

PV Gas (GAS)

On track for sequential recovery

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Initiate coverage with BUY rating and target price of VND89,200

We initiate our coverage of GAS with a BUY rating and a target price of VND89,200. Our target price is based on a mid-cycle P/B multiple derived from our three-stage dividend discount model. We apply a mid-cycle valuation for our target price to reflect our view for more modest recovery in HSFO prices amid an extended period of weak oil prices.

TOP PICK: Beneficiary of growing LNG demand & should perform alongside slower recovery in oil prices

GAS is our top pick for Vietnam's oil & gas sector as the main beneficiary of growing LNG demand that should also perform alongside our expectations for a slower recovery in oil prices. Supply shortages for the power generation sector and delayed approvals of new gas fields underscore the need for the *Thi Vai* LNG regasification facilities currently under construction. Moreover, Vietnam's new-found ability to import LNG should also provide the feedstock for downstream refiners preparing to start local petrochemical production.

Outsized benefits to HSFO prices from OPEC+ production cuts

Deeper production cuts by Middle East producers – that usually yield a higher percentage of fuel oil – have curtailed fuel oil supply and provided outsized gains to HSFO prices from the OPEC+ production cuts. This – and the installation of more scrubbers by ship owners to improve longer-term sentiment on fuel oil in the aftermath of IMO2020 – make us more confident that HSFO prices have bottomed. With gas selling prices indexed to HSFO prices, we believe GAS is now set to deliver sequential earnings improvement.

BUY initiate

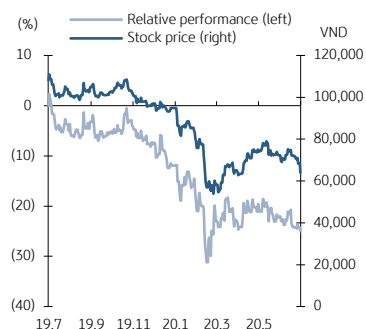
Target Price	VND89,200
Total return (%)	44.1%
Current price (Jul 27)	VND64,000
Consensus target price	VND71,000
Mkt capitalization (USDbn)	USD5,284mn

Trading data	
Free float (%)	4.2%
Avg trading value (3M)	USD2.13mn
Foreign available (%)	45.7%
Major shareholders (%)	PetroVietnam (95.8%)

Share price performance				
(%)	1M	3M	6M	12M
Absolute	-11.4	-0.3	-32.6	-40.7
Relative	-3.8	-2.1	-14.8	-25.0

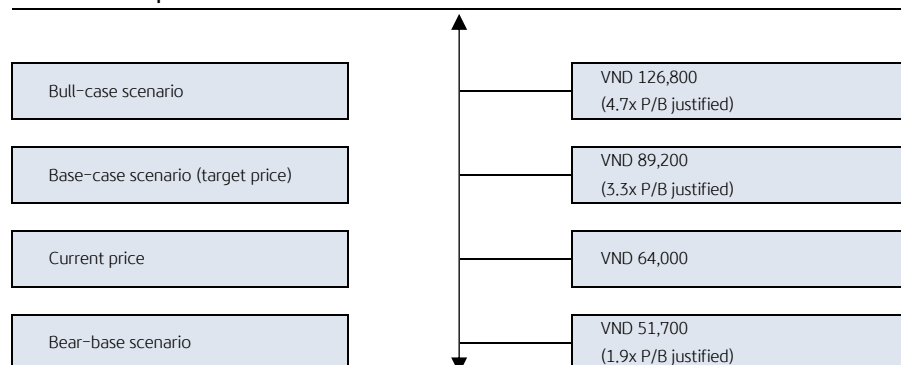
Forecast earnings & valuation

Fiscal year-end	2019A	2020E	2021E	2022E
Revenue (VNDbn)	75,005	64,521	74,860	89,831
EBIT	13,649	9,334	14,125	16,798
NP attributable to parent	11,902	8,168	11,569	13,651
EPS (VND)	6,219	4,268	6,044	7,132
EPS growth (%)	3.9	(31.4)	41.6	18.0
P/E (x)	10.5	15.0	10.6	9.0
EV/EBITDA (x)	7.0	9.6	7.1	6.1
P/B (x)	2.5	2.4	2.2	2.1
ROE (%)	24.7	16.1	21.6	23.8
Div yield (%)	6.8	4.7	6.9	8.1



Source: Bloomberg, KB Securities Vietnam

Investment opinion & risks



Base-case scenario: catalysts

- 1) Brent prices above USD55 in 2021E
- 2) LNG terminal construction underway
- 3) HSFO continued recovery

Bull-case scenario: upside risk

- 1) Brent prices above USD55 in 2020E
- 2) New mega gas field approvals
- 3) LNG terminal ahead of schedule

Bear-case scenario: downside risk

- 1) Coronavirus second wave
- 2) Delays on new LNG terminal
- 3) Further delays on new gas fields

Revised earnings estimates

(VNDbn, %)	Revised		Previous		Change	
	2020E	2021E	2020E	2021E	2020E	2021E
Revenue						
EBIT						
OP						
NP after MI						

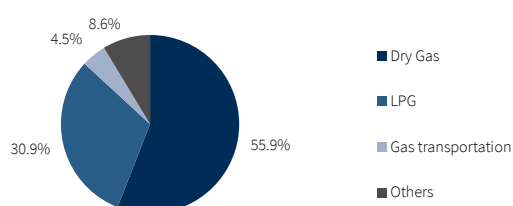
Source: Bloomberg, KB Securities Vietnam

KBSV estimate vs consensus

(VNDbn, %)	KBSV estimates		Consensus		Difference	
	2020E	2021E	2020E	2021E	2020E	2021E
Revenue	64,521	74,860	61,317	71,891	5.2	4.1
EBIT	9,334	14,125	9,312	12,231	0.2	15.5
OP	10,426	14,896	8,814	11,881	18.3	25.4
NP after MI	8,168	11,569	7,776	9,750	5.0	18.7

Source: Bloomberg, KB Securities Vietnam

Revenue composition (2019)



Source: Company reports, KB Securities Vietnam

Peer group comparison

(USDbn, x, %)	Mkt Cap	12m fwd P/E	3y EPS CAGR	12m fwd ROE	12m fwd P/B
GAS VN	5.3	14.3	-5.7	17.6	2.4
PGAS IJ	2.0	9.3	-7.0	4.4	0.8
GAIL IN	5.9	8.4	-4.1	9.9	0.9
PLNG IN	4.8	10.8	14.2	24.1	2.7
9531 JP	11.3	14.3	-5.6	6.8	1.0
9532 JP	8.5	12.6	22.5	6.7	0.8

Source: Bloomberg, KB Securities Vietnam

On track for sequential recovery

**PV Gas (GAS):
Sector top pick as LNG beneficiary
that should also track recovery in
oil prices**

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GAS is our top pick for Vietnam's oil & gas sector as the main beneficiary of growing LNG demand that should also perform alongside our expectations for a slower recovery in oil prices. Supply shortages for the power generation sector and delayed approvals of new gas fields underscore the need for the *Thi Vai* LNG regasification facilities currently under construction. Moreover, Vietnam's new-found ability to import LNG should also provide the feedstock for downstream refiners preparing to start local petrochemical production.

We expect an earnings CAGR of 16.4% over our 2020E–2025E forecast period. Our estimates include: 1) *Phase 1* of the *Thi Vai* terminal will start up on time in 2022E and *Phase 2* will add another 3 MTPA the following year in 2023E; and 2) the new *Sao Vang-Dai Nguyet*, *White Lion 2* & *Nam Du U Minh* gas fields will begin to produce in 2022E or 2023E. We have not yet included output from the *Blue Whale* & *Block B* mega projects due to protracted delays and uncertainty of any potential startup date.

Table 1. PV Gas (GAS) – Valuation (DDM) & target price (VND, %)

Line item	Notation		Notes
Cost of equity	K_E	10.50%	$r_f + (B_E * m)$
Re-levered beta	B_E	0.840	$B_A(1 + ((1-t)*D/E))$
Unlevered beta	B_A	0.600	Weighted-average sector unlevered beta
Terminal assumptions			
Sustainable ROE	ROE	20.0%	Long-term ROE
Div payout ratio	p	80.0%	Long-term payout ratio
Sustainable growth	g	4.0%	$ROE * (1 - p)$
Assumptions			
Target gearing	D/E	50.00%	Long-term debt/equity ratio
Statutory tax rate	t	20.00%	Marginal corporate tax rate
Market risk premium	m	8.90%	10-year expected market return – risk free rate
Risk free rate	r_f	3.00%	10-year government bond
<hr/>			
Terminal value as % of firm value		82.2%	
PV of future dividends (VNDbn)		43,270	
PV of terminal value (VNDbn)		199,490	
PV of Firm (VNDbn)		242,760	
<hr/>			
Total return		44.1%	
Target price (VND)		89,200	
Dividend per share (VND)		3,000	

Source: KB Securities Vietnam

Our 12-month target price set to

Our valuation is based on the three-stage dividend discount model (DDM) that

mid-cycle price objective vs fully-growth loaded valuation

utilizes the capital asset pricing model (CAPM) to determine an appropriate discount rate for projected cash dividends/stock buybacks for individual stocks. We consider valuations generated from the DDM as fully-growth loaded assessments of value. Additionally, we estimate the ex-growth price-to-book multiple by modifying the Gordon Growth model $[(ROE-g)/(COE-g)]$ to assume zero growth or simply the company's sustainable return on equity (ROE) divided by the cost of equity (COE). Our mid-cycle target prices is then based the average of the fully-growth loaded value of the company and the ex-growth estimate.

Table 2. KBSV – Valuation methodology

Gordon growth model	
Justified P/B multiple	= $\frac{(ROE - g)}{(COE - g)}$
Ex-growth model	
Ex-growth P/B multiple	= $\frac{ROE}{COE}$
Mid-cycle model	
Mid-cycle P/B multiple	= Average of: [DDM valuation & Ex-growth valuation]

Source: KB Securities Vietnam

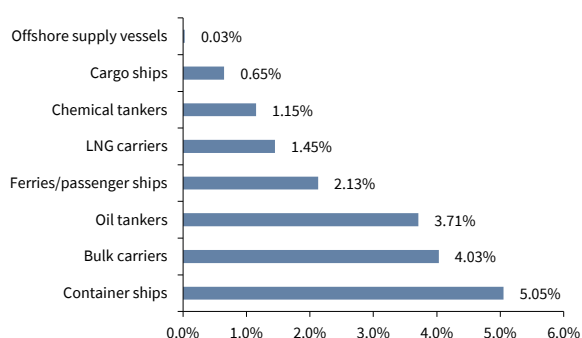
2Q down 43.9% YoY due to lower HSFO prices as expected

Earnings for 2Q were down sharply to VND 1,712 billion (down 43.9%YoY) on revenue of VND 15,627 billion (down by 23.3% YoY) due to the: 1) 55.4% YoY fall in average 2Q High Sulphur Fuel Oil (HSFO) prices to USD179.4 per ton that are used to price the company's gas prices; and 2) 8.6% YoY drop in 2Q gas output to 2.46 billion cubic metres. Year-to-date earnings for 1H were down 33.8% YoY to VND4,063 billion but have already met 61.3% of management's low-balled 2020E guidance.

Bottoming of HSFO prices should support sequential earnings performance from 3Q onwards

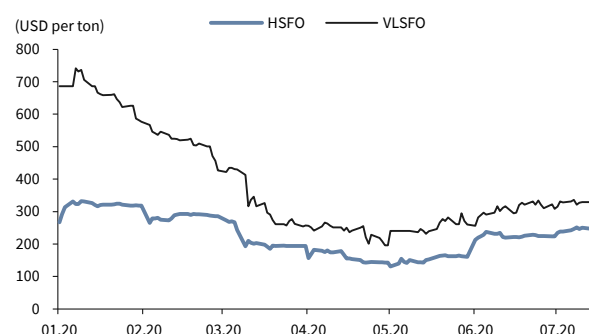
Better HSFO pricing should allow GAS to post sequential earnings improvements. We estimate 3Q earnings of VND2,212 billion or up 26% QoQ (albeit still down 25% YoY) and a seasonal drop in 4Q earnings to VND2,013 billion or down 9% QoQ (down 33% YoY) but well within seasonal norms. Gas volumes are usually lower in 4Q. That said, annual gas volume may fall modestly by 3% YoY to 10.1 billion as the new *Dai Nguyet* gas field will only ramp up at the end of 4Q and more likely help volumes into 2021E.

Fig 3. PV Gas (GAS) – Global shipping scrubber installations by vessel type, 2019 (% of global fleet)



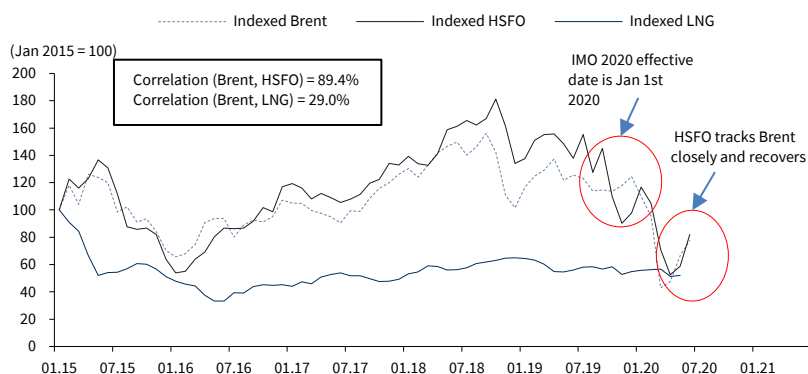
Source: *Statistics*, KB Securities Vietnam

Fig 4. PV Gas (GAS) – HSFO & VLSFO prices, Jan 20–Jul 20 (USD per ton)



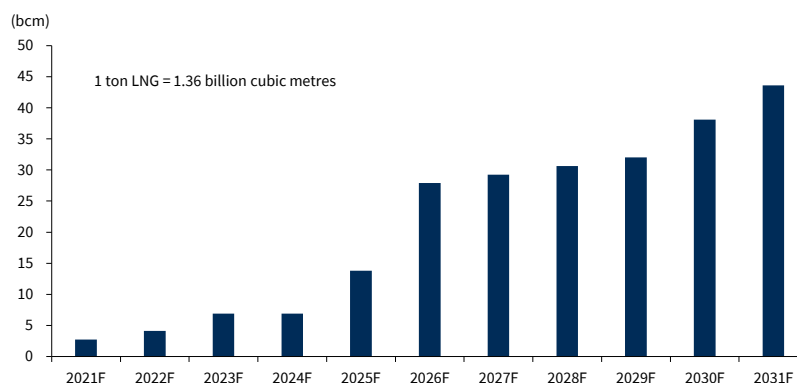
HSFO = High Sulphur Fuel Oil; VLSFO = Very Low Sulphur Fuel Oil
Source: Bloomberg, KB Securities Vietnam

Fig 5. PV Gas (GAS) – Brent, HSFO & LNG price index, Jan 2015 –Jun 2020 (Jan 2015 = 100)



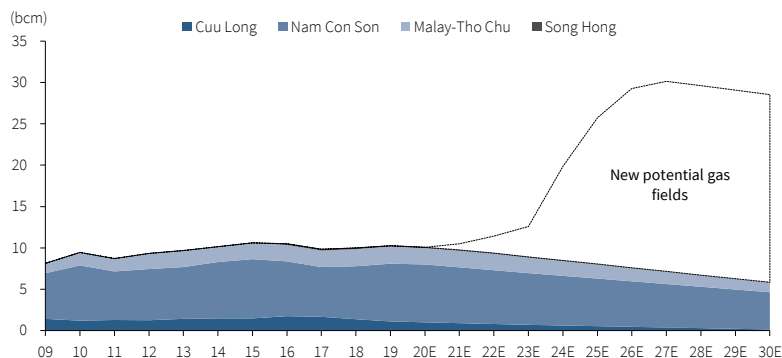
HSFO = High Sulphur Fuel Oil; LNG = Liquefied Natural Gas
Source: Bloomberg, KB Securities Vietnam

Fig 6. PV Gas (GAS) – LNG output from new terminals, 2021E–2031E (billion cubic metres)



LNG = Liquefied Natural Gas
Source: Vietnam Gas Master Plan, KB Securities Vietnam

Fig 7. PV Gas (GAS) – Natural gas production forecasts by basin, 2009–2030E (billion cubic metres)



Source: PV Gas, KB Securities Vietnam

LNG the secular growth opportunity

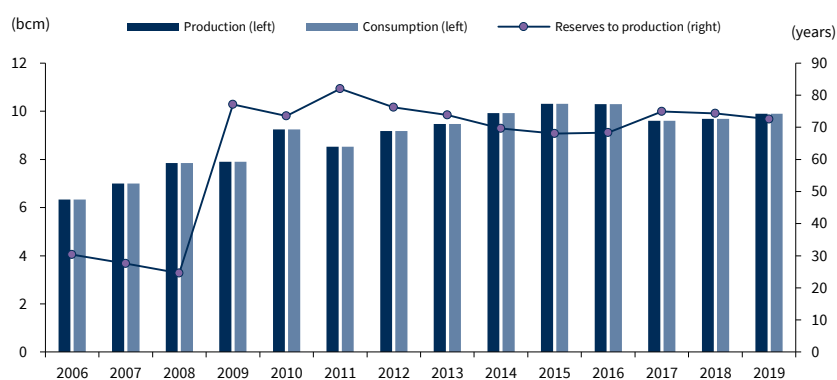
GAS & PVT to benefit most from LNG imports

GAS and PVT should benefit most from the start of LNG imports in 2021E/2022E with the startup of Vietnam's first regasification facilities. Imports will need to make up for increasing shortfalls arising from what we expect will be slowing production volumes at Vietnam's existing gas fields (our forecasts assume extended delays but eventual start up of the new large gas fields). According to Vietnam's long-term LNG road map, PV Gas will own seven out of nine LNG terminals that are scheduled for construction over the next fifteen years. PVT is also the leading candidate to win the transportation contracts for these new facilities in the lucrative transportation segment and is already preparing plans to purchase or charter a fleet of LNG carriers.

Gas consumption held back by lack of LNG importing infrastructure

Currently, GAS is Vietnam's sole provider of natural gas transported by pipelines from offshore gas fields and we estimate existing production may only satisfy about 79% of real demand from gas-fired power plants in 2020E. Natural gas consumption has equaled production for more than a decade as consumption is limited to locally-available gas supplies due to Vietnam's lack of regasification facilities that prohibits the import of LNG. Moreover, natural gas shortages have been exacerbated by slowing production output from Vietnam's mature gas fields.

Fig 8. Vietnam oil & gas – Natural gas historical production, consumption & reserves to production ratios, 2008–2019 (billion cubic metres, years)

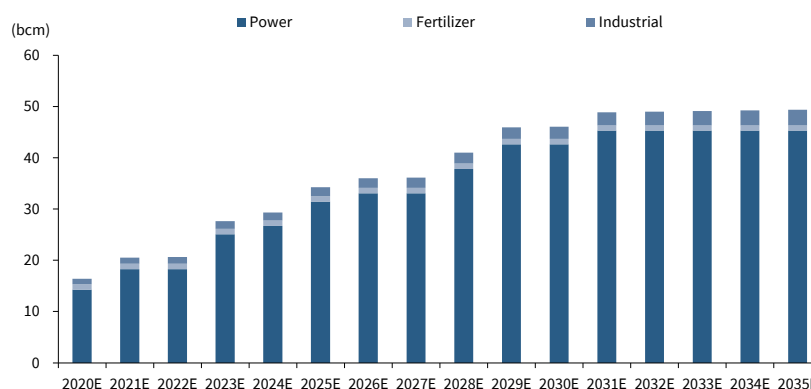


Source: General Statistics Office Vietnam, KB Securities Vietnam

We estimate gas demand from power clients will triple in next 15 years

We estimate that expansion of Vietnam Electricity's (EVN) power grid alone could triple natural gas demand by 2035E given the construction plan for new gas-fired power plants. Most of this demand will need to be met by LNG imports as Vietnam's natural gas production from existing fields is likely to contract by 12.2% annually without the exploitation of new fields.

Fig 9. Vietnam oil & gas – Natural gas demand forecasts by industry, 2020E–2035E (billion cubic metres)



Source: General Statistics Office Vietnam, KB Securities Vietnam

Table 3. Vietnam power generation sector – Vietnam Electric (EVN) new power plant construction plans, 2022E–2028E (megawatts)

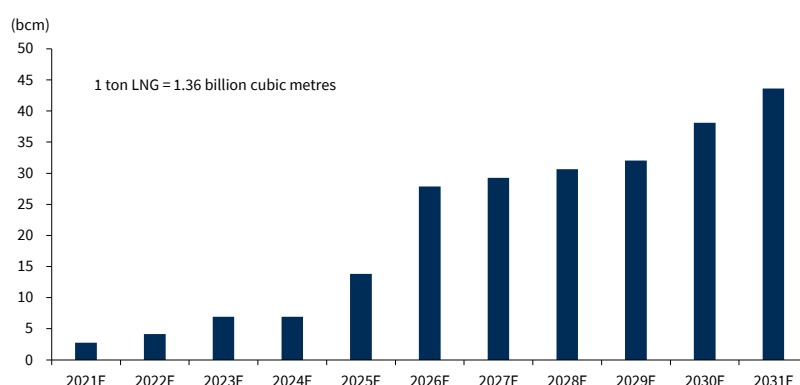
Power plants	Owner	Capacity	Start up year
<i>Nhon Trach 3</i>	PVN	750 MW	2022
<i>Nhon Trach 4</i>		750 MW	2022
<i>Son My 2.1</i>	AES Corporation, PV GAS	750 MW	2023
<i>Son My 2.2</i>		750 MW	2024
<i>Son My 2.3</i>		750 MW	2025
<i>Son My 1.1</i>	EDF, Kyushu, Sojitz, PAC	750 MW	2026
<i>Son My 1.2</i>		750 MW	2027
<i>Son My 1.3</i>		750 MW	2028
<i>O Mon 3</i>	EVN (ODA)	750 MW	2020
<i>O Mon 4</i>	EVN	750 MW	2021
<i>O Mon 2</i>	None	750 MW	2026
<i>Kien Giang 1</i>	PVN	750 MW	2021
<i>Kien Giang 2</i>		750 MW	2022
<i>Mien Trung 1</i>	PVN	750 MW	2023
<i>Mien Trung 2</i>		750 MW	2024
<i>Dung Quat 1</i>	EVN	750 MW	2023
<i>Dung Quat 2</i>	BOT	750 MW	2024
<i>Dung Quat 3</i>	EVN	750 MW	2025
Total Capacity		13,500 MW	

Source: Company reports, KB Securities Vietnam

GAS will lead the facilities investment for LNG terminals needed to close the demand gap

GAS will invest in seven of nine LNG terminals scheduled for completion between 2022E and 2035E. If construction goes to plan, we estimate maximum import capacity at 25 MTPA (million tons per annum) or 150% of natural gas demand by 2035E. The *Hai Linh* terminal owned by Hai Linh Limited will be Vietnam's first LNG terminal and is scheduled for startup in 2021E but should be quickly followed up by the *Thi Vai* terminal owned by PV Gas with commercial operations in 2022E. Moreover, PV Gas has already opened bidding for feasibility studies for *Thi Vai* Phase 2 to accelerate expansion to 2023E.

Fig 10. Vietnam oil & gas – LNG output from new terminals, 2021E–2031E (billion cubic metres)



Source: Vietnam Gas Master Plan, KB Securities Vietnam

Table 4. Vietnam oil & gas – Upcoming LNG terminals, 2021E–2035E (million tons per year)

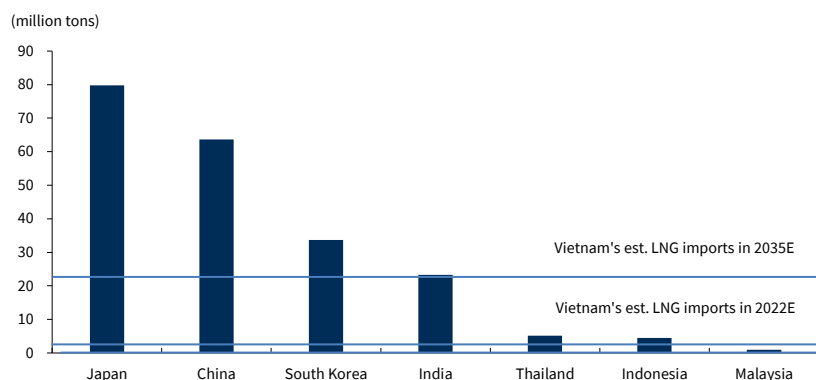
LNG import terminal	Startup year	Main investor	Capacity (MTPA)
<i>Thi Vai (Ba Ria Vung Tau)</i>	2022		1–3 MT
<i>Hon Khoai (Ca Mau)</i>	2022–25 (phase 1) 2025 – (phase 2)		1MT (phase 1) 2MT (phase 2)
<i>Tien Giang (Tien Giang)</i>	2022–25		4–6 MT
<i>Son My (Binh Thuan)</i>	2023–25 (phase 1) 2027–30 (phase 2) 2031–35 (phase 3)	PV Gas (GAS)	1–3 MT (phase 1), 3 MT (phase 2) & 3 MT (phase 3)
<i>Thai Binh FSRU</i>	2026–30		0.2–0.5 MT
<i>My Giang (Khanh Hoa)</i>	2030–35		3 MT
<i>Cat Hai (Hai Phong)</i>	2030–35		1–3 MT
<i>Nam Van Phong (Khanh Hoa)</i>	2025	Petrolimex (PLX)	1 MT
<i>Hai Linh LNG (Vung Tau)</i>	2021 (phase 1) 2023–25 (phase 2)	Hai Linh Limited (unlisted)	2–3 MT (phase 1) 6 MT (phase 2)

Source: Vietnam Gas Master Plan, KB Securities Vietnam

Vietnam would join the club of LNG importers as Asia’s 8th-largest LNG customer

By 2022E, Hai Linh’s 2 MTPA capacity at the *Hai Linh* terminal scheduled for startup in 2021E and GAS’s 1 MTPA capacity at the *Thi Vai* terminal scheduled for commercial operations in 2022E would initially rank Vietnam as Asia’s 8-largest LNG importer by 2022E. Over our forecast period, Vietnam’s LNG imports will likely reach similar levels to Thailand and Indonesia.

Fig 11. Asia LNG – LNG import by country, 2019 (million tons)

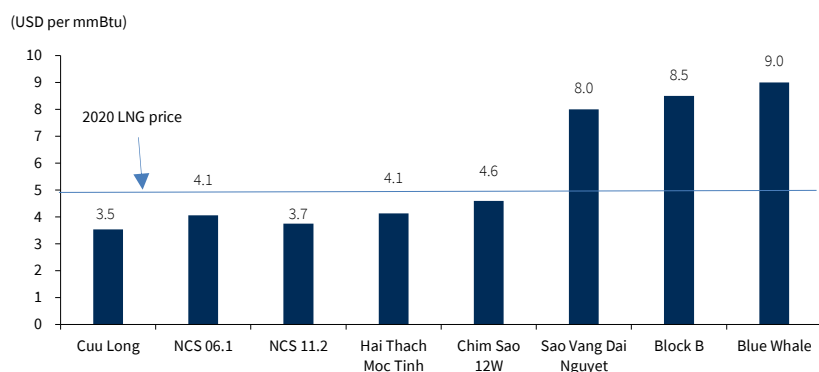


Source: Bloomberg, KB Securities Vietnam

LNG import prices should be low enough to compete favorably with the wellhead prices of Vietnam's new gas fields

Prices for US & Russian LNG exports currently trade at around USD5.00 per mmBtu (million British thermal units) and should remain competitively-priced against industry estimates for the wellhead prices (or wholesale prices at the source of production) of Vietnam's major upcoming gas projects. Vietnam's major new gas fields include *Sao Vang-Dai Nguyet* located in the *Nam Con* basin and *White Lion* in the *Cuu Long* basin both located off the southern coast and the two largest fields of *Block B* located in the *Malay-Tho Chu* basin off the southwest coast and *Blue Whale* located in the *Song Hong* basin off the northeastern coast. Industry estimates put wellhead prices at USD8.00 per mmBtu for *Sao Vang-Dai Nguyet*, USD9.00 per mmBtu for *Blue Whale* and USD8.50 per mmBtu for *Block B* (no available estimates for *White Lion*). After adding a 30% estimate for transportation & regasification costs, we expect LNG import prices to be competitive against locally-produced natural gas for power generation companies.

Fig 12. Vietnam oil & gas – Wellhead prices of current & future gas fields (USD per million British thermal unit)



Source: PV Gas, Bloomberg, KB Securities Vietnam

Vietnam's current gas pricing and cost regime is complex

Vietnam's pricing and cost regime for natural gas is complex. Selling prices for all of Vietnam's energy products are based on government pricing formulas (including electricity tariffs), while the cost of gas is set according to a mix of fixed and floating prices depending on the gas field. Some of this has since changed due to the elimination of the *Take or pay* (ToP) segment of the market. Natural gas has been sold to power plants under two pricing schemes: 1) legacy *Take or pay* (ToP) agreements for power plants located in the southeast region; and 2) *Above ToP* prices for gas volumes sold above any existing ToP agreements or gas sold to power plants outside of the southeastern region.

ToP agreements: ToP agreements have since been eliminated but were agreements based on an annual selling prices set at the start of each year using a 2015 base year price of USD5.57 per mmBtu and adding a 2% inflator each year. About 35% of annual volumes at GAS were sold under ToP agreements. GAS recently ended ToP agreements in March 2019 and rolled over to the *Above ToP* pricing formula but uncertainties still exist as to whether GAS will transfer gains from this transition to the government or not.

***Above ToP* prices:** *Above ToP* prices are pegged to Singaporean High Sulphur Fuel Oil (HSFO) prices according to the following formula:

$$\text{Selling price} = \text{Max [46\% HSFO price, wellhead price]} \\ + \text{transportation \& tariffs (including markup)}$$

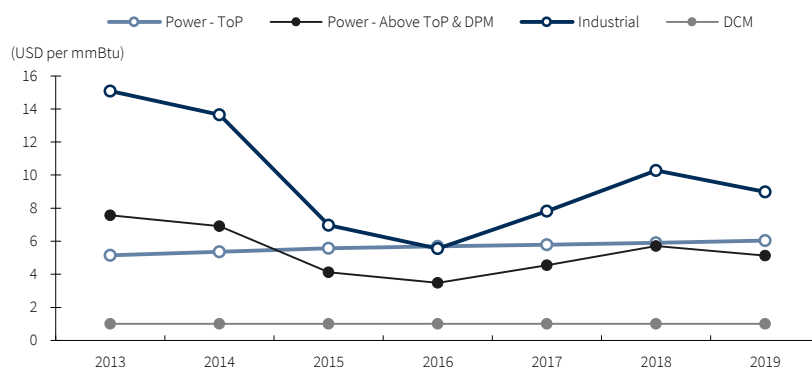
Selling prices are either 46% of the HSFO price or the wellhead price including transportation costs and tariffs to ensure GAS breaks even for all gas sold and earns its mark up even if HSFO prices fall sharply. Transportation costs are determined by the pipeline used to deliver the gas.

Industrial prices: Prices for natural gas sold to industrial customers are negotiated at the start of the year or based on the following formula:

$$\text{Selling price} = \text{Max [100\% HSFO price, wellhead price]} \\ + \text{transportation \& tariffs (including markup)}$$

Fertilizer companies: Vietnam's two fertilizer companies are also major buyers of natural gas, with both Phu My Fertilizer (DPM) and Ca Mau Fertilizer (DCM) now applying *Above ToP* prices for gas purchases since 2019. Prior to this, DCM received preferential pricing by only paying for the transportation & tariffs for gas purchased from the *PM3-CAA* gas field as part of a subsidy to ensure the company achieved its mandated minimum ROE of 12%. The *PM3-CAA* gas field is a joint-venture between Malaysia and Vietnam located in the Gulf of Thailand.

Fig 13. PV Gas – Domestic natural gas selling prices, 2013–2019 (USD per mmBtu)



Source: PV Gas, Bloomberg, KB Securities Vietnam

Cost prices for GAS depend on the field supplying the natural gas

The pricing mechanism for the cost of gas differs by gas field in a mix of fixed and floating cost structures. Fixed cost pricing is set according to wellhead prices adjusted up by 2% per year, while floating cost pricing is used to create a markup system based on the *Above ToP* pricing mechanism:

$$\text{Cost price} = \text{Max} [46\% \text{ HSFO price, wellhead price}]$$

Vietnam's main gas producing fields are located in the *Nam Con Son* basin off the southern coast, the *Cuu Long* basin due south of the Mekong Delta, the *PM3-CAA* gas field located in the *Malay-Tho Chu* basin off the southwest coast and the *Ham Rong-Thai Binh* gas fields located in the *Song Hong* basin off the northeast coast. The *Nam Con Son* basin primarily produces natural gas and is Vietnam's largest producer, fields in the *Cuu Long* basin are a mix of oil & gas and the *PM3-CAA* and *Ham Rong-Thai Binh* are smaller gas fields.

Nam Con Son & Cuu Long: As Vietnam's largest gas producing basin, gas fields in *Nam Con Son* mostly use fixed prices to supply ToP agreements. *Cuu Long* also has older gas fields that primarily use fixed pricing for customers on the *Above ToP* pricing scheme. Continued use of fixed pricing for the older gas fields has allowed GAS to realize additional gains with the elimination of ToP agreements.

Ham Rong-Thai Binh: Costs from these fields are mostly based on floating prices, with supply mainly used for industrial clients in *Thai Binh* located southwest from Hai Phong in the northern part of Vietnam.

PM3-CAA: Jointly-owned by Vietnam and Malaysia, this smaller field is sole supplier to Ca Mau Fertilizer (DCM) under a special pricing scheme that previously sold gas for only the transportation cost and tariff before moving to the *Above ToP* system in 2019. Gas to other customers is sold on floating prices.

Table 5. Vietnam oil & gas – Natural gas cost & selling price methods by basin (USD per million British thermal units, billion cubic metres, %)

Natural gas basin	Cost price type	Cost price calculation	Selling price type	Selling price calculation	Customers
<i>Cuu Long</i>	Fixed	USD3.53 per mmBtu in 2019 & 2% per annum increase	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	<i>Above ToP</i> power customers Phu My Fertilizers (DPM)
<i>Nam Con Son</i>	Fixed	USD3.53 per mmBtu in 2019 & 2% per annum increase	Fixed	USD5.81 per mmBtu in 2019 & 2% per annum increase	ToP power customers (up to 3.55 bcm): EVN Genco 3, Phu My 3, Phu My 2.2 BOT
	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	<i>Above ToP</i> power customers Phu My Fertilizers (DPM)
<i>Malay Tho Chu</i>	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	Cau Mau Power Cau Mau Fertilizer (DCM)
<i>Ham Rong-Thai Binh</i>	Floating	MAX (46% HSFO; Wellhead price) + transportation & tariffs	Floating	100% HSFO price or annual negotiated price + transportation & tariffs	Hiep Phuoc industrial zone Other industrial zones

BCM = Billion Cubic Metres

Source: PV Gas, KB Securities Vietnam

One remaining bogey is the pricing formula for LNG imports and the government has yet to release any details on a pricing regime

Vietnam's government has yet to announce any details on the potential pricing mechanism for LNG imports. But after examining LNG import pricing formulas in Thailand, Malaysia and Indonesia, we believe Vietnam will ultimately adopt a regime similar to Thailand's pooling structure. Both markets have similar characteristics, in that, PTT Exploration & Production (PTTEP) plays a similar role to GAS in its home market as a state-owned company that is the sole purchaser, transporter and distributor of natural gas in Thailand. A likely scenario for Vietnam includes using a pooling system to set the selling price for natural gas to power companies as a blended price of domestic wellhead prices and lower LNG import prices. This would effectively allow power companies to use both sources of natural gas to lower its average fuel costs, while allowing LNG importers to sell supply at market prices. Whether this system would also eliminate the current pricing formula pegged to fuel oil prices for locally-sourced natural gas is uncertain but GAS has already indicated its desire to move away from the pricing system indexed to fuel oil prices. Importantly, we expect Vietnam to create a pricing regime that would allow a fair return for LNG infrastructure investments given the importance of LNG imports in meeting the country's energy shortfalls.

Thailand: Natural gas pricing divided into two pools (pool 1 is dedicated to the gas separation industry and pool 2 mainly focused on power generation):

Pool 1 selling price = wholesale price (wellhead price indexed to fuel oil, exchange rate & CPI/PPI)
+ marketing margin, transmission tariff & distribution tariff)

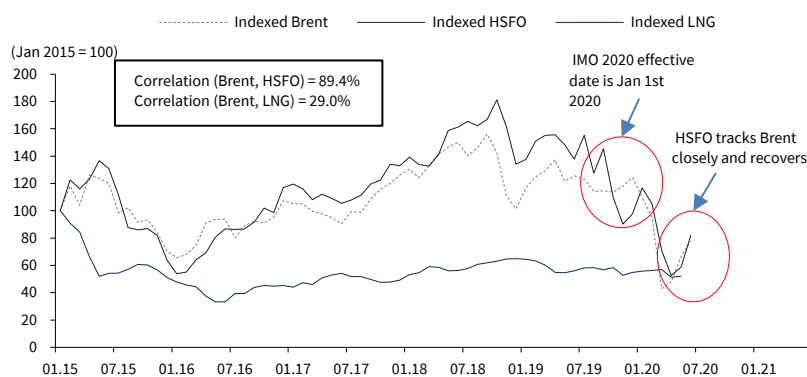
Pool 2 selling price = average (wellhead price, Myanmar import price, LNG import price)
+ marketing margin, transmission tariff & distribution tariff

Malaysia: Imports LNG at market prices but sold to power plants at a discount:

LNG selling price = LNG FOB * (1 - discount rate)
* discount rate = 15% for power companies
& 10% for non-power clients

Indonesia: LNG import prices based on market prices but power sector receives a sizable 50% subsidy directly from the government.

Fig 14. Indexed commodity prices – Brent, HSFO & LNG, Jan 2015 – Jun 2020 (index points)



Source: Bloomberg, KB Securities Vietnam

PV Gas (GAS) – Three-stage dividend discount model

3-STAGE DDM												
PV OF DIVIDENDS												
Cost of Equity	Sustainable growth											
	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%					
9.0%	265,842	281,695	300,429	322,911	350,388	384,734	428,894					
9.5%	244,793	257,869	273,124	291,152	312,787	339,229	372,281					
10.0%	226,691	237,596	250,178	264,857	282,206	303,024	328,468					
10.5%	210,980	220,161	230,653	242,760	256,884	273,577	293,608					
11.0%	197,233	205,027	213,860	223,955	235,603	249,193	265,253					
11.5%	185,119	191,785	199,283	207,781	217,493	228,699	241,773					
12.0%	174,378	180,115	186,527	193,740	201,914	211,257	222,037					
PV OF EQUITY PER SHARE												
Cost of Equity	Sustainable growth							Ex-growth				
	2.5%	3.0%	3.5%	4.0%	4.5%	5.0%	5.5%					
9.0%	138,900	147,200	157,000	168,700	183,100	201,000	224,100	1.9x				
9.5%	127,900	134,700	142,700	152,100	163,400	177,200	194,500	51,700				
10.0%	118,400	124,100	130,700	138,400	147,400	158,300	171,600	-19.2%				
10.5%	110,200	115,000	120,500	126,800	134,200	142,900	153,400	Mid-cycle				
11.0%	103,100	107,100	111,700	117,000	123,100	130,200	138,600	3.3x				
11.5%	96,700	100,200	104,100	108,600	113,600	119,500	126,300	89,200				
12.0%	91,100	94,100	97,500	101,200	105,500	110,400	116,000	39.4%				
Projected Distributions (VNDbn)												
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	
Net income	8,534	7,020	9,685	11,454	11,902	8,168	11,569	13,651	14,969	16,112	17,287	
Preferred dividend paid – cash	0	0	0	0	0	0	0	0	0	0	0	
Preferred dividend per share	0	0	0	0	0	0	0	0	0	0	0	
% of par value	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
Internally-generated capital	8,534	7,020	9,685	11,454	11,902	8,168	11,569	13,651	14,969	16,112	17,287	
Less: capital @ 50% D/E	-741	726	752	-2,082	-1,045	1,601	2,104	2,262	1,462	1,626	935	
Cash for dividends/buybacks	9,274	6,294	8,933	13,536	12,947	6,567	9,464	11,389	13,508	14,486	16,352	
Common dividend paid – cash	5,520	9,000	7,265	7,844	8,382	5,738	8,416	9,946	10,711	12,242	13,007	
Common dividend per share	2,914	4,704	3,797	4,101	4,382	3,000	4,400	5,200	5,600	6,400	6,800	
% of par value	29.1%	47.0%	38.0%	41.0%	43.8%	30.0%	44.0%	52.0%	56.0%	64.0%	68.0%	
Payout ratio	64.7%	128.2%	75.0%	68.5%	70.4%	70.3%	72.7%	72.9%	71.6%	76.0%	75.2%	
Net share buybacks	1	0	0	0	0	0	0	0	0	0	0	
Total distributions	5,520	9,000	7,265	7,844	8,382	5,738	8,416	9,946	10,711	12,242	13,007	
Net distribution ratio (%)	64.7%	128.2%	75.0%	68.5%	70.4%	70.3%	72.7%	72.9%	71.6%	76.0%	75.2%	
Discount factor	0.00	0.00	0.00	0.00	0.00	1.05	1.16	1.29	1.42	1.57	1.73	
Present value	0	0	0	0	0	5,452	7,237	7,740	7,543	7,799	7,499	
Cost of equity												
Risk free rate	3.0%			Terminal Assumptions			Share Information					
Equity risk premium	8.9%			Sustainable ROE			20.0%					
Unlevered beta	0.600			Dividend payout ratio			80.0%					
Re-levered beta	0.840			Sustainable growth			4.0%					
Cost of equity	10.5%			Forecast period growth			17.8%					
Forecast period	5 Yrs			Target gearing			50.0%					
				Transition period			10 Yrs					
							PV of future dividend flows (VNDbn)					43,270
							PV of terminal value (VNDbn)					199,490
							Terminal value as % of firm value					82.2%
							Current shares outstanding (mn)					1,914.0
							Statutory corporate tax rate					20.0%
Memorandum (VNDbn)												
	2015A	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	
Reported common equity	42,889	40,844	43,272	46,867	49,615	51,911	55,357	59,408	64,045	68,324	73,042	
Debt/equity ratio	14.2%	18.5%	20.9%	10.4%	5.6%	11.6%	18.4%	24.8%	27.6%	30.6%	31.2%	
Debt	6,093	7,546	9,050	4,886	2,796	5,999	10,208	14,731	17,654	20,907	22,776	
YoY % Change	-19.6%	23.8%	19.9%	-46.0%	-42.8%	114.5%	70.1%	44.3%	19.8%	18.4%	8.9%	

Source: Company reports, KB Securities Vietnam

PV Gas (GAS) – Summarized financials & forecasts, 2019–2022E

Income statement					Balance sheet				
(VNDbn)	2019A	2020E	2021E	2022E	(VNDbn)	2019A	2020E	2021E	2022E
Net sales	75,005	64,521	74,860	89,831	Total assets	62,179	67,024	75,986	86,564
Cost of sales	58,087	52,248	56,932	68,506	Current assets	41,815	43,874	49,888	57,458
Gross Profit	16,919	12,272	17,928	21,326	Cash & equivalents	4,476	5,288	5,235	5,368
Financial income	1,665	1,486	1,442	1,725	ST investments	24,915	27,885	32,348	37,323
Financial expenses	241	382	667	941	Accounts receivable	10,359	8,841	10,167	12,200
of which: interest expenses	198	177	379	581	Inventory	1,575	1,427	1,641	1,970
Gain/(loss) from joint ventures	(1)	(12)	(4)	(5)	Other current assets	491	432	497	597
Selling expenses	2,394	1,935	2,479	2,875	Long-term assets	20,363	23,150	26,097	29,106
General & admin expenses	875	1,004	1,523	1,653	LT trade receivables	128	114	131	157
Operating profit/(loss)	15,072	10,426	14,896	17,577	Fixed assets	15,850	17,071	21,496	26,618
Other income	16	57	92	110	Investment properties	23	23	23	23
Other expense	20	31	45	54	LT incomplete assets	3,021	4,457	3,157	712
Net other income/(expenses)	(4)	26	47	57	LT investments	405	451	557	729
Pretax profit/(loss)	15,068	10,452	14,943	17,633	Goodwill	83	37	16	6
Income tax	2,983	2,163	3,082	3,636	Other LT assets	854	997	718	862
Net profit/(loss)	12,086	8,289	11,862	13,997	Liabilities	12,564	15,113	20,629	27,157
Minority interests	183	120	293	346	Current liabilities	9,964	9,805	11,037	12,926
Net profit after MI	11,902	8,168	11,569	13,651	Trade accounts payable	6,839	7,048	8,105	9,726
					Advances from customers	203	140	161	194
					ST borrowings	1,341	1,194	1,194	1,194
					Special reserves	425	398	398	398
					Other current liabilities	1,157	1,025	1,179	1,415
					Long-term liabilities	2,600	5,308	9,591	14,230
					LT payables	22	24	28	33
					LT borrowings	1,456	4,806	9,014	13,537
					Other LT liabilities	1,121	478	550	660
					Shareholders' equity	49,615	51,911	55,357	59,408
					Paid-in capital	19,140	19,140	19,140	19,140
					Share premium	211	211	211	211
					Treasury stock	0	0	0	0
					Undistributed earnings	10,109	12,433	15,878	19,929
					Reserve & others	18,851	18,860	18,860	18,860
					Minority interests	1,108	1,071	1,071	1,071
					Total liabilities & equity	62,179	67,024	75,986	86,564
Operating ratios					Key ratios				
(%)	2019A	2020E	2021E	2022E	(x, %, VND)	2019A	2020E	2021E	2022E
Revenue growth	(0.8)	(14.0)	16.0	20.0	Valuations				
EBIT growth	(0.6)	(31.6)	51.3	18.9	P/E	10.3	15.0	10.6	9.0
EBITDA growth	3.6	(25.2)	39.4	20.2	P/E diluted	10.3	15.0	10.6	9.0
NP after MI growth	3.9	(31.4)	41.6	18.0	P/B	2.5	2.4	2.2	2.1
Gross profit margin	22.6	19.0	23.9	23.7	P/S	1.6	1.9	1.6	1.4
EBITDA margin	22.9	19.9	23.9	24.0	EV/EBITDA	7.1	9.5	6.8	5.7
EBIT margin	18.2	14.5	18.9	18.7	EV/EBIT	9.0	13.1	8.7	7.3
Pre-tax profit margin	20.1	16.2	20.0	19.6	Dividend yield, ordinary (%)	6.8	4.7	6.9	8.1
Net profit margin	15.9	12.7	15.5	15.2	EPS	6,219	4,268	6,044	7,132
					BVPS	25,923	27,123	28,923	31,039
					SPS	39,189	33,711	39,113	46,935
					DPS (annual, ordinary)	4,382	3,000	4,400	5,200
					Dividend payout ratio (%)	70.4	70.3	72.7	72.9
					Operating performance				
					ROE	24.7	16.1	21.6	23.8
					ROA	19.1	12.6	16.2	16.8
					ROIC	23.9	14.9	20.1	20.8
					Financial structure				
					Total liab/equity	25.3	29.1	37.3	45.7
					Net debt/equity	(3.4)	1.4	9.0	15.8
					Current ratio (x)	4.2	4.5	4.5	4.4
					Interest coverage (x)	69.1	52.8	37.3	28.9
					Activity ratios				
					Asset turnover	1.2	1.0	1.0	1.1
					Receivables turnover	7.3	6.7	7.9	8.0
					Inventory turnover	42.6	43.0	48.8	49.8
					Payables turnover	9.3	9.1	9.7	9.9

Source: Company reports, KB Securities Vietnam

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Investment ratings & definitions

Investment Ratings for Stocks

(based on expectations for absolute price gains over the next 6 months)

Buy:	Hold:	Sell:
+15% or more	+15% to -15%	-15% or more

Investment Ratings for Sectors

(based on expectations for absolute price gains over the next 6 months)

Positive:	Neutral:	Negative:
Outperform the market	Perform in line with the market	Underperform the market

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