

Sector Update

E&P Reserves Data as at Dec-20

Oil Reserves as at Dec-20								
mnbbls	Dec-20	Jun-20	% Chng	Dec-19				
OGDC	96.7	105.0	-7.9%	108.3				
PPL	41.7	42.4	-1.6%	41.3				
POL	44.7	45.7	-2.1%	46.0				
MARI	3.0	1.0	209.2%	1.1				
Total	266.4	540.1	-50.7%	570.3				

Gas Reserves as at Dec-20							
bcf	Dec-20	Jun-20	% Chng	Dec-19			
OGDC	7,412	7,533	-1.6%	7,594			
PPL	2,733	2,817	-3.0%	2,689			
POL	422	422	0.0%	435			
MARI	5,287	4,758	11.1%	4,887			
Total	21,207	20,914	1.4%	20,884			

Relative Performance to KSE 100



Source: Bloomberg, PSX & IGI Research

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Oil & Gas Exploration Companies

Pakistan oil reserves drop by 51% while gas reserves up by +1% as at Dec-20 end; RRR still below par

- ✓ As per data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves plummeted by 51% to 266mnbbls as at Dec-20 compared to 540mnbbls at Jun-20. Gas reserves are up marginally by +1.4% to 21.21tcf as at Dec-20 compared to 20.91tcf at Jun-20.
- Maramzai oil reserves have been revised upwards by 1mnbbls and gas reserves have been revised upward by 53bcf during 1HFY21,
- ✓ Mari field gas reserves have been revised upward by 529bcf during 1HFY21 against total production of 129bcf bringing total reserve life to 20.3yrs,
- ✓ Halini field oil reserves were revised upward by 0.4mnbbls to 1.76mnbbls during 1HFY21
- ✓ We maintain our overweight stance on E&P sector amid cheap valuation and recovery in oil prices. MARI remain our preferred picks among IGI E&P Universe with our Dec-21 target prices of PKR 1,991/share offering +25% upside from last close. MARI is trading at FY22F P/E of 6.7x. OGDC and PPL are also amongst our top picks with Dec-21 target prices of PKR 160/share and PKR 141/share

Pakistan Oil reserves down while gas reserves are up by +1.4% in 1HFY21

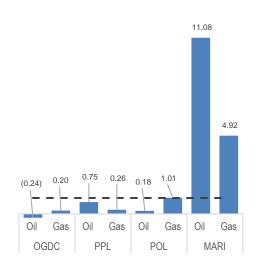
As per data published by Pakistan Petroleum Information Service (PPIS), Pakistan's total oil reserves plummeted by 51% to 266mnbbls as at Dec-20 compared to 540mnbbls at Jun-20. Gas reserves are up marginally by +1.4% to 21.21tcf as at Dec-20 compared to 20.91tcf at Jun-20. Compared to Jun-20, oil reserves were down due to downward revision in Ayesha, Ayesha North, Zainab and Aminah reserves (contributing nearly 269mnbbls). Excluding the downward revision in the aforementioned fields, oil reserves declined by 4.8mnbbls which is below 1HFY21 production of ~13mnbbls. Gas reserves are up +1.4% compared to 20.91tcf as at Jun-20 which is below 1HFY21 production of 646bcf due to increase in reserves for Maramzai and Mari.

Major revision in reserves during 1HFY21 included:

- Ayesha, Ayesha North, Zainab and Aminah oil reserves have been revised downwards by 269mnbbls during 1HFY21.
- Maramzai oil reserves have been revised upwards by 1mnbbls during 1HFY21 against total production of 0.8mnbbls which brings total reserve life to 4.1yrs.
- Oil reserves for Adhi field have fallen by 1.0mnbbls during 1HFY21 against total production of 1.6mnbbls.
- Mari field gas reserves have been revised upward by 529bcf during 1HFY21 against total production of 129bcf bringing total reserve life to 20.3yrs.
- Maramzai gas reserves have been revised upward by 53bcf during 1HFY21 against production of 24bcf increasing total reserve life to 5.9yrs.
- Oil reserves for Mari field (1.5mnbbls), Sujjal (0.2mnbbls) and Togh (0.4mnbbls) were reported during 1HFY21.
- Halini field oil reserves were revised upward by 0.4mnbbls to 1.76mnbbls during 1HFY21.



Exhibit: Reserve Replacement Ratio (RRR) as at Dec-20 - MARI leads with slowest depletion in reserves



Source: PPIS, IGI Research

Major Oil & Gas field	d reserve	life	
Oil fields	mnbbls	1H21 Production	Reserve Life
Nashpa	46.2	5.3	8.7
Mela	19.9	0.5	37.3
Jhandial	23.3	0.1	193.7
Adhi	22.0	3.3	6.8
Joyamair	13.3	0.0	716.4
Pasakhi/Pasakhi NE	9.8	0.1	69.9
Makori East	7.7	3.7	2.1
Mardan Khel	7.3	1.1	6.5
Shahdadpur	7.0	0.3	23.8
Maramzai	6.6	1.6	4.1
Gas fields	bcf	1H21 Production	Reserve Life
Mari	5,229	257.9	20.3
Uch	3,076	126.6	24.3
Kandhkot	501	46.7	10.7
Sui	935	134.3	7.0
Qadirpur	1,046	74.7	14.0
Mardan Khel	118	17.0	6.9
Maramzai	285	48.0	5.9
Makori East	173	30.2	5.7

POL: Oil reserves down by 2% while gas reserve remained flat as at Dec-20

POL's oil reserves are reported at 44.71mnbbls down by 2% and gas reserves remained flat at 0.42tcf, as at Dec-20, compared to 45.67mnbbls and 0.42tcf as at Jun-20. The decline in oil reserves is primarily attributable to 1HFY21 production of 1.17mnbbls whereas gas production remained flat due to upward revision in Maramzai reserves. This brings POL's estimated reserves life to 22.9yrs for oil and 17.3yrs for gas (total reserve life of 17.3yrs).

OGDC: Oil reserves down by 8% and gas reserves down by 2% at Dec-20

OGDC's oil reserves are reported at 96.68mnbbls down by 8% while gas reserves are recorded at 7.4tcf, down by 2% as at Dec-20, compared to 105.0mnbbls and 7.5tcf at Jun-20. The decline in oil and gas reserves remained in line with 1HFY21 production. This brings OGDC's estimated reserves life to 7.3yrs for oil and 18.2yrs for gas with total reserve life of 16.5yrs.

PPL: Oil reserves down by 2% and gas reserves down by 3% at Dec-20

PPL's oil reserves are reported at 41.7mnbbls down by 2% while gas reserves are recorded at 2.73tcf, down by 3% as at Dec-20, compared to 42.4mnbbls and 2.82tcf at Jun-20. The decline in oil reserves (down by 0.7mnbbls) was below 1HFY21 production of 2.6mnbbls due to upward revision in Dhok Sultan and Maramzai reserves while decline in gas reserves of 84bcf was below 1HFY21 production of 122bcf owing to upward revision in Maramzai reserves. This brings PPL's estimated reserves life to 8.4yrs for oil and 9.7yrs for gas with total reserve life of 9.6yrs.

MARI: Oil reserves up by +3.1x and gas reserves up +11% at Dec-20

MARI oil reserves are reported at 3.0mnbbls up by +3.1x whereas gas reserves are up by +11% to 5.29tcf as at Dec-20 respectively, compared to 1.0mnbbls and 4.76tcf at Jun-20. The incline in oil reserves is primarily attributable to addition of 1.9mnbbls from Mari, Sujjal, Kalabagh and Togh reserves. Gas reserves increased due to upward revision in Mari gas field by 529bcf against total production of 135bcf. This brings MARI's estimated reserves life to 25.5yrs for oil and 19.9yrs for gas with total reserve life of 19.9yrs.

Recommendation

We maintain our overweight stance on E&P sector amid cheap valuation and recovery in oil prices. MARI remain our preferred picks among IGI E&P Universe with our Dec-21 target prices of PKR 1,991/share offering +25% upside from last close. MARI is trading at FY22F P/E of 6.7x. OGDC and PPL are also amongst our top picks with Dec-21 target prices of PKR 160/share and PKR 141/share offering 49% and 55% upside respectively from last close.

Due to cash constraints and heavy cash tied up in receivables amid rise in circular debt, we maintain that once OGDC and PPL will be prime beneficiary of resolution in circular debt. (Total receivables stand at PKR 75/share and PKR 101/share for OGDC and PPL while cash & cash equivalents stand at PKR 14/share and PKR 28/share respectively).



Exhibit: Oil & Gas 2P	Reserves	s as at	Dec-20												
		Dec-20	Jun-20	%Change	Dec-20	y/y	Jun-20	Jun-18	Jun-17	Jun-16	Jun-15	Reserv	ια Lifα	Tota	I DI
Oil Reserves - mnbbls		Dec-20	Juli-20	/ochange	Dec-20	y, y	Juli-20	Juli-10	Juli-17	Juli-10	Juli-13	Jun-20	Dec-20	Jun-20	Dec-20
OGDC		96.68	104.99	-8%	108.32	-11%	117.41	150.85	159.86	171.00	192.50	8.01	7.32	16.91	16.46
PPL		41.72	42.40	-2%	41.27	1%	44.37	56.89	63.53	65.50	70.10	8.57	8.43	9.89	9.62
POL		44.71	45.67	-2% -2%	45.99	-3%					23.30		22.85	16.41	17.32
							47.61	47.94	20.49	20.60		19.85			
MARI		2.97	0.96	209%	1.10	170%	1.09	1.00	1.35	1.80	2.10	5.80	25.47	18.50	19.91
Total		266.39	540.08	-51%	570.31	-53%	568.45	347.90	332.20	350.60	384.40				
Gas Reserves - bcf												Jun-20	Dec-20		
OGDC		7,412	7,533	-2%	7,594	-2%	7,815	5,992	6,351	6,706	7,089	18.55	18.16		
PPL		2,733	2,817	-3%	2,689	2%	2,839	2,862	3,541	3,340	3,646	10.02	9.74		
POL		422	422	0%	435	-3%	451	419	230	237	273	14.00	17.32		
MARI		5,287	4,758	11%	4,887	8%	5,009	4,962	5,209	3,251	3,482	18.54	19.90		
Total		21,207	20,914	1%	20,884	2%	21,446	19,542	20,794	22,422	24,360				
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Field Wise Oil Reserves	weights %											OGDC	PPL	POL	MARI
Nashpa	17%	46	49	-5%	51	-10%	54	127	134	141	148	57%	28%	0%	0%
Mela	7%	20	20	-1%	20	-2%	21	4	4	5	5	57%	28%	0%	0%
Adhi	8%	22	23	-4%	24	-10%	26	19	27	29	32	50%	39%	11%	0%
Jhandial	9%	23	23	0%	23	-1%	24	24	-	-	-	0%	0%	80%	0%
Joyamair	5%	13	13	0%	13	0%	13	13	0	-	-	0%	0%	100%	0%
Pasakhi/Pasakhi NE	4%	10	10	-6%	11	-11%	12	5	6	7	8	100%	0%	0%	0%
Kunar	2%	6	6	-5%	6	-9%	7	11	6	8	9	100%	0%	0%	0%
Shahdadpur	3%	7	7	5%	3	123%	3	4	3	1	1	0%	65%	0%	0%
Pindori	0%	1	2	-41%	2	-42%	2	2	1	1	1	50%	0%	35%	0%
Manzalai	0%	1	1	0%	1	-17%	1	0	1	1	1	28%	28%	21%	0%
Mamikhel	0%	0	0	0%	0	-50%	0	0	·		1	28%	28%	21%	0%
Mardan Khel	3%	7	8	-8%	8	-13%	9	6	16	_		28%	28%	21%	0%
Maramzai	2%	7	6	18%	6	5%	7	6	3	4	6	28%	28%	21%	0%
Makori	0%	,	U	1070	-	370		U	3	7	7	28%	28%	21%	0%
Makori Deep	0%	1	1	-44%	1	-58%	3	1	1	,	-	28%	28%	21%	0%
Makori East	3%	8	9	-44 %	8	-36% -4%	10	18	22	27	33	28%	28%	21%	0%
				-17/0		-4 70									
Tolanj	0%	-	-	00/	-	050/	-	0	0	-	-	28%	28%	21%	0%
Tolanj West	0%	0	0	0%	0	-25%	0	0	0	-	-	28%	28%	21%	0%
Ayesha	0%	0	59	-100%	67	-100%	67	-	-	-	-	0%	0%	0%	0%
Ayesha North	0%	0	68	-100%	69	-100%	69	-	-	-	-	0%	0%	0%	0%
Aminah	0%	0	33	-100%	36	-100%	36	-	-	-	-	0%	0%	0%	0%
Zainab	0%	0	110	-100%	110	-100%	110	-	-	-	-	0%	0%	0%	0%
Field Wise Gas Reserve	weights %											OGDC	PPL	POL	MARI
Mari	25%	5,229	4,700	11%	4,824	8%	4,942	4,885	5,129	3,205	3,427	0%	0%	0%	100%
Uch	15%	3,076	3,139	-2%	3,210	-4%	3,274	1,901	2,045	2,189	2,323	100%	0%	0%	0%
Kandhkot	2%	501	524	-4%	547	-8%	576	651	687	493	546	0%	100%	0%	0%
Sui	4%	935	1,002	-7%	1,071	-13%	1,137	1,277	1,835	1,997	2,158	0%	100%	0%	0%
Qadirpur	5%	1,046	1,084	-3%	1,123	-7%	1,167	1,109	1,219	1,342	1,476	75%	7%	0%	0%
Kandra	9%	1,858	1,858	0%	1,858	0%	1,858	1,858	1,858	1,858	1,858	0%	0%	0%	0%
Zin	5%	1,132	1,132	0%	1,132	0%	1,132	1,132	1,132	1,132	1,132	83%	0%	0%	0%
Uhandial	1%	286	286	0%	287	0%	288	290	1,102	1,102	1,102	0%	0%	80%	0%
	0%	30	33	-11%	38	-21%	46	38	48	62	79	28%	28%	21%	0%
Manzalai Mamikhal												1			
Mamikhel Mardan Khal	0%	5 110	7	-32%	12	-61%	12	122	8	10	21	28%	28%	21%	0%
Mardan Khel	1%	118	126	-7%	133	-11%	143	132	338	-	-	28%	28%	21%	0%
Maramzai	1%	285	232	23%	252	13%	277	202	180	209	256	28%	28%	21%	0%
Makori	0%	-	0	-100%	0	-100%	1	1	1	168	169	28%	28%	21%	0%
Makori Deep	0%	4	7	-39%	18	-75%	7	3	3	-	-	28%	28%	21%	0%
Makori East	1%	173	188	-8%	200	-13%	221	147	176	207	235	28%	28%	21%	0%
Tolanj	0%	1	1	-50%	2	-69%	2	2	9	-	-	0.28	0.28	21%	0%
Tolanj West	0%	16	17	-7%	18	-14%	21	17	63	-	-	28%	28%	21%	0%
Source: IGI Research, PPIS															

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Time Horizon: Dec – 2021

Valuation Methodology: The analyst(s) has used following valuation methodology to arrive at the target price of the said

security (ies):

(Reserve Based DCF Valuation)

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