

Sample Deliverable

Chrysaor – Shell Deal Analysis and Implications



Executive summary



Deal takeaways

- The Chrysaor-Shell deal valued at \$xx bn, is Chrysaor's bet on oil prices rising to \$xxx/bbl and beyond, and on its ability to unlock value from matured assets
- Three key elements contributed to the successful closure of the deal (a) complementary value of the diversified asset mix for both parties, (b) risk mitigation against future oil price fluctuation, and (c) sharing of decommissioning liabilities
- Chrysaor aims to unlock value by (a) reducing overheads and operating costs, (b) extending asset life through enhanced recovery techniques and in-fill exploration, (c) maintaining reserves through near field development and bolt-on acquisitions, and (d) deferring decommissioning costs
- At \$xxx/boe for 2P reserves, the deal's implied price compares favourably with other transactions in the region



Outlook for PE play in the NCS

- International E&Ps, small producers and utilities are divesting their non-core assets, while incumbent players, NOCs and PE firms are looking to expand and acquire
- Majority opinion about the future of PE-backed transactions in the region is optimistic and they are now seeking larger opportunities on the back of an optimistic outlook for oil prices
- Backed by record high dry powder and a focused strategy driven by industry veterans, PE firms could emerge as strong contenders for asset acquisitions in the NCS
- The Chrysaor-Shell deal sets a precedent in terms of its size, but future big ticket deals would depend on availability of asset packages with strong complementary value creation potential



Implications for Client

- The entry of large PE-backed companies in the region will not have any material impact on the client. Industry experts believe that PE-backed companies are yet to achieve a scale where they could pose any challenge to large international oil companies
- The core competencies of PE-backed companies are likely to create collaboration opportunities for the client.
- The Client could benefit by partnering with PE-backed companies for its xxx strategic priorities such as pursuing 'next generation' growth portfolio, reducing operating costs, and expanding drilling operations

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Deal highlights

The Chrysaor-Shell deal is the largest by a PE-backed independent Oil & Gas company in the UK North Sea

Deal synopsis



Asset sale

Portfolio of xx fields in the North Sea

Deal value Implied price

\$x.x bn **\$x.x/boe**

2P reserves Production

xxx mmboe **xxx kboe/d**

Operating cost Decommissioning cost

\$xx/bbl **\$x.xbn**

Effective date Expected completion

x July 20xx **H2 20xx**

Chrysaor



Established in 200x, Chrysaor is a PE-backed Oil & Gas E&P company that aims to expand and acquire assets in the North Sea

Acquisition rationale

- A balanced and diversified package of assets
- Immediate cash flows and further value creation potential
- Decommissioning costs capable of deferment
- Operatorship in xx% portfolio
- Favourable valuation with bet on rise in oil prices

Transforms Chrysaor into a major full life-cycle UK North Sea E&P company, with production above xxx kboe/d

Royal Dutch Shell



Is the third largest Oil & Gas company worldwide. It embarked on a three-year \$xx bn divestment programme in 20xx to reduce the debt accumulated post its BG Group acquisition

Divestment rationale

- Completes nearly one-third of Shell's announced divestment target of \$xx bn and strengthens its balance sheet
- Reduces its exposure to mature assets
- Improves competitiveness of its UK upstream business

Establishes Shell's ability to strengthen its balance sheet under pressure

Deal asset overview

The asset mix gives Chrysaor immediate cash flows and opportunities for further value creation and expansion

Key observations



The asset mix is diversified and difficult to emulate

- Mix of early vs. late-stage assets
- Exposure to both oil-and-gas-weighted assets (61:39)
- Operatorship in xx% assets

Includes strong and long-term cash flow generating fields – Buzzard, Schiehallion and Elgin / Franklin

- Buzzard is cash flow positive, even in a low-price environment
- Schiehallion is expected to add xx kboe/d production in 2017 and will be cash positive
- Elgin / Franklin is expected to be cash flow positive till 2030

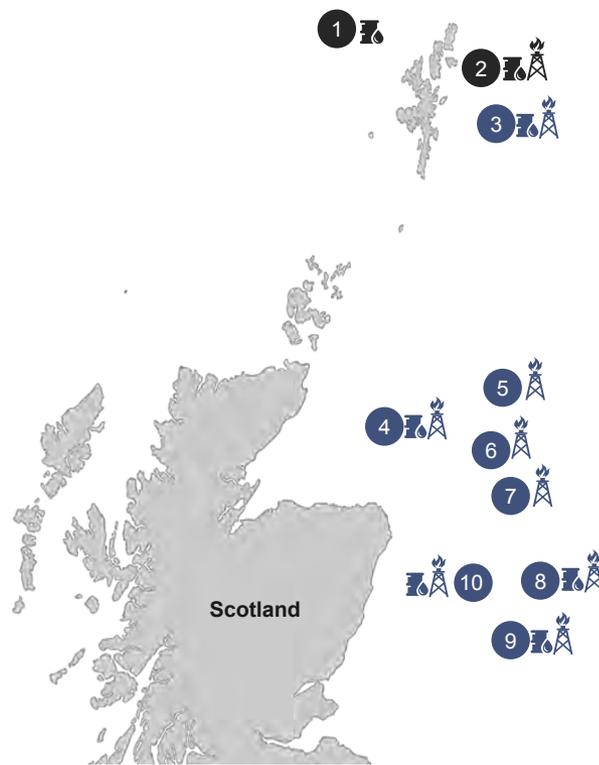
Value creation potential exists in the late-stage operated fields – Armada, Everest and Lomond

- The asset life can be extended through enhanced recovery techniques and in-fill exploration
- The reserves can be maintained through near field development and bolt-on acquisitions
- Overheads and operating costs can be reduced

Asset overview

Non-producing

Producing



		Chrysaor stake	Full field oil production '000 bbl/d	Full field gas production mmcf/d
Schiehallion	1	10.0%	130e	-
Bressay	2	18.4%	-	-
Beryl	3	39.4%	10.82	71
Buzzard	4	21.7%	156.69	37
Armada	5	76.4%	1.85	39
Everest	6	100.0%	2.88	75
Lomond	7	100.0%	0.39	21
Erskine	8	32.0%	4.25	27
J-block	9	30.5%	21.26	203
Elgin / Franklin	10	14.1%	39.83	313

Operated Fields

Deal structure and funding

Risk mitigation against future oil prices and significant decommissioning costs were key to successful closure of the deal

Key observations



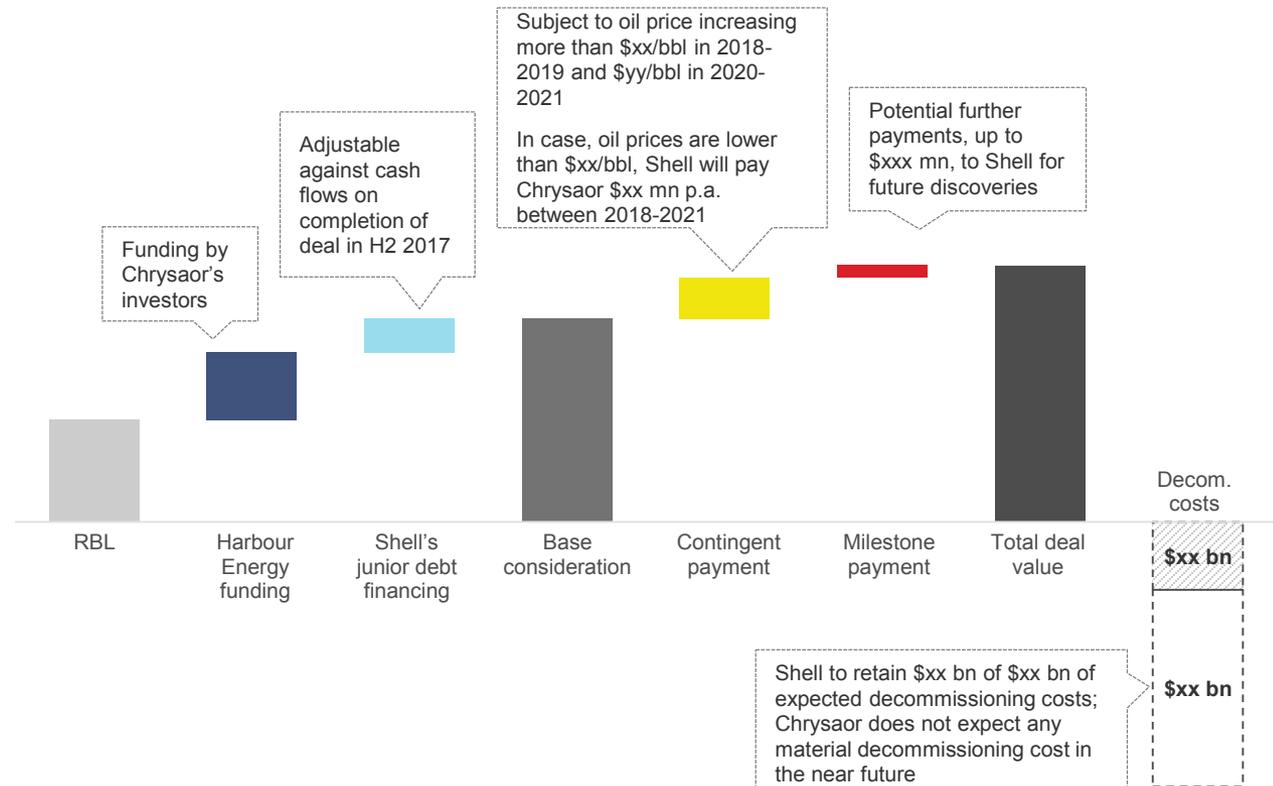
The deal includes a base consideration and two risk mitigation options that were critical for both sides to seal the deal

- Base consideration (\$x.x bn): Funded by Chrysaor's PE investors and loans from Shell and bank syndicate
- Contingent payments (\$x.x bn): Linked to future oil prices and exploration milestones
- Decommissioning Costs (\$x.xbn): Shell will retain a fixed liability of \$x.x bn

Given PE firms investment horizon of three-five years, the potential value from the deal for Chrysaor's investors will depend on:

- Macro environment
- Ability to grow the asset base and maintain production and reserves
- Deferment of decommissioning costs. By 2020, material decommissioning spend is expected to still be some years off

Deal structure and funding



Deal implied price analysis

The deal's implied price of \$8.6/boe for 2P reserves is in line with other transactions in the region

Key observations



The deal's implied price compares favourably with other transactions in the region

- 2P implied price: \$xx/boe vs. \$xx/boe
- Daily production implied price: \$xx.1/kboe vs. \$xx/kboe

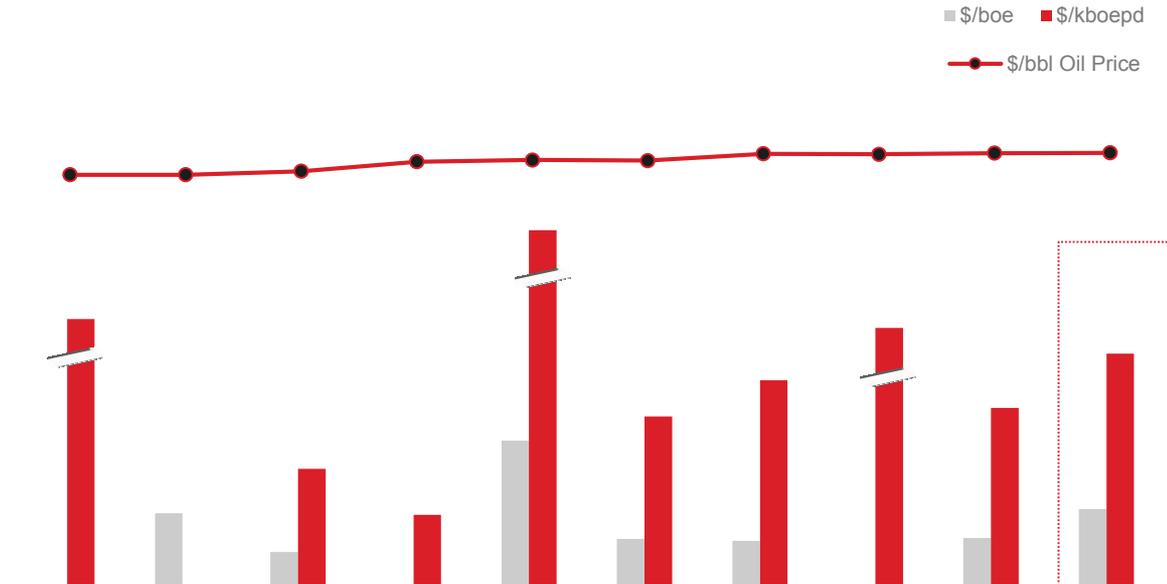
The transaction value is in line with the net asset value arrived based on DCF valuation at \$65/bbl of oil prices

- 2P implied price: \$xx/boe vs. \$xx/boe
- Daily production implied price: \$xx/kboe vs. \$xx/kboe

The valuation reflects Chrysaor's optimistic outlook for oil prices

- It will benefit from the deal if commodity prices and global demand move upwards
- General optimism for oil prices is driven by (a) production cuts announced by OPEC and non-OPEC in mid-2016, (b) demand stabilisation, and (c) fewer new projects coming on-stream due to CAPEX cuts in last two years

Implied deal price for comparable transactions in the UKCS, xxx and NGB1



Deal Period	Dec 2015	Jan 2016	Mar 2016	Apr 2016	Jun 2016	Sep 2016	Dec 2016	Dec 2016	Jan 2017	Jan 2017
Region	xxx	UKCS	UKCS	UKCS	xxx	xxx	NGB	xxx	UKCS	UKCS
Buyer	LetterOne	Siccar Point	Hibiscus and Ping	Premier	Lundin	DNO	Vermilion	Kufpec	EnQuest	Chrysaor
Seller	E.ON	OMV	Shell	E.ON	Client	BP	Engie	Total	BP	Shell
Deal Value	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn	\$xxx mn

Deal in perspective

The Chrysaor-Shell deal could lead to more PE firms looking for packaged assets in the UKCS and xxx

Key observations



PE firms have been acquiring assets in the UKCS and xxx; however, there are only few big ticket deals

- There have been just three \$xxx mn+ deals since 2015; two of which happened in the last six months
- EIG, Blackstone, Blue Water and LetterOne were among the big investors

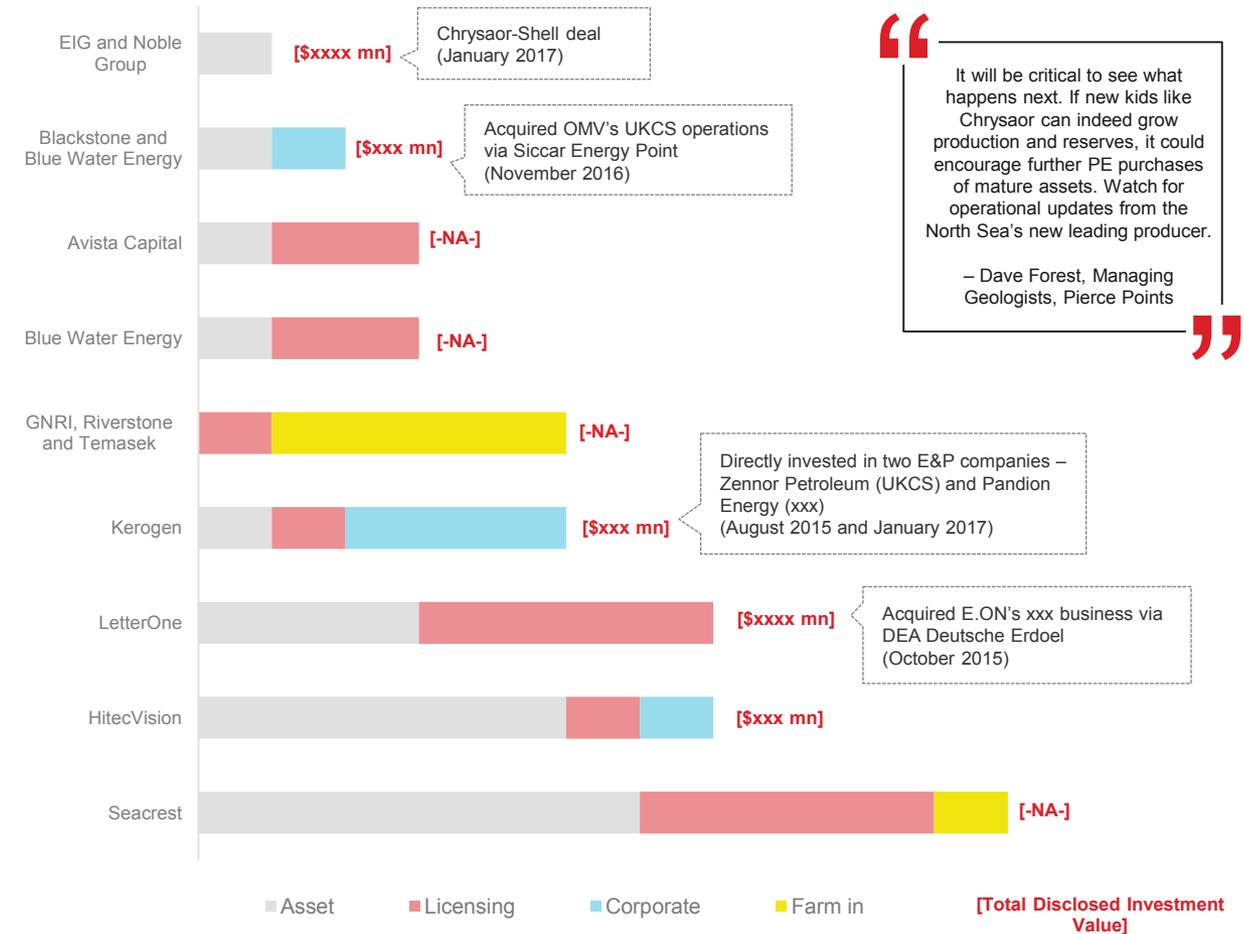
The EIG-backed Chrysaor-Shell deal sets a precedent in terms of its size

- Large size PE deals will only happen for a package of high quality assets
- However, creating such attractive asset packages will be difficult

Analysts expect the region's largely matured assets to continue to attract PE capital due to:

- Favourable valuation
- Potential for near field exploration and adjacent field developments
- Improved oil recovery through use of better technology
- Fiscal incentives from the government

PE-backed investments in E&P companies in the UKCS and xxx, 2015-till date^{1,2}



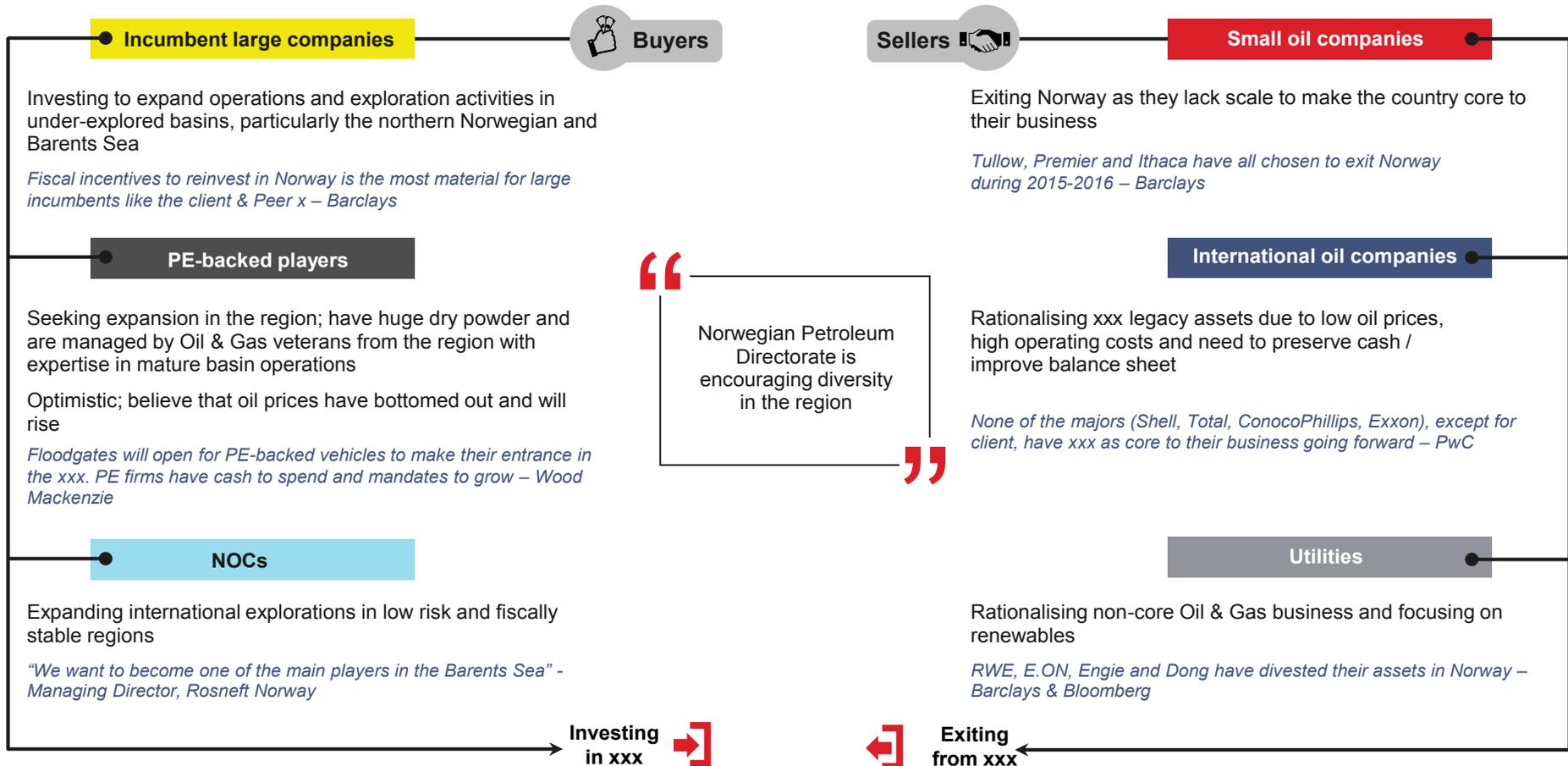
“ It will be critical to see what happens next. If new kids like Chrysaor can indeed grow production and reserves, it could encourage further PE purchases of mature assets. Watch for operational updates from the North Sea's new leading producer. ”

– Dave Forest, Managing Geologists, Pierce Points

Outlook for PE play in the xxx

PE firms can be serious contenders for asset acquisitions in the region, driven by their focused approach and seasoned management

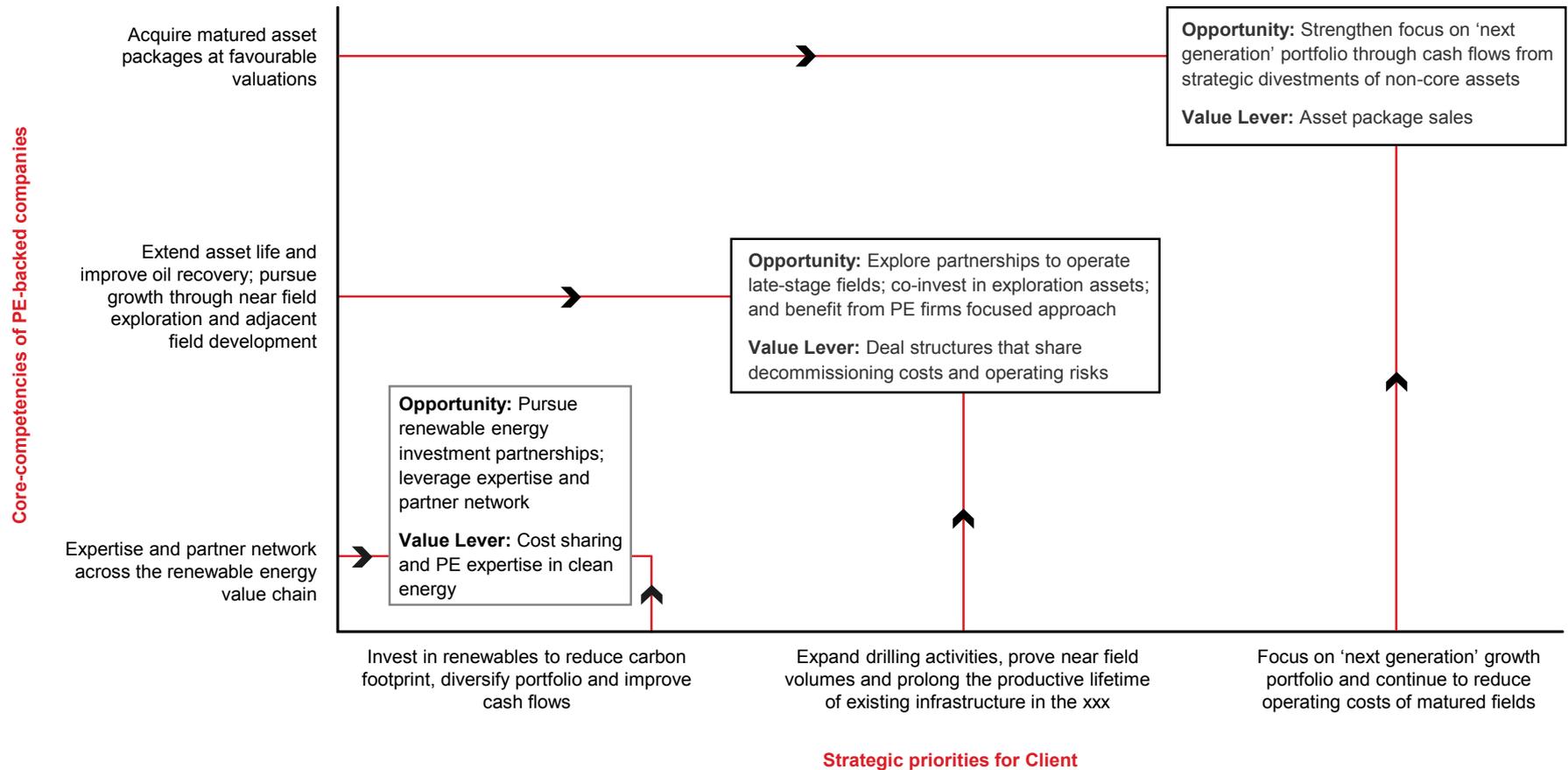
Competition among key players for acquisition opportunities in the xxx



Implications for Client

Analysts believe that PE deals will not impact the client; instead, these could create opportunities for the client to collaborate on overlapping objectives

Complimentary focus areas of client and PE-backed companies



Appendix



Appendix – DCF Valuation

Implied price analysis through discounted cash flow methodology

Valuation summary and key assumptions

	Brent price – (\$/bbl) 2016-2017	Brent price- (\$/bbl) 2018-2020	Brent price- (\$/bbl) 2021-2025	Cost of Capital	Terminal growth rate	Asset value (\$mn)	Net debt(\$mn)	Decom Costs (\$mn)	Net asset value (\$mn)	2P reserves (mmboe)	Current Production (kboe/d)	Implied Price (\$/boe)	Implied Price (\$/boe/d)
Scenario A	XX	XX	XX	XX%	-X.0%	XX	XX	XX	XX	XX	XX	XX	XX
Scenario B	XX	XX	XX	XX%	-X.0%	XX	XX	XX	XX	XX	XX	XX	XX

Projection of divested assets

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Production liquids (boe)	XX									
Production gas (boe)	XX									
Production (boe)	XX									
Gross revenue - Scenario A (\$mn)	XX									
Gross revenue - Scenario B (\$mn)	XX									
Operational cost (\$mn)	XX									
Capital cost (\$mn)	XX									
Royalty (\$mn)	XX									
Gov. Take (\$mn)	XX									
State carry (\$mn)	XX									
Cash flow - Scenario A (\$mn)	XX									
Cash flow - Scenario B (\$mn)	XX									

Opinions of industry experts and analysts

PE Companies have cash to spend and mandates to grow

"The death knell for North Sea Oil & Gas has not rung. There are parties like us who want to **invest in the basin** and find new oil but we have to be **selective**. These are all world-class assets. Yes the North Sea is a mature basin but there are a number of young, long-lived, high-quality **assets still available**."

– Head, XXX, abc company, November 20xx

"We think we **can bring in more money** as we make more good deals ... I hope that we can make one or two more deals in 20XX. Changes like this (in the **oil price**) **is a catalyst** for action. Some will buy more resources like we do, while others will clean out their portfolio to focus their business."

– xxx, abc partner
abc, a PE backed Norwegian newcomer, January 20xx

There has been a notable **increase in PE deals** in the upstream sector, including a number of headline-grabbing deals. Across the EMEA/Asia and Americas regions, there was a notable xx percent increase in deal activity in the **upstream sector** over the period from June 20XX to June 20XX, as compared to the period from June 20XX to June 20XX.

PE investments into Oil & Gas in the low oil price environment
abc, September 20xx

In Norway, the production increase has lasted for two consecutive years (20XX and 20XX) and exceeded estimates, while gas production also bounced back after a short-lived dip. In the UK, Oil & Gas production rose more than x percent in 20XX – the first rise in more than xx years.

Assessing the future of North Sea Oil & Gas
xyz Company, April 20xx

"Access to financing is arguably the biggest challenge facing Oil & Gas companies. While many expected PE funds to swoop in with capital during the oil price downturn over the last xx months, investment has fallen short. But the **tide may be turning**. Greater **consensus over the oil price** future and more **favourable asset valuations** are **improving the conditions for PE**, and we expect to see an **uptick in deals** before the end of the year."

– abc, Leader
XY Global Oil & Gas Transactions, June 20xx

"Because there is such a pressure on margins, there will be continual opportunities for companies with strong balance sheets to **look for opportunities**. I see this **trend continuing in 20XX** – possibly with greater urgency because **buyer and seller expectations are getting closer**."

- xyx, Member of the Board of Directors
xyx Company, 20xx

Decommissioning risk a consideration and Govt support

The **Norwegian Government** has played an **instrumental role** in the development of the NCS. For example, the **xx% tax rebate** has not only increased the exploration appetite for the E&P majors, but has **attracted smaller exploration companies** that otherwise could not fund the exploration costs.

ABC
PWC UK Insights, 2016

"With up to xx billion barrels of Oil & Gas remaining, the ABC government's top priority remains working with industry and stakeholders to **maximise economic recovery** from the North Sea. The new **£X m fund** also recognises that **decommissioning is an emerging**, but growing, activity in the North Sea, with £xxx bn expected to be spent in the abc Sea over the next decade."

–abc, First minister
ABC government, February, 20xx

Opinions of industry experts and analysts (contd.)

Decommissioning risk a consideration and Govt support

"The **cost and complexity** of decommissioning is forcing a long, hard think about how best to utilise capabilities and resources. The sector is realizing that **effective collaboration** can achieve things much more cost-efficiently and effectively than going it alone."

– ABC
xyz Oil & Gas, February 20xx

The costs of providing **decommissioning security** during the life of an investment can have a **material financial impact**. In addition, decommissioning and environmental liabilities associated with upstream assets may extend beyond the period of immediate ownership of such an asset by a company, with some liabilities potentially extending beyond the corporate veil to the ultimate shareholder or controller. This will need to be taken into account by PE investors aiming to achieve a "clean exit" and to protect against cross-contamination of their funds with potential statutory or third party claims for historic decommissioning and environmental liabilities.

PE investments into Oil & Gas in the low oil price environment
XYZ, September 20xx

Innovative deal structures with contingent pricing and new business models

"As Oil & Gas companies try to **raise capital and reduce debt** amid the lower-for-longer price outlook, exploring new capital structures and strategies has become almost mandatory for investors. **PE-backed** companies are looking to **joint ventures** to help them cut costs, while others hope **contingent pricing** will offer much-needed **price stability**"

abc, Leader
xyz, June 201xx

"We will see more of this (BP's Det Norske merger deal) in the coming period. The next period will also be about **different business models**, based on **different ownership structures**."

"Really while there is a long life left in the North Sea, there is a whole lot of **P&A and decommissioning** that is going to come through over the **next xx-xx years** so we're looking at companies that can do that **efficiently** as well."

– PQR, Director
Bcd company, 20xx

"Given the majors' involvement in xyz, a popular move would be to implement incentives for increased oil recovery. Better terms for IOR projects would likely make them more **interested to keep investments in Norway** up."

Abc, analyst
Xyz company, January 20xx

Due to the debt burden of many PE-backed Oil & Gas companies, **creative capital structures** are on the rise. Of the xx% of respondents exploring new capital structures, xx% cite joint ventures (JVs) and drillcos and **xx% cite contingent pricing** as the most popular options.

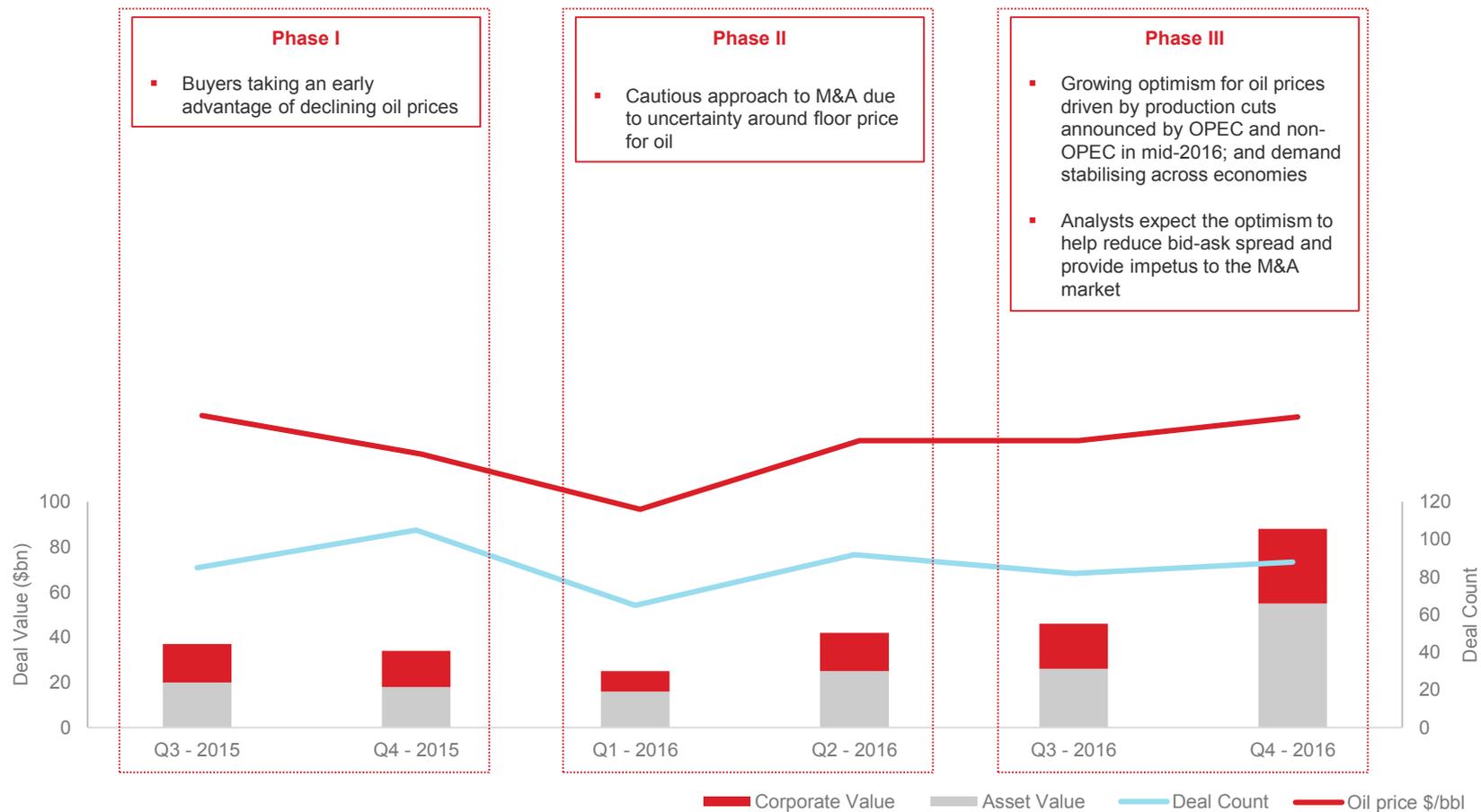
Capitalizing on opportunities: Private equity investment in Oil & Gas
Abc, June 20xx

"While mergers and acquisitions have declined globally during the oil slump as **buyers and sellers** failed to **agree on valuations**, both sides are now getting **nearer on price**."

Appendix – Global upstream Oil & Gas transactions vs. oil price

With oil prices bottoming out, global upstream Oil & Gas transactions are on the rise

Global upstream Oil & Gas transactions vs. oil price, Q3 2015 – Q4 2016

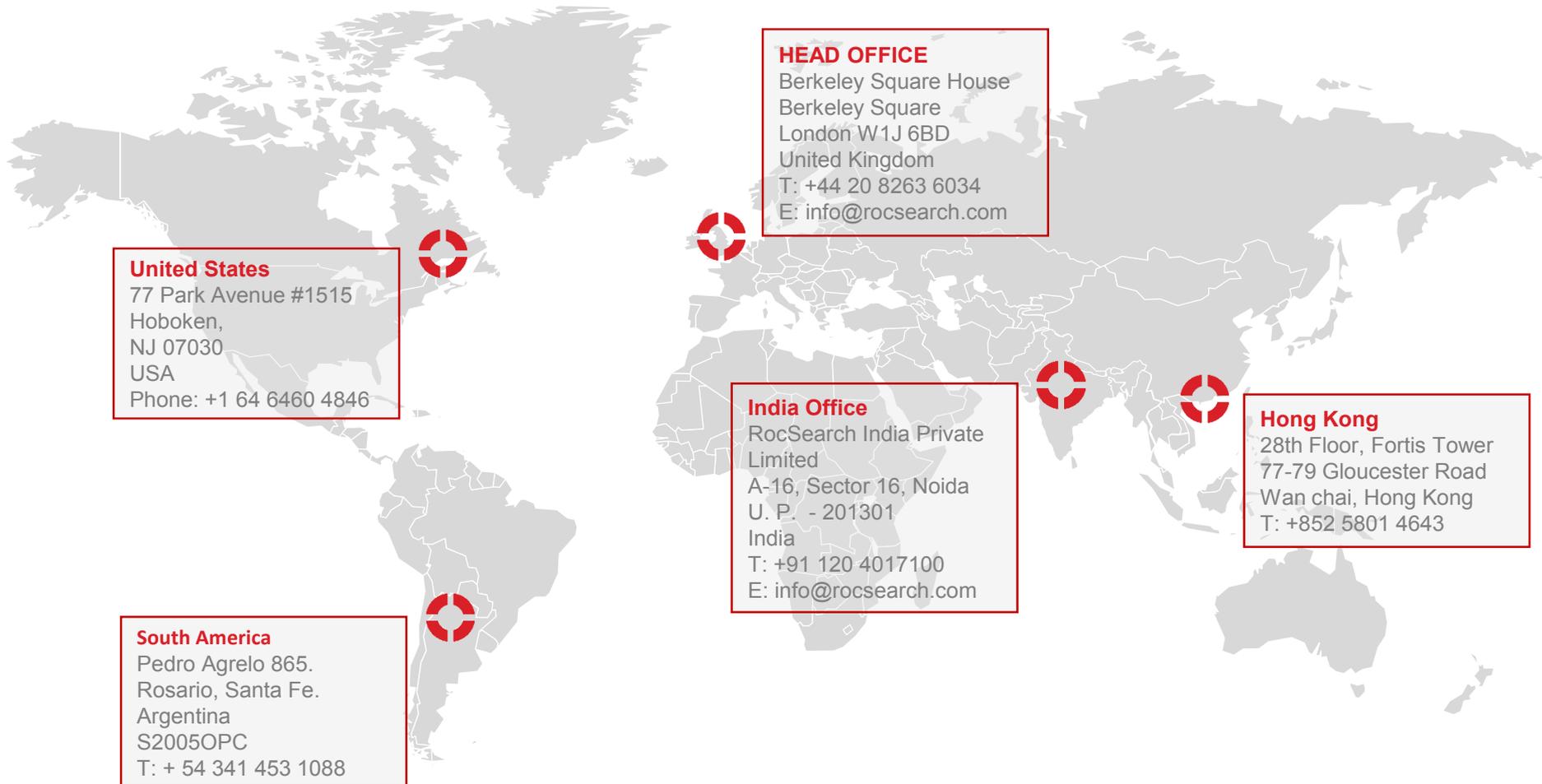


Appendix – PE-backed Oil & Gas companies

Indicative list of PE-backed upstream Oil & Gas companies in the UKCS and NCS

PE Firm(s)	Platform O&G Company	No. of Transactions	Disclosed Investments
EIG and Noble Group	Chrysaor [UK]	x	\$X,000 mn
Blackstone and Blue Water Energy	Siccar Point Energy [UK]	x	\$xxx mn
Avista Capital	Hansa Hydrocarbons [UK]	x	-
Blue Water Energy	Wellesley Petroleum [NO]	x	-
GNRI, Riverstone and Temasek	Origo Exploration [NO]	x	-
Kerogen Capital	Zennor Petroleum [UK], Pandion Energy [NO] and Hurricane Exploration [UK]	x	\$xxx mn
LetterOne	DEA Deutsche Erdoel [DE]	x	\$xxx mn
HitecVision	CapeOmega [NO], Verus Petroleum [UK], Point Resources [NO] and EPSI [NO]	x	\$xxx mn
Seacrest	AzEire Petroleum [BM], Fortis Petroleum [NO] and OKEA [NO]	x	-

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