

Vietnam

Highlighted companies

PetroVietnam Gas JSC
HOLD, TP VND61,800, VND58,200 close

Its product ASP is under pressure due to its high exposure to oil price, but fixed transportation tariff and a floor cap for gas selling price could help cushion this impact. We forecast a 42% decrease in GAS's FY20F net profit.

PetroVietnam Fertilizer and Chemicals
ADD, TP VND15,800, VND11,650 close

Gas input cost accounts for 50-60% of its fertiliser production costs. We estimate that DPM's blended gross margin could expand by 9% when oil price drops from US\$62/bbl to US\$45/bbl, assuming that GAS makes no changes to the pricing policy applied to DPM.

Vietnam Strategy

How the global oil price slump affects Vietnam's O&G value chain

- We now expect oil prices to average at US\$45/bbl in 2020F (vs. US\$62/bbl earlier), as a result of the crude oil price war and weak demand due to the Covid-19 outbreak.
- Potential losers from declining oil prices are upstream and midstream players, while some downstream producers could be gainers.
- Investors should remain cautious, given the currently weak sentiment on the sector.

Oil price hit by the combined effect of price war and Covid-19

Brent crude oil price dropped 23.5% in 2M20 due to the Covid-19 outbreak, before plunging another 52.0% MTD as the surging number of infected cases prompted stricter travel restrictions, denting demand further. Meanwhile, supply would remain abundant as Saudi Arabia reverted to pump at full capacity since Apr after failing to reach an agreement with Russia on a new production cut. We expect oil prices to bottom out in 2Q20F, when the influx of cheap products materialises from Apr and the Covid-19 outbreak reaches its peak, before strengthening from 3Q20F through to 2021F. We lower our Brent oil price assumption from US\$62/bbl to US\$45/bbl for 2020F, and from US\$65/bbl to US\$55/bbl for 2021F, based on forecasts from the US Energy Information Administration (EIA) and Bloomberg consensus.

Upstream and midstream players would be hurt to a certain extent

We expect drilling contractor PVDrilling (PVD) to be less impacted by the oil price decline vs. service provider PTSC (PVS), given its secured backlog for 2020F. However, both would be exposed to reduced service rates in general when oil prices remain lower than in the 2018-19 period. Meanwhile, we project gas distributor PVGas (GAS) would be hit by lower product ASPs (which are linked to oil prices), with net profit falling 41.8% yoy in FY20F. For O&G transportation company PVTrans (PVT), its charter rate pricing structure of guaranteeing nominal gross margins for domestic routes, while time-chartering international routes, would offer some cushion against near-term oil price fluctuations.

Some downstream stocks to benefit from lower oil prices

Lower gas input prices could translate into higher margins for power and fertiliser plants, though at different levels. Fertiliser producer Dam Phu My (DPM) would benefit the most from the oil price crash as gas cost accounts for c.50% of its production expense. We estimate that DPM's blended gross margin could expand by 9% when average oil price drops from US\$62/bbl to US\$45/bbl. For electricity generator PVPower (POW), some gas-fired plants (NT1 and NT2 specifically) would also benefit from lower gas input prices, in regards to the non-contract volumes it sells in the competitive market. We forecast a 1% increase in POW's gross margin when FY20F oil price drops to US\$45/bbl.

Investors should stay cautious amid the current weak sentiment

We highlight that some O&G companies such as GAS, PVS and DPM have relatively high net cash per share as at end-2019; this could help them weather the decline in oil and service prices in 2020F. In addition, as the share prices of most O&G companies have fell significantly so far in Mar due to the combined effect of Covid-19 and crude oil price war, many stocks now have attractive dividend yields, ranging 5-12%, notably PVT and DPM. However, we recommend that investors stay cautious as market sentiment could remain weak over the next few weeks, on the back of the uncertainty around the pandemic's development, and impact from the expiry of the existing OPEC+ production cut. Our top pick for the near-term is DPM as it benefits from low oil prices, has a strong net-cash position, and offers a high 2020F dividend yield of 8.6%.

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Figure 1: Companies with high net cash could be at a better position to weather the oil price slump

Ticker	Net cash (VNDm)	Outstanding shares (m)	Net cash per share (VND)	BVPS (VND)	Share price (VND)	Est. 2020F dividend yield (%)
GAS	26,594,391	1,914	13,895	25,363	58,200	5.2%
PVD	(827,826)	422	(1,964)	32,761	7,760	NA
PVS	8,336,551	478	17,442	24,741	10,200	6.9%
PVT	(744,710)	281	(2,646)	15,544	8,010	12.5%
POW	(11,810,423)	2,342	(5,043)	11,481	7,620	NA
DPM	2,771,056	391	7,080	20,545	11,650	8.6%
DCM	688,329	529	1,300	11,483	5,630	7.1%

SOURCES: BLOOMBERG, VND RESEARCH

How the global oil price slump affects Vietnam's O&G value chain

Figure 2: Oil price movements from 2014 to date

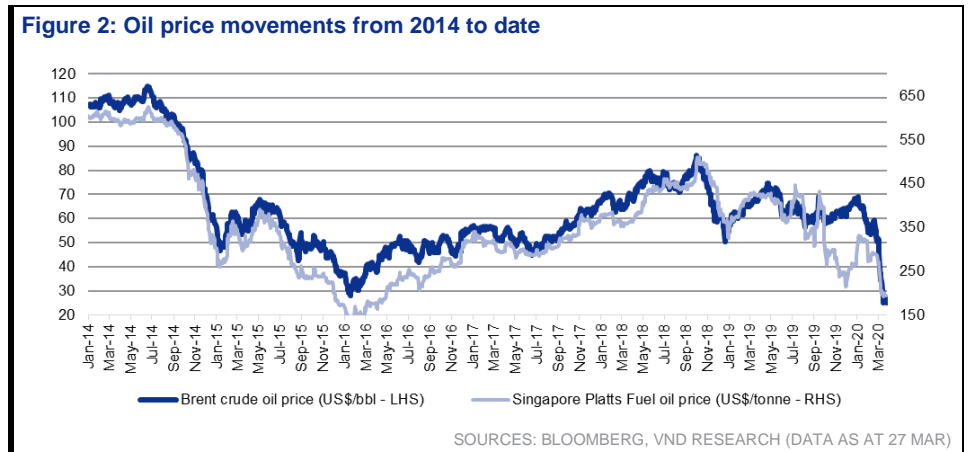


Figure 3: How the crude oil price war started, and global oil price movements since then

05/03: OPEC members agreed to remove an extra 1.5m bpd from the market, conditional on support from Russia	06/03: Russia rejected OPEC's proposal. No new agreement on the extension of current output cut	07-08/03: Saudi Arabia announced plans to raise production by 2m bpd and slashed product ASP by US\$6-8/bbl from Apr, signaling the start of a price war	11/03: Oil price rebound was short-lived as Saudi Aramco said they received directive to increase capacity by 1m bpd amid an escalating covid-19 outbreak	13-14/03: President Trump said the US would purchase oil for its Strategic Petroleum Reserve (SPR), while Fed decided to cut its key rate to near zero	15-18/03: Oil price continued to plummet due to the acceleration in global infected cases, which triggered more travel and social lockdowns	19/03: Oil regained some lost ground as central banks around the world announced stimulus measures to cope with economic slowdown caused by covid-19	20-24/03: Oil stayed stable sessionwise but fluctuates widely during sessions as investors weighed the ramp-up economic stimulus in the US vs. falling demand driven by the pandemic	27/03: Saudi Arabia said it was not in talks with Russia on a joint agreement to balance oil markets, despite the urge from the US for the two nations to end the price war.
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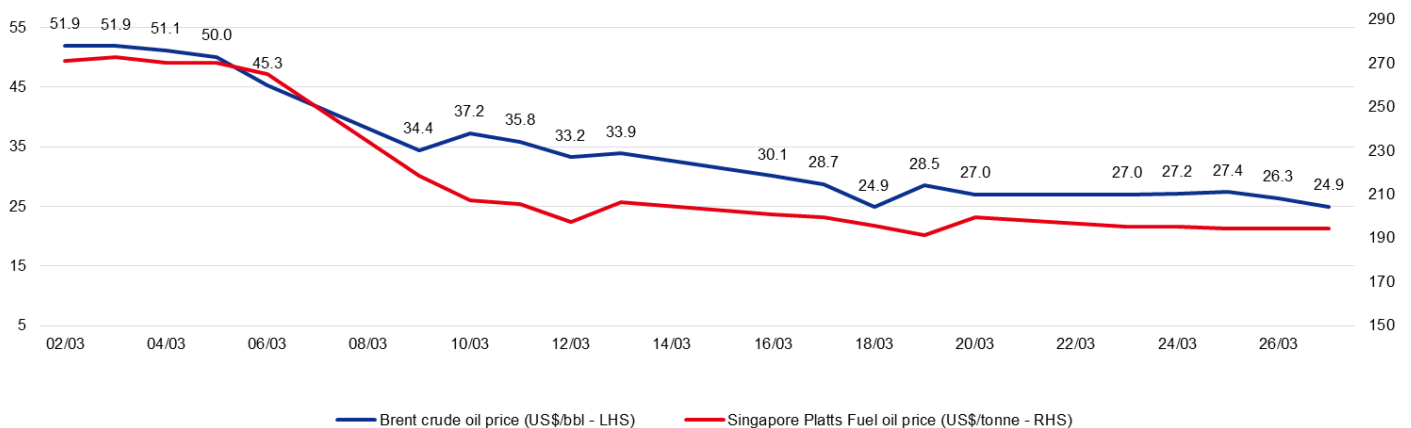


Figure 4: Bloomberg consensus oil price forecast, and EIA forecast

Consensus	As At	2020F	2021F	2022F	2023F	2024F
Median	26 Mar	44.0	55.0	60.0	61.2	60.0
Mean	26 Mar	48.3	55.7	57.7	63.1	61.1
High	26 Mar	70.0	80.0	75.0	75.0	68.0
Low	26 Mar	30.0	34.0	35.0	51.0	55.0
EIA Short-term forecast	11 Mar	43.3	55.4			

SOURCES: BLOOMBERG, EIA, VND RESEARCH

The early losers from the oil price slump are global upstream players, many of which have announced that they will slash capital spending for 2020F (down an accumulative 24.7%, according to data from S&P Global Market Intelligence) and operating costs to reduce their cashflow pressure. Service providers would also see lower rates amid falling demand for exploration and production (E&P) services such as drilling and support vessels, albeit with a time lag.

The capital cut was highly geared towards E&P activities but as oil price declines further, the impact could be felt further down the value chain.

In Vietnam, the state-owned player PetroVietnam (unlisted) has not announced a specific budget cut. Meanwhile, foreign field owner Jadestone of the Nam Du – U Minh fields has announced that this project will be delayed by at least one year, from first gas by end-2021 to end-2022. This is not a good news for PVS as we expect the company could earn revenue from executing one EPC contract and providing other services for this project in FY20-21F.

Figure 5: Announced capex reduction by select publicly traded O&G companies globally (US\$bn)

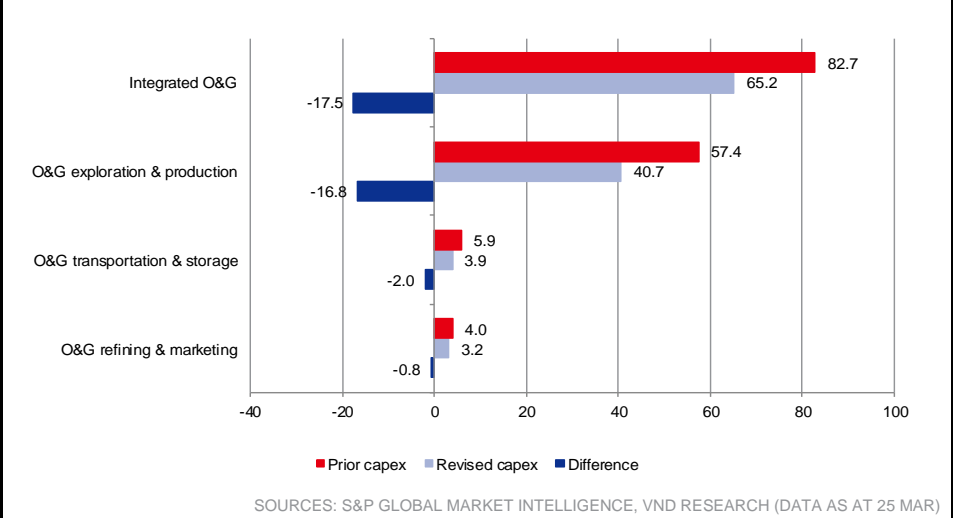


Figure 6: Breakeven field development cost (US\$/bbl) by country in 2018

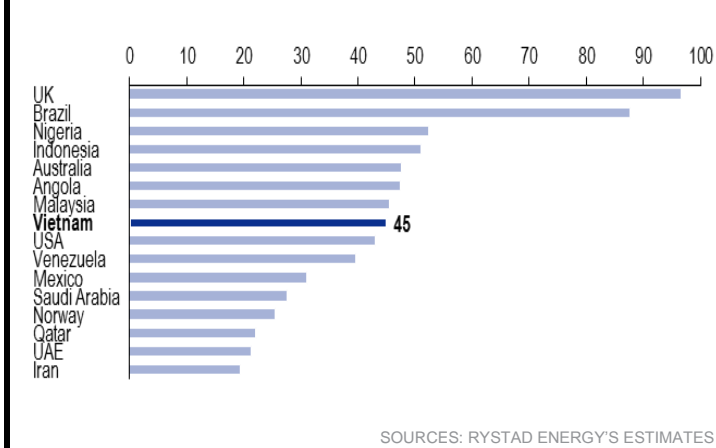


Figure 7: Fiscal breakeven oil price (US\$/bbl) of Saudi Arabia is estimated to be much higher than Russia and the US

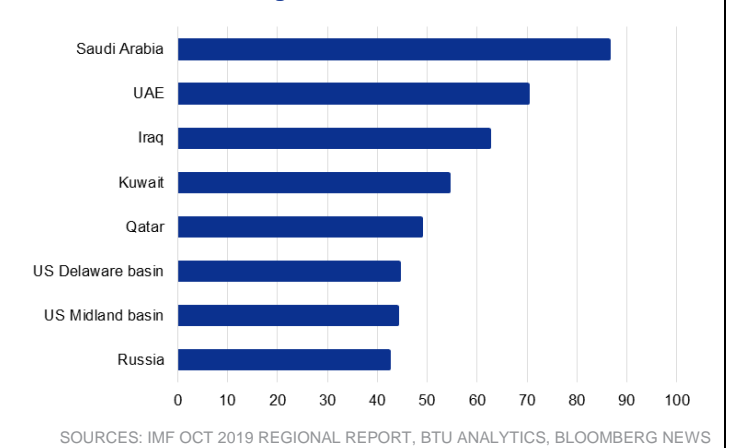


Figure 8: Summary of the impact of price war and Covid-19 on stocks in Vietnam's O&G value chain

Main business	Related stocks	Type of impact	Overall impacts of low oil prices and covid-19	Specific implications for the companies under coverage
Upstream				
Drilling and related services	PVD	Negative	In the short-term, renewals of the drilling contracts/options could be delayed or cancelled as companies face logistics challenges, plan to cut spending and delay E&P activities. This also leads to reduced rig utilisation and day rates.	For PVD, as the company already secured its contracts for FY20F, we expect the effect of declining oil price to materialise later from FY21F. Short-term price weakness might persist due to weak sentiment regarding the O&G sector, despite some certainty over FY20F earnings.
Mechanical & engineering, O&M, offshore services	PVS	Negative	Lower demand for supporting services, accompanied by lower service prices.	For PVS, due to its diversified business activities, some segments remain more resilient in the face of lower oil price than others, for example mechanical and engineering and FPSO as contracts typically span over multiple years instead of one year. We estimate gross profit from these segments account for roughly 75% of PVS's FY19F blended gross profit. Other segments relating to service provision (supporting vessels, seismic survey) might be hit more, albeit with a time lag of up to a few months.
Midstream				
Piped gas distribution	GAS	Negative	Selling price is linked to Singapore Platt fuel oil price through the formula 46% FO + tariff, hence lower oil price leads to a corresponding decline in ASP. However, gas input costs fails to drop at a similar pace, resulting in contracting margins.	For GAS, net profit decline is cushioned by solid transportation revenue (which is not correlated to oil price) and a certain margin level guaranteed for the LPG segment. In addition, GAS has a floor cap for gas selling price, i.e. selling at the higher price between 46% FO and wellhead price. This should limit the downside risk to the more recently-developed wells with higher costs when oil price falls below the breakeven level. We forecast GAS's net profit to decline 41.8% yoy in FY20F before recovering by 55.0% yoy in FY21F when oil price rebounds.
Transportation of oil and gas products	PVT	Slightly negative	Short-term transportation demand might be hurt slightly, but medium-term demand could sustain due to the expected influx of cheap products from Saudi Arabia to the market and the return of overall demand in 2H20F when covid-19 becomes contained.	PVT's charter price structure in the domestic market allows the company to retain a nominal gross margin which is largely unaffected by oil price fluctuations. For international routes, the majority of its vessels are let under time charter contracts, whereby PVT only provides the vessels and crew members and bears no fuel cost. A prolonged decline in oil price could exert downward pressure on charter rates in general, which should be compensated partly by lower fuel costs (Fuel cost accounts for less than 30% of operating costs).
Downstream				
Refinery	BSR	Negative	Contracting product spread due to oil price slump amid sluggish demand, which outweighed a lower feedstock cost. Inventory also rose to a record-high, according to the two refineries in Vietnam.	
Distribution of oil and gas products	PLX, OIL	Slightly negative	Increasing pressure from high-cost inventory (which is acquired at least 30-day in advance). Lower overall demand from transportation and retailers delaying the purchase to wait for lower price would boost up inventory. For OIL particularly, revenue from crude oil export/import would slide on top of a much lower oil price.	
Power plants	POW, NT2	Slightly positive	Lower gas input costs could benefit these companies to a certain extent, applied to the electricity volume sold to Vietnam Electricity (EVN, not listed) outside of the signed fixed contracts (which often makes up 10-20% of total sales volume). We expect annual electricity sales volume not to be affected much by covid-19, given the current power shortage in Vietnam, especially in the Southern region. Gas-fired plants would remain the key contributors as hydropower plants are still impacted by the El Nino phenomenon last year.	Covid-19 would not affect gas-based power plants such as POW's CM1, CM2, NT1 and NT2 plants. Besides, a lower gas input price along with sustainable electricity selling price could help expand the company's gross margin. We estimate that POW's blended gross margin could increase by 1% if FY20F average oil price falls from US\$60/bbl to US\$45/bbl, assuming NT1 and NT2 plants sell 20% of its volume through Competitive Generation Market (CGM).
Fertiliser plants	DPM, DCM	Positive	Gas input costs are directly linked to oil price, hence lower oil price implies potential benefit for the companies.	For DPM, gas input cost accounts for 50-60% of fertiliser production costs. We estimate that the company's blended gross margin could expand by 9% when oil price drops from US\$62/bbl to US\$45/bbl, assuming that PVGas makes no changes to the pricing policy applied to DPM. For DCM, we think the company would also benefit from a lower oil price, with gas costs making up c.32% of total COGS. However, the company's benefit would be less than DPM, as in FY19 DCM still enjoyed a subsidised gas input cost which is lower than DPM's market price. In addition the saltwater intrusion phenomenon would affect DCM's sales volume more than DPM, given the target market of DCM is the Southwestern region where the intrusion is currently at its peak.

SOURCES: VND RESEARCH

Figure 9: Peer comparison

Company	Bloomberg Ticker	Share Price (local cur.)	Target Price (local cur.)	Market Cap (US\$ m)	P/E (x)		3-yr EPS CAGR (%)	P/BV (x)		ROE (%)		ROA (%)		
					FY20F	FY21F		FY20F	FY21F	FY20F	FY21F	FY20F	FY21F	
Oil services companies														
PV Technical Services	PVS VN	ADD	10,200.0	24,100.0	192	3.5	2.6	20.5%	0.3	0.3	9.9%	11.9%	5.0%	6.1%
Malaysia Marine Eng	MMHE MK	NOT RATED	0.4	NA	143	NA	12.6	NA	0.3	0.3	1.6%	2.3%	1.0%	1.3%
Yinson Holdings	YNS MK	ADD	5.3	9.3	1,163	10.8	9.4	36.0%	1.5	1.1	10.6%	10.3%	4.9%	4.2%
Hyundai Engineering	000720 KS	HOLD	25,100.0	45,000.0	2,271	5.4	5.2	NA	0.4	0.3	6.7%	6.7%	2.4%	2.4%
Keppel Corp	KEP SP	ADD	5.4	7.8	6,691	11.6	11.1	7.4%	0.8	0.8	7.0%	7.0%	2.5%	2.6%
Average - Oil services peers					2,567	9.2	9.6	21.7%	0.7	0.6	6.5%	6.6%	2.7%	2.6%
Offshore drilling companies														
PV Drilling	PVD VN	ADD	7,760.0	16,500.0	129	12.5	5.7	53.0%	0.2	0.2	1.9%	4.2%	1.2%	2.7%
Valaris plc	VAL US	NOT RATED	0.5	NA	90	NA	NA	-13.2%	0.0	0.0	-9.9%	-9.5%	-5.2%	-5.9%
Veleso Energy Bhd	VEB MK	ADD	0.1	0.3	208	17.9	10.6	37.7%	0.3	0.3	1.6%	2.6%	1.1%	1.9%
Diamond Offshore	DO US	NOT RATED	1.8	NA	246	NA	NA	-11.1%	0.1	0.1	-12.3%	-13.9%	-6.7%	-7.3%
Sapura Energy Bhd	SAPE MK	HOLD	0.1	0.3	294	NA	28.6	NA	0.1	0.1	-2.7%	-0.9%	-0.8%	0.1%
Transocean	RIGN SW	NOT RATED	3.9	NA	2,505	NA	NA	NA	0.2	0.2	-4.7%	-3.3%	-2.3%	-1.4%
Average - Offshore drilling peers					813	17.9	19.6	13.3%	0.2	0.2	-4.5%	-3.9%	-2.2%	-1.7%
Gas distribution companies														
PV GAS	GAS VN	HOLD	58,200.0	61,800.0	4,423	15.7	10.2	-2.3%	2.5	2.5	15.0%	24.2%	11.4%	17.6%
Indraprastha Gas	IGL IN	NOT RATED	357.4	NA	3,317	20.7	17.4	23.7%	4.7	3.8	24.7%	22.1%	NA	NA
Toho Gas Ltd	9533 JP	NOT RATED	5,132.5	NA	4,969	33.1	29.1	8.7%	1.6	1.5	4.6%	5.1%	2.8%	3.2%
Petronas Gas Bhd	PTG MK	HOLD	15.4	17.5	7,050	16.6	16.5	-1.8%	2.2	2.1	13.5%	13.2%	9.2%	9.0%
China Gas Holdings	384 HK	NOT RATED	27.5	NA	18,040	14.4	12.1	15.3%	3.3	2.6	24.0%	23.7%	8.3%	8.9%
PTT PLC	PTT TB	HOLD	30.0	32.5	26,223	13.6	12.0	-8.3%	0.9	0.9	6.8%	7.4%	2.6%	3.0%
Average - Gas distribution peers					11,920	19.7	17.4	7.5%	2.5	2.2	14.7%	14.3%	5.7%	6.0%
Transportation companies														
PVTrans	PVT VN	ADD	8,010.0	18,100.0	89	3.7	3.8	-1.9%	0.5	0.5	14.0%	13.8%	5.4%	5.3%
Vietnam Petroleum Trans	VIP VN	NOT RATED	4,050.0	NA	11	NA	NA	NA	NA	NA	NA	NA	NA	NA
Vietnam Tanker JSC	VTO VN	NOT RATED	6,390.0	NA	21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Eusu Holdings Co Ltd	000700 KS	NOT RATED	4,960.0	NA	107	NA	NA	NA	NA	NA	NA	NA	NA	NA
Shipping Corp of India Ltd	SCI IN	NOT RATED	36.6	NA	226	4.7	3.1	NA	NA	NA	5.0%	7.2%	NA	NA
Great Eastern Shipping Co Ltd/The	GESCO IN	NOT RATED	199.4	NA	389	NA	6.4	NA	NA	NA	5.7%	6.6%	NA	NA
Average - Transportation peers					151	4.7	4.7	NA	NA	NA	5.4%	6.9%	NA	NA
Power plants														
PetroVietnam Power Corp	POW VN	ADD	7,620.0	16,800.0	704	6.0	5.5	13.2%	0.6	0.5	10.2%	10.1%	5.8%	5.9%
PetroVietnam Nhon Trach 2 Power	NT2 VN	NOT RATED	16,700.0	NA	196	6.4	6.0	-0.4%	1.1	1.1	17.5%	18.7%	10.0%	12.0%
Pha Lai Thermal Power JSC	PPC VN	NOT RATED	21,300.0	NA	282	6.4	6.4	-6.3%	1.1	1.0	17.8%	17.1%	15.1%	14.7%
Hai Phong Thermal Power JSC	HND VN	NOT RATED	14,100.0	NA	286	6.1	9.1	-12.0%	1.0	1.0	12.8%	10.7%	10.1%	7.1%
Guodian Changyuan Electric Power	000966 CH	NOT RATED	4.0	NA	614	7.7	5.9	60.0%	1.1	1.0	15.7%	16.9%	6.8%	8.2%
Malakoff Corp Bhd	MLK MK	ADD	0.8	1.1	887	13.3	12.8	-0.7%	0.6	0.6	4.6%	4.8%	1.1%	1.1%
JSW Energy Ltd	JSW IN	NOT RATED	44.4	NA	967	8.6	7.3	16.2%	0.6	0.6	7.0%	8.0%	5.9%	6.1%
First Gen Corp	FGEN PM	NOT RATED	17.0	NA	1,159	4.4	4.4	11.9%	0.6	0.5	13.1%	11.9%	5.4%	5.2%
An Hui Wenergy	000543 CH	NOT RATED	3.9	NA	1,237	9.7	7.1	25.8%	0.7	0.7	7.8%	9.1%	3.0%	4.0%
Average - Power plant peers					703	7.8	7.4	11.8%	0.9	0.8	12.0%	12.1%	7.2%	7.3%
Fertiliser plants														
Petrovietnam Fertilizer & Chemicals	DPM VN	ADD	11,650.0	15,800.0	188	8.3	6.4	24.6%	0.6	0.6	6.8%	8.9%	4.8%	6.3%
PetroVietnam Ca Mau Fertilizer	DCM VN	ADD	5,630.0	9,900.0	120	8.9	9.0	-21.9%	0.5	0.5	5.3%	5.1%	3.3%	3.4%
Fatima Fertilizer	FATIMA PA	NOT RATED	21.7	NA	275	3.1	3.0	2.7%	0.5	0.5	NA	19.1%	NA	NA
Engro Fertilizers	EFERT PA	NOT RATED	55.4	NA	447	4.5	4.5	-1.1%	1.6	1.5	35.8%	36.8%	15.3%	15.6%
Fauji Fertilizer	FFC PA	NOT RATED	88.6	NA	681	6.1	5.8	NA	1.7	1.6	31.2%	42.4%	NA	NA
Stanley Agricultural Group	002588 CH	NOT RATED	4.0	NA	680	34.8	17.4	46.1%	1.1	1.0	3.3%	6.1%	NA	NA
Engro Corp Ltd	ENGRO PA	NOT RATED	259.0	NA	902	6.0	5.6	-2.7%	0.8	0.8	11.8%	12.4%	NA	NA
Xinyangfeng Agricultural Technology	000902 CH	NOT RATED	7.9	NA	1,466	13.5	11.2	11.4%	1.5	1.4	11.7%	12.9%	NA	NA
Average - Fertiliser plant peers					653	11.0	8.1	5.7%	1.1	1.0	16.5%	19.3%	9.3%	9.5%

SOURCES: BLOOMBERG, CGS-CIMB RESEARCH, VND RESEARCH (DATA AS AT 27 MAR)

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Reduce	13.4%	0.0%

Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2019, Anti-Corruption 2019

ADVANC – Excellent, Certified, **AEONTS** – Good, n/a, **AH** – Very Good, n/a, **AMATA** – Excellent, Declared, **ANAN** – Excellent, Declared, **AOT** – Excellent, n/a, **AP** – Excellent, Certified, **ASP** – Very Good, Certified, **BAM** – not available, n/a, **BANPU** – Excellent, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – Good, Certified, **BGP** – Excellent, Certified, **BCPG** – Excellent, Certified, **BDMS** – Very Good, n/a, **BEAUTY** – Good, n/a, **BEC** – Very Good, n/a, **BGRIM** – Very Good, Declared, **BH** – Good, n/a, **BJC** – Very Good, n/a, **BJCHI** – Very Good, Certified, **BLA** – Very Good, Certified, **BPP** – Very Good, Declared, **BR** – Good, n/a, **BTS** – Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – Good, n/a, **CENDEL** – Very Good, Certified, **CHAYO** – Good, n/a, **CHG** – Very Good, Declared, **CK** – Excellent, n/a, **COL** – Excellent, Declared, **CPALL** – Excellent, Certified, **CPF** – Excellent, Certified, **CPN** – Excellent, Certified, **CPNREIT** – not available, n/a, **CRC** – not available, n/a, **DELTA** – Excellent, Declared, **DEMCO** – Excellent, Certified, **DDD** – Very Good, n/a, **DIF** – not available, n/a, **DREIT** – not available, n/a, **DTAC** – Excellent, Certified, **EA** – Excellent, n/a, **ECL** – Very Good, Certified, **EGCO** – Excellent, Certified, **EPG** – Very Good, n/a, **ERW** – Very Good, n/a, **GFPT** – Excellent, Certified, **GGC** – Excellent, Certified, **GLOBAL** – Very Good, n/a, **GLOW** – Very Good, Certified, **GPSC** – Excellent, Certified, **GULF** – Very Good, n/a, **GUNKUL** – Excellent, Certified, **HANA** – Excellent, Certified, **HMPRO** – Excellent, Certified, **HUMAN** – Good, n/a, **ICHI** – Excellent, Declared, **III** – Excellent, n/a, **INTUCH** – Excellent, Certified, **IRPC** – Excellent, Certified, **ITD** – Very Good, n/a, **IVL** – Excellent, Certified, **JASIF** – not available, n/a, **BJC** – Very Good, n/a, **JMT** – Very Good, n/a, **KBANK** – Excellent, Certified, **KCE** – Excellent, Certified, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** – Excellent, Certified, **KTC** – Excellent, Certified, **LH** – Excellent, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MACO** – Very Good, n/a, **MAJOR** – Very Good, n/a, **MAKRO** – Excellent, Certified, **MALEE** – Excellent, Certified, **MC** – Excellent, Certified, **MCOT** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** – Excellent, Certified, **MK** – Very Good, n/a, **MTC** – Excellent, n/a, **NETBAY** – Very Good, n/a, **OSP** – Very Good, n/a, **PLANB** – Excellent, Certified, **PLAT** – Very Good, Certified, **PR9** – Excellent, n/a, **PSH** – Excellent, Certified, **PSTC** – Very Good, Certified, **PTT** – Excellent, Certified, **PTTEP** – Excellent, Certified, **PTTGC** – Excellent, Certified, **QH** – Excellent, Certified, **RATCH** – Excellent, Certified, **ROBINS** – Excellent, Certified, **RS** – Excellent, n/a, **RSP** – not available, n/a, **S** – Excellent, n/a, **SAPPE** – Very Good, Declared, **SAT** – Excellent, Certified, **SAWAD** – Very Good, n/a, **SC** – Excellent, Certified, **SCB** – Excellent, Certified, **SCC** – Excellent, Certified, **SCN** – Excellent, Certified, **SF** – Good, n/a, **SHR** – not available, n/a, **SIRI** – Very Good, Certified, **SPA** – Good, n/a, **SPALI** – Excellent, n/a, **SPRC** – Excellent, Certified, **STA** – Very Good, Certified, **STEC** – Excellent, n/a, **SVI** – Excellent, Certified, **SYNEX** – Excellent, Certified, **TASCO** – Excellent, Certified, **TCAP** – Excellent, Certified, **THANI** – Excellent, Certified, **TIPCO** – Very Good, Certified, **TISCO** – Excellent, Certified, **TKN** – Very Good, n/a, **TMB** – Excellent, Certified, **TNR** – Very Good, Certified, **TOP** – Excellent, Certified, **TPCH** – Good, n/a, **TIPIP** – Good, n/a, **TRUE** – Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Excellent, Declared, **UNIQ** – not available, n/a, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – not available, n/a, **WICE** – Excellent, Certified, **WORK** – Good, n/a.

1 CG Score 2019 from Thai Institute of Directors Association (IOD)

2 AGM Level 2018 from Thai Investors Association

3 Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of November 30, 2018) are categorised into:

companies that have declared their intention to join CAC, and companies certified by CAC.

4 The Stock Exchange of Thailand : the record of listed companies with corporate sustainable development "Thai sustainability Investment 2018" included:

SET and mai listed companies passed the assessment conducted by the Stock Exchange of Thailand: THSI (SET) and THSI (mai)

SET listed companies passed the assessment conducted by the Dow Jones Sustainability Indices (DJSI)

RECOMMENDATION FRAMEWORK

Stock Ratings

Definition:

Add	The stock's total return is expected to reach 15% or higher over the next 12 months.
Hold	The stock's total return is expected to be between negative 10% and positive 15% over the next 12 months.
Reduce	The stock's total return is expected to fall below negative 10% over the next 12 months.

The total expected return of a stock is defined as the sum of the: (i) percentage difference between the target price and the current price and (ii) the forward net dividend yields of the stock. Stock price targets have an investment horizon of 12 months.

Sector Ratings

Definition:

Overweight	An Overweight rating means stocks in the sector have, on a market cap-weighted basis, a positive absolute recommendation.
Neutral	A Neutral rating means stocks in the sector have, on a market cap-weighted basis, a neutral absolute recommendation.
Underweight	An Underweight rating means stocks in the sector have, on a market cap-weighted basis, a negative absolute recommendation.

Country Ratings

Definition:

Overweight	An Overweight rating means investors should be positioned with an above-market weight in this country relative to benchmark.
Neutral	A Neutral rating means investors should be positioned with a neutral weight in this country relative to benchmark.
Underweight	An Underweight rating means investors should be positioned with a below-market weight in this country relative to benchmark.

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