



Rex International Holding Ltd

(REXI SP/5WH.SI)

The coming of age of an “Independent”

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- **Maturing into a producer.** Rex International Holding (Rex) is a pure-play oil & gas exploration and production company (Independent). It owns and operates an oil-producing field in Oman and has a portfolio of exploration licenses in Norway. Its recent acquisition of the Norwegian Brage oil field will add another production asset to its portfolio. This is an accomplishment from its early days when it listed on the SGX as a pure-play explorer.
- **Record free cash flows.** Free cash flow generated by oil and gas companies are expected to break records this year with oil currently trading above US\$70 per barrel. For Rex, the windfall will continue to strengthen its already strong balance sheet and give it opportunities to diversify.
- We initiate with an **Outperform** recommendation and a DCF-backed **target price of S\$0.32**.

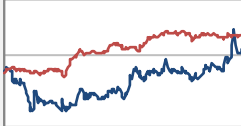
Financials & Key Operating Statistics					
YE Dec (US\$ m)	2019	2020	2021F	2022F	2023F
Revenue	135	46,664	167,024	106,288	68,328
PATMI	19,401	(14,218)	115,316	43,182	4,081
EPS (Sing cents)	2.03	(1.46)	11.72	4.34	0.41
EPS growth (%)	1,596.1	—	—	(62.9)	(90.6)
Price P/E (x)	10.34	—	1.79	4.83	51.67
Net Profit Margin (%)	16465.9%	(32.6%)	67.7%	39.5%	4.4%
Net Gearing (%)	Net Cash	Net Cash	Net Cash	Net Cash	Net Cash
Price P/B (x)	1.43	1.60	0.86	0.74	0.74
ROE (%)	17.1%	-11.3%	61.5%	16.1%	1.0%

Source: Company data, KGI Research

Rex International Holding was listed on SGX's Catalist Board on 31 July 2013. The company de-risks its portfolio of exploration and development assets using its proprietary liquid hydrocarbon indicator Rex Virtual Drilling technology (RVD), which can pinpoint the location of oil reservoirs in the sub-surface using seismic data. Since the company's listing in July 2013, the group has achieved four offshore discoveries, one in Oman and three in Norway. The group also offers RVD screening services to other oil exploration companies as an additional tool to increase the success rate of finding oil.

Neglected sector... The oil and gas industry has been out of favour among investors since 2014, first when oil prices collapsed under the weight of overproduction from US shale, and recently from the pivot towards clean energy. The consensus is that wind and solar technologies will take market share over time.

...but where opportunities abound. Rystad Energy, an energy consultancy firm, projects that with oil trading above US\$70 per barrel, the world's publicly traded exploration and production (E&P) companies are set to generate record-breaking free cash flows in 2021. Their combined free cash flows is expected to surge to US\$348bn in 2021, from a previous high of US\$311bn back in 2008, as per Rystad's estimates.

Outperform - Initiation			
Prices as of 30 July (SGD)	0.21	Performance (Absolute) 1 Month (%) 15.4 3 Month (%) 13.5 12 Month (%) 15.4	
12M TP (\$)	0.32		
Previous TP (\$)	-		
Upside, incl div (%)	54.6		
Trading data		Perf. vs STI Index (Red)	
Mkt Cap (\$mn)	273		
Issued Shares (mn)	1,302		
Vol - 3M Daily avg (mn)	19.4		
Val - 3M Daily avg (\$mn)	3.8		
Free Float (%)	55.4%		
Major Shareholders		Previous Recommendations	
Lidgren Family	34.7%		
Svein Helge Kjellesvik	6.0%		

The coming of age. Rex's value creation strategy is to leverage on technology to identify and acquire assets that are near to relevant infrastructure. While it now has a portfolio of more than 10 licenses, including 3 discovery assets with commercial development potential, the group is currently in an excellent position to generate record free cash flows from its producing assets. Based on US\$65 oil price, we forecast Rex's net cash position to surge to US\$107mn by FY2022F. This is equivalent to S\$144mn or 54% of the group's current market capitalisation.

Bear markets are the authors of bull markets. Capital expenditure (CapEx) in the O&G sector has been in a structural decline since 2015 due to low oil prices. On the demand side, optimistic assumptions on the pivot towards alternative forms of energy may cause markets to underestimate the challenges of phasing out oil and gas use. Thus, we are of the view that this is setting up a tighter supply-demand dynamic than what consensus is assuming, and a likely bull market for the sector in the years ahead.

Valuation & Action: We initiate with an Outperform recommendation and a TP of S\$0.32, based on discounted cash flow, taking into account a WACC of 11.0% and terminal growth rate of 3.0%. Rex's strong balance sheet, free cash flow generation and access to capital, differentiates it from many other E&P companies. Rex is the only game in town (at least on the SGX) for investors looking for direct exposure to the neglected O&G sector.

Risks: The direction of oil price is the biggest driving factor of profits. U.S. shale production represents the largest supply variable. However, we expect U.S. shale production growth to remain controlled after last year's market share war.

See the last page for important disclosures.

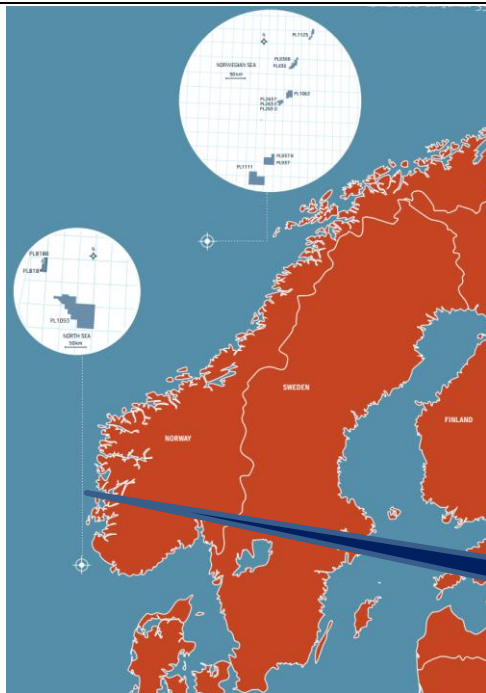
Contents

Business at a glance	3
Investment thesis.....	4
#1 Growing from a position of strength	4
#2 Transformation from a pure-play explorer to a producer	4
#3 Opportunistic play on asset sales by the big boys	5
#4 Strong cash flows for oil and gas companies in the years ahead	5
Valuations and peer comparison	6
Key valuation drivers and scenario analysis	6
Base case valuation	7
Upside case valuation	8
Downside case valuation	9
Peer comparison and key trends for O&G independents	10
Balance sheet matters	10
Upstream independents' price performance	10
Consolidation is a key trend for independent O&G players	11
Forecasts and financial review.....	12
It's all about the cash flows	12
Healthy investor demand for the US\$60mn bond	12
Production forecasts	13
Macro and Industry Outlook.....	14
Overview of supply and demand dynamics in the oil market	14
Current updates of crude production from OPEC+ and the US.....	15
Global oil majors exploration and production spending	17
Company Background	18
The coming of age of an "independent"	18
Board of Directors	19
Senior Management	20
Shareholders – Alignment of interest	21
Key Risks	22
Financial Summary	23
Appendix A: Assets	24
Norway - Licenses.....	24
Norway – Brage Field	25
Oman	26
Appendix B: Global oil statistics.....	27

Business at a glance

Rex has two oil producing fields. The fields are located offshore Oman and Norway (pending regulatory approval; expected to be completed in 4Q2021 with an effective date of 1 January 2021) and are expected to produce an average of around 15,000 barrels of oil equivalent per day in FY2021. In addition, Rex is an active explorer in the Norwegian continental shelf, having amassed more than 10 licenses, including 3 discovery assets with commercial development potential.

Figure 1: Rex's concessions in Norway



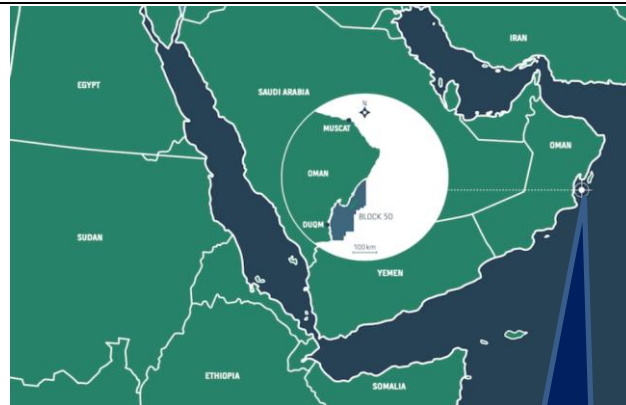
Source: Company data, KGI Research

NORWAY

Business in Norway is conducted through Rex's 90.00% owned Lime Petroleum AS (LPA). LPA is an Oslo-based pre-qualified oil exploration company established in 2012, with a portfolio of licences focusing on mature areas close to existing oil and gas infrastructure in the Norwegian Continental Shelf.

LPA's key asset will be the soon-to-be acquired 33.8% stake in the oil producing Brage Field, located in the northern part of the North Sea. The Brage Field operates in water depth of 140 metres and currently produces around 3.5k barrels of oil equivalent per day. While the acquisition of Brage is expected to complete before the end of 2021, LPA will recognise Brage's contribution from 1 Jan 2021. Net 2P reserves of about 7.3 MMboe from the Brage Field will also be added to LPA's current attributable 2C Contingent Resources of 27.7 MMboe.

Figure 2: Rex's Oman field



Source: Company data, KGI Research

Brage oil producing field (pending approval)

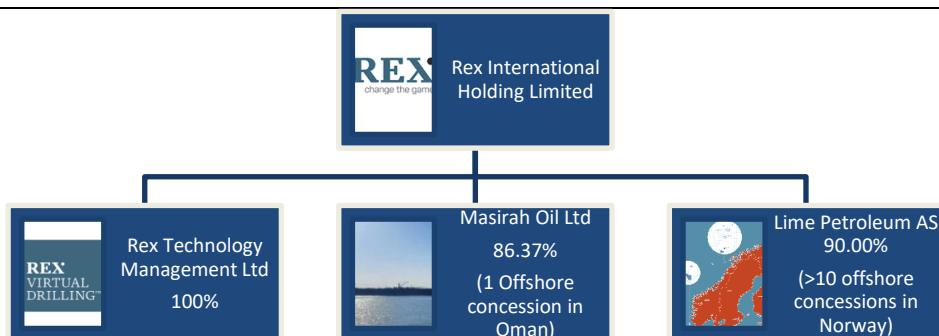
Oman Block 50 oil producing field

OMAN

Rex's business in Oman is conducted through its 86.37% owned Masirah Oil Ltd (MOL). MOL's key asset is the 100%-owned Block 50 concession in Oman.

MOL's key asset is the oil producing Yumna Field. The Yumna Field lies within the Block 50 licence located on the eastern coast of the Sultanate of Oman, in a water depth of some 30 metres and with a current production rate of around 11.6k barrels of oil equivalent per day. The licence is 100% owned and operated by MOL. The Yumna Field is the first discovery in Block 50 Oman and is located in the Masirah Graben geological feature.

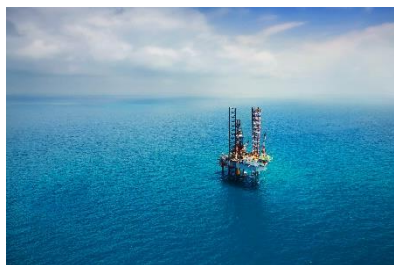
Figure 3: Rex's corporate structure



Source: Company, KGI Research

Investment thesis

#1 Growing from a position of strength

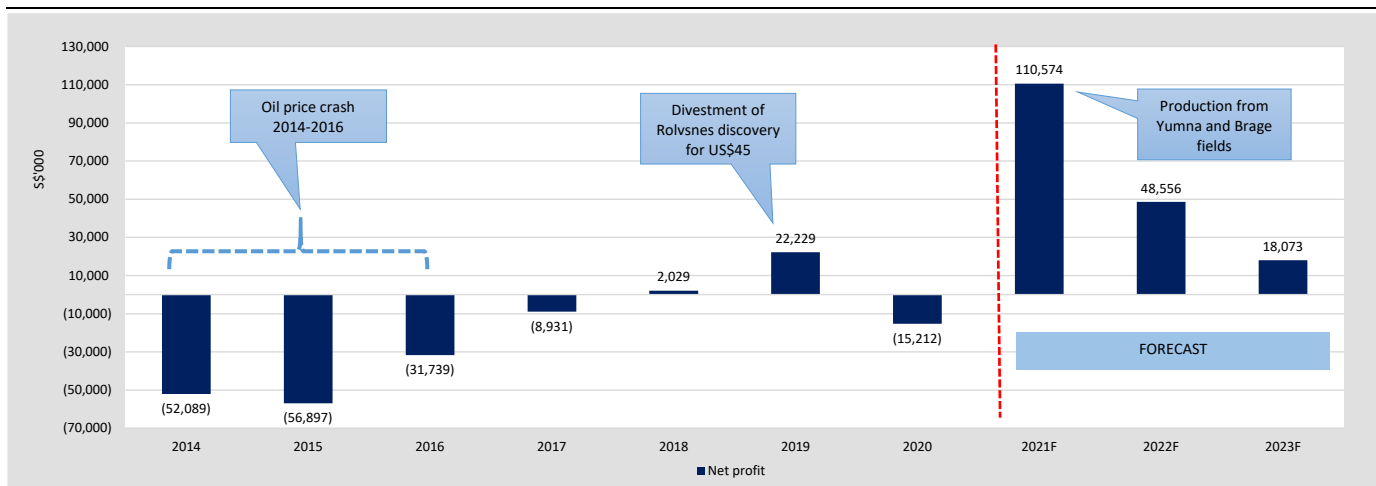


Rex listed on the SGX on 31 July 2013, a year before one of the largest bear markets to hit the oil industry. However, since then, the group has achieved four offshore discoveries, one in Oman and three in Norway. This is in stark contrast to many other oil and gas exploration companies who have gone into bankruptcy due to the low oil price environment from 2014 to 2017.

Rex relies on an [experienced management team](#) and its in-house proprietary Rex Virtual Drilling technology (RVD) to achieve a higher chance of success in finding oil. A key milestone and confirmation of its technological expertise, the group divested its first discovery asset, the Rolvsnes discovery, for US\$45mn in 2019, netting gains of approximately US\$30mn.

While oil exploration is an intensely cash demanding business, the group's operations in Norway benefits from a very favourable tax environment. Rex can claim back 78% of exploration expenditure, significantly reducing the group's risk exposure. Furthermore, for 100% of the exploration costs, Rex can obtain bank financing of up to 78% of that amount. The loan is then repaid in the subsequent year when the company receives the tax rebates from the government. This arrangement greatly lowers Rex's risk profile over other E&P players operating in other regions.

Figure 4: Annual profits since listing in 2013



Source: Company data, KGI Research

#2 Transformation from a pure-play explorer to a producer

Last year was pivotal for Rex as it produced its first barrel of oil from the Yumna Field in Oman. As of the date of this report, Rex's 83.4% owned MOL is producing oil at a rate of around 12,000 barrels per day. As of 31 December 2020, the Yumna Field produced 2,212 MMstb. The Yumna Field still had 5.4MMstb oil reserves based on 2P figures. Rex has drilled two more additional wells (Yumna 2 and Yumna 3) over the past six months. In March 2021, MOL completed the upgrade to the Yumna Field process facilities, which more than doubled the liquid handling capacity on the Mobile Offshore Production Unit (MOPU) to 30,000 barrels per day.

Table 1: Yumna production (March-June 2021)

	March 2021	April 2021	May 2021	June 2021
Production, Stock tank barrels per day (stb/d)	12,672	12,210	11,858	11,682

Source: Company data, KGI Research

One man's trash is another man's treasure.

Oil majors are selling assets to meet net zero targets, thus creating opportunities for smaller companies like Rex.

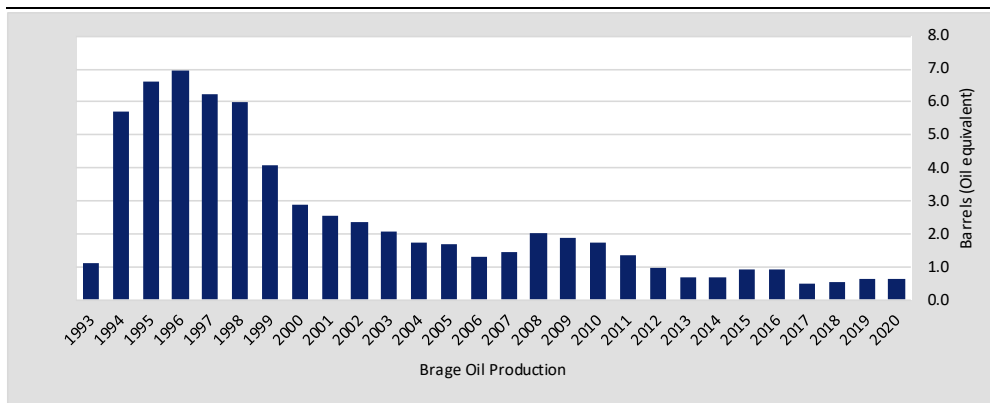
#3 Opportunistic play on asset sales by the big boys

International oil majors such as Royal Dutch Shell, ExxonMobil, BP, Total and Eni are being pressured to divest their oil & gas assets to meet net zero targets as countries pursue Paris climate goals. Energy consultants Wood Mackenzie has estimated that the total value of oil and gas assets up for sale across the industry stands at more than US\$140bn.

The ongoing asset sale is creating opportunities for smaller players and independent operators such as Rex. It is within this context that Rex's 90% owned LPA was able to buy Repsol Norge AS (Repsol)'s 34% interest in the oil, gas and natural gas liquids (NGL) producing Brage field in Norway. The Brage field currently produces around 3,500 boe per day and is therefore an immediate addition to Rex's total oil production. While the acquisition is pending approval from Norwegian authorities, effective date of the transaction will be 1 Jan 2021, thereby bringing Rex's 2021 total oil production to around 15,000 boe per day.

While Brage has been producing since 1993, there could be further upside based on future in-fill drilling of high value near-field prospects.

Table 2: Brage's production since 1993. The field is operated by Wintershall DEA Norge.

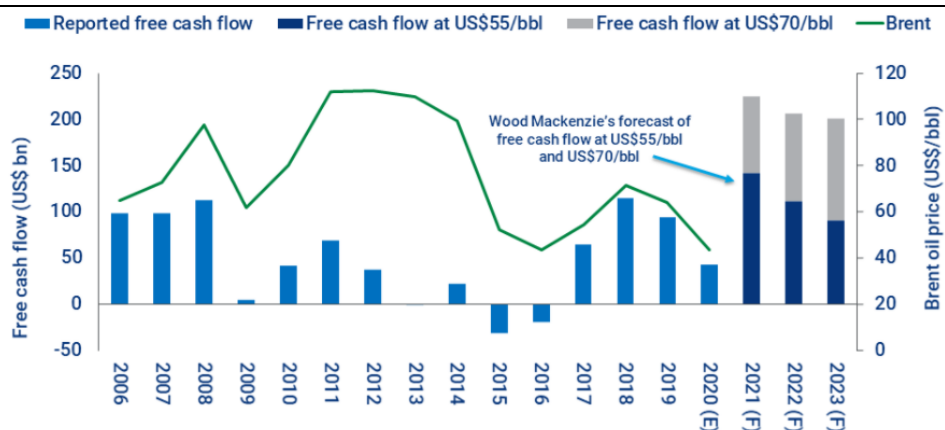


Source: Norwegian Petroleum Directorate

#4 Strong cash flows for oil and gas companies in the years ahead

The cost cutting instituted by international oil companies (IOCs) in 2020 as a response to lower oil prices have brought down corporate cash flow breakeven from US\$54/bbl before COVID-19 to US\$38/bbl post-COVID-19. When combined with higher oil prices of US\$70/bbl, Wood Mackenzie forecasts that free cash flow generated by the IOCs would be double the previous peak reached in 2018. Even at a conservative US\$55/bbl oil price assumption, the free cash flow that oil majors can generate will already exceed that of any previous year since 2006.

Table 3: Wood Mackenzie's forecast of International Oil Companies' free cash flows at different oil price scenario



Source: Wood Mackenzie

Valuations and peer comparison

We expect Rex's valuations to be driven primarily by oil prices, production volumes and breakeven costs.

We initiate Rex with an Outperform recommendation and a S\$0.32 price target in our base case scenario.

Key valuation drivers and scenario analysis

The three key drivers of Rex's valuation are the average selling price (ASP) of oil, production volume and breakeven costs. We have assumed an ASP of US\$65 in our base-case scenario and utilised a total average cost of production (CapEx + OpEx) of US\$29 per barrel.

Norway tax formula for 2020 and 2021:

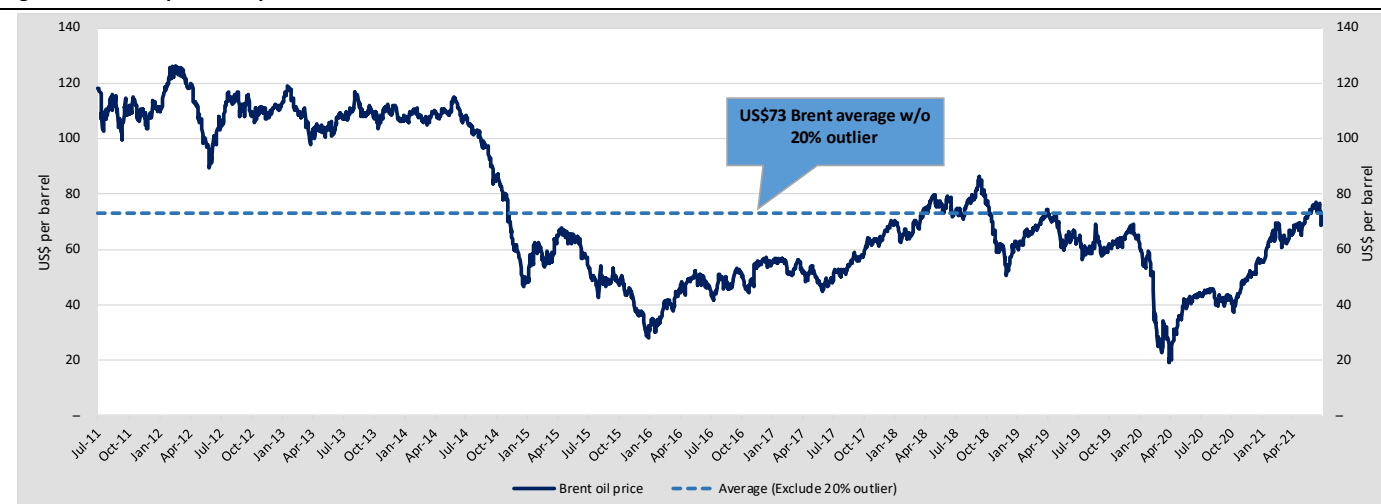
Operating income
 - Operating expenses
 - Depreciation (6 yrs)
 - Exploration and development expenses (100%)
 - Environmental taxes and area fees
 - Net financial costs
 = Corp tax base (22%)
 - Uplift (24% of capex)
 = Special tax base (56%)

Taxes are calculated differently for Oman and Norway. For Oman, MOL is entitled to approximately 64% of gross oil production while the remainder goes to the government who pays the taxes. In Norway, oil and gas companies are taxed a total rate of 78%. However, this is split between 20-30% for the standard company tax rate and 50-60% for the special tax rate. As of 2020, this ratio was at 22% for standard rate and 56% for special.

However, many oil & gas companies operating in Norway are expected to pay minimal or no taxes in 2021 due to favourable government policies. The key changes implemented for 2020 and 2021 include tax rebates set at 100% of capital expenditure, with which Rystad Energy estimates can reduce breakeven prices for projects by an average of 40%. Furthermore, a higher uplift of 24% (uplift is a percentage of CapEx that can offset the special tax base) is now accelerated to one year rather than the previous 20.8% over four years.

Valuation	Assumptions for 2021-2027 <i>Key changes between each scenario are underlined</i>	Valuation per share (S\$)
Base case	<ul style="list-style-type: none"> US\$65 oil price Yumna total gross production based on <u>10.0 MMboe (2021-2025)</u> Brage total production based on 7.7 MMboe (2021-2027) <u>US\$4.50 NPV</u> per MMboe for Shrek, Falk and Fogelberg 	S\$0.32
Upside case	<ul style="list-style-type: none"> US\$75 oil price Yumna total production based on <u>13.3 MMboe (2021-2027)</u> Brage total production based on 7.7 MMboe (2021-2027) <u>US\$6.00 NPV</u> per MMboe for Shrek, Falk and Fogelberg 	S\$0.46
Downside case	<ul style="list-style-type: none"> US\$55 oil price Yumna total production based on <u>8.2 MMboe (2021-2023)</u> Brage total production based on 7.7 MMboe (2021-2027) <u>US\$3.00 NPV</u> per MMboe for Shrek, Falk and Fogelberg 	S\$0.22

Figure 5: Brent oil price – 10 years



Source: Bloomberg, KGI Research

Base case valuation

Our base case scenario assumes an average oil price of US\$65 over our forecast period.

Our base case valuation scenario utilizes a conservative set of assumptions. We applied a 10.0% discount rate. The cost of debt is at 8.5%, and the cost of equity equals 11.5%. For Brage, 100% of capex in 2021 can be expensed in the same year, while we estimate that US\$77mn in deferred taxes will offset the special tax (56% rate) up to 2027.

YUMNA, OMAN							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(36.4%)	(35.7%)	(33.3%)	(33.3%)		
Gross production rate (bopd)	11,000	7,000	4,500	3,000	2,000	–	–
Production days	365	365	365	365	365		
Masirah: Gross production rate per annum (barrels)	4,015,000	2,555,000	1,642,500	1,095,000	730,000	–	–
Masirah: Net entitlement (%)	64.0%	64.0%	64.0%	64.0%	64.0%		
Masirah: Net entitlement (barrels)	2,569,600	1,635,200	1,051,200	700,800	467,200	–	–
Oil price (US\$ per barrel)	65	65	65	65	65	–	–
Net revenue (US\$)	167,024,000	106,288,000	68,328,000	45,552,000	30,368,000		
Drilling and development Capex (US\$)	20,556,800	–	–	–	–	–	–
Abandonment (US\$)	–	–	–	–	4,000,000	–	–
Opex per barrel of oil equivalent (US\$)	7.6	12.0	18.7	28.0	28.0		
Operating expenses (US\$)	30,660,000	30,660,000	30,660,000	30,660,000	20,440,000	–	–
Operating expense / net revenue (%)	18.4%	28.8%	44.9%	67.3%	67.3%		
Free Cash flow (US\$)	115,807,200	75,628,000	37,668,000	14,892,000	5,928,000	–	–
Discount Rate	10%						
NPV (US\$)	209,934,536						
Shares outstanding ('000)	1,315,508						
NPV/share (US\$)	0.16						
NPV/share (\$\$)	0.22						
Rex Ownership	86.37%						
Rex's Share (\$\$/share)	0.19						

BRAGE NORWAY							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)
Gross Production rate (bopd)	3,400	3,264	3,133	3,008	2,888	2,772	2,661
Production days	365	365	365	365	365	365	365
Brage: Gross Production rate per annum (barrels)	1,241,000	1,191,360	1,143,706	1,097,957	1,054,039	1,011,878	971,402
Oil Price (US\$ per barrel)	65	65	65	65	65	65	65
Brage: Net Revenue (US\$)	80,665,000	77,438,400	74,340,864	71,367,229	68,512,540	65,772,039	63,141,157
Drilling and development Capex (US\$)	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816
Abandonment (US\$)	–	–	–	–	–	–	–
Opex per barrel of oil equivalent (US\$)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Operating expenses (US\$)	8,687,000	8,339,520	8,005,939	7,685,702	7,378,274	7,083,143	6,799,817
Operating expense / net revenue (%)	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%	10.8%
Free Cash flow (US\$)	47,610,184	44,731,064	41,967,109	39,313,712	36,766,451	34,321,080	31,973,524
Corporate Tax (22%)	10,474,240	9,840,834	9,232,764	8,649,017	8,088,619	7,550,638	7,034,175
Free cash flow after corporate tax	37,135,943	34,890,230	32,734,345	30,664,695	28,677,831	26,770,442	24,939,349
Special Tax (56%) rebate	27,480,462						
Free Cash flow after tax and rebates	64,616,405	34,890,230	32,734,345	30,664,695	28,677,831	26,770,442	24,939,349
Lime's stake 33.8%	21,868,130	11,807,900	11,078,284	10,377,853	9,705,439	9,059,921	8,440,224
Discount Rate	10%						
NPV (US\$)	60,521,778						
Shares outstanding ('000)	1,315,508						
NPV/share (US\$)	0.05						
NPV/share (\$\$)	0.06						
Rex Ownership	90.0%						
Rex's Share (\$\$/share)	0.056						

NORWAY LICENSES				
Licence	Estimated 2C resources (MMboe)	% stake owned by Rex	Total barrels owned by Rex (MMboe)	Remarks
Shrek	23.0	27%	6.2	
Falk	28.6	45%	12.9	
Linerle	–	45%	–	No date set for drilling
Fat Canyon	–	14%	–	Drilling in 2H 2021
Fogelberg	49.0	12%	5.9	Pending cash payable
Total	100.6		25.0	

Scenario (NPV per barrel of oil equivalent), US\$	3.00	4.50	6.00
Barrels to Rex (MMboe)	25.0	25.0	25.0
Total value of Licenses (US\$)	74.9	112.3	149.8
Total value of licenses / share (US\$)	0.06	0.09	0.11
Total value of licenses / share (\$\$)	0.08	0.12	0.15
Excluding "Fat Canyon" and "Linerle"			

Total valuation per share, \$S	Value	Assumptions
YUMNA, OMAN	0.186	Rex has 86.37% stake in MOL; MOL has a 100% stake in the Yumna field. Production life based on Gross 2P reserves of 10.0mn MMboe (2021-2025)
BRAGE, NORWAY	0.056	Rex has 90% stake in Lime; Lime has a 33.8% stake in Brage field. Production life based on 7.7 MMboe (2021-2027)
NORWAY LICENSES	0.115	US\$4.50 per MMboe for Shrek, Falk and Fogelberg
Less Net Debt / Add net cash	0.029	Cash and quoted investments as at end-2020
Less US\$60mn 2.5 Yr bond (\$S81mn)	(0.062)	Interest rate 3m NIBOR +8.25%; maturity 9 Jan 2024; to be listed on Oslo Børs.
Total value per share, \$S	0.32	

Upside case valuation

Our upside scenario assumes oil prices of US\$75, larger reserves for Yumna and higher NAV for the Norwegian licenses.

YUMNA, OMAN							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(27.3%)	(27.5%)	(25.9%)	(23.3%)	(27.3%)	(37.5%)
Gross production rate (bopd)	11,000	8,000	5,800	4,300	3,300	2,400	1,500
Production days	365	365	365	365	365	365	365
Masirah: Gross production rate per annum (barrels)	4,015,000	2,920,000	2,117,000	1,569,500	1,204,500	876,000	547,500
Masirah: Net entitlement (%)	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%	64.0%
Masirah: Net entitlement (barrels)	2,569,600	1,868,800	1,354,880	1,004,480	770,880	560,640	350,400
Oil price (US\$ per barrel)	75	75	75	75	75	75	75
Net revenue (US\$)	192,720,000	140,160,000	101,616,000	75,336,000	57,816,000	42,048,000	26,280,000
Drilling and development Capex (US\$)	20,556,800	16,819,200	—	—	—	—	—
Abandonment (US\$)	—	—	—	—	—	—	4,000,000
Opex per barrel of oil equivalent (US\$)	7.6	10.5	14.5	19.5	25.5	35.0	37.3
Operating expenses (US\$)	30,660,000	30,660,000	30,660,000	30,660,000	30,660,000	30,660,000	20,440,000
Operating expense / net revenue (%)	15.9%	21.9%	30.2%	40.7%	53.0%	72.9%	77.8%
Free Cash flow (US\$)	141,503,200	92,680,800	70,956,000	44,676,000	27,156,000	11,388,000	1,840,000

Discount Rate	10%
NPV (US\$)	305,921,317
Shares outstanding ('000)	1,315,508
NPV/share (US\$)	0.23
NPV/share (S\$)	0.31
Rex Ownership	86.37%
Rex's Share (S\$/share)	0.27

BRAGE NORWAY							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)
Gross Production rate (bopd)	3,400	3,264	3,133	3,008	2,888	2,772	2,661
Production days	365	365	365	365	365	365	365
Brage: Gross Production rate per annum (barrels)	1,241,000	1,191,360	1,143,706	1,097,957	1,054,039	1,011,878	971,402
Oil Price (US\$ per barrel)	75	75	75	75	75	75	75
Brage: Net Revenue (US\$)	93,075,000	89,352,000	85,777,920	82,346,803	79,052,931	75,890,814	72,855,181
Drilling and development Capex (US\$)	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816
Abandonment (US\$)	—	—	—	—	—	—	—
Opex per barrel of oil equivalent (US\$)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Operating expenses (US\$)	8,687,000	8,339,520	8,005,939	7,685,702	7,378,274	7,083,143	6,799,817
Operating expense / net revenue (%)	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%	9.3%
Free cash flow (US\$)	60,020,184	56,644,664	53,404,165	50,293,285	47,306,841	44,439,855	41,687,548
Corporate Tax (22%)	13,204,440	12,461,826	11,748,916	11,064,523	10,407,505	9,776,768	9,171,261
Free cash flow after corporate tax	46,815,743	44,182,838	41,655,248	39,228,763	36,899,336	34,663,087	32,516,288
Special Tax (56%) rebate	34,430,062	—	—	—	—	—	—
Free Cash flow after tax and rebates	81,245,805	44,182,838	41,655,248	39,228,763	36,899,336	34,663,087	32,516,288
Lime's stake 33.8%	27,496,018	14,952,798	14,097,386	13,276,190	12,487,842	11,731,029	11,004,487

Discount Rate	10%
NPV (US\$)	77,036,324
Shares outstanding ('000)	1,315,508
NPV/share (US\$)	0.06
NPV/share (S\$)	0.08
Rex Ownership	90.0%
Rex's Share (S\$/share)	0.071

NORWAY LICENSES			
Licence	Estimated 2C resources (MMboe)	% stake owned by Rex	Total barrels owned by Rex (MMboe)
Shrek	23.0	27%	6.2
Falk	28.6	45%	12.9
Linerle	—	45%	—
Fat Canyon	—	14%	—
Fogelberg	49.0	12%	5.9
Total	100.6		25.0

Scenario (NPV per barrel of oil equivalent), US\$	3.00	4.50	6.00
Barrels to Rex (MMboe)	25.0	25.0	25.0
Total value of Licenses (US\$)	74.9	112.3	149.8
Total value of licenses / share (US\$)	0.06	0.09	0.11
Total value of licenses / share (S\$)	0.08	0.12	0.15

Excluding "Fat Canyon" and "Linerle"

Total valuation per share, S\$	Value	Assumptions
YUMNA, OMAN	0.271	Rex has 86.37% stake in MOL; MOL has a 100% stake in the Yumna field. Production life based on Gross 2P reserves of 13.3mn MMboe (2021-2027)
BRAGE, NORWAY	0.071	Rex has 90% stake in Lime; Lime has a 33.8% stake in Brage field. Production life based on 7.7 MMboe (2021-2027)
NORWAY LICENSES	0.154	US\$6.00 per MMboe for Shrek, Falk and Fogelberg
Less Net Debt / Add net cash	0.029	Cash and quoted investments as at end-2020
Less US\$60mn 2.5 Yr bond (S\$81mn)	(0.062)	Interest rate 3m NIBOR +8.25%; maturity 9 Jan 2024; to be listed on Oslo Børs.
Total value per share, S\$	0.46	

Our downside scenario assumes oil prices of US\$55, smaller reserves for Yumna and lower NAV for the Norwegian licenses.

Downside case valuation

YUMNA, OMAN							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(36.4%)	(35.7%)				
Gross production rate (bopd)	11,000	7,000	4,500				
Production days	365	365	365				
Masirah: Gross production rate per annum (barrels)	4,015,000	2,555,000	1,642,500				
Masirah: Net entitlement (%)	64.0%	64.0%	64.0%				
Masirah: Net entitlement (barrels)	2,569,600	1,635,200	1,051,200				
Oil price (US\$ per barrel)	55	55	55				
Net revenue (US\$)	141,328,000	89,936,000	57,816,000				
Drilling and development Capex (US\$)	20,556,800	—	—				
Abandonment (US\$)	—	—	4,000,000				
Opex per barrel of oil equivalent (US\$)	7.6	12.0	18.7				
Operating expenses (US\$)	30,660,000	30,660,000	30,660,000				
Operating expense / net revenue (%)	21.7%	34.1%	53.0%				
Free Cash flow (US\$)	90,111,200	59,276,000	23,156,000				
Discount Rate	10%						
NPV (US\$)	148,305,148						
Shares outstanding ('000)	1,315,508						
NPV/share (US\$)	0.11						
NPV/share (S\$)	0.15						
Rex Ownership	86.37%						
Rex's Share (S\$/share)	0.13						

BRAGE NORWAY							
(US\$)	2021	2022	2023	2024	2025	2026	2027
Decline rate per annum (%)		(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)	(4.0%)
Gross Production rate (bopd)	3,400	3,264	3,133	3,008	2,888	2,772	2,661
Production days	365	365	365	365	365	365	365
Brage: Gross Production rate per annum (barrels)	1,241,000	1,191,360	1,143,706	1,097,957	1,054,039	1,011,878	971,402
Oil Price (US\$ per barrel)	55	55	55	55	55	55	55
Brage: Net Revenue (US\$)	68,255,000	65,524,800	62,903,808	60,387,656	57,972,149	55,653,263	53,427,133
Drilling and development Capex (US\$)	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816	24,367,816
Abandonment (US\$)	—	—	—	—	—	—	—
Opex per barrel of oil equivalent (US\$)	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Operating expenses (US\$)	8,687,000	8,339,520	8,005,939	7,685,702	7,378,274	7,083,143	6,799,817
Operating expense / net revenue (%)	12.7%	12.7%	12.7%	12.7%	12.7%	12.7%	12.7%
Free Cash flow (US\$)	35,200,184	32,817,464	30,530,053	28,334,138	26,226,060	24,202,305	22,259,500
Corporate Tax (22%)	7,744,040	7,219,842	6,716,612	6,233,510	5,769,733	5,324,507	4,897,090
Free cash flow after corporate tax	27,456,143	25,597,622	23,813,441	22,100,628	20,456,327	18,877,798	17,362,410
Special Tax (56%) rebate	20,530,862						
Free Cash flow after tax and rebates	47,987,005	25,597,622	23,813,441	22,100,628	20,456,327	18,877,798	17,362,410
Lime's stake 33.8%	16,240,242	8,663,003	8,059,183	7,479,515	6,923,035	6,388,813	5,875,960
Discount Rate	10%						
NPV (US\$)	44,007,231						
Shares outstanding ('000)	1,315,508						
NPV/share (US\$)	0.03						
NPV/share (S\$)	0.05						
Rex Ownership	90.0%						
Rex's Share (S\$/share)	0.041						

NORWAY LICENSES				
Licensee	Estimated 2C resources (MMboe)	% stake owned by Rex	Total barrels owned by Rex (MMboe)	Remarks
Shrek	23.0	27%	6.2	
Falk	28.6	45%	12.9	
Linerle	—	45%	—	No date set for drilling
Fat Canyon	—	14%	—	Drilling in 2H 2021
Fogelberg	49.0	12%	5.9	Pending cash payable
Total	100.6		25.0	

Scenario (NPV per barrel of oil equivalent), US\$	3.00	4.50	6.00
Barrels to Rex (MMboe)	25.0	25.0	25.0
Total value of Licenses (US\$)	74.9	112.3	149.8
Total value of licenses / share (US\$)	0.06	0.09	0.11
Total value of licenses / share (S\$)	0.08	0.12	0.15
Excluding "Fat Canyon" and "Linerle"			

Total valuation per share, S\$	Value	Assumptions
YUMNA, OMAN	0.131	Rex has 86.37% stake in MOL; MOL has a 100% stake in the Yumna field. Production life based on Gross 2P reserves of 8.2mn MMboe (2021-2023)
BRAGE, NORWAY	0.041	Rex has 90% stake in Lime; Lime has a 33.8% stake in Brage field. Production life based on 7.7 MMboe (2021-2027)
NORWAY LICENSES	0.077	US\$3.00 per MMboe for Shrek, Falk and Fogelberg
Less Net Debt / Add net cash	0.029	Cash and quoted investments as at end-2020
Less US\$60mn 2.5 Yr bond (S\$81mn)	(0.062)	Interest rate 3m NIBOR +8.25%; maturity 9 Jan 2024; to be listed on Oslo Børs.
Total value per share, S\$	0.22	

Peer comparison and key trends for O&G independents

Balance sheet matters

A key differentiating factor between Rex and other E&P independents is its strong balance sheet. Rex's balance sheet was net cash as at end-2020, a much stronger position compared to an average net gearing (net debt/equity) of 68% for international upstream O&G companies.

Rex is the only game in town for those looking for a pure-play upstream company. The most comparable peer among locally listed stocks is RH Petrogas (RHP SP). RHP is an E&P company with a focus on onshore developments in Sarawak, Malaysia and West Papua, Indonesia. However, RHP has been loss-making over the past two years and was in a US\$30.1mn negative equity position as at end-2020. KrisEnergy (KRIS SP) was another Singapore-listed independent and was the closest comparable company to Rex before its shares were suspended in 2019 due to debt problems. KrisEnergy also listed on SGX in the same year as Rex in 2013 and reached a peak market capitalisation of S\$1.4bn.

Upstream independents' price performance

Upstream O&G companies have been among the better performers this year, returning an average of 23% YTD vs the MSCI World Index's 13% YTD. Rex's share price performance has been in line with its larger US-listed peers (+41% YTD) including ConocoPhillips, EOG Resources and Marathon Petroleum, while outperforming European-based peers (+13% YTD) like Aker BP, Lundin Energy and Harbour Energy.

Figure 6: Peer comparison

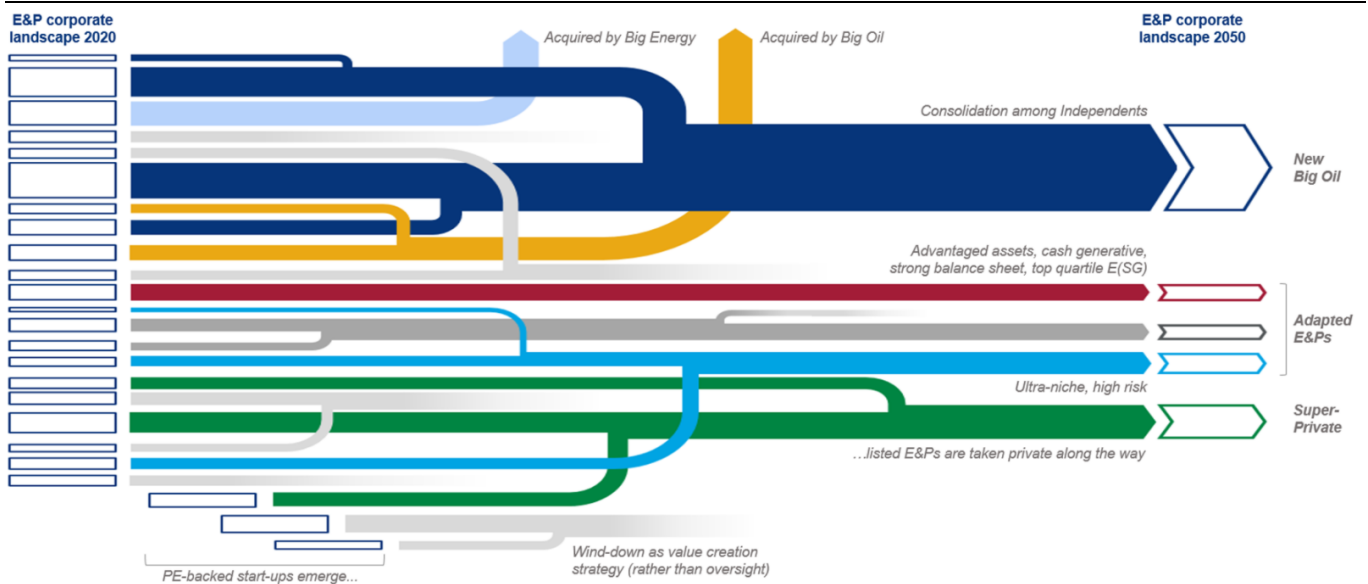
BB ticker	Company Name	Last Price (Local \$)	Currency Adj. Market Cap (US\$ m)	Dividend Yield (%)		Net Gearing (%)	P/E (x)		P/B (x)	6M Average Daily Trading Volume (Local \$)	Price Performance (YTD)
				FY20	FY21F		12M	Forward			
REXI SP	REX INTERNATIONAL HOLDING	SGD 0.21	196	-	-	-19.5	NA	1.8	1.1	3,868	40.4
Singapore Exploration and Production (E&P)											
RHP SP	RH PETROGAS LTD	SGD 0.18	96	0.0	-	-	-	-	-	1,376	600.0
ITRR SP	INTERRA RESOURCES LTD	SGD 0.04	19	0.0	-	-9.4	-	-	0.8	94	-7.0
Singapore Oil & Gas Services											
CVL SP	CIVMEC LTD	SGD 0.72	267	2.7	2.8	33.7	22.1	10.9	0.7	250	77.8
CSE SP	CSE GLOBAL LTD	SGD 0.52	195	5.9	5.4	34.8	9.4	10.3	1.3	884	9.6
MMT SP	MERMAID MARITIME PCL	SGD 0.07	76	0.0	-	5.8	-	-	0.4	160	9.0
DMHL SP	DYNA-MAC HOLDINGS LTD	SGD 0.10	74	0.0	-	-55.0	-	-	4.5	298	-4.9
NRD SP	NORDIC GROUP LTD	SGD 0.32	90	2.4	-	-9.0	22.5	-	1.0	39	37.0
International Exploration and Production (E&P)											
COP US	CONOCOPHILLIPS	USD 57.08	77,025	4.2	3.0	32.0	-	13.0	1.4	506,237	42.7
EOG US	EOG RESOURCES INC	USD 73.71	43,018	3.0	3.1	16.9	29.1	10.4	1.4	323,196	49.7
MPC US	MARATHON PETROLEUM CORP	USD 55.93	36,503	5.6	4.2	108.1	-	89.6	1.2	370,429	35.2
HES US	HESS CORP	USD 77.66	23,952	1.9	1.3	115.8	-	38.5	3.0	158,579	47.1
AKRBP NO	AKER BP ASA	NOK 239.80	9,839	3.1	4.6	183.5	20.1	13.1	4.6	167,513	10.9
LUNESS	LUNDIN ENERGY AB	SEK 269.80	9,005	6.6	5.6	-	12.0	12.1	-	220,198	21.4
HBR LN	HARBOUR ENERGY PLC	GBp 327.00	4,229	0.0	2.2	-	-	11.0	-	535,308	-16.7
ENOG LN	ENERGEAN PLC	GBp 646.50	1,600	0.0	0.0	107.8	-	-	1.9	285,574	-10.4
CNE LN	CAIRN ENERGY PLC	GBp 129.10	901	0.0	17.5	-29.7	-	-	1.3	190,607	-38.3
ENQL LN	ENQUEST PLC	GBp 23.75	626	0.0	-	-	-	1.7	-	101,443	111.1
SQZ LN	SERICA ENERGY PLC	GBp 158.00	592	3.0	2.3	6.5	46.7	5.0	1.5	40,200	37.4
International Oil Companies (IOC)											
XOM US	EXXON MOBIL CORP	USD 58.93	249,482	8.4	5.9	41.7	224.8	14.9	1.1	1,507,246	43.0
CVX US	CHEVRON CORP	USD 102.57	198,243	6.1	5.2	32.1	-	16.0	1.2	1,086,778	21.5
RDSA NA	ROYAL DUTCH SHELL PLC-A SHS	EUR 17.26	157,665	3.7	3.6	48.1	28.9	8.6	0.9	220,259	18.1
857 HK	PETROCHINA CO LTD-H	HKD 3.24	126,136	4.3	7.8	25.8	7.8	6.4	0.3	559,488	35.0
BP/LN	BP PLC	GBp 292.15	82,615	9.1	6.2	58.5	-	8.5	1.0	13,070,940	14.7
EQNR NO	EQUINOR ASA	NOK 173.44	64,375	2.4	3.4	51.0	-	8.8	1.6	592,086	19.7
ENI IM	ENI SPA	EUR 10.12	43,442	4.2	7.4	44.5	-	13.6	0.8	169,065	18.4
REP SM	REPSOL SA	EUR 9.35	17,001	11.1	6.4	48.2	27.9	7.6	0.7	91,051	13.4

Source: Bloomberg, KGI Research

Consolidation is a key trend for independent O&G players

Upstream O&G companies are going to be a rarity in the next 30 years, according to analysis by Wood Mackenzie. As with all maturing industries, consolidation will be a key theme. The next ten years will be a busy year for upstream M&A. Wood Mackenzie's graph below highlights a likely potential pathway for upstream companies between 2020 and 2050.

Figure 7: Hypothetical pathway for E&P companies between 2020 and 2050, as per analysis by Wood Mackenzie



Source: Wood Mackenzie

Shows potential pathways for a sample of 25 E&Ps

Three possible pathways for E&P companies by 2050

- **“New Big Oil”** - Many of the independents will merge to benefit from scale. This group is expected to form the largest group by 2050, as shown in the graph above (dark blue horizontal bar). A prime example of this was Occidental Petroleum's acquisition of Anadarko Petroleum in a transaction valued at US\$55bn. ConocoPhillips is currently the largest independent O&G company with a current marketisation of US\$76 billion.
- **“Adapted E&Ps”** – These independents are well positioned for the future given their good quality assets, strong cash flow generation, and top scores in terms of ESG factors. Examples of these companies may include EOG Resources in the US and Aker BP SA in Norway.
- **“Super-Private”** – Under pressure from investors and activists to take more action due to climate change, many independents will be taken private by hedge funds, sovereign wealth funds and private equity.

Which path will Rex take?

It is our view that Rex's shareholders can benefit from all three possible pathways due to the company's strong cash generation going forward. This is a good starting point for Rex as companies with good assets that are resilient to low oil prices will make the most attractive consolidation targets.

Forecasts and financial review

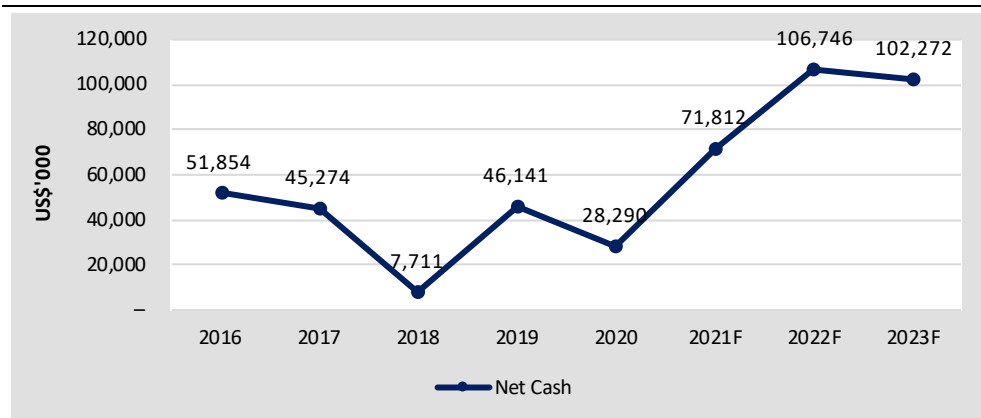
It's all about the cash flows

The business of oil exploration is only as good as your last find. Having a strong balance is key to survival.

E&P companies is all about efficiency, margins and free cash flows. While Rex's net cash position dropped to a low of US\$7.7mn in 2018, it rose in 2019 following the maiden divestment of its interest in the Rolvsnes discovery and related assets in the North Sea for US\$45mn. Net cash dropped in 2020 after the company farmed into new Norwegian sea licenses and exploration drilling of the Apollonia prospect, which resulted in a gas discovery.

We forecast Rex's net cash position to reach US\$107mn by FY2022F, equivalent to S\$144mn (1.35 USD/SGD exchange rate) and making up 54% of the group's current market capitalisation.

Figure 8: Net cash position



Source: Company data, KGI Research

Healthy investor demand for the US\$60mn bond

Rex's subsidiary, LPA, completed a US\$60mn (NOK 500mn) 2.5-year senior secured bond issuance in July 2021. It was oversubscribed more than 100% and the company had to close the books within three days after promotion to prospective investors due to the healthy demand.

The maturity date of the Bonds is 9 January 2024. The coupon rate will be 3 months NIBOR (Norwegian Interbank Offered Rate) plus 8.25%. The Bonds are targeted to be listed on the Oslo Børs within 6 months.

The bond is secured with, inter alia, a pledge over Rex's shareholding interests in LPA, security with first priority over interests in future hydrocarbon assets which LPA and/or its subsidiaries may acquire in future, tax balances held by LPA today and deferred tax assets related to the Brage Field upon completion of the acquisition. LPA's deferred tax assets and tax refund receivables will total NOK 644 million (approximately US\$77 million) as at 1 January 2021, upon completion of the Acquisition. In the event of a default on the bond, any remaining Tax Assets are backed by the Norwegian Government and can be used by bond holders to partially recoup any shortfall in the bond issue.

Additional tax savings from the bonds. There will be a 22% corporate tax reduction allowance in the effective interest rate of the bond and a further deduction allowance under the special petroleum tax based on a certain formula to be reviewed at the end of the year.

The interest rate of the 2.5 yr bond (8.25% + NIBOR) will likely be lower given the tax deduction to both corporate and special taxes.

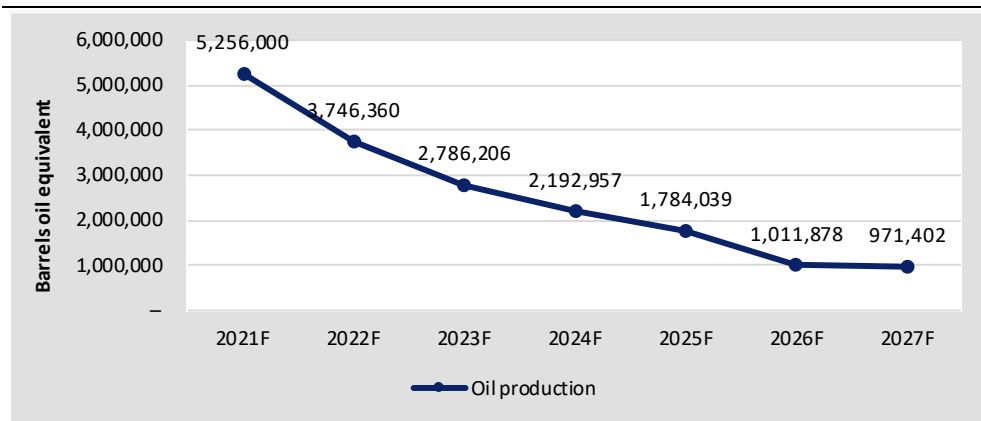
Production forecasts

Conservative forecasts for the two production assets. Based on its current production profile, Rex will reach peak production this year based on full-year contributions from Yumna (Oman) and Brage (Norway). This forecast is conservative as we only account for the contribution from one well in Yumna (Yumna 1), without including contributions from Yumna 2 and Yumna 3.

For the Brage Field, we have only assumed a 7.7MMboe total production (net to LPA) and have not factored in further upside when accounting for in-fill drilling for production and exploration drilling of high value near-field prospects that are expected to add further production potential.

We have not factored in in-fill drilling in our base-case forecasts, which could almost double our production forecasts.

Figure 9: Total gross production from Oman and Norway in our base case forecast



Source: Company data, KGI Research

Figure 10: Upside production potential

Asset	2021 average gross production (boe/day)	Upside gross production (boe/day)
Oman	11-12k (Yumna 1)	<p>Potential to increase to 20-30k per day (Yumna 2 and 3), based on current Yumna Field.</p> <p>The Qualified Person's Report (QPR) issued by Rex in October 2020 estimates that <u>surrounding areas around Yumna could contain more than 152MMboe</u>. This amount of oil is 15x our base-case assumption for Yumna 1's total production from 2021 to 2027.</p>
Norway	3.4k	<p>Will depend on in-fill drilling for production and exploration drilling.</p> <p>Rex's subsidiary, LPA, intends to commission a summary qualified person's report on the Brage Field upon completion of the acquisition. The acquisition is now pending approval from the Norwegian authorities and is expected to be completed in 4Q 2021.</p> <p>According to guidelines in Norway, LPA will recognise Brage Field's contribution beginning from 1 January 2021.</p>

Source: Company data, KGI Research

Macro and Industry Outlook

Overview of supply and demand dynamics in the oil market



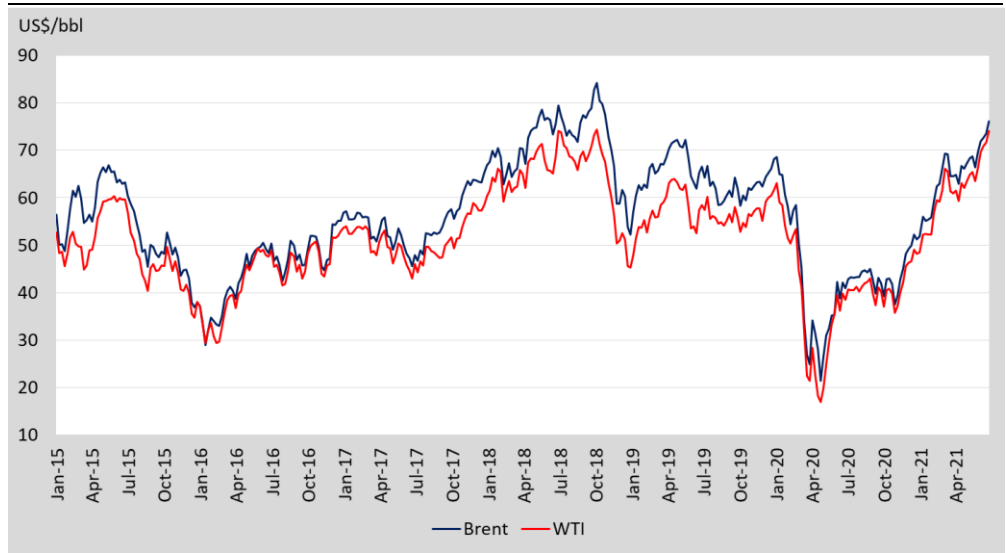
Crude oil has been the most dramatic commodity in terms of volatility over the past five years. Unlike other assets that have broken new highs in the post-global financial crisis-era and the current COVID-19 period, oil prices were hit hard and traded down to decades' lows, and at some point last year, dropped below negative for the first time. Oil has undergone two paradigm shifts in the previous decade: the shale oil revolution and the clean energy boom.

The historical performance of oil prices has shown that the former was a headwind while the latter was a tailwind. Though the phenomenon is counter-intuitive – where more advanced drilling technology destroys oil prices, but the strong advocacy of alternative energy favours higher oil prices – the reasons are apparent. Ultimately, supply and demand dynamics determines the direction of oil prices.

Supply and demand dynamics drive oil prices.

Over the next decade, we expect oil prices to remain firm due to the underinvestment in oil field developments over the past five years.

Figure 11: Crude oil prices have displayed extremely cyclical movements over the past five years



Source: Bloomberg, KGI Research

Figure 12: Oil continues in backwardation



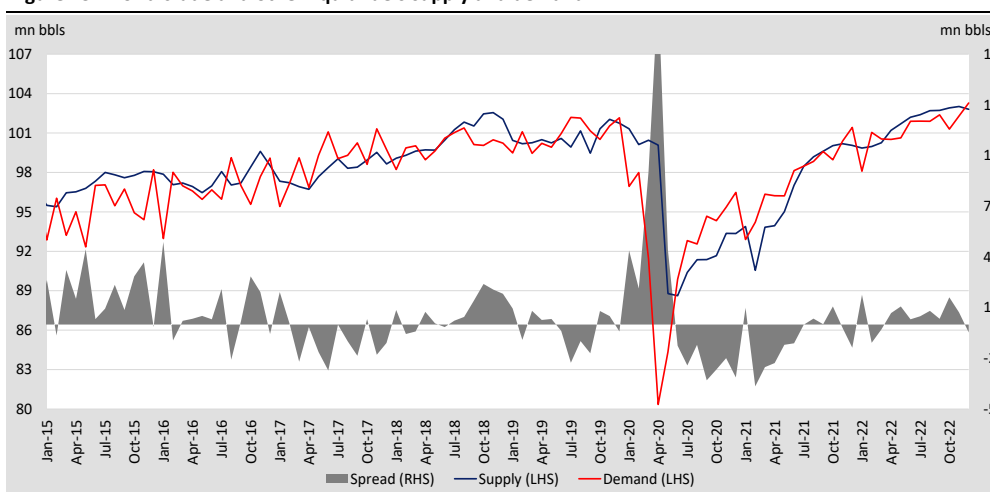
Source: Bloomberg, KGI Research

According to the Energy Information Administration (EIA), global crude oil and liquid fuels production and consumption were substantially mismatched during the COVID-19 period, even more severe than that between 2014 and 2015. The significant glut in March 2020 led WTI prices to the unimaginable sub-zero zone. Although global and regional transportation are far from normalisation, domestic travel and production, which are the primary sources of consumption, recovered faster than expected especially in countries which managed to contain the pandemic in 2Q20. Since July 2020, the world had been undergoing an insufficient supply of oil and related fuels, lifting oil prices to close to 2018 highs of above US\$80/bbl.

However, the dynamics are forecasted to change beginning in July 2021 when crude, and other liquid fuels output are estimated to catch up with demand. Higher oil price incentivises the increase in production as the spread between breakeven cost and futures price widens. According to the latest BloombergNEF analysis, the breakeven cost for shale oil production was cut from the average of US\$56.5/bbl in 2019 to US\$45/bbl at the end of 2020. Some of the most prolific areas in the US shale patch, such as the core of the Permian and Eagle Ford basins, have even seen breakeven costs dropping to an average of US\$36.50/bbl at the end of 2020, from US\$44/bbl in 2019.

Therefore, we could see a rapid shift from undersupply to a more balanced market from July 2021 till the end of 2022. The implication for oil prices is that the rally could slow down or stabilise at the current levels.

Figure 13: World crude and other liquid fuels supply and demand



Source: Bloomberg, KGI Research

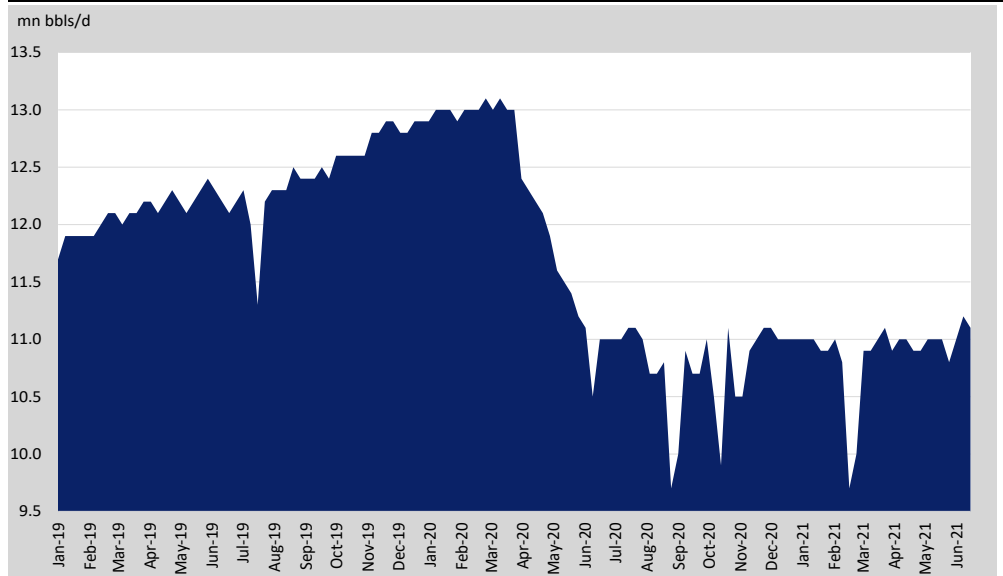
Current updates of crude production from OPEC+ and the US

The global output is expected to pick up soon, mainly due to contribution from the major oil producers such as OPEC, the U.S., and Russia. Since the pandemic outbreak, U.S. production plummeted from the peak of 13mn bbls/d to the low of slightly below 10mn bbls/d, but has stayed at around 11 mn/bbls for most months during the COVID-19 period. U.S. production showed a strong resiliency as output was boosted by 1mn bbls/d within a month.

Meanwhile, OPEC and Russia have been increasing crude output. The latest decision from OPEC+ is to increase production by 400,000 bbls/d from August 2021 onwards.

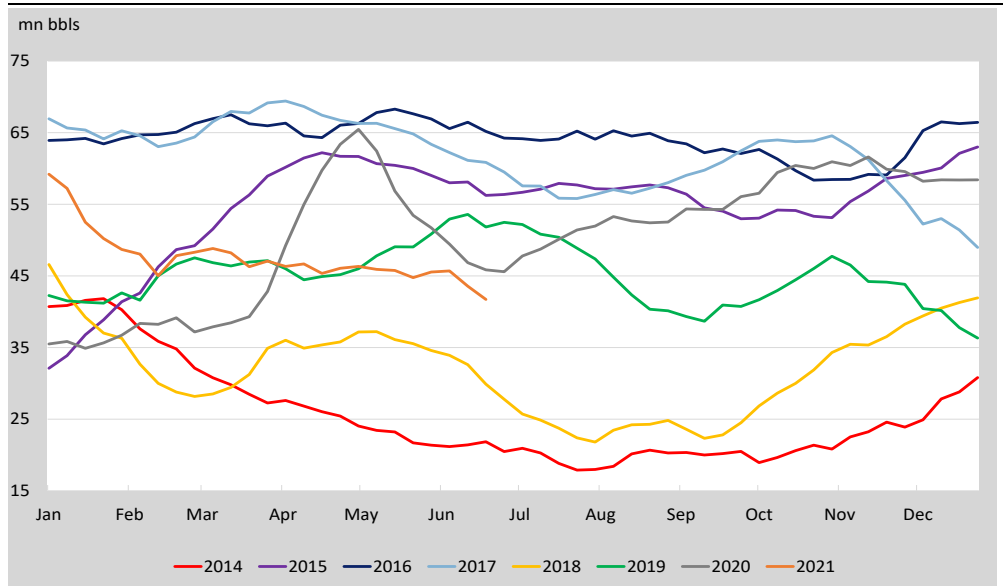
Assuming pre-COVID production is the normalized level, the upside production of the combined OPEC+ is 5.8mn bbls/d, which is roughly in line with the EIA forecast.

Figure 14: U.S. production stabilising at 11mn bbls/d



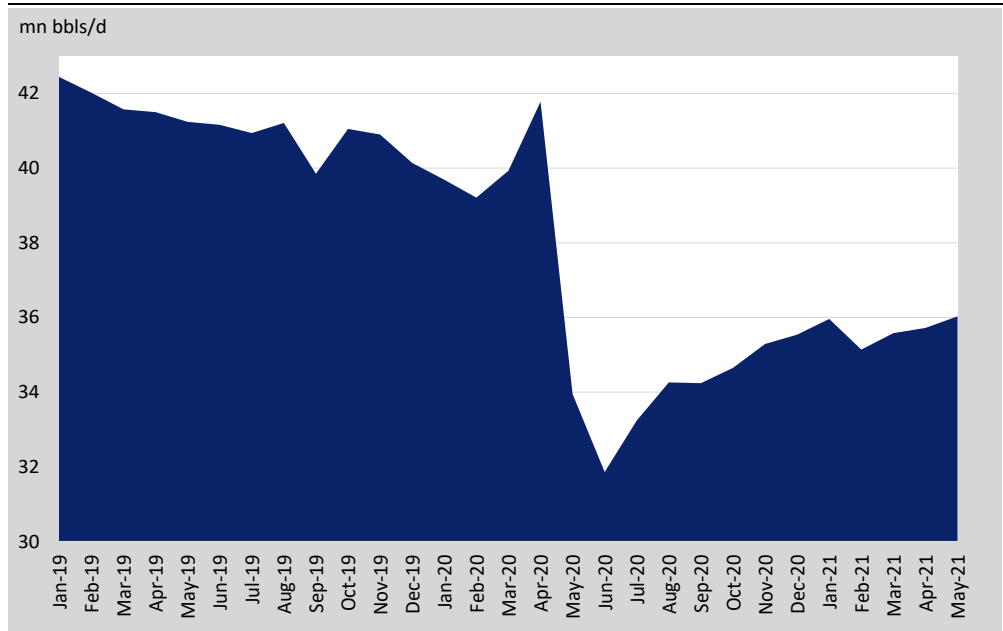
Source: Bloomberg, KGI Research

Figure 15: U.S. crude inventory build ranked the 3rd lowest in the last eight years as of mid-June



Source: Bloomberg, KGI Research

Figure 16: OPEC and Russia production gradually increasing



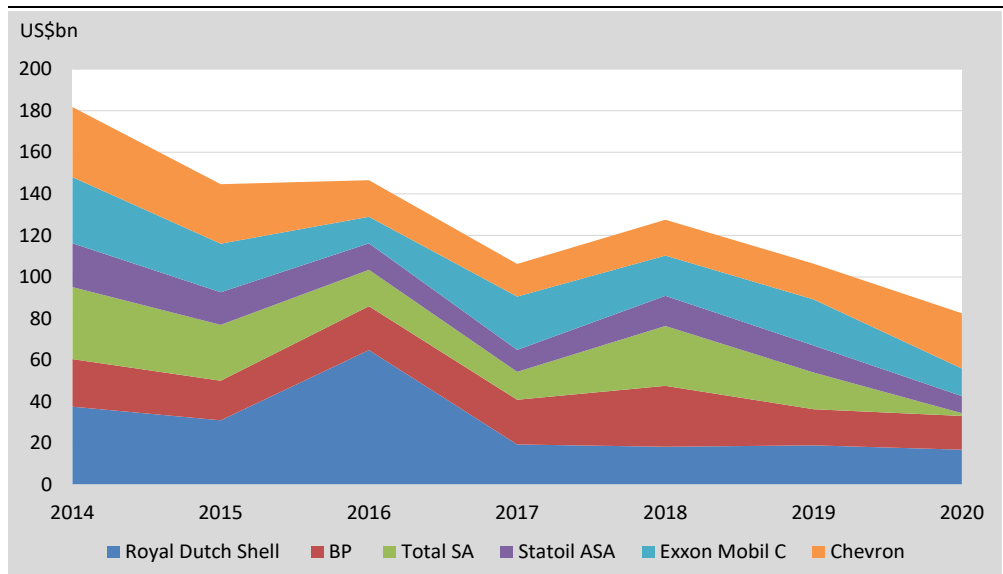
Source: Bloomberg, KGI Research

Global oil majors exploration and production spending

The shift to alternate energy has resulted in a substantial decline in oil and gas exploration and production (E&P) capital spending since the first oil crash in 2014. The total amount from the six oil majors plunged by 54.6% to slightly above US\$80bn at the end of 2020. Last year's expenditure was the lowest since 2006.

Traditional oil and gas companies have started to chase the ongoing clean energy and carbon neutrality boom, and hence, allocating less budget to the good old business. This has resulted in a slower recovery of production in 1H21. With the rise in oil prices, E&P spending is expected to increase like it did in 2018.

Figure 17: Total E&P spending from oil majors



Source: Bloomberg, KGI Research

Company Background

The coming of age of an “independent”

Since Rex’s listing on SGX in 2013, the group has gone through four key phases, which we present below. During this period, the group went through two of the most challenging periods to impact the oil industry in the last century.

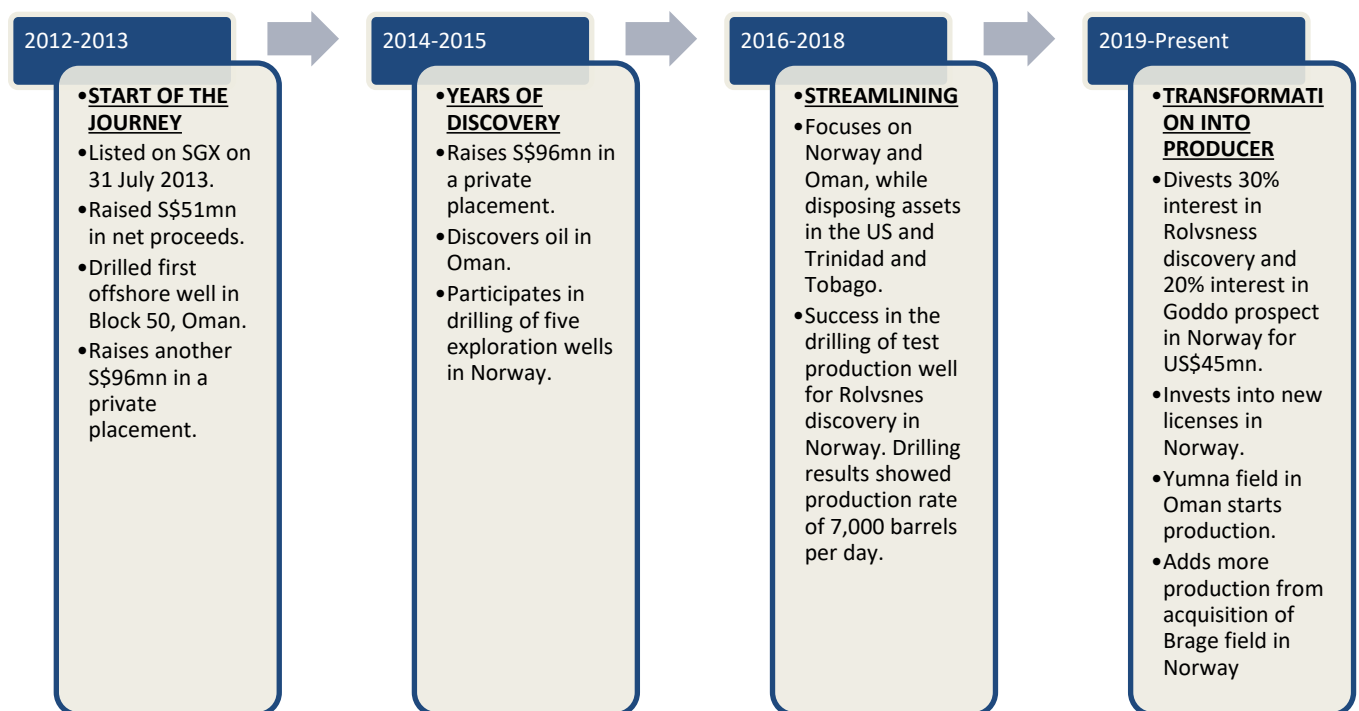
Start of the journey (2012-2013) - Rex was listed on the SGX in 2013, one of only a handful of E&P companies.

Years of discovery (2014-2015) – Discovers oil in Oman, participates in the drilling of five exploration wells in Norway.

Streamlining (2016-2018) – The drought years in the oil and gas industry (2014-2016) necessitated a streamlining of assets. The group divested assets in the U.S. and Trinidad and Tobago.

Transformation into producer (2019-present) - Rex recognised a gain of US\$30mn from the maiden divestment of assets in Norway. The company also started production in Oman and will soon add Brage Field as an additional production asset.

Figure 18: Growth of Rex



Source: Company, KGI Research

Board of Directors

Dan Broström - Executive Director and Chairman

- Mr Dan Broström, 77, has been with the Group since 2011.
- He was appointed as an Executive Director on 11 January 2013 and re-elected to the Board on 26 April 2019.
- Prior to joining Rex, Mr Broström was a senior partner at MVI Holdings Ltd between 1993 and 2005, where as a consultant, he assisted Swedish companies in setting up businesses in Singapore through fundraising activities and sourcing for suitable business partners.
- From 1990 to 1993, Mr Broström was the chief executive officer at Hufvudstaden UK Ltd, a real estate company.
- Before Hufvudstaden UK Ltd, Mr Broström worked in the shipping industry, where he was based in London and held the position of chief executive officer of Brostrom UK Ltd for the period from 1980 to 1987.
- Mr Broström has a degree in Economics from Stanford University in the United States of America, and a Bachelor of Arts in Economics from Gothenburg University in Sweden.

Dr Karl Lidgren, Non-Independent Executive Director

- Dr Karl Lidgren, 74, was appointed as a Non-Independent Non-Executive Director on 1 May 2013 and was re-designated as a Non-Independent Executive Director on 15 January 2015. He was last re-elected to the Board on 26 April 2019.
- Dr Lidgren and his brother, Mr Hans Lidgren, have since the 1980s, utilised satellite altimeter data in oil exploration activities which enabled major oil and gas findings. A founder of Rex International Holding, Dr Lidgren represents the interests of Limea Ltd on the Company's Board of Directors.
- Dr Lidgren graduated from Lund University in Sweden in 1970 with a degree in Economics.
- Upon graduation, he taught in Lund University until 1972 before taking on the role of an investigator for the Swedish Government from 1972 to 1980. He concurrently obtained a Doctor of Philosophy in Economics from Lund University in 1976. Dr Lidgren taught in Lund University as a Professor from 1980 until his retirement in 2000.

Sameer Khan, Independent Non-Executive Director

- Mr Muhammad Sameer Yousuf Khan, 68, was appointed as an Independent Non-Executive Director on 26 June 2013 and re-elected to the Board on 21 May 2020. Mr Khan has more than 40 years of experience in the fields of accounting, business and financial advisory.
- He began his career in 1972 at Ernst & Young's London office.
- Subsequently in 1983, he joined Drydocks World Group, a large maritime group based in the Middle East. Mr Khan held various positions in Drydocks World Group and was Group Chief Financial Officer and Executive Director from 2007 to 2011. He was responsible for Drydocks World's acquisition of two SGX listed companies, namely, Pan United Marine and Labroy Marine.
- After leaving Drydocks World Group, Mr Khan has been providing consultancy and advisory services in Singapore.
- Mr Khan is a Fellow of the Institute of Chartered Accountants (England and Wales) and a member of the Institute of Management Consultants (UK) and the Singapore Institute of Directors.

Sin Boon Ann, Lead Independent Non-Executive Director

- Mr Sin Boon Ann, 63, was appointed as an Independent Non-Executive Director on 26 June 2013 and was appointed as the Lead Independent Director on 24 February 2014. He was re-elected to the Board on 27 April 2018.
- He received his Bachelor of Arts and Bachelor of Laws from the National University of Singapore in 1982 and 1986 respectively, and a Master of Laws from the University of London in 1988. Mr Sin was admitted to the Singapore Bar in 1987 and was a member of the teaching staff of the law faculty, National University of Singapore from 1987 to 1992.
- Mr Sin joined Drew & Napier LLC in 1992. He was the Deputy Managing Director of Drew & Napier's Corporate and Finance Department and the Co-head of the Capital Markets Practice before he retired to be a consultant with the firm in March 2018.
- Mr Sin was a Member of Parliament for Tampines GRC from 1996 to 2011. In appreciation of his valuable public services rendered to the Ministry of Home Affairs, Mr Sin was conferred the Singapore National Day Award - "The Public Service Star (Bintang Bakti Masyarakat)" in 2018 and "The Public Service Medal (Pingat Bakti Masyarakat)" in 2013 by the President of Singapore.
- Additionally, in recognition of his constant support and contributions to the Labour Movement, Mr Sin received the NTUC May Day Award - "Distinguished Service Award" in 2018, "Meritorious Service Award" in 2013 and "Friends of Labour Award" in 2003.

Dr Christopher Atkinson, Independent Non-Executive Director

- Dr Christopher Atkinson, 64, was appointed as an Independent Non-Executive Director on 6 January 2015 and was re-elected to the Board on 21 May 2020. He is also an independent Board member of Lime Petroleum AS and Masirah Oil Ltd, subsidiaries of the Group.
- Dr Atkinson is a professional geologist with over 30 years of experience in the upstream oil and gas sector. He is currently the founder and director of Worldwide Petroleum Services Pte Ltd and a director of Sonoro Energy Limited.
- Prior to this, Dr Atkinson was a founding investor in several exploration and production start-up ventures in Southeast Asia, the UK and Canada. He has also worked for Shell International Petroleum Company and was a 15-year career veteran with the Atlantic Richfield Company (ARCO), where his last held position was Vice President of Exploration, Europe/North Africa.
- Dr Atkinson holds a Doctor of Philosophy in Geology and a Bachelor of Science (1st Class Honours) in Geology from the University of Wales, Swansea. He has been a Fellow of the Geological Society of London since 1996 and is a Life Member of the Petroleum Exploration Society of Southeast Asia, where he served as President from 2002 to 2003.

Senior Management

Måns Lidgren, Chief Executive Officer

- Mr Måns Lidgren is the Chief Executive Officer and is responsible for overseeing the strategic positioning and business expansion of the Group.
- Prior to joining the Company in January 2013, Mr Lidgren was interim chief executive officer and director of Lime Petroleum Plc from August 2011 to December 2012 and chief financial officer of his family's business from August 2009 to August 2011. He has seven years of experience in financial structuring, mergers & acquisitions, investments and business development.
- From January 2008 to August 2009, Mr Lidgren was vice president of business development under the private banking division of Credit Suisse, where he managed his own client portfolio, and acted as a broker for sourcing of new business and pre-screened business proposals.
- From 2002 to 2007, he was with his family business in private investments first as a business analyst then as a merger & acquisitions manager and subsequently as senior investment manager responsible for portfolio management, liaison with partner banks and private equity transactions.
- Upon his graduation, Mr Lidgren also provided consultancy services to Global Responsibility, an organisation that seeks to promote responsible citizenship worldwide, where he helped companies communicate their efforts in environmental, health and safety issues.
- Mr Lidgren holds a Master of Science and a Bachelor of Science, both in Business Administration and Economics from Lund University of Sweden.

Svein Kjellesvik, Chief Operating Officer

- Mr Svein Kjellesvik is the Chief Operating Officer and Executive Chairman of the Group's 90% subsidiary, Lime Petroleum AS. He is responsible for the Group's overall operations, including the integration of new business development plans into the Group's operations.
- Prior to joining the Company, Mr Kjellesvik has been an independent entrepreneur and he has been involved in the start-up of Rex Middle East Ltd (formerly known as Rex Oil & Gas Ltd) and Lime Petroleum Plc.
- Before retiring from Schlumberger in 2002, Mr Kjellesvik held leading positions in Schlumberger's seismic division and corporate headquarters. He has also been the President of their Global Marine Seismic Division. Mr Kjellesvik has played leading roles in key innovations in the seismic industry which includes multi-cable 3D seismic, 4 component seismic, and seismic 4D.
- Mr Kjellesvik holds a Master degree in Applied Geophysics from the Norwegian Institute of Technology (NTH) in Trondheim and is a member of the Society of Exploration Geophysicists, the European Association of Petroleum Geoscientists and the American Association of Petroleum Geoscientists.

Per Lind, Chief Financial Officer

- Mr Per Lind is the Chief Financial Officer overseeing the Group's finance, legal, administration and group structural matters. He also works with the CEO in business development. He is also a board member of Masirah Oil Ltd and of Rex Technology Management Ltd, subsidiaries of the Group, and a member of the Joint Management Committee of Block 50 Oman.
- Prior to joining the Company, from 2009 to 2013, he was Vice President, Investments at Tangerine Time, a Singapore-based company investing in real estate and financial services in Singapore, India and the UK.
- Mr Lind was an active group management member and Director of Investments at Raffles Residency. Before being Senior Vice President of Finance in AEP Investment Management, a Singapore-based investment management company in 2008, Mr Lind spent five years as Director of Finance & Corporate Development with 1st Software Corporation Ltd, a software company listed on the mainboard of the Singapore Exchange from 2003 to 2008. He had also worked for six years in the London and Singapore offices of Merchant Venture Investments, an international federation of private equity investors.
- Mr Lind holds a Master of Science in Business and Economics from the School of Economics and Commercial Law at the Gothenburg University in Sweden.

Lina Berntsen, Chief Technology Officer

- Mrs Lina Berntsen is the Chief Technology Officer and co-ordinates the use of Rex Technologies for the Group. Mrs Berntsen re-joined the Group in 2012 as the Rex Virtual Drilling Specialist to Lime Petroleum Norway AS (now known as Lime Petroleum AS).
- Prior to this, from 2011 to 2012, she provided consultancy services to the Group as a Technology Specialist at Equus Consulting AB, a business providing advanced mathematical analysis, which she also partly owned. From 2010 to 2011, Mrs Berntsen was the Rex Virtual Drilling Specialist for Rex Oil & Gas Ltd.
- Before this, Mrs Berntsen was Development Engineer in Gambro Lundia AB, a global medical technology company, where she was responsible for product development and design control relating to dialysis technology.
- She was previously the Marketing Coordinator in biotechnology company Chemel AB, where she also worked on product development.
- Mrs Berntsen holds a Master of Science in Chemical Engineering from the University of Lund, Sweden.

Kristofer Skantze, Chief Commercial Officer

- Mr Kristofer Skantze is the Chief Commercial Officer and manages business development for the Group, including for Rex Technology Management Ltd.
- Prior to joining the Company, he was the Head of Sales and Marketing at textile chemical company HeiQ Materials AG from 2007 to 2012, where he forged partner alliances with well-known textile brands. From 2000 to 2007, Mr Skantze worked for Anoto Group AB, a Swedish high-tech company. He held various positions within the company's headquarters in Lund, Sweden from 2000 to 2005, and was Business Development Manager of Anoto Inc. in Boston from 2005 to August 2007, where he managed the partner network and was responsible for all new North American customers. During his stint in Anoto Group AB in Sweden, Mr Skantze also invented and filed for several patents, of which at least nine were granted.
- Mr Skantze holds a Master's degree in Engineering Physics from the Faculty of Engineering of University of Lund in Sweden.

Lai Siong Mok, Chief Communications Officer

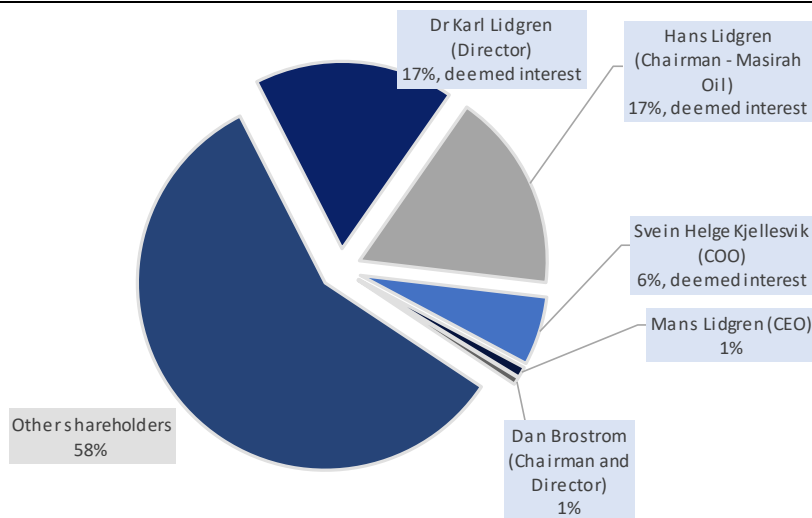
- Ms Mok Lai Siong is the Chief Communications Officer and is responsible for the Group's strategic communications with stakeholders, potential investors, analysts and the media, as well as for branding and marketing.
- Ms Mok has over 25 years of experience in communications and investor relations in multinational listed firms.
- Prior to joining the Company, she was Group General Manager, Corporate Communications & Investor Relations for Singapore-listed conglomerate WBL Corporation from 2010 to 2013.
- From 2007 to 2010, Ms Mok worked in YTL Starhill REIT Management, the manager of Starhill Global REIT, where her last held position was Senior Vice President, Investor Relations & Corporate Communications.
- She has also held positions in CapitaLand, Oversea-Chinese Banking Corporation, Overseas Union Bank, Pidenco Land and the National University of Singapore.
- Ms Mok holds a Master in Business (International Marketing) from the Curtin University of Technology, Australia, and a Bachelor of Arts degree in English and Philosophy from the National University of Singapore.

Shareholders – Alignment of interest

Rex has an experienced management team whose interests align with minority shareholders. Management who are also shareholders accounts for 42% of the total outstanding shares.

The two largest shareholders, Dr. Karl Lidgren and Hans Lidgren, each has a 17.2% stake / combined deemed interest of 34.71% in Rex. The two of them are brothers whom, since the 1980s, have utilized satellite altimeter data in oil exploration activities which enabled major oil and gas findings.

Figure 19: Rex's shareholder list



Source: Company data, KGI Research

Key Risks

Oil prices and the impact of ESG on long-term demand

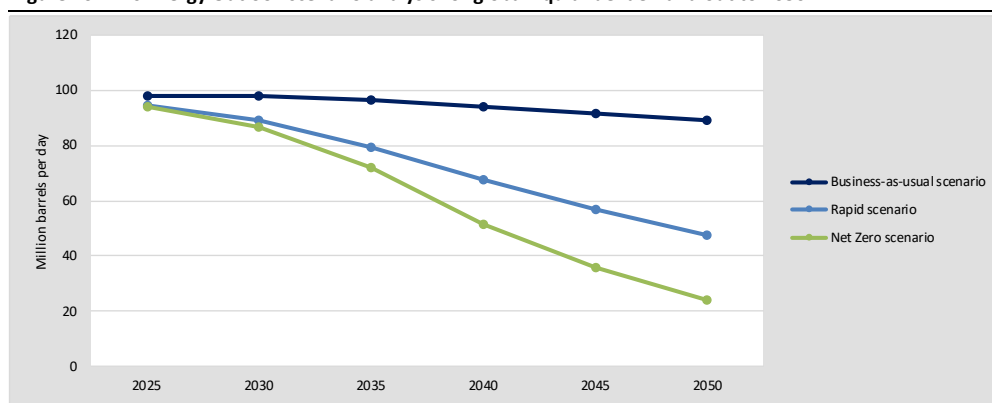
A decline in oil prices will negatively impact the economics of oil & gas producing assets, which would cause the stock to underperform. Volatility in oil price has increased over the past 10 years due to the introduction of new technology (combination of hydraulic fracturing and horizontal drilling which enabled US Shale) and market share war (OPEC, Russia and US Shale in 2020 that resulted in negative oil prices for the first time on record).

In BP's Energy Outlook 2020 Report, under the "Business-as-Usual" scenario, liquid fuel demand stays flat at around 100 Mb/d for the next 20 years, before edging lower to 95 Mb/d by 2050.

In the "Rapid" and "Net Zero" scenarios, consumption falls significantly to 55 Mb/d and 30 Mb/d respectively by 2050.

As a commodity, oil is driven by supply and demand dynamics. While we expect oil supply to be stable in the years ahead, driven primarily by discipline from U.S. shale players and the overhanging threat from OPEC+, demand is much more difficult to forecast. Oil demand will depend on how quickly countries reopen, and when international travel resumes. Beyond 2030, there is uncertainty from ESG-related policies that will curtail demand. As shown in the graph below extracted from BP's [Energy Outlook 2020 Report](#), there are three key scenarios for global liquid fuel consumption over the next 30 years: Business-as-Usual, Rapid and Net Zero.

Figure 20: BP's Energy Outlook scenario analysis for global liquid fuel demand out to 2050



Source: BP Energy Outlook 2020 edition, KGI Research

Capital raise or share dilution

Oil exploration is a high-risk/high-reward capital-intensive business, with payback periods that can be typically longer than other sectors. While Norway offers a favourable tax environment for exploration and development of oil & gas fields, there is the risk that a series of failures to discover economically viable oil fields will lead to capital call from shareholders. Since Rex's listing in 2013, the group had two rounds of capital raising exercises to help fund its growth plans.

Figure 21: Fund raising from its IPO in 2013

Remarks	Date	Price, S\$	Gross Proceeds, S\$
IPO	31/7/2013	\$0.500	\$85,300,000
Private placement	6/11/2013	\$0.755	\$52,850,000
Private placement	17/9/2014	\$0.570	\$95,760,000
Total		\$0.608	\$233,910,000

Source: KGI Research

Costs and asset quality

All E&P companies face the same general risk including oilfield service cost inflation and unexpected geologic irregularities. Oil and gas reserves that are stated in the qualified persons report are underpinned by many assumptions that are subject to uncertainty and can change materially. There is the risk of significant impairment of Exploration and Evaluation (EE) assets on its balance sheet if oil prices were to decline or the group is unable to find sufficient oil reserves for commercial production within the license period. As of 31 December 2021, the EE assets on Rex's balance sheet amounted to US\$30mn or 16% of total assets.

Financial Summary

FYE 31 December					
INCOME STATEMENT (SGD mn)	2019	2020	2021F	2022F	2023F
Revenues	135	46,664	167,024	106,288	68,328
Production and operating expenses	—	(23,841)	(30,660)	(30,660)	(30,660)
Depletion of oil and gas properties	—	(21,484)	(22,995)	(22,995)	(22,995)
Other expenses	(2,266)	(2,147)	(659)	(679)	(699)
Gross profit	(2,131)	(808)	112,710	51,954	13,974
Administration expenses	(17,147)	(15,291)	(15,597)	(15,909)	(16,227)
Other income/(expenses), including Brage	36,563	(4,720)	21,868	11,808	11,078
Results from operating activities	17,285	(20,819)	118,981	47,853	8,825
Finance income	848	777	778	778	778
Finance costs	(1,537)	(961)	(6,630)	(6,630)	(6,630)
Profit for the year	22,229	(15,212)	113,129	42,001	2,973
Non-controlling interests	2,828	(994)	(2,187)	(1,181)	(1,108)
PATMI	19,401	(14,218)	115,316	43,182	4,081
Earnings per share (Sing cents)	2.0	(1.5)	11.7	4.3	0.4
DPS (Sing cents)	—	—	—	—	—
BALANCE SHEET (SGD mn)	2019	2020	2021F	2022F	2023F
Trade and other receivables	23,302	37,200	37,200	37,200	37,200
Quoted investments	40,001	25,925	25,925	25,925	25,925
Cash and cash equivalents	21,930	20,375	123,887	158,821	154,347
Total current assets	85,233	83,500	187,012	221,946	217,472
Exploration and evaluation assets	89,967	30,376	30,376	30,376	30,376
Oil and gas properties	—	76,266	95,871	72,876	49,881
Other intangible assets	4,215	3,365	3,365	3,365	3,365
Property, plant and equipment	1,388	2,160	1,990	2,427	3,244
Total non-current assets	95,570	112,167	181,774	188,841	196,287
Total assets	180,803	195,667	368,786	410,787	413,760
Loans and borrowings	15,790	18,010	78,000	78,000	78,000
Trade and other payables	7,216	22,053	22,053	22,053	22,053
Lease liabilities	391	422	422	422	422
Total current liabilities	23,397	40,485	100,475	100,475	100,475
Deferred tax liabilities	489	13,173	13,173	13,173	13,173
Provisions	1,628	1,210	1,210	1,210	1,210
Lease liabilities	893	573	573	573	573
Total non-current liabilities	3,010	14,956	14,956	14,956	14,956
Total liabilities	26,407	55,441	115,431	115,431	115,431
Unitholders' funds and reserves	154,396	140,226	253,355	295,356	298,329
Total liabilities and equity	180,803	195,667	368,786	410,787	413,760
CASH FLOW STATEMENT (SGD mn)	2019	2020	2021F	2022F	2023F
Profit before tax	15,499	(20,114)	113,129	42,001	2,973
Adjustments	(32,099)	24,807	1,670	1,063	683
Operating cash flows before WC changes	(16,600)	4,693	114,799	43,064	3,656
Change in working capital	21,362	19,543	—	—	—
Income tax paid	6,730	4,902	—	—	—
Cash flows from operations	4,762	24,236	114,799	43,064	3,656
Exploration and evaluation expenditure	(22,580)	(38,039)	(20,557)	—	—
Acquisition of subsidiaries	(72)	(1,316)	(1,500)	(1,500)	(1,500)
Others, acquisitions	41,497	13,763	(42,600)	—	—
Cash flows from investing	18,845	(25,592)	(64,657)	(1,500)	(1,500)
Interest paid	(916)	(933)	(6,630)	(6,630)	(6,630)
Other financing cashflow	(6,714)	1,555	60,000	—	—
Cash flows from financing	(7,630)	622	53,370	(6,630)	(6,630)
FX Effects, Others	648.0	(821.0)	—	—	—
Net increase in cash	15,977	(734)	103,512	34,934	(4,474)
Beginning Cash	5,305	21,930	20,375	123,887	158,821
Ending cash	21,930	20,375	123,887	158,821	154,347
KEY RATIOS	2019	2020	2021F	2022F	2023F
EPS (SGD cents)	1.35	1.35	1.35	1.35	1.35
Price/Earnings (x)	10.3	(14.4)	1.8	4.8	51.7
NAV per share (SGD cents)	14.7	13.1	24.5	28.4	28.4
Price/NAV (x)	1.4	1.6	0.9	0.7	0.7
Profitability					
EBITDA Margin (%)	—	—	—	—	—
Net Margin (%)	16,465.9	(32.6)	67.7	39.5	4.4
ROE (ex. Property FV gain) (%)	11.4	(8.1)	40.1	10.8	0.7
ROA (ex. Property FV gain) (%)	17.1	(11.3)	61.5	16.1	1.0
Financial Structure					
Interest Coverage Ratio (x)	11.2	(21.7)	17.9	7.2	1.3
Net Gearing Ratio (%)	(32.8)	(22.2)	(29.8)	(37.8)	(35.8)

Appendix A: Assets

Norway - Licenses

Norway is western Europe's biggest oil and natural gas producer, representing about 2% of worldwide crude output.

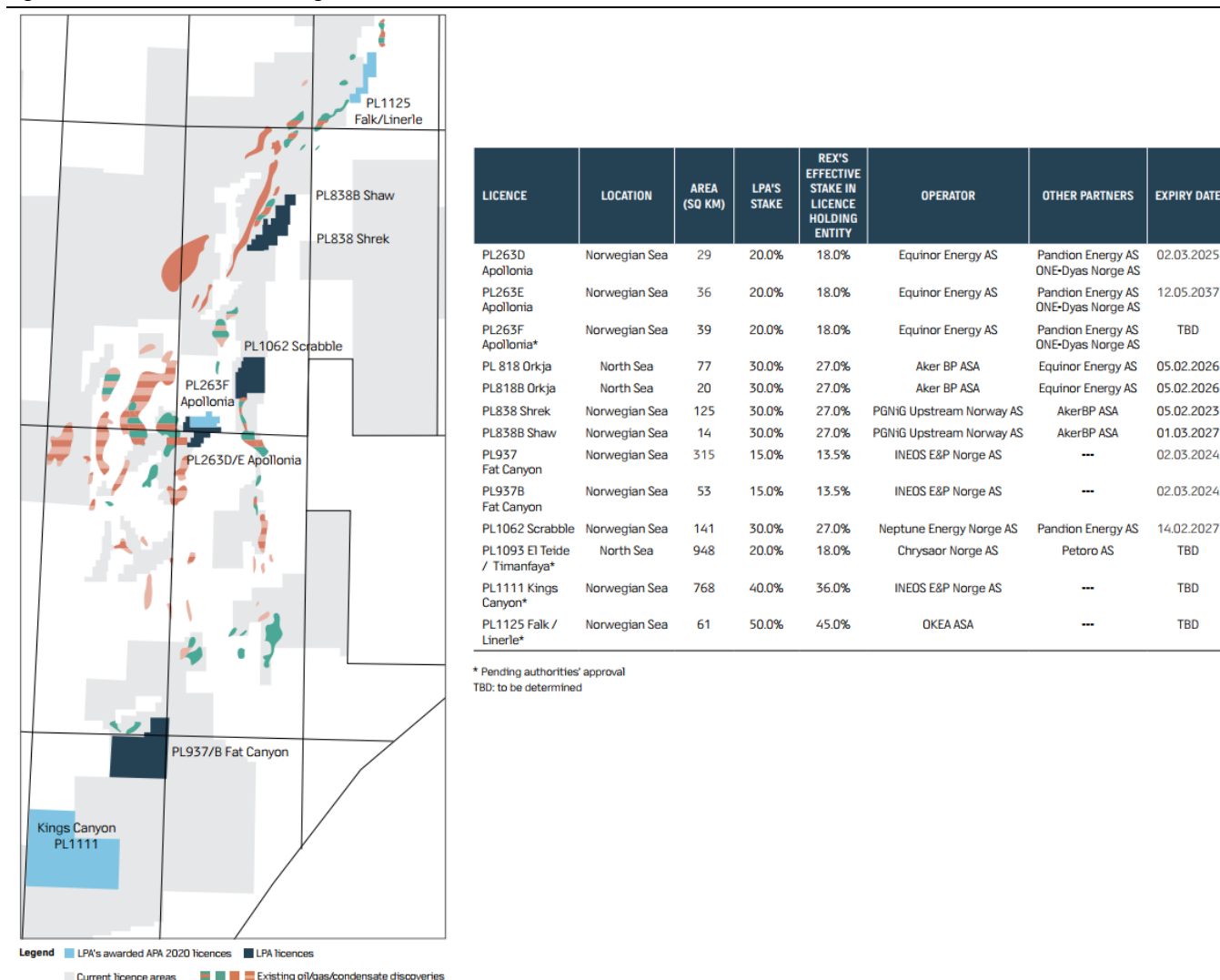
Rex operates in Norway through its 90.0%-owned Lime Petroleum AS (LPA). LPA was pre-qualified in February 2013 and has since then grown a portfolio of exploration licences on the Norwegian Continental shelf. LPA's offices are located at Skøyen in Oslo. LPA's goal is to grow the portfolio further through licensing rounds and farm-ins and to participate in 1-3 exploration wells per year.

LPA farmed in to four Norwegian Sea licences and was awarded interests in four more licences, including one with a discovery, in the 2020 Awards in Predefined Areas in January 2021. This brings to total 13 licences in the group's portfolio as at 31 December 2020, including three discoveries – Shrek, Apollonia and Falk/Linerle – with commercial development potential.

On 6 April 2021, LPA signed an agreement with ONE-Dyas Norge AS (ONE-Dyas) to swap its 20% interests in each of the licences PL263D, PL263E, and PL263F Sierra (previously known as Apollonia) in the Norwegian Sea for ONE-Dyas' 13.3% interest in PL433 Fogelberg, which as reported by the NPD, is estimated to contain 49 MMboe gas/condensate in reserve-class 4F (Production in Clarification Phase).

In June 2021, LPA announced its acquisition of 33.8434% interest in the oil, gas and natural gas liquids (NGL) producing Brage field.

Figure 22: LPA's licenses in the Norwegian sea



Source: Ministry of Petroleum and Energy and the Norwegian Petroleum Directorate

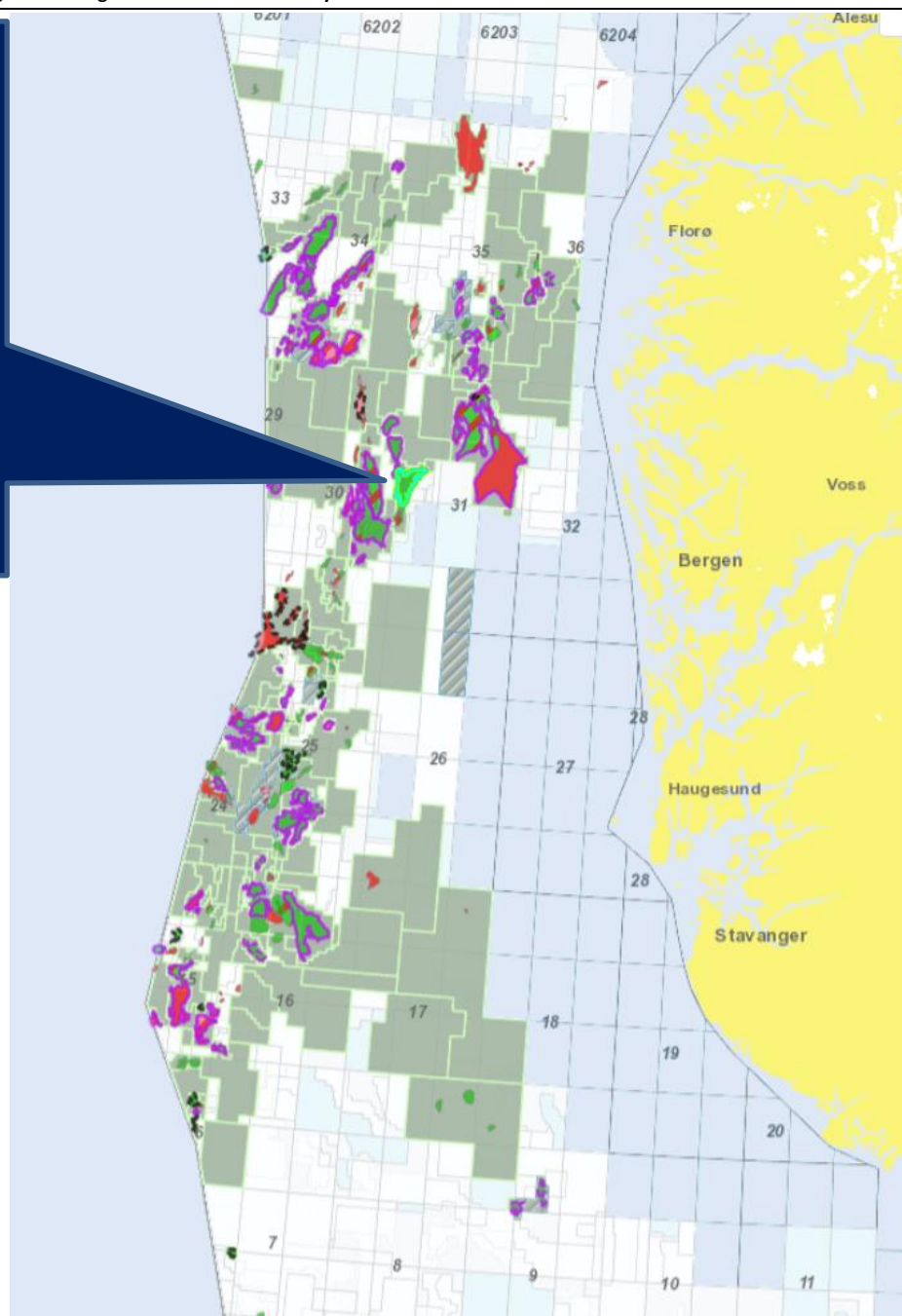
Norway – Brage Field

Figure 23: Brage field in offshore Norway.



Brage field

The Brage field lies to the northwest of Bergen, Norway's second-largest city.

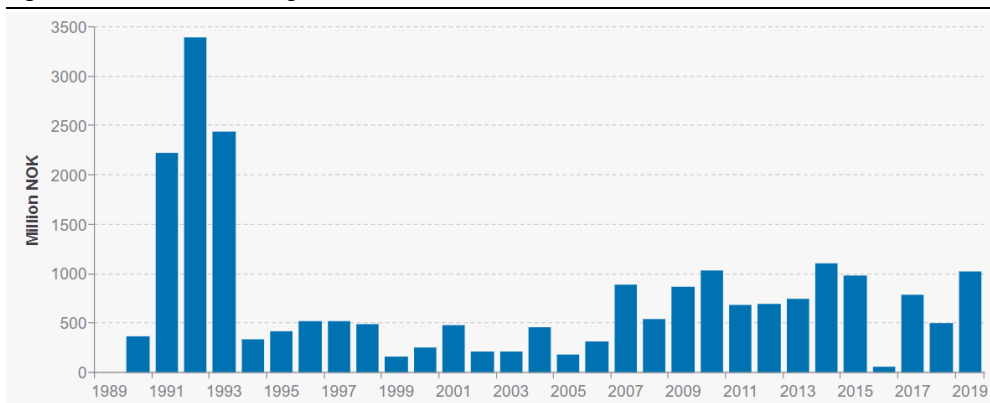


Source: Ministry of Petroleum and Energy and the Norwegian Petroleum Directorate ([link](#))

Ownership of Brage Field

Company name	Company share [%]
Wintershall Dea Norge AS	35.2000
Repsol Norge AS	33.8434
DNO Norge AS	14.2567
Vår Energi AS	12.2575
Neptune Energy Norge AS	4.4424

The Brage Field in Norway is operated by Wintershall Dea Norge AS, an established German oil and gas producer that is majority-owned by BASF SE (Frankfurt listed and DAX component: BASF GR). The Brage Field is one of the oldest producing platforms in Norway. It was first discovered in 1980 and came into production in 1993.

Figure 24: Investments into Brage


Source: Ministry of Petroleum and Energy, Norwegian Petroleum Directorate

Oman

Masirah Oil Ltd (MOL) holds 100% of the Block 50 Oman, an approximately 17,000 sq km offshore concession located in the Gulf of Masirah, east of Oman. MOL is a subsidiary of Rex International Holding Ltd (Rex), which holds an effective interest of 86.37% through its indirect wholly-owned subsidiary Rex Oman Ltd.

Other shareholders of MOL include Schroder & Co Banque S.A. at 8.82% and PETROCI, the national oil company of Cote D'Ivoire, at 1.83%.

First oil was achieved in Block 50 in February 2020 and the approval of Field Development Plan for the Yumna Field and the award of Declaration of Commerciality (DOC) were obtained on 12 July 2020. The DOC will enable MOL to fully develop the Yumna Field while continuing to explore the rest of Block 50 Oman.

Operational details

Yumna 2 commenced production on 23 January 2021 while Yumna 3 commenced production on 18 February 2021. In mid-March 2021, the Yumna Field process facilities were upgraded and the liquid-handling capacity on the Mobile Offshore Production Unit (MOPU) was more than doubled to 30,000 barrels per day.

Following the upgrade, the Yumna Field was tested steadily over a week at rates of 20,000 barrels of oil per day. The production rate is being regularly optimized to maximize recovery from the field. The group's Vision is to establish viable long-term production and substantially increase the oil reserves in Block 50.

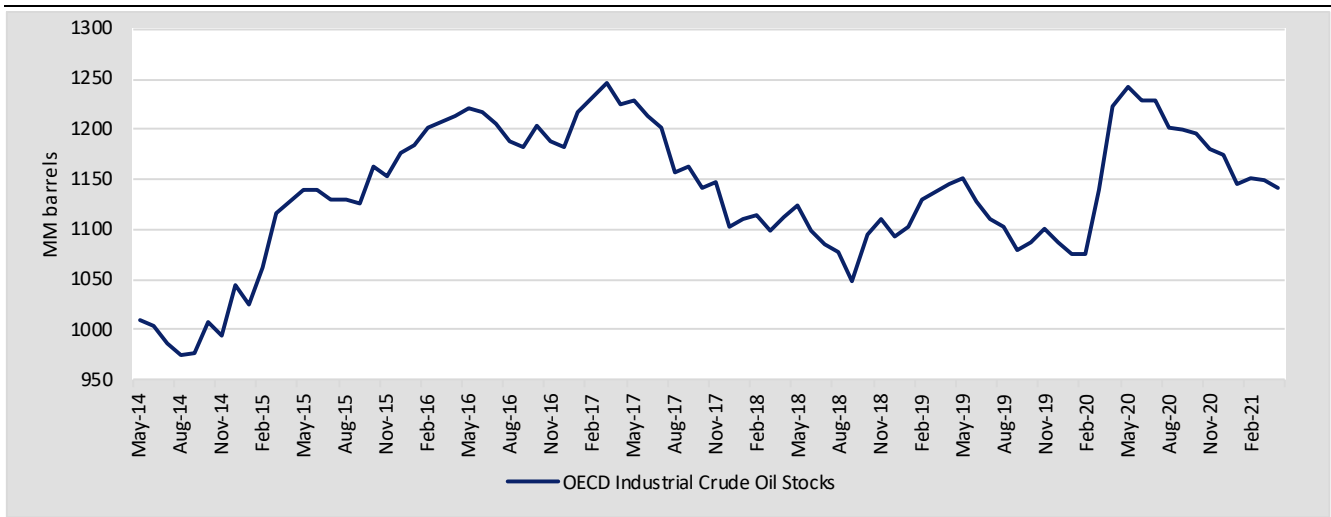
Prospects

In April 2021, Masirah Oil announced that following the successful drilling of two Yumna Field development wells, it has completed drilling three exploration prospects that were located near to the Yumna Field, offshore in the Arabian Sea – Zakhera, Yumna East and Yumna North. The results confirmed the extents of the good quality Lower Aruma sandstone and will help refine MOL's understanding of the trap mechanisms in the area.

Appendix B: Global oil statistics

OECD Industrial crude oil inventory is still implying global tightness despite OPEC+'s plan to increase production by 400,000 barrels per day every month starting from August 2021.

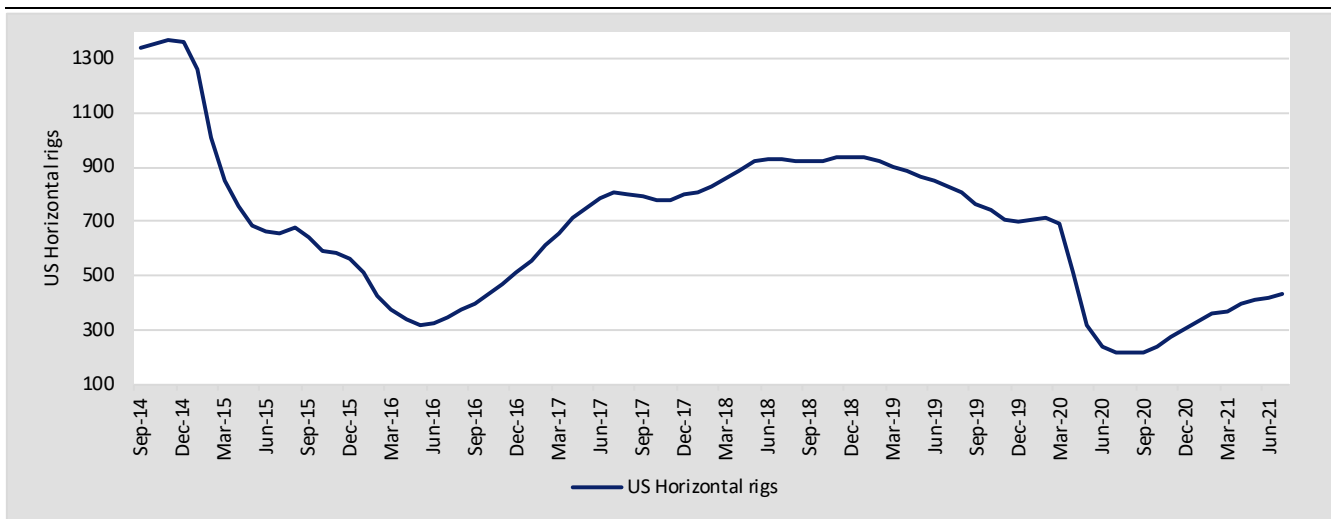
Figure 25: OECD Industrial crude oil inventory



Source: Bloomberg, IEA Monthly Oil Report, KGI Research

Horizontal rig count is a good barometer of US shale oil activity. It dropped to the lowest level last year due to the COVID-19 pandemic. Even with the recent recovery up to July, rig activity is still very measured compared to the previous recovery in 2017.

Figure 26: Horizontal rig counts



Source: Bloomberg, KGI Research

KGI's Ratings

Rating	Definition
Outperform (OP)	We take a positive view on the stock. The stock is expected to outperform the expected total return of the KGI coverage universe in the related market over a 12-month investment horizon.
Neutral (N)	We take a neutral view on the stock. The stock is expected to perform in line with the expected total return of the KGI coverage universe in the related market over a 12-month investment horizon.
Underperform (U)	We take a negative view on the stock. The stock is expected to underperform the expected total return of the KGI coverage universe in the related market over a 12-month investment horizon
Not Rated (NR)	The stock is not rated by KGI Securities.
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