business model than a major conventional greenfield project.

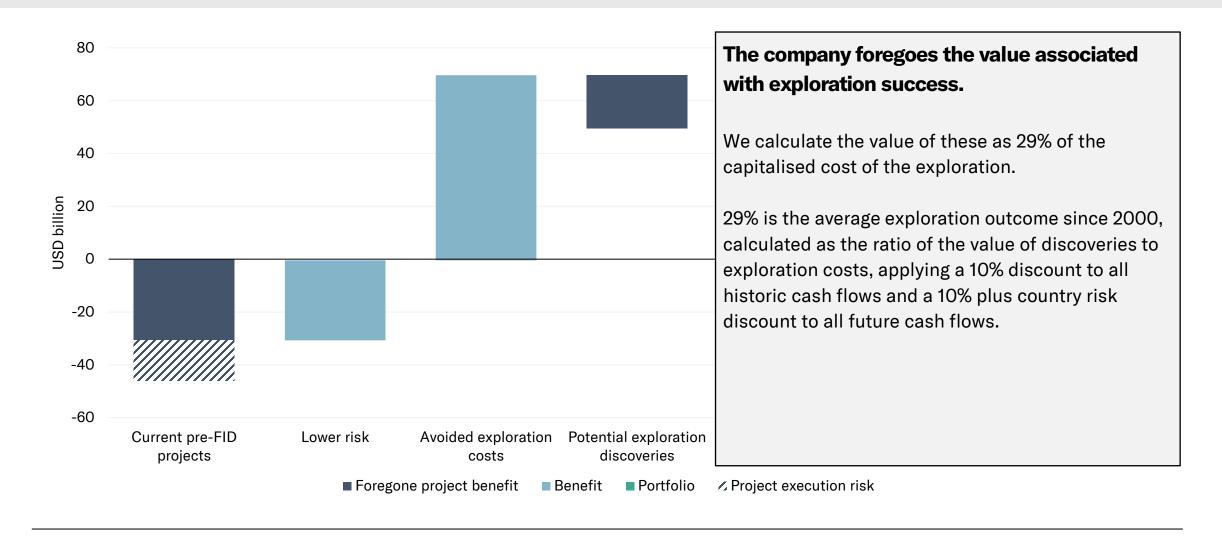
The shaded component represents the reduced value of projects being one-year late and 20% over budget, relative to Rystad estimates.

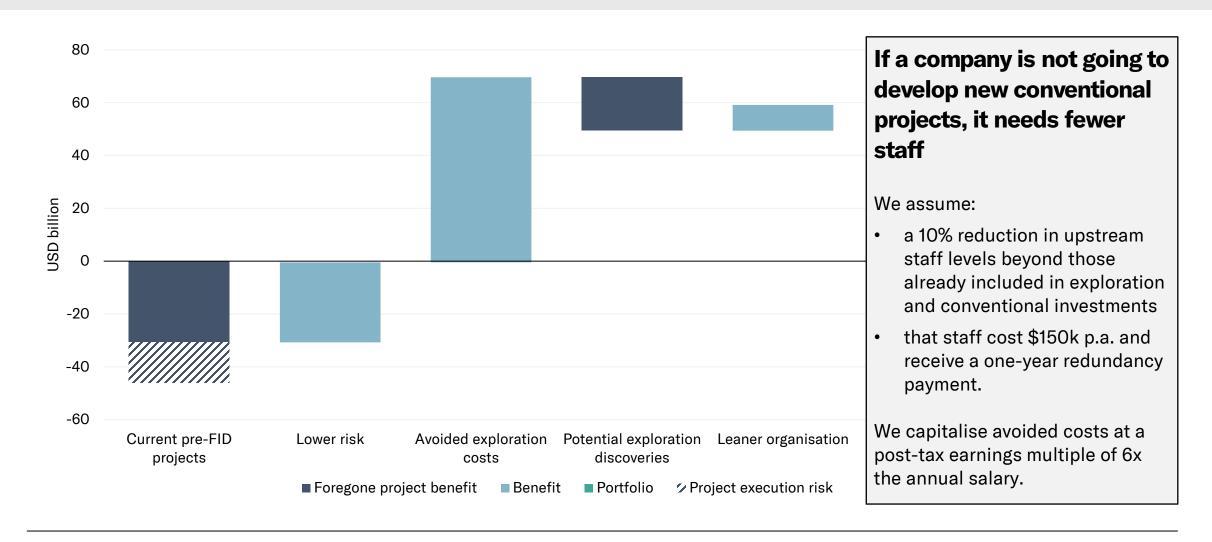
Unconventional projects, projects that don't meet the screening criteria and projects that would reach FID after 2035 are excluded from the analysis.

■ Foregone project benefit ■ Benefit ■ Portfolio ✓ Project execution risk





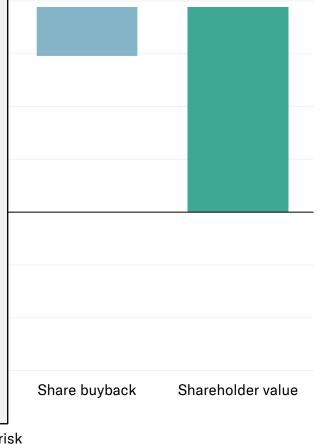




A company that reduces its exploration and overhead costs, while also increasing gearing, could potentially increase its buyback program

We assume:

- a debt-funded buyback equal to 10% of total equity, with 4% interest and no impact on the cost of existing debt
- avoided capex, exploration and corporate overhead costs are used for buybacks when these costs would otherwise have been incurred until 2035
- shares trade at a 10% discount to underlying value.¹



■ Foregone project benefit

Benefit

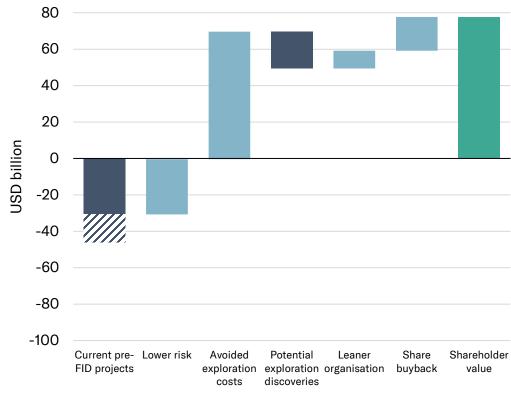
Portfolio

Project execution risk

^{1.} The ten companies in our study had 12-month price targets 10.5% above current share prices as of September 2025, averaged across all sell-side analysts. Source: Bloomberg Finance LP, used with permission of Bloomberg Finance LP.

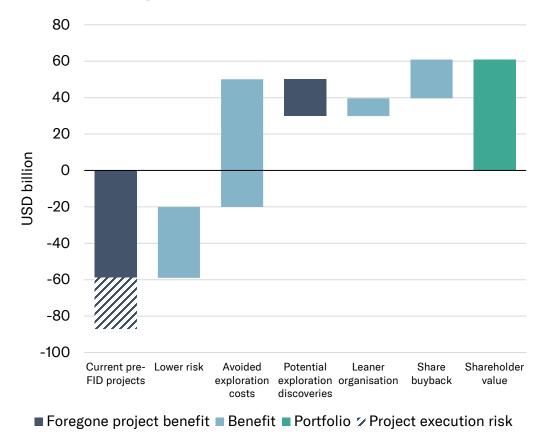
Higher prices reduce the value of ceasing conventional exploration and development, but by less than you may think

\$78 billion using forward prices¹



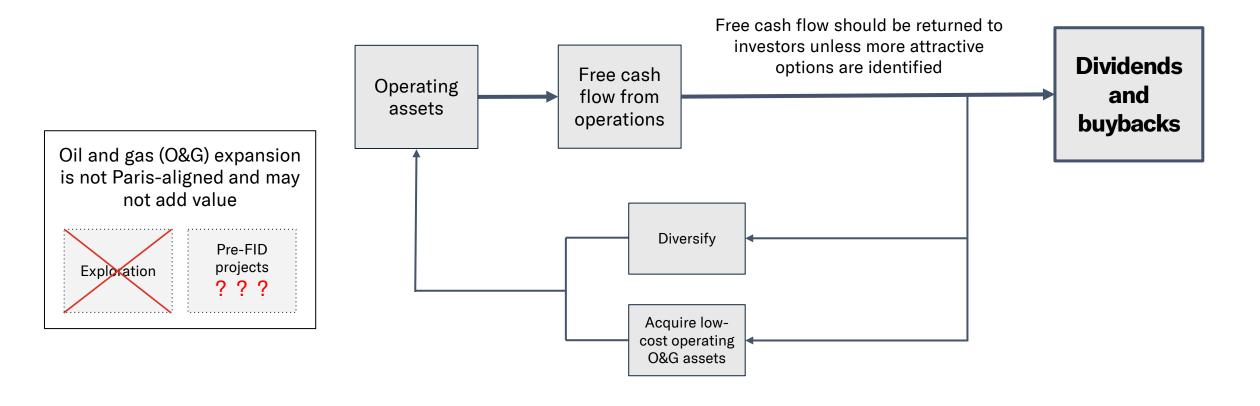
■ Foregone project benefit ■ Benefit ■ Portfolio ⊘ Project execution risk

\$61 billion using Rystad base prices¹



^{1.} The forward price deck has an average Brent price to 2050 of \$57 (RT25), compared to \$70 under Rystad base.

The oil and gas sector's most valuable use of cash may be share buybacks



Appendix 2: Additional data



Detailed company NPV impact of ceasing conventional exploration and development (\$ million)¹

	Pre FID projects	Project execution risk	Lower risk	Avoided exploration	Value from exploration	Leaner organisation	Share buyback	Shareholder value
ВР	-2,112	832	2,723	9,884	-2,852	1,172	1,824	11,472
Chevron	-9,799	3,181	5,059	5,030	-1,451	592	2,420	5,033
ConocoPhillips	-1,345	322	2,862	3,434	-991	778	963	6,024
Eni	-4,294	1,486	1,676	4,973	-1,435	843	1,051	4,299
Equinor	-2,730	938	1,601	8,858	-2,556	2,356	1,464	9,932
ExxonMobil	-12,481	3,411	6,213	10,496	-3,028	907	3,744	9,262
Santos	-1,121	389	550	1,405	-405	261	389	1,469
Shell	-6,947	2,836	4,492	16,847	-4,860	1,806	4,130	18,304
TotalEnergies	-4,570	1,643	4,063	7,397	-2,134	752	2,012	9,163
Woodside	-618	221	1,073	1,766	-509	304	528	2,763
All stocks	-46,017	15,261	30,311	70,089	-20,221	9,772	18,524	77,720

^{1.} ACCR analysis, based on data from Damodaran, Rystad Energy, Bloomberg Finance LP and company reports.

Sources of company NPV from ceasing conventional exploration and development (% of the value of pre-FID conventional projects)¹

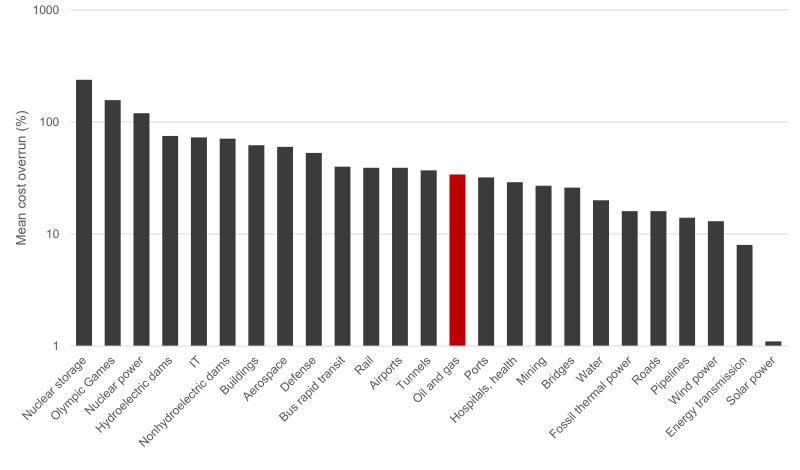
	Pre-FID Project NPV	Project execution risk	Lower risk	Avoided exploration	Leaner organisation	Share buyback
ВР	-100%	39%	129%	468%	56%	86%
Chevron	-100%	32%	52%	51%	6%	25%
ConocoPhillips	-100%	24%	213%	255%	58%	72%
Eni	-100%	35%	39%	116%	20%	24%
Equinor	-100%	34%	59%	325%	86%	54%
ExxonMobil	-100%	27%	50%	84%	7%	30%
Santos	-100%	35%	49%	125%	23%	35%
Shell	-100%	41%	65%	243%	26%	59%
TotalEnergies	-100%	36%	89%	162%	16%	44%
Woodside	-100%	36%	174%	286%	49%	85%
All stocks	-100%	33%	66%	152%	21%	40%

^{1.} ACCR analysis, based on data from Damodaran, Rystad Energy, Bloomberg Finance LP and company reports. Colours show the relative contribution of the source of value for each company.

Different types of projects have markedly different levels of cost overrun

When compared to other types of energy projects, oil and gas projects have, on average:

- larger cost overruns than PV, wind, transmission and thermal power generation
- lower cost overruns than nuclear and hydroelectric projects



Source: Flyvbjerg and Gardner, How Big Things Get Done, 2023, p. 216.