Kosmos Energy Ltd.
[NYSE: KOS]

Price Target: $6.91
Upside: 49.31%

Industrials & Energy

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Investment Narrative

Market Cap	$2.09bn
Last Close	$4.63
Enterprise Value	$4.5bn
Leverage Ratio	1.5x

- Recommendation: BUY with **PT of $6.91**, representing an **upside of 49.31%** from the 2/14 close
- Kosmos Energy is a full-cycle deep water oil and gas exploration and production company

Investment Thesis Introduction

1. Recent acquisitions have enabled Kosmos to significantly increase their FCF profile
2. Kosmos is **investing in LNG assets** in order to support the energy transition
3. The global oil market is in a deficit that will support **sustained higher prices**

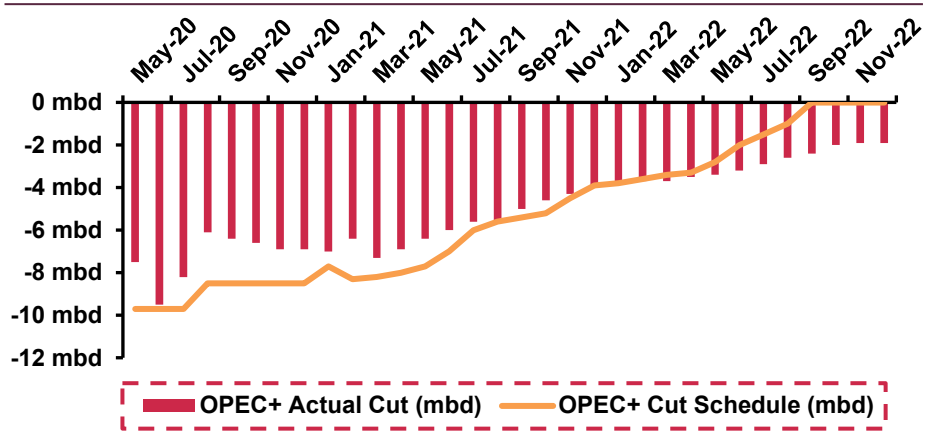
Oil & Gas Overview

State of the Oil and Gas Industry

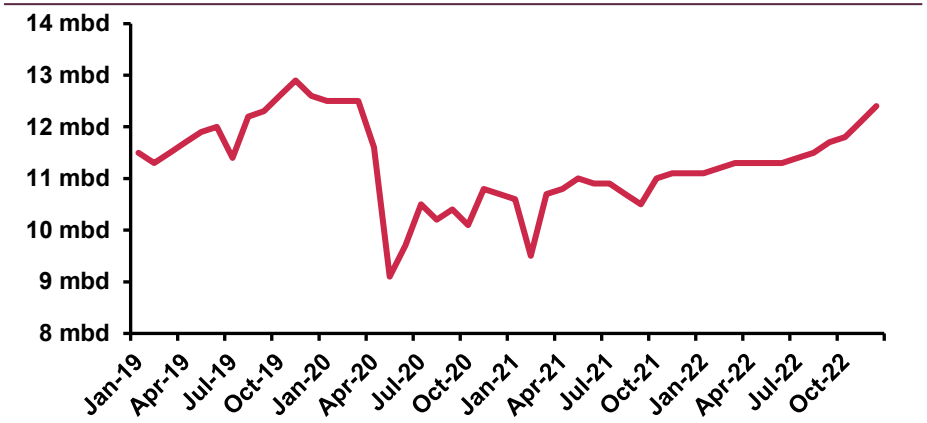
OPEC+ production cuts and US shale not coming back is a dangerous combination

[1]Many are saying that $80/bbl is the new $60/bbl

Projected OPEC+ Production Cuts



US Crude Oil Production



COVID-19 was the catalyst that was needed to reset the oil and gas market

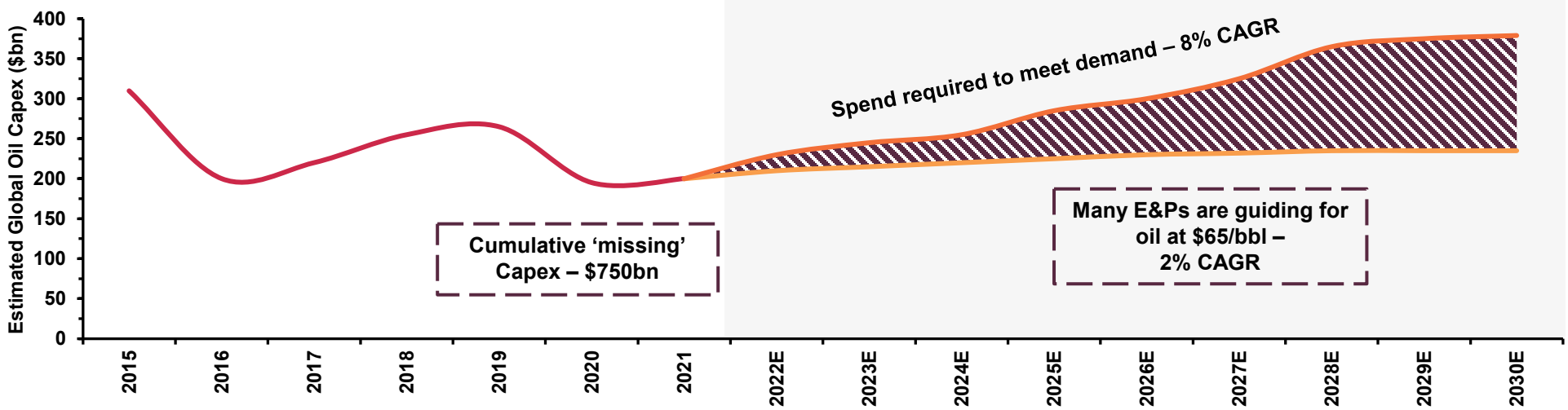
- **Strong demand growth post COVID-19**
- **US Crude Oil Production not projected to meet pre-pandemic levels until mid-2023**
- **Slow US Crude Oil Recovery leaves OPEC+ in control to drive oil supply**
- **OPEC+ projected to continue production cuts, causing low inventories and making $80 Brent the new normal**

(1) Bloomberg

The Oil and Gas Sector is at an Inflection Point

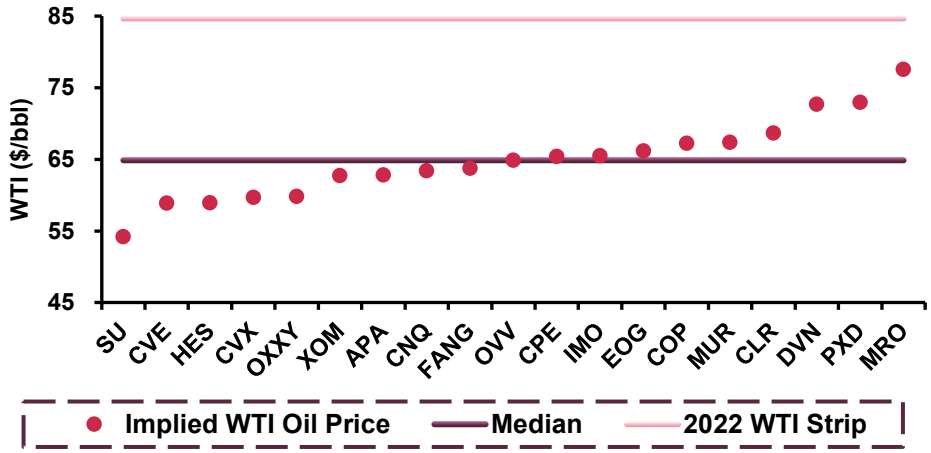
Fears of another oil bust has led to a lack of capital expenditures

(1)Global oil capital expenditures need to rise by a cumulative $750bn by 2030 to meet demand



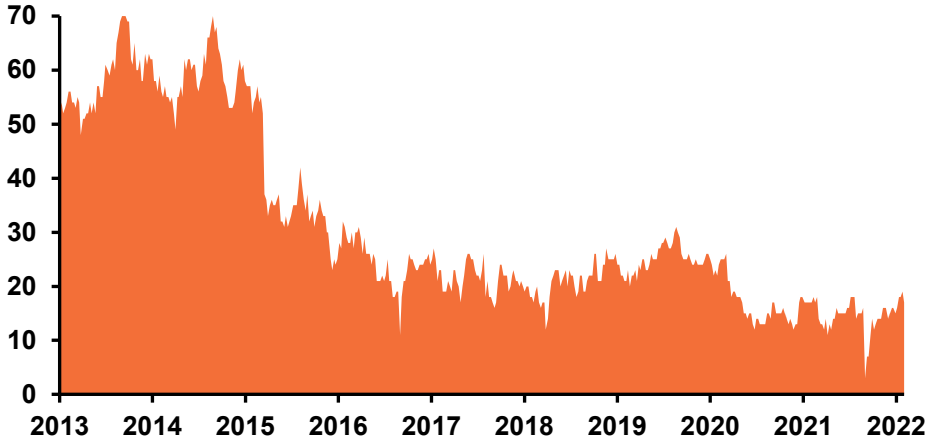
(1) Investors aren't seeing sustained high oil prices

Valuation Disconnect in the E&P Sector



(2) Low capex in offshore rigs is an effect of this

Baker Hughes' US Offshore Rig Count



(1) JPM Equity Research (2) Baker Hughes Rig Count

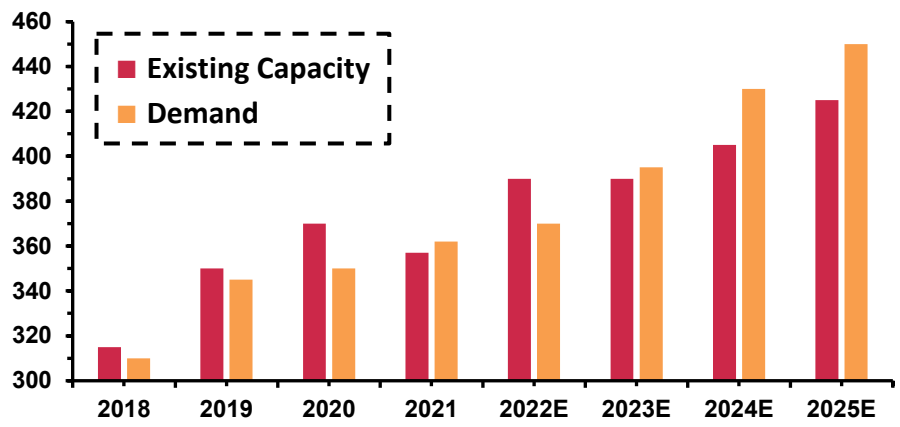
Liquefied Natural Gas Thesis

Demand for LNG is Rapidly Increasing

While wild LNG price spikes may be over, the LNG market remains extremely hot

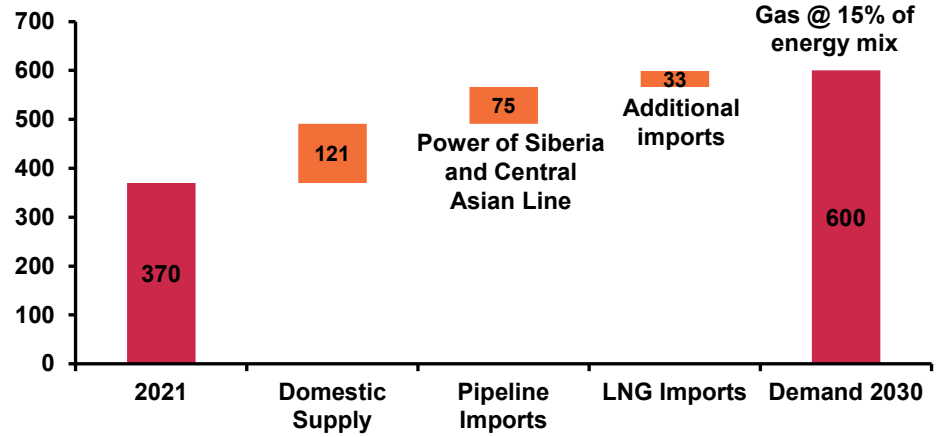
LNG demand is set to outpace existing capacity…

Demand and Existing Supply Capacity (mtpa)



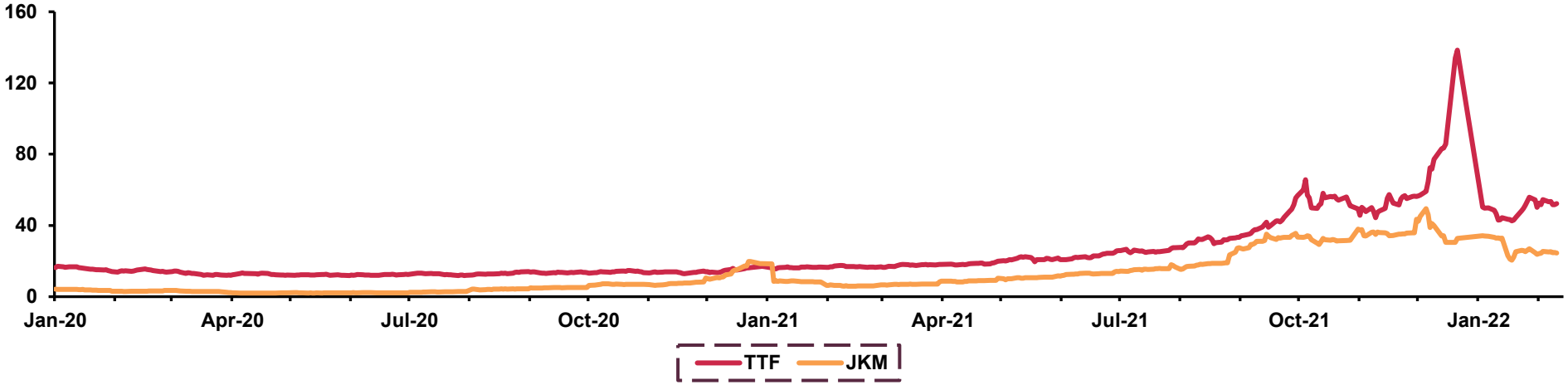
(1)…primarily driven by Chinese demand.

China Gas Market Evolution (bcm)



(2)The last few years have been extremely volatile for the LNG market

Liquified Natural Gas Spot Prices



(1) Bernstein Equity Research (2) Bloomberg Data

Lack of Investment in LNG Facilities

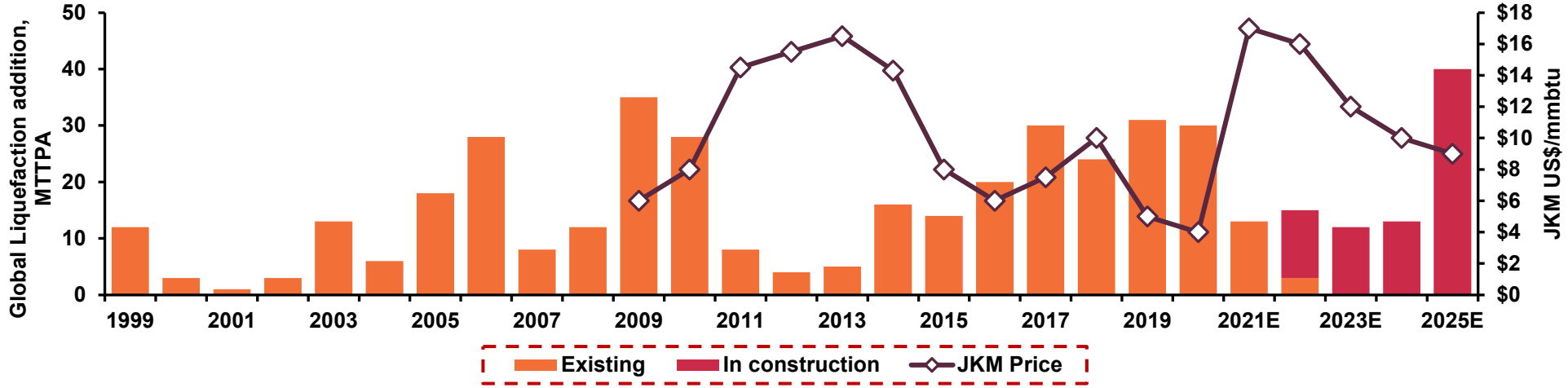
The LNG market is expected to remain tight over the next few years and in need of supply

LNG markets are on a thin edge

- **Limited incremental supply combined with strong pent up demand growth has led the LNG market to witness unprecedented volatility in 2021 and 2020**
- **Many LNG projects were canceled in 2020 due to COVID-19 and have not yet reached a final investment decision**
- **The key structural shift in gas markets has been a lack of supply for gas and an increased demand for LNG**
- **Qatar is bringing supply online in 2025 – 2026 that could potentially rebalance the LNG market**

[1]LNG spot prices will be supported by capacity growth decelerating over the next few years

Global Liquefaction Capacity Installed by Year



(1) Bernstein Equity Resarch

Offshore Oil

Offshore Supply has Likely Peaked

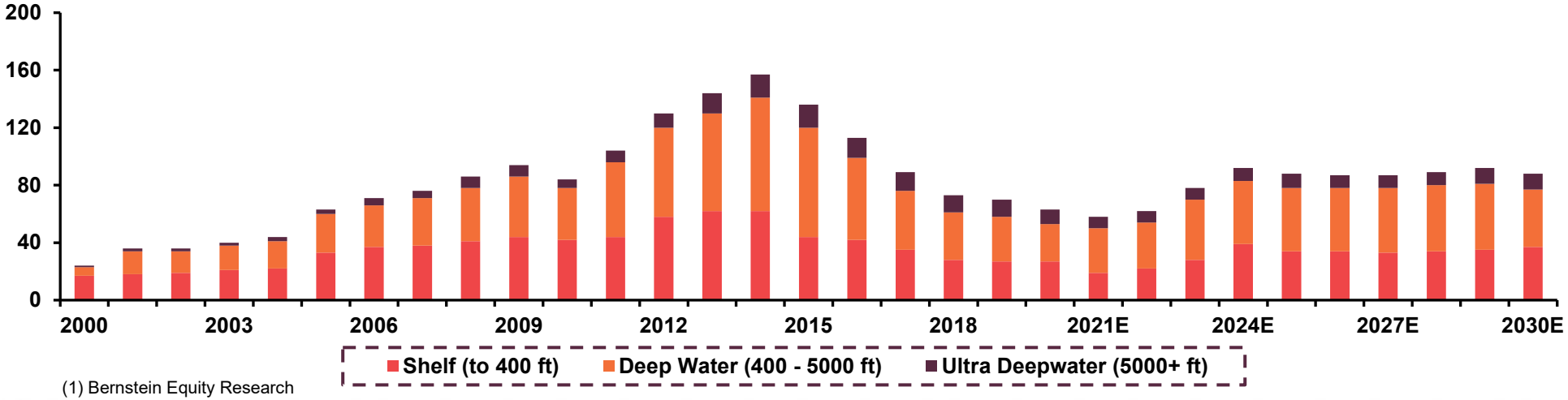
A lack of investment and base decline from producing fields leads to signs of peak supply

Why will offshore supply not likely return?

- **Global offshore production is ~27 mm bopd or approximately one-third of global supply**
  - **Underinvestment in long cycle (off-shore) projects will put strain on energy transition**
  - **Producing assets currents declining at a 6% CAGR for every 1% change in the base rate**
- **Global Liquid assets from shelf and deep water unlikely to exceed prior peak, leaving ultradeep water**
- **Offshore barrels requires offshore capex, sanctions are hurting support of new location projects**

[1]Companies have not announced an increase in offshore capex and are not expected to

All Offshore Greenfield CapEx by Year ($bn)



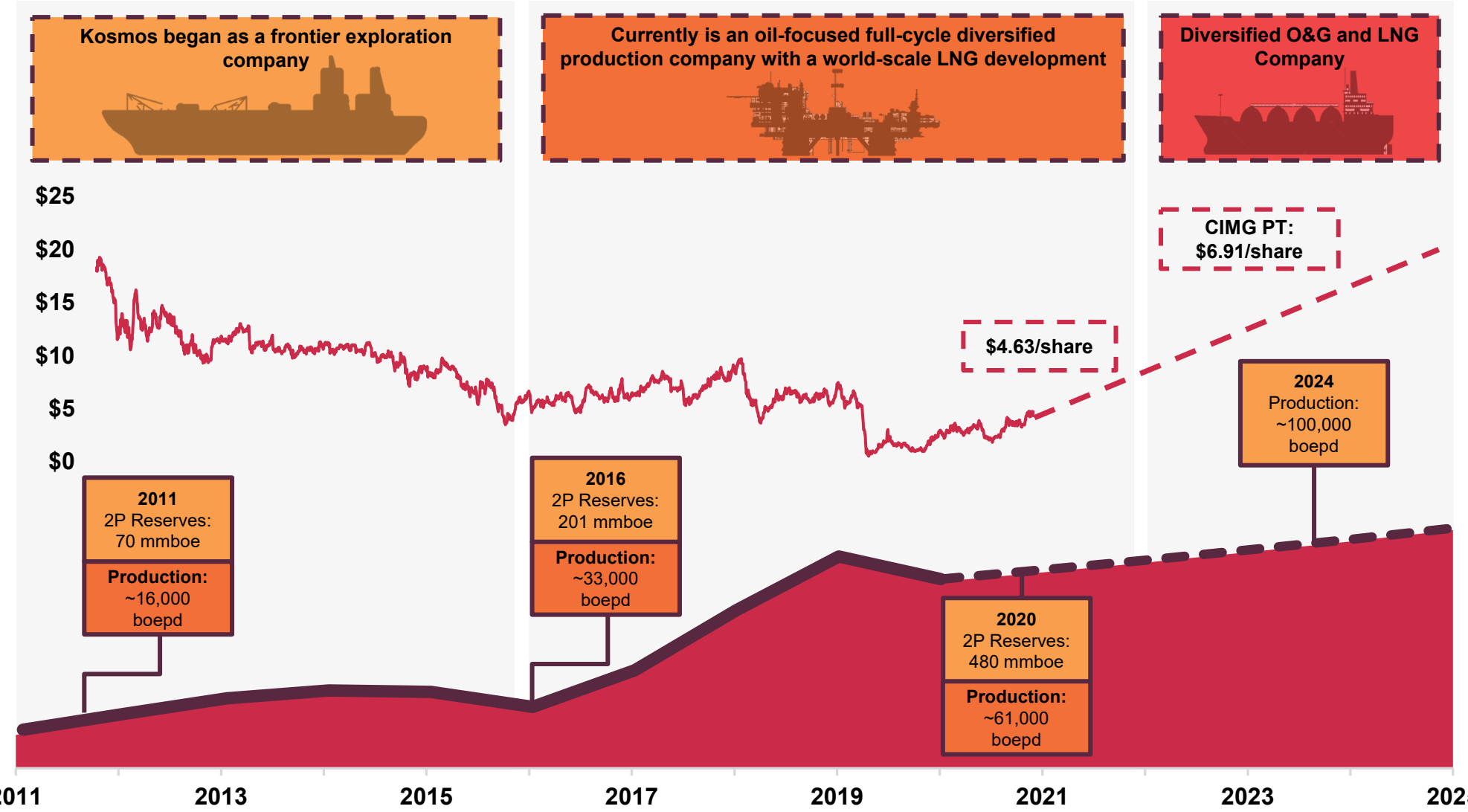
(1) Bernstein Equity Research

Kosmos Energy Investment Thesis

Kosmos Energy is Well-Positioned for The Energy Transition

A decade of significant change has built Kosmos to become a leading offshore E&P

Management has chosen to invest in strategic low-carbon assets

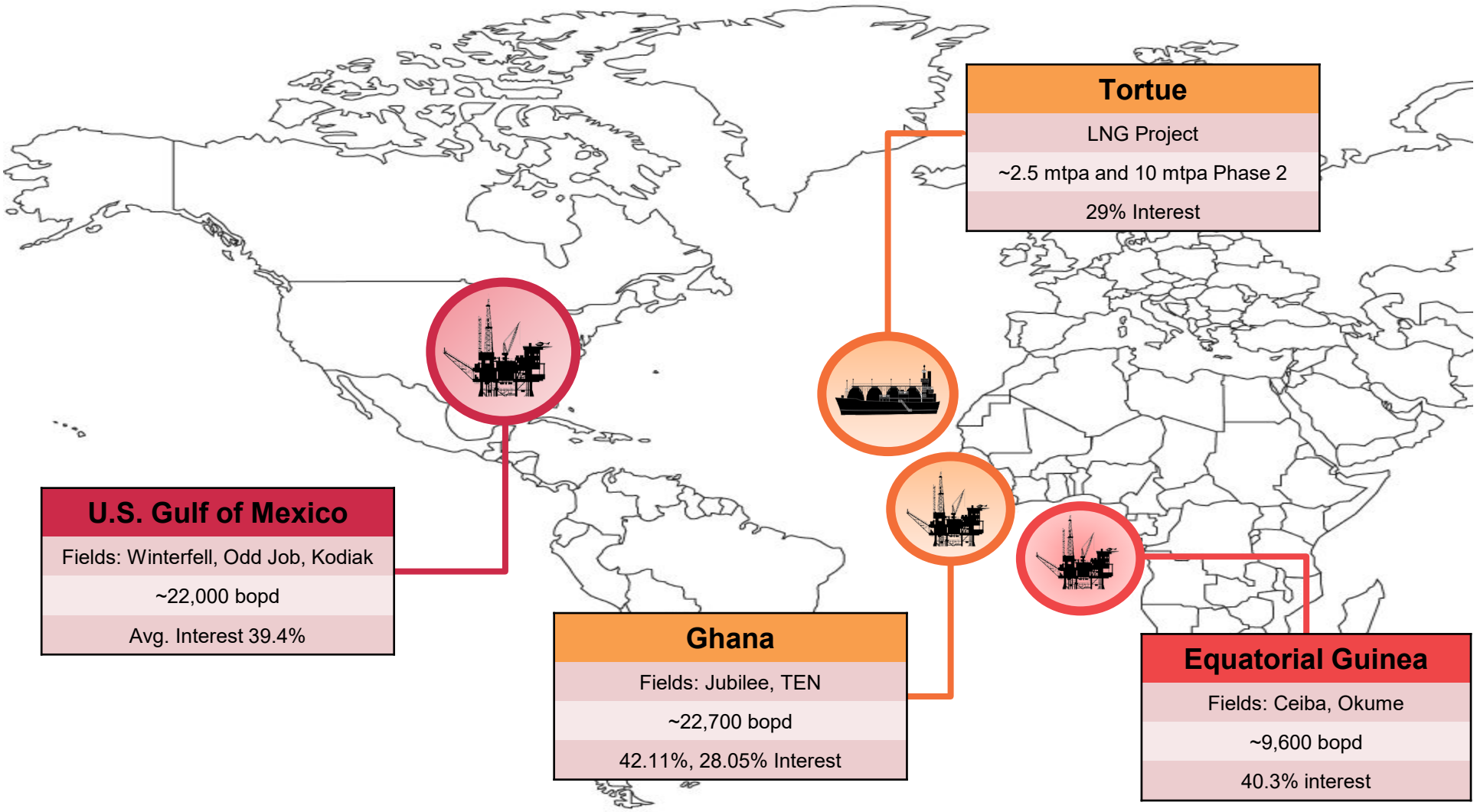


(1) Kosmos Investor Relations (2) Yahoo Finance

High Quality Portfolio of Global Oil and Gas Assets

Kosmos is a full-cycle deep water independent O&G exploration and production company

Key assets include production offshore Ghana, Equatorial Guinea, and the U.S. Gulf of Mexico



(1) Kosmos Investor Relations

The Right Owner Finally Acquires Occidental's Offshore Ghana Assets

This consolidation allows Kosmos' existing assets to generate significant extra FCF

Kosmos is focusing on consolidating assets

- Kosmos will focus less on exploring for new assets
- Kosmos to increase net production by 22,000 bopd, or by 36%
- Increased FCF will be used to fund LNG activities

Deal Implications

Increases Interest in Jubilee and TEN field by 18%

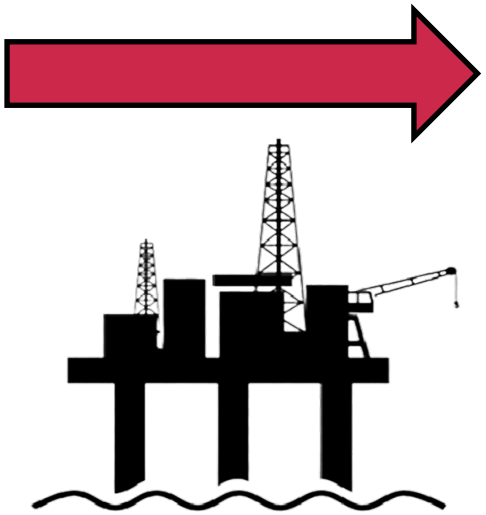
Additional Interest expected to Generate ~$1B in FCF at $65/b Brent

Deleveraging and Capex

Deal allows Kosmos to target <1x Net Debt/EBITDA and fund capex till first gas at Tortue in mid 2023

Kosmos purchasing these assets from Occidental Petroleum makes sense

OXY Occidental Petroleum



KOSMOS ENERGY

Focus on debt reduction

1. Sale of stake in Jubilee and TEN fields aligns with Occidental's deleveraging strategy
2. Allows Occidental to increase their focus on their core assets

Discounted valuation

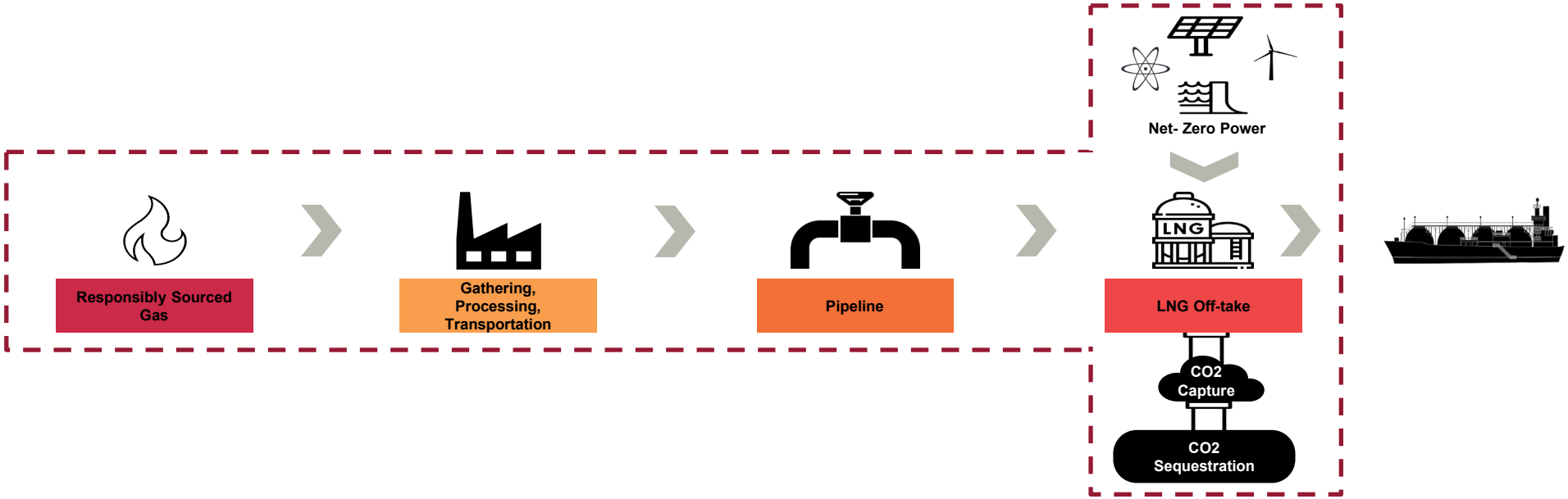
1. Paid $750 million for reserves worth $1.6 billion using conservative estimate of $65 Brent
2. Assets had 2P reverses of about 100 million barrels, giving an acquisition price of $5/barrel

(1) Kosmos Investor Relations

Introducing the Tortue LNG Project

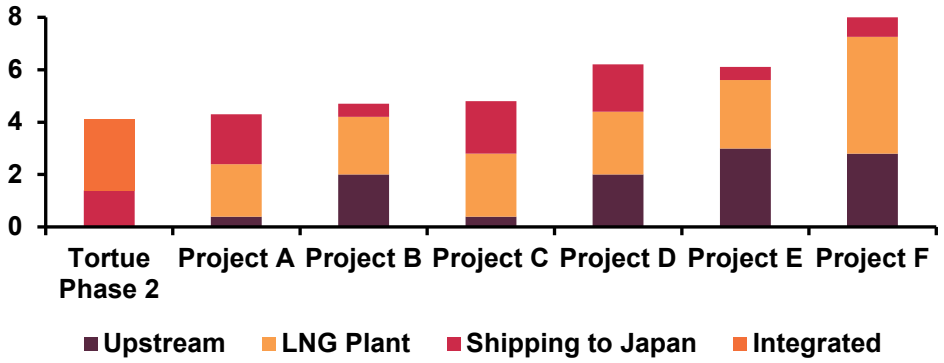
Kosmos is slowly transitioning toward becoming an LNG operator

Natural gas can fit comfortably into the future's clean energy Mix



Low costs make the deal attractive

LNG Extraction Cost ($/Mmbtu)



Kosmos will invest in LNG for decades to come

Reserves

Greater Tortue contains 15 Trillion Cubic Feet of Natural Gas

Extraction

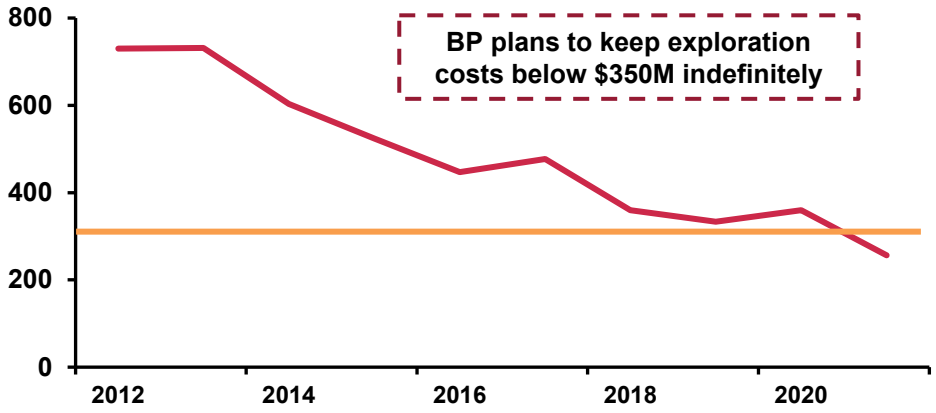
Kosmos is evaluating plans to increase production past phase II's goal of ~5 mtpa

BP Will Take Tortue Phase II to the Finish Line

BP's ambition for Net Zero by 2050 requires them to invest in cleaner projects

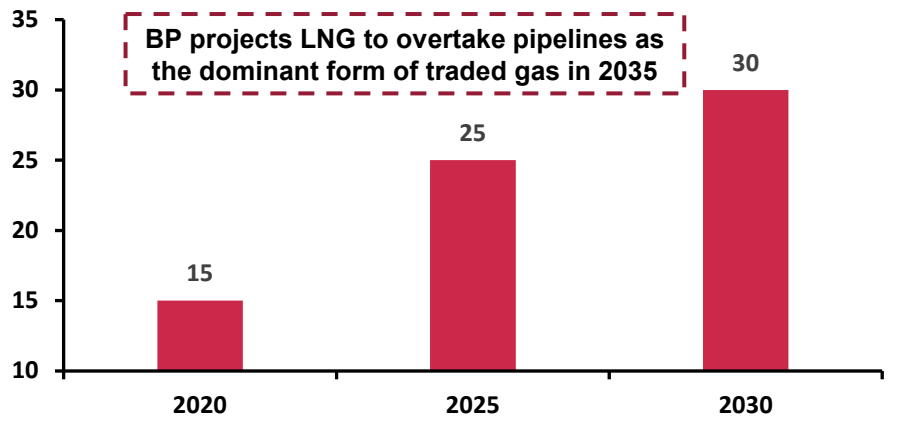
BP is committed to reduce exploration costs…

BP Historic Exploration Costs ($mm)



…and to invest in LNG projects instead.

BP LNG Export Capacity (mtpa)



Investing in LNG will reduce carbon emissions

- Oil Produces 20.31 Kg CO2 per MMBtu
- LNG produces 14.42 Kg C02 per MMBtu
- This results in a 29% decrease in emissions

> *"**BP sees LNG**, alongside other energy sources and technologies, as being at the heart of the energy transition, and therefore **at the heart of BP's strategy.**"* – BP Investor Relations

BP and Kosmos have a long relationship

2012 — **Mauritania**
Kosmos performed exploration work for BP

2016 — **Mauritania**
BP renewed deal for further exploration

2019 — **Gulf of Mexico**
Entered joint drilling and exploring partnership

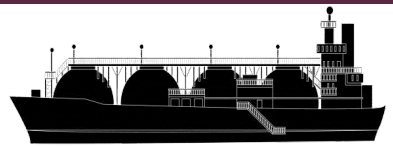
2022 — **Ghana**
Tortue Phase II investment decision announced

(1) Kosmos Investor Relations

Traditional O&G Companies are Now Interested in LNG Assets

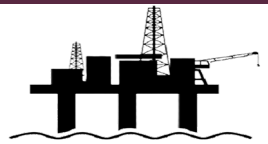
The market has rewarded companies who have made the successful transition to LNG

Liquified Natural Gas Operator Benefits



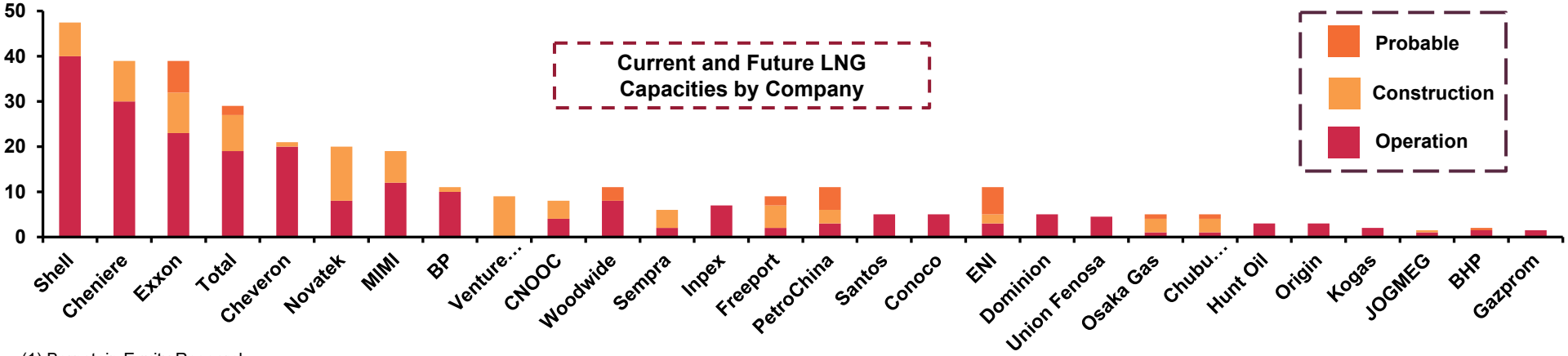
- YoY demand growth outpaces oil
- 23% fewer emissions than oil
- Easy to transport
- Long-lasting assets with low capex
- Safer to transport due to low ignition risk
- Future demand exceeds projected supply

Exploration & Production Operator Drawbacks



- Demand erosion from LNG and renewables
- High emissions, exposed to regulations
- Suffers from depletion
- High maintenance capex to service rigs
- Higher ignition risk
- Future supply could exceed projected demand

(1) O&G companies are actively investing in LNG assets



(1) Bernstein Equity Research

Valuation

Valuation

PT of $6.91/share arrived at by applying a 3x multiple on 2023E FCF of $941mm

KOS 2023 Free Cash Flow Walk-Down	
Revenue	**2,219,200**
(-) Production Costs	613,200
(-) Exploration Expenses	75,000
(-) General and Administrative Expenses	125,000
(-) Other Expenses	-
EBITDA	**1,406,000**
Consensus	838,000
% Difference	*67.78%*
(-) Depreciation, Depletion, and Amortization Expense	730,000
Operating Income	**676,000**
NOPAT	534,040
(-) Interest Expenses	91,972
Pre-Tax Net Income	584,028
(-) Taxes	122,646
Clean Net Income	461,382
(+) Total DD&A	730,000
Other	-
Cash Flow from Operations	1,191,382
(-) Total Capex	300,000
(+) FCF from Tortue Complete at 2H 2023	50,000
FCF	**941,382**
UFCF	**1,014,040**

KOS Oil Assumptions	
Total boepd	80,000
Consensus	51,000
% Difference	*56.86%*
Hedges	
% of Production Hedged	60%
Hedged Price	$70.00
Assumed Oil Price	$85.00
Realized Oil Price	$76.00

KOS FCF Multiple Valuation	
Bull Multiple	**5x**
Weight	*25%*
Implied Equity Value	$4,706,911
Base Multiple	**3x**
Weight	*50%*
Implied Equity Value	$2,824,146
Bear Multiple	**1x**
Weight	*25%*
Implied Equity Value	**$941,382**
Overall Multiple	**3x**
Implied Equity Value	$2,824,146
Diluted Shares Outstanding	408,520
CIMG Price Target	**$6.91**
KOS Current Price	$4.63
P/V	0.67
Implied Upside	*49.31%*
FCF/share	$2.30
FCF Yield	*33.33%*

Sensitivity Analysis

Kosmos is still an attractive investment at various oil prices and production levels

Overall Multiple vs FCF

Sensitivity Table									
	850,716	872,529	894,901	917,848	941,382	964,917	989,040	1,013,766	1,039,110
1.5x	$3.12	$3.20	$3.29	$3.37	$3.46	$3.54	$3.63	$3.72	$3.82
2.0x	$4.16	$4.27	$4.38	$4.49	$4.61	$4.72	$4.84	$4.96	$5.09
2.5x	$5.21	$5.34	$5.48	$5.62	$5.76	$5.90	$6.05	$6.20	$6.36
3.0x	$6.25	$6.41	$6.57	$6.74	$6.91	$7.09	$7.26	$7.44	$7.63
3.5x	$7.29	$7.48	$7.67	$7.86	$8.07	$8.27	$8.47	$8.69	$8.90
4.0x	$8.33	$8.54	$8.76	$8.99	$9.22	$9.45	$9.68	$9.93	$10.17
4.5x	$9.37	$9.61	$9.86	$10.11	$10.37	$10.63	$10.89	$11.17	$11.45

Assumed Oil Price vs Total Production

Sensitivity Table									
	$60.00	$65.00	$70.00	$75.00	$80.00	$85.00	$90.00	$95.00	$100.00
60,000 boepd	$3.03	$3.29	$3.54	$3.79	$4.05	$4.30	$4.56	$4.81	$5.06
65,000 boepd	$3.58	$3.85	$4.13	$4.40	$4.68	$4.96	$5.23	$5.51	$5.78
70,000 boepd	$4.13	$4.42	$4.72	$5.01	$5.31	$5.61	$5.90	$6.20	$6.50
75,000 boepd	$4.67	$4.99	$5.31	$5.63	$5.94	$6.26	$6.58	$6.90	$7.21
80,000 boepd	$5.22	$5.56	$5.90	$6.24	$6.57	$6.91	$7.25	$7.59	$7.93
85,000 boepd	$5.77	$6.13	$6.49	$6.85	$7.21	$7.57	$7.93	$8.29	$8.65
90,000 boepd	$6.31	$6.69	$7.08	$7.46	$7.84	$8.22	$8.60	$8.98	$9.36

Multiple Justification

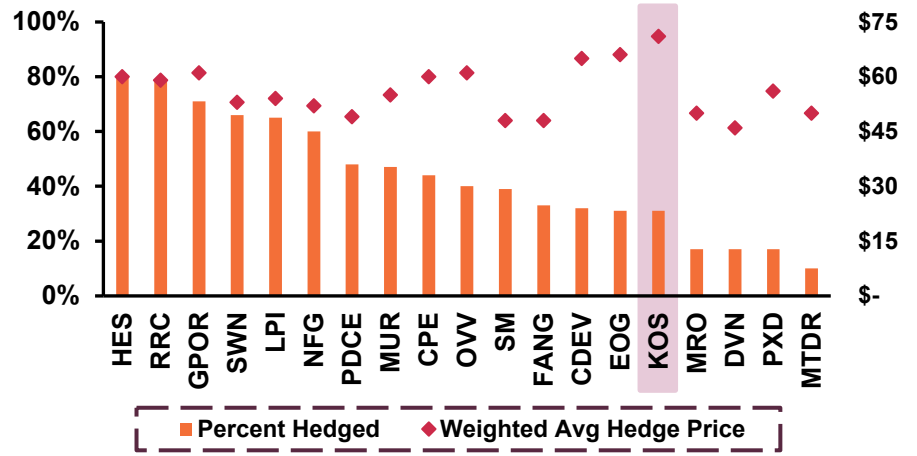
Kosmos and other E&Ps offer a compelling valuation at current oil prices

Oil and gas companies typically see high FCF yields during periods of high oil prices

Bear	Base	Bull
2X FCF 50% Yield	3X FCF 33% Yield	5X FCF 20% Yield
Implying that high oil prices are transitory	Investors are worried about ESG issues and production levels	Tortue LNG Project will be a success + valuing KOS for its hedges
KOS currently trades at ~49% FCF/share at $73 oil	KOS currently trades at a ~30% FCF/share at $60 oil	KOS currently trades at a ~16% FCF/share at $50 oil

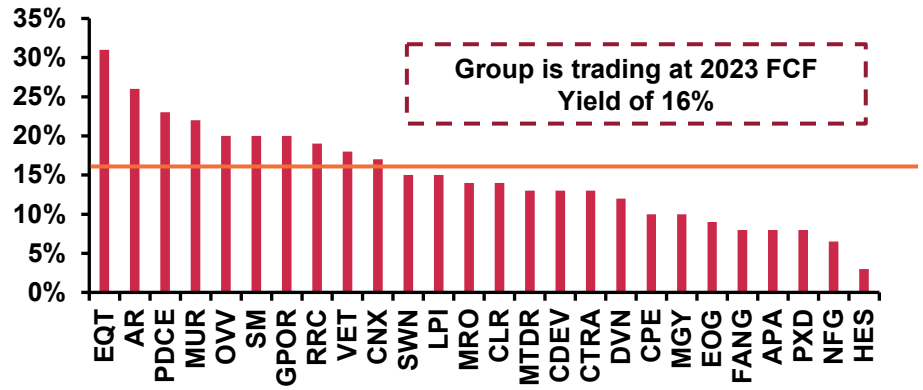
Kosmos benefits from their hedging strategy

Hedges in the E&P Sector



Disconnect between FCF yield and oil prices

2023 E&P FCF Yield

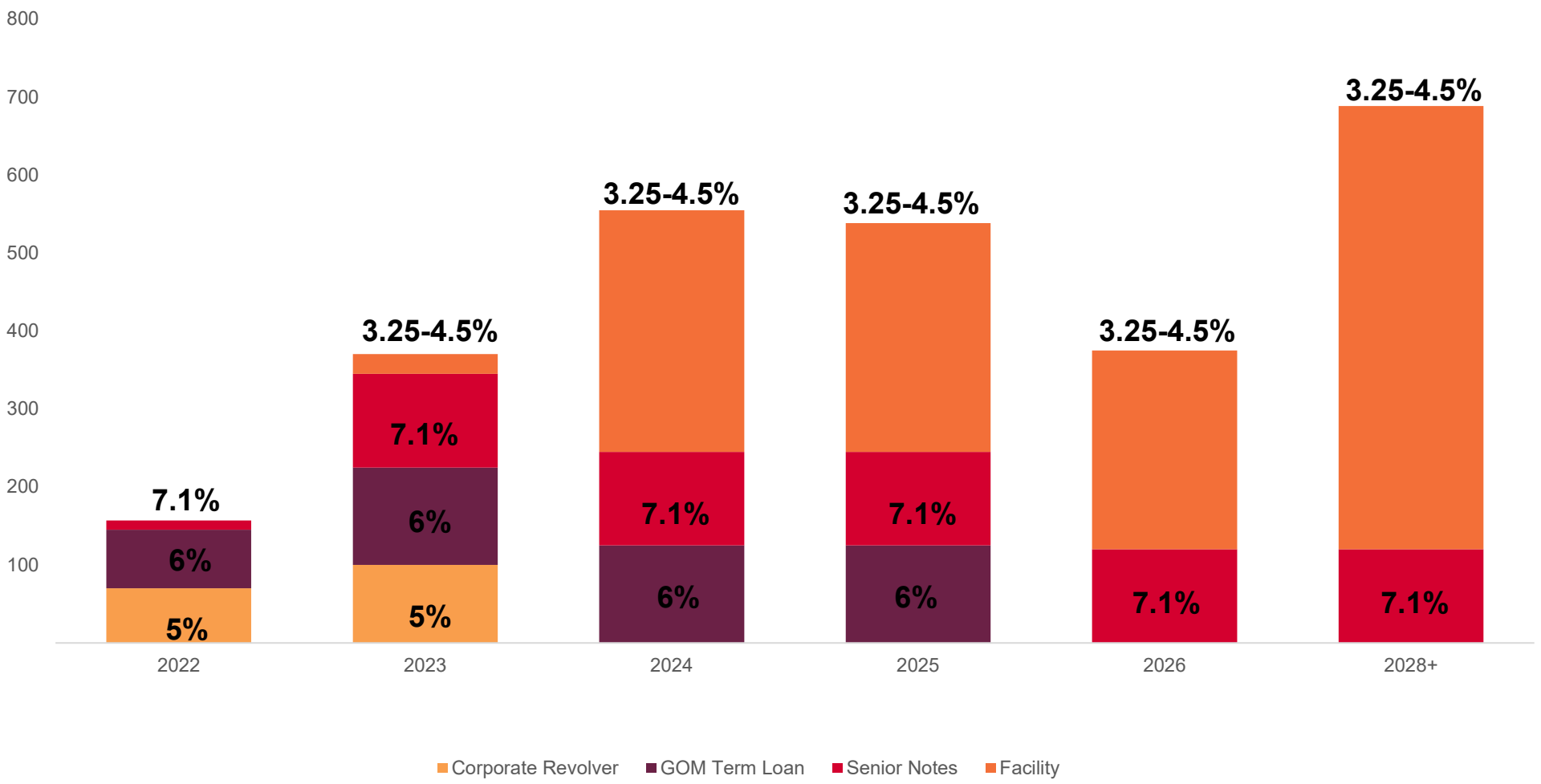


(1) JPM Equity Research

Appendix

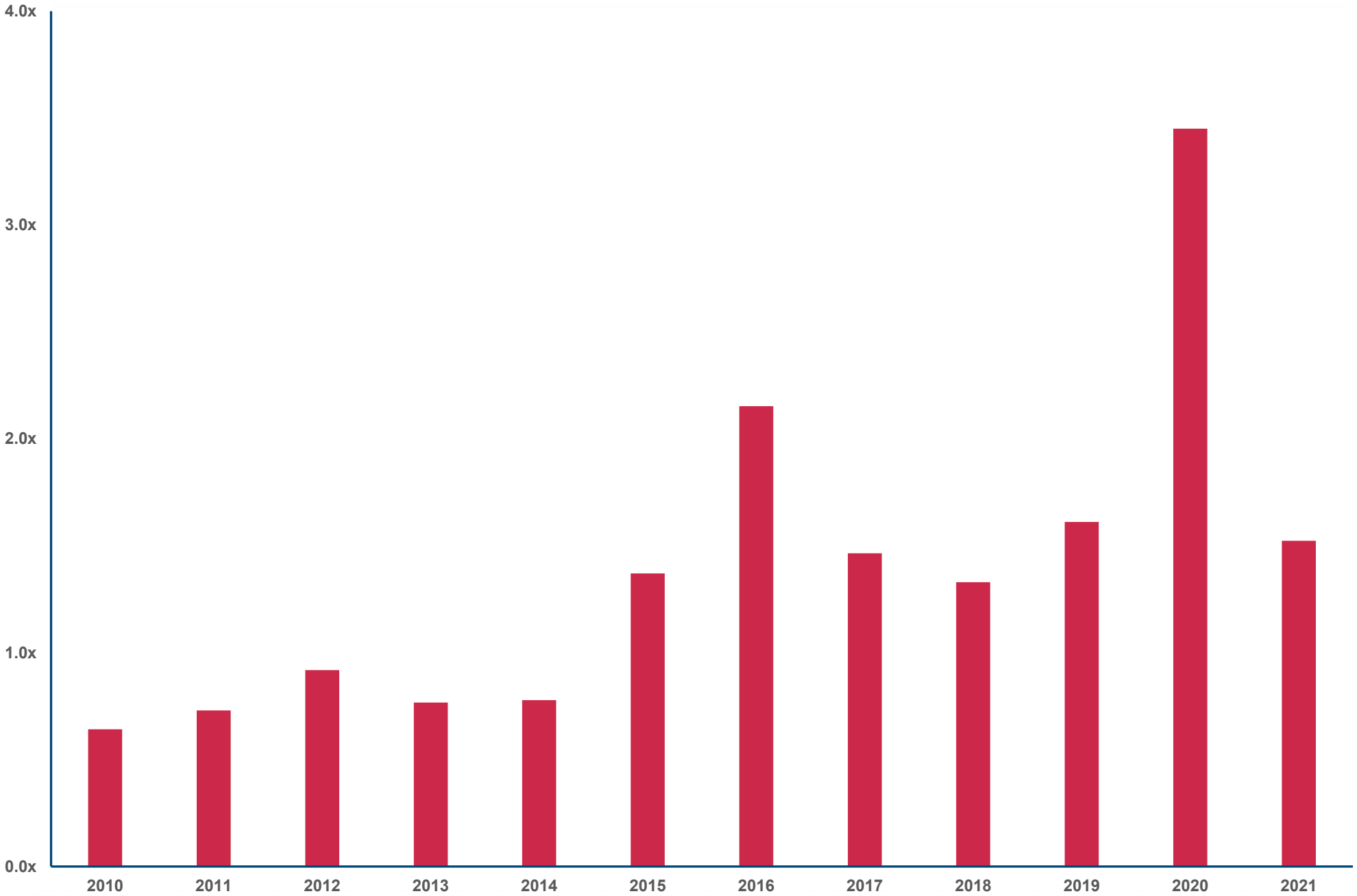
Debt Structure

High Debt has Kept Investors wary, but most is low-interest and long term

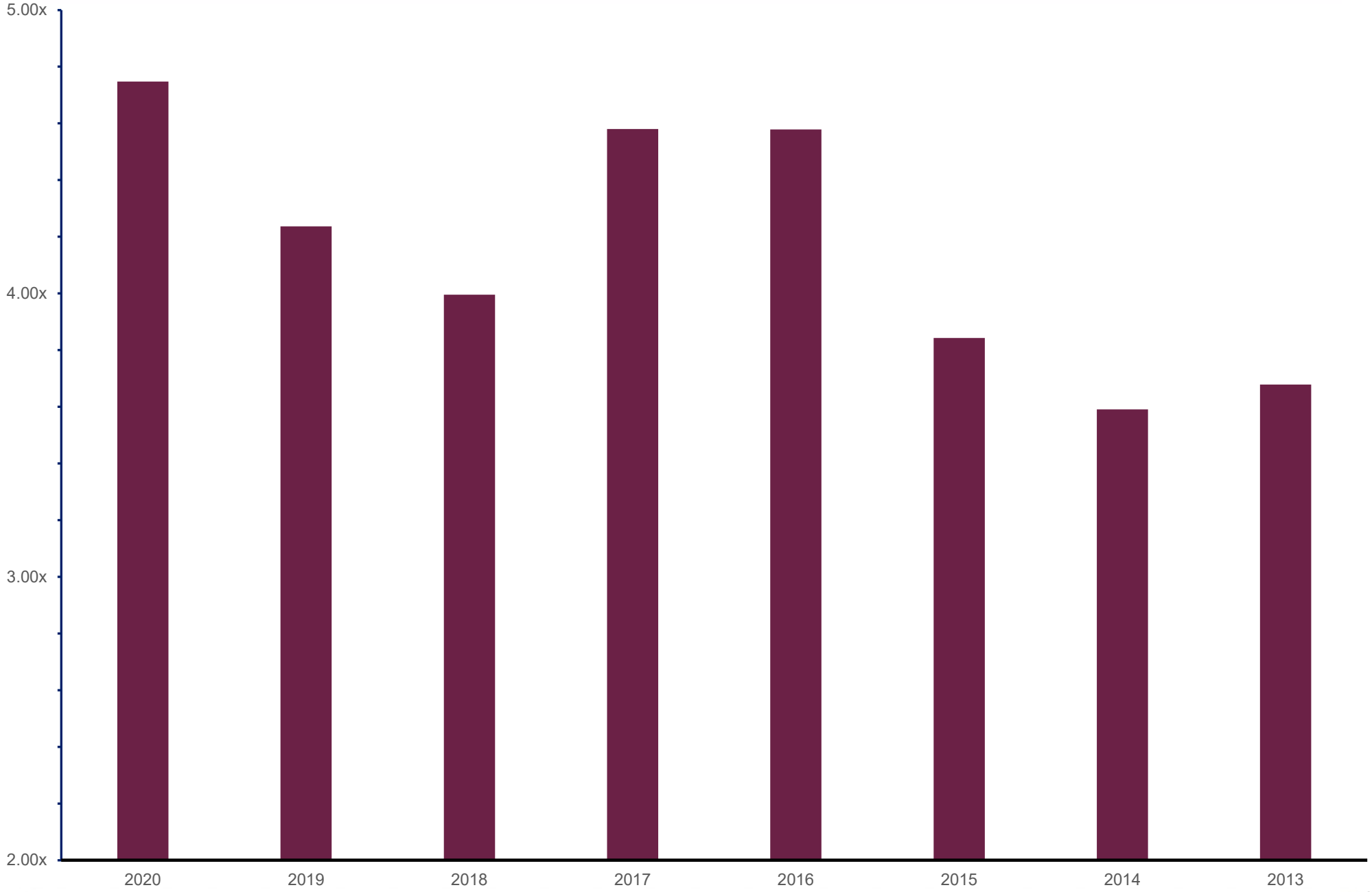


CULVERHOUSE
INVESTMENT MANAGEMENT GROUP

Net Debt to EBITDA



Kosmos EV/EBITDA



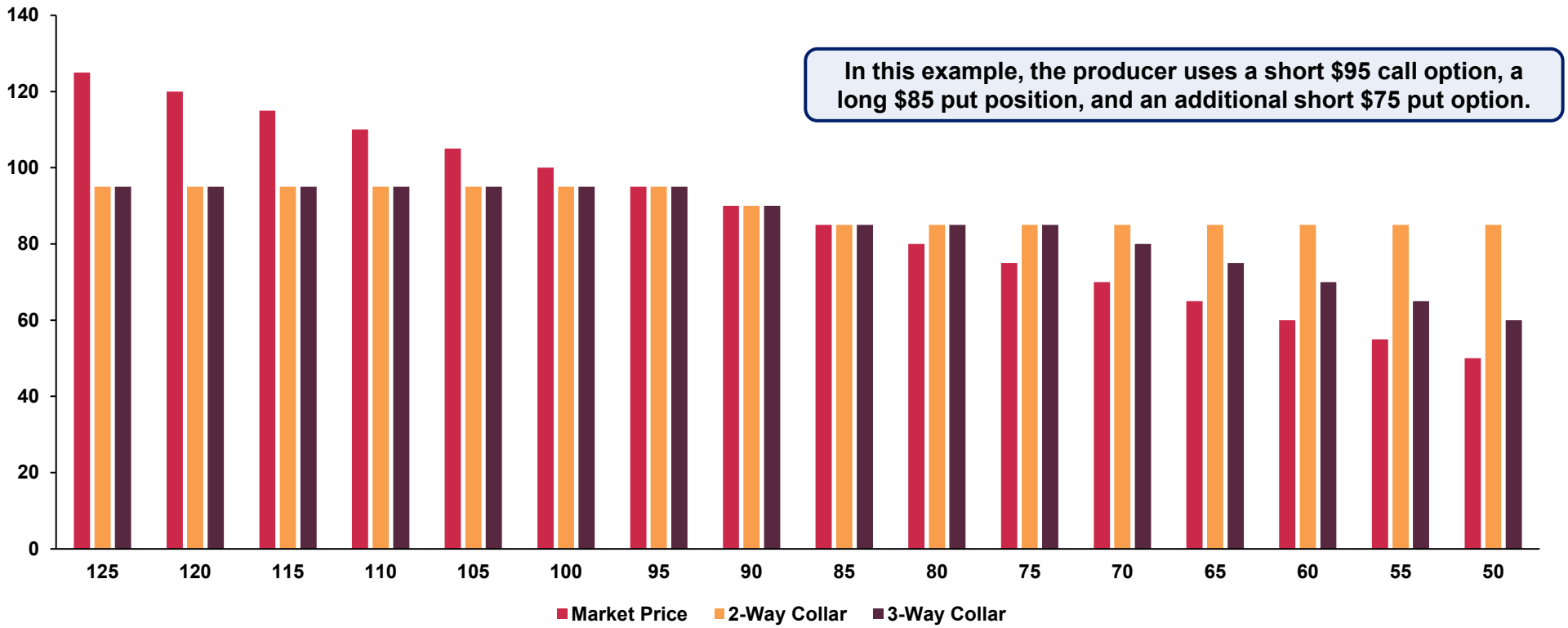
LNG Pricing Projections

Marker	Unit	2019	2020	2021	2022	2023	2024	2025
Brent (Bernstein)	**US$/bbl**	**64.0**	**42.4**	**70.5**	**73.0**	**75.0**	**93.0**	**109.0**
Japan CIF (Bernstein)	**US$/mmbtu**	**8.3**	**5.5**	**9.2**	**9.5**	**9.8**	**12.1**	**14.2**
JKM (Bernstein)	**US$/mmbtu**	**5.4**	**4.3**	**17.1**	**16.0**	**12.0**	**10.0**	**8.7**
Prem/Discount to Japan CIF	*%*	*-35%*	*-22%*	*87%*	*69%*	*23%*	*-17%*	*-39%*
EU inventory relative to 2013 level	*x*	*1.7*	*1.9*	*1.0*	*1.0*	*1.0*	*1.1*	*1.3*
Brent (Future)	**US$/bbl**	**64.0**	**42.4**	**70.5**	**70.0**	**66.0**	**62.7**	**60.2**
JKM (Future)	**US$/mmbtu**	**5.4**	**4.3**	**17.1**	**22.0**	**14.9**		
Implied Slope to Brent (Future)		*8%*	*10%*	*24%*	*31%*	*23%*		

Kosmos Energy's Hedging Strategy

Kosmos mostly uses 2-way collars and 3-way collars to hedge their oil price exposure

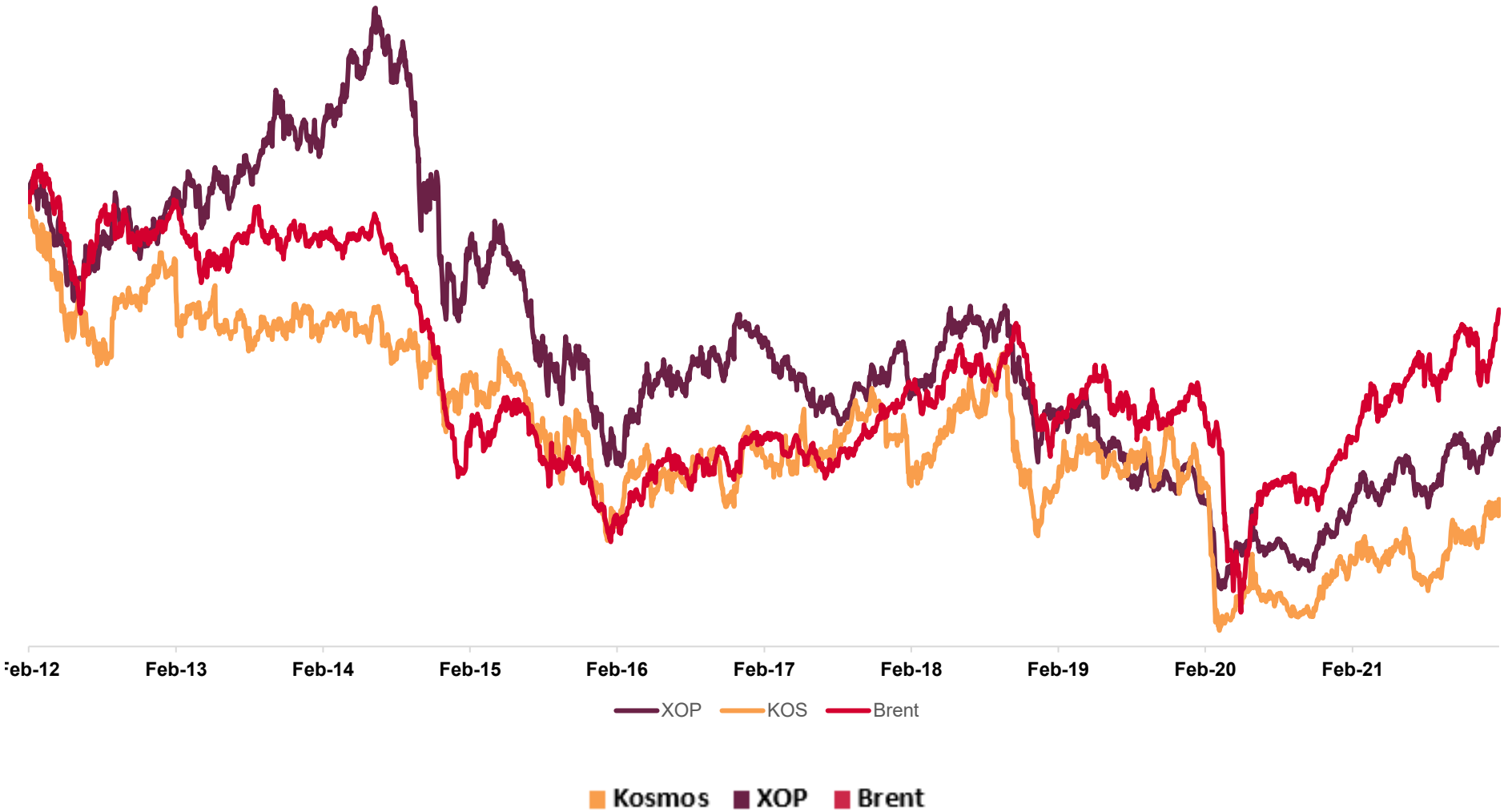
- **Collars allow producers to sell within a price floor and ceiling by selling a call and buying a put.**
- **3-way collars add a second "sub-floor" by selling an additional, further out of the money put option for the extra premium.**
- **3-way collars provide more downside risk when the short put goes in-the-money.**



In this example, the producer uses a short $95 call option, a long $85 put position, and an additional short $75 put option.

Historical Performance

Kosmos has slightly underperformed Brent and XOP over the last 10 years

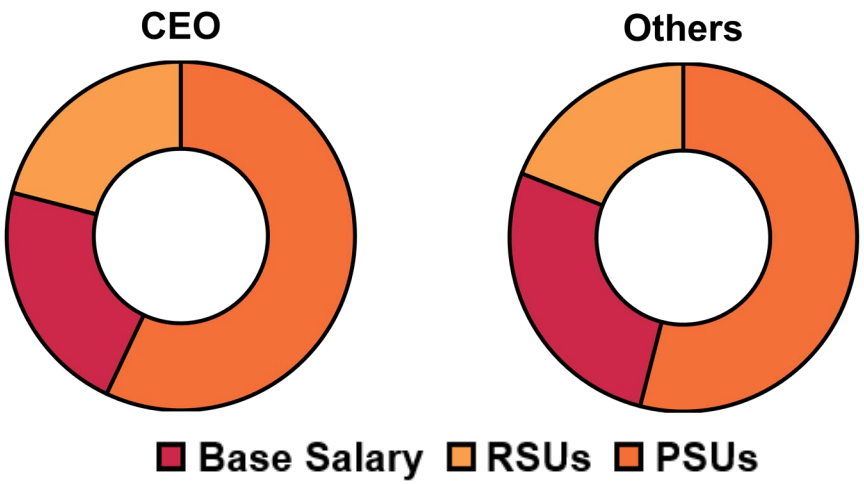


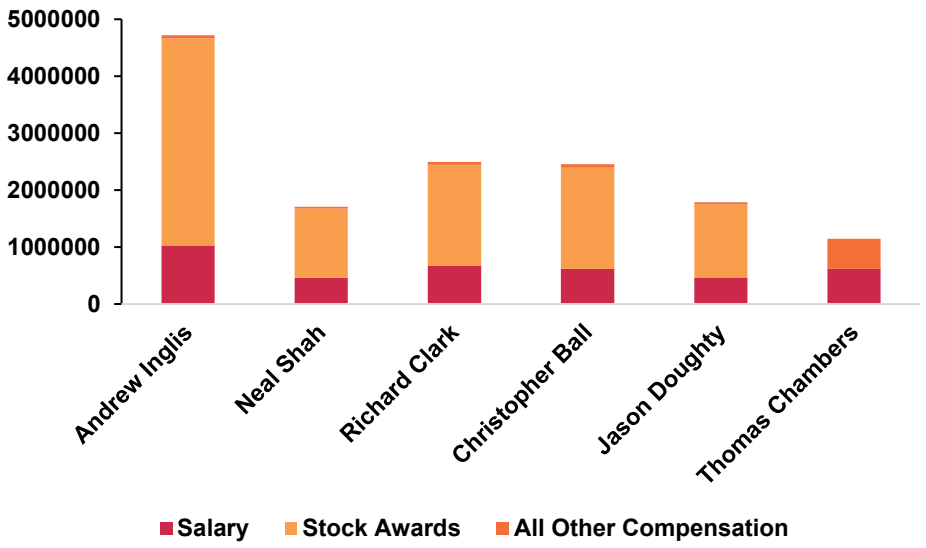
Management Compensation

Management is experienced and compensated similarly to industry peers

Position	Name	% Ownership	Years of Experience
Chairman & CEO	Andrew Inglis	0.50%	30
CFO	Neal Shah	0.15%	12
CCO	Christopher Ball	0.22%	36
SVP Gulf of Mexico Unit	Richard Clark	0.12%	36
SVP General Counsel	Jason Doughty	0.21%	22
Former CFO	Thomas Chambers	0.13%	26
Ind. Director	Adebayo Ogunlesi	0.35%	42

Ownership requirements: CEO 6x annual salary, all other officers 3x annual salary



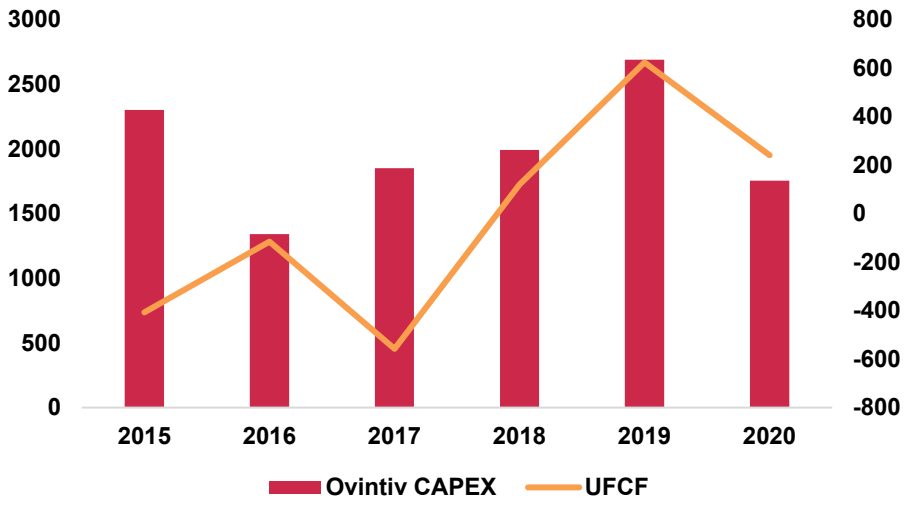


KPI Incentives

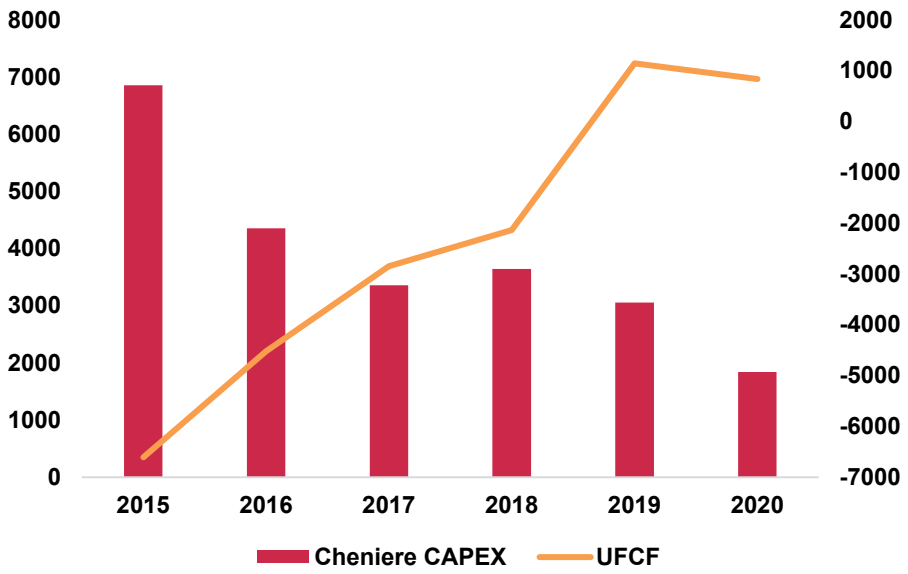
- **Cost management (G+A, Capex)**
- **Production targets (FCF, boepd, EBITDA)**
- **ESG goals**
- **Maximize asset portfolio value**

LNG is a Superior Model

Kosmos is transitioning to include LNG



- Initial CAPEX required for first stage of exploration and production
- E&Ps drill and deplete the supply from their successful explorations
- Continuous CAPEX required to find more supply
- E&P's FCF generation rely heavily on the price of Brent



- LNG companies have large initial CAPEX to fund facility creation
- CAPEX is gradually reduced as facility nears completion
- After completion, only maintenance and expansion CAPEX required
- LNG companies can generate FCF regardless of the commodity price

Environmental and Social Overview

Strong environmental and social focus support Kosmos operations

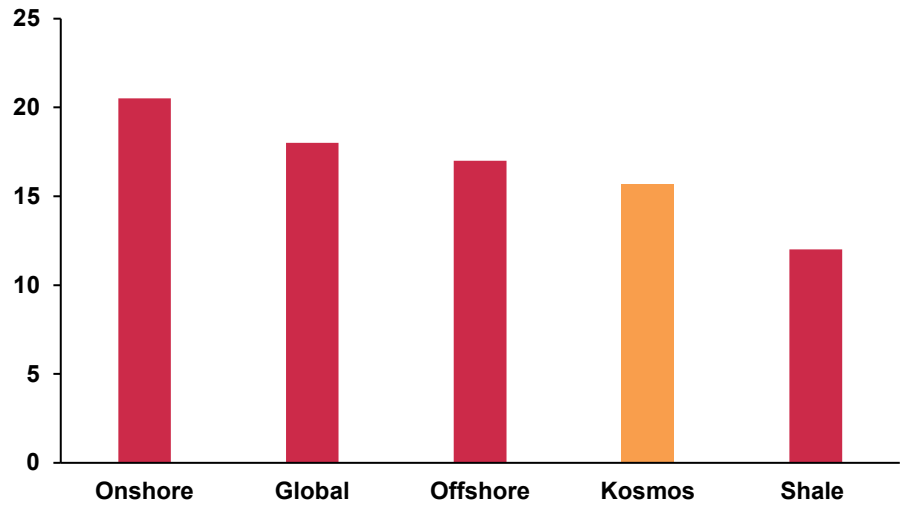
Environment

- Climate Change Task Force
- Elimination of flaring by 2025

Social Initiatives

- Kosmos Innovation Center
- Hunger Relief Programs
- Partnership with local fishermen

Low Carbon Intensity of Offshore O&G



Kosmos Social Spending