

Vietnam

ADD (no change)

Consensus ratings*: Buy 4 Hold 2 Sell 0

Current price:	VND20,450
Target price:	VND23,400
Previous target:	VND23,100
Up/downside:	14.4%
CGS-CIMB / Consensus:	2.6%
Reuters:	DPM.HM
Bloomberg:	DPM VN
Market cap:	US\$344.9m
	VND8,002,786m
Average daily turnover:	US\$0.48m
	VND11,110m
Current shares o/s:	391.4m
Free float:	19.8%
*Source: Bloomberg	

Key changes in this note

- FY19F EPS increased by 6%.
- FY20F EPS increased by 25%.
- FY21F EPS increased by 17%.



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	-9.9	-2.4	-11.9
Relative (%)	-15.2	-11.5	0.1

Major shareholders	% held
PetroVietnam	59.6
Edgbaston	4.9
Nghe An Agricultural Materials and Food JSC	3.9

Analyst(s)



Mai PHAM

T (84) 94 328 0850

E mai.phamle@vndirect.com.vn

PetroVietnam Fertilizer and Chemicals

Margins to improve as gas input price softens

- In FY18, DPM's urea ASP rose 11.1% yoy which helped partially offset the 27.2% yoy increase in its gas input cost.
- We expect lower gas input cost and sustained selling prices to boost GPM in FY19F.
- In our view, smoother operation of the NH₃-NPK project should support long-term earnings growth. Maintain Add. We raise our TP to VND23,400.

Flat FY18 net profit

DPM's net profit edged up 0.7% to VND699.6bn in FY18 due to high oil price (+27.2% yoy) offsetting the 11.1% yoy rise in urea ASP and 8.5% yoy rise in ammonia (NH₃) ASP. High interest expenses as a result of recent borrowings to finance its NH₃-NPK project also pressured net margin. FY18 net profit was 6.7% above our full-year forecast.

GPM to improve in FY19F, thanks to lower gas input price

We forecast Brent crude oil price to stay around US\$65/bbl in 2019F (-8.7% yoy) and DPM's urea ASP to stay flat off a high 2018 base, supported by favourable global urea market conditions (further tightening of the demand-supply balance). Hence, DPM's gross margin could widen by 2.5% pts in FY19F, in our estimate.

NH₃-NPK complex to contribute more to DPM's earnings in 2019F

At 70% utilisation, we expect the NH₃-NPK project to contribute VND1,812bn to DPM's total revenue in FY19F. However, this project may incur a net loss of VND164bn as the company books a full-year of D&A expenses for the project. We estimate that the complex would start to be profitable from FY21F onwards as the plant approaches full utilisation rate.

VAT policy change still a potential share price catalyst

Although the change in VAT policy did not materialise in the Nov 2018 National Assembly meeting, we believe this could be approved in the near future to support the fertiliser industry. We expect the change to be approved in either the May or Nov 2019 National Assembly meeting and be effective from 2020F onwards. This could re-rate the stock.

Maintain Add

We keep our Add call in anticipation of the VAT policy change in 2019 and an improvement in gross margin. We raise our target price 1.3% to VND23,400 to reflect our upward revision in FY19-22F EPS on lower gas input price. Our valuation is still based on a 40:30:30 mix of a 5-year DCF valuation, 10.3x FY19F P/E and 0.95x FY19F P/BV. Downside risks to our call include delay in the VAT policy change, lower urea selling prices, and higher-than-expected oil prices.

Financial Summary	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Revenue (VNDb)	7,996	9,297	9,608	10,247	10,637
Operating EBITDA (VNDb)	862	1,334	1,553	1,864	1,802
Net Profit (VNDb)	694	700	756	1,069	1,074
Core EPS (VND)	1,774	1,787	1,932	2,731	2,745
Core EPS Growth	(39.4%)	0.7%	8.1%	41.4%	0.5%
FD Core P/E (x)	11.50	11.44	10.59	7.49	7.45
DPS (VND)	1,018	1,999	1,000	1,000	1,000
Dividend Yield	4.98%	9.78%	4.89%	4.89%	4.89%
EV/EBITDA (x)	6.44	5.05	3.67	2.58	2.20
P/FCFE (x)	NA	58.19	6.96	6.92	7.30
Net Gearing	(32.7%)	(17.4%)	(28.8%)	(36.4%)	(42.4%)
P/BV (x)	1.02	0.99	0.95	0.88	0.82
ROE	8.7%	8.8%	9.1%	12.2%	11.3%
% Change In Core EPS Estimates			5.8%	25.1%	17.3%
CIMB/consensus EPS (x)			1.11	1.37	1.30

SOURCES: VND RESEARCH, COMPANY REPORTS

Margins to improve as gas input price softens

Market recovery continued in 2018

Revised 2016-2017 business results ►

In Nov 2018, DPM announced that it is revising its 2016 and 2017 financial statements following the state's audit request, as the company recorded certain maintenance expenses (VND111bn in FY17) as one-time expenses instead of booking into PP&E. Management said that after the revisions, FY16 net profit could increase VND2bn (0.2%) and FY17 net profit could increase VND187bn (26.4%).

However, as the new 2017 P&L statement has not been released, we use the old 2017 numbers for comparison in the following sections of the report. We will update accordingly when the revised numbers are out. Note that DPM's 2018 results already reflect the adjustments made to its production costs, PP&E and depreciation.

Flat net profit despite impressive revenue increase ►

DPM posted its highest revenue growth in five years in FY18, on the back of a significant recovery in product ASPs (urea ASP: 11.1% yoy, NH₃ ASP: 8.5% yoy, UFC85 ASP: 28.5% yoy. UFC85 is a chemical used in urea production). These increases more than offset the flat urea selling volume. This led to a 16.3% yoy rise in DPM's FY18 net revenue which beat our forecast by 3.6%.

However, FY18 net profit only edged up 0.7% yoy, driven by lower gross margin (due to the 27.2% yoy rise in gas input cost) and a spike in interest expense.

Figure 1: Results comparison

FYE Dec (VND bn)	4Q18	4Q17	% yoy	FY18	FY17	% yoy	vs. FY18 forecast	Comments
Brent crude oil (average, US\$/bbl)				71	54	31.5%	97.7%	
Gas input price (est., US\$/mmbtu)				5.8	4.6	27.2%	99.6%	DPM's gas input price is linked to Marine Fuel Oil (MFO) price in Singapore by the formula 46% MFO + transportation tariff (0.98 US\$/mmbtu in 2018). MFO price surged approx. 32% in 2018 (similar to Brent crude price growth), leading to subsequent increase in DPM's gas input price.
Urea ASP (VND/kg)				7,042	6,339	11.1%	105.5%	Urea prices surged towards the end of 2018, in line with global price movements.
Urea selling volume (thousand tonnes)				803	794	1.1%	97.9%	
Net revenue	2,321.5	1,532.4	51.5%	9,297.1	7,995.8	16.3%	103.6%	ASPs of urea, NH ₃ and UFC85 outgrew our forecast, hence leading to better-than-expected revenue.
Gross profit*	479.7	434.2	10.5%	1,899.5	2,111.4	-10.0%	105.2%	GPM declined sharply mainly due to the gas input price hike and the contribution of the self-produced NPK product line (which yielded lower margins than the traditional product urea) starting from Aug 2018.
<i>Gross profit margin</i>	<i>20.7%</i>	<i>28.3%</i>	<i>-7.6% pts</i>	<i>20.4%</i>	<i>26.4%</i>	<i>-6.0% pts</i>	<i>+0.3% pts</i>	
Selling expenses	180.0	206.4	-12.8%	612.3	802.5	-23.7%	105.2%	SG&A fell both absolutely and as % of net revenue as a result of DPM's continuing efforts to cut expenses.
G&A expenses	111.8	185.1	-39.6%	485.7	638.7	-24.0%	96.0%	
Operating profit	187.9	42.7	339.9%	801.4	670.2	19.6%	111.8%	
Financial income	49.3	65.5	-24.8%	123.7	164.6	-24.9%	93.6%	Interest expense shot up from VND186m in 2017 to VND63bn in 2018, while financial income declined 24.9% yoy, due to lower cash balance and higher long-term debt to finance the NH ₃ -NPK project.
Financial expenses	32.6	0.7	4264.7%	73.8	1.4	5250.4%	120.8%	
Pre-tax profit*	214.9	119.7	79.6%	870.6	852.9	2.1%	108.1%	
Net profit*	148.8	102.8	44.8%	699.6	694.5	0.7%	106.7%	Higher effective tax rate mostly due to higher deferred tax expense than expected.

*Reallocation of 2017 expenses could boost 2017 results and lead to lower 2018 gross profit and earnings growth.

SOURCES: VND RESEARCH, COMPANY REPORTS

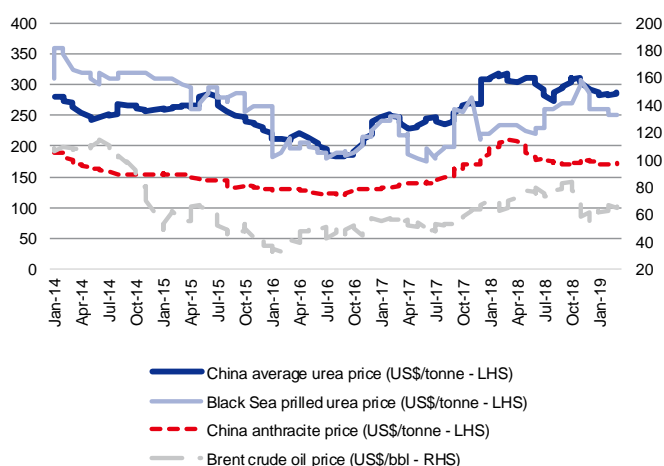
GPM may improve in FY19F, thanks to lower gas input price

We expect 2019F oil price to moderate from 2018's level, boosting urea margin ➤

Global oil prices have corrected steeply in 4Q18, owing to concerns over swelling supply and lower demand, especially in China. However, as Russia and the Organisation of the Petroleum Exporting Countries (OPEC) have agreed to cut oil output, we believe the global oil market will remain balanced in 2019F.

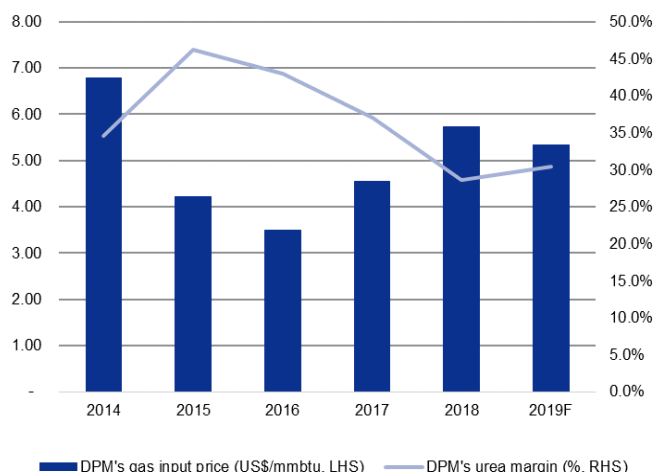
We expect crude oil prices to be in the US\$60-US\$70/bbl range in FY19-22F, i.e. lower than the 2017 average price of US\$71/bbl. Assuming 2019F Brent crude price at US\$65/bbl (-8.7% yoy), we forecast a 6.9% decrease in DPM's average gas unit cost in FY19F. This could help boost its urea GPM by 1.9% pts, and overall GPM by 2.5% pts, with urea accounting for over 70% of DPM's total gross profit in FY19-22F.

Figure 2: Urea price vs. crude oil price and anthracite price



SOURCES: VND RESEARCH, BLOOMBERG

Figure 3: DPM's gas input price and urea margin

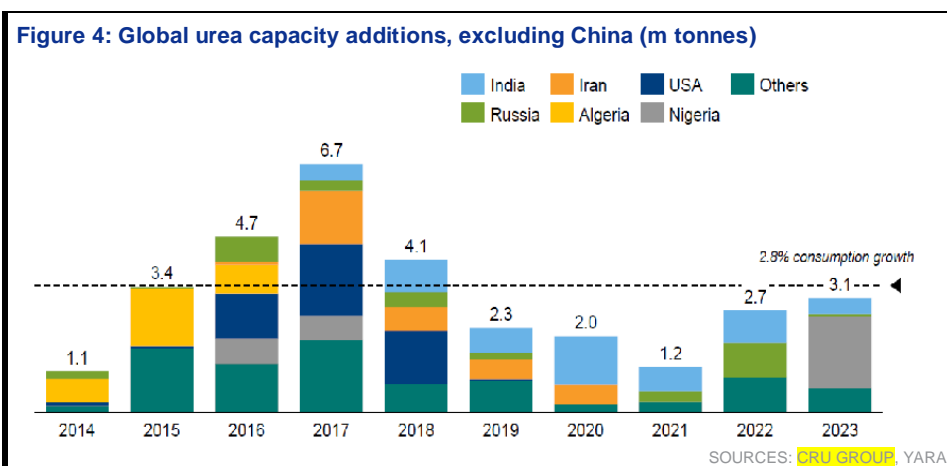


SOURCES: VND RESEARCH, COMPANY REPORTS

Domestic urea prices supported by favourable global prices

According to large fertiliser producers of the world such as CF Industries (CF US, Not Rated), Yara (YAR NO, Not Rated) and OCI NV (OCI NA, Not Rated), the global urea market in 2019F will remain supported by the following factors: 1) the continuation of the strict environmental regulations in China which could limit Chinese urea exports, 2) the global urea demand-supply balance would be tightened further as global urea capacity additions are expected to be slower than demand growth of 2-3% p.a. This could support global and domestic urea price levels.

However, since DPM's urea ASP climbed in 2018, we cut our assumption for FY19F urea price growth to nil, and maintain our ASP growth assumption of 2.1% p.a. for FY20-23F.



NPK production ramp-up could lift revenue, and later, profitability ➤

DPM's nitrogen (N), phosphorus (P) and potassium (K) NPK plant commenced operation in Aug 2018, much later than the planned 1Q18, hence its lower-than-expected contribution to FY18 earnings. We maintain our assumptions on the utilisation rate of the NH₃-NPK plants and sales volumes of the products in FY19-22F (see Figure 5), as 2018 NPK sales volume reached over 140,000 tonnes. We expect DPM to replace all imported NPK with in-house products starting from FY19F.

We expect the NH₃-NPK project to contribute VND1,812bn to DPM's net revenue in 2019F (19% contribution vs. 5% in 2018), yet incur a net loss of VND164bn as the company books the full-year D&A expenses for the project. We estimate that the complex would start to contribute to profit from 2021F onwards as the plants approach full utilisation.

Our new projections for the NH₃-NPK project are as in Figure 5.

Figure 5: Our projections for DPM's NH₃-NPK complex

	2019F	2020F	2021F	2022F	2023F
Utilisation rate (%)					
NPK	70%	80%	90%	100%	100%
NH ₃	70%	100%	100%	100%	100%
Volumes ('000 tonnes)					
NPK	175	200	225	250	250
NH ₃ *	63	90	90	90	90
Internal use for NPK production	28	32	36	40	40
External sales	35	58	54	50	50
ASP (USD/tonne)					
NPK	390	397	405	413	422
NH ₃	333	339	346	353	360
Financial projections (VNDbn)					
Revenue	1,812	2,251	2,494	2,747	2,802
Gross profit	228	373	429	488	503
D&A	(508)	(508)	(508)	(508)	(508)
EBIT	(95)	27	71	117	130
Pretax profit	(164)	(28)	26	81	103
Income tax	-	-	(3)	(8)	(10)
Net profit**	(164)	(28)	23	73	93

*Volumes including the amount used for producing NPK
**Assuming SG&A equal to 5% of estimated revenue
SOURCES: VND RESEARCH

Positive signals from PVTex ►

In Apr 2018, DPM's affiliate PVTex (Unlisted) resumed partial operation of its plant (three out of 25 assembly lines). In Jul 2018, PVTex signed a co-operation agreement with An Phat Holdings (which represents a JV of three corporations) in terms of technology, financial and sales support. The JV consists of three partners, namely An Phat Holdings (which will focus on financial support and management support), Reliance Group India (the second-largest yarn manufacturer in the world) and Fortrec Singapore (experienced in petrochemicals and logistics sectors). PVTex expects to raise its utilisation from 10 assembly lines in Jan 2019 to all 25 lines in 3Q19.

Although we see this as positive for PVTex, we think it is still too early for the affiliate to turn around in the near term for the following reasons: (1) The plant needs time to yield products with sustainably high quality that meets the market's needs, (2) PVTex's products may not be as competitive in terms of pricing compared to other current products on the market due to its high production cost. Therefore, we maintain our assumption regarding DPM's debt guarantee obligations to PVTex's debts in our DCF valuation (see Figure 6).

Earnings revision ►

We raise our FY19F EPS to reflect a 12% downward revision of FY19F oil price from US\$73.7/bbl to US\$65.0/bbl, which offsets the addition of VAT expenses on input materials in the FY19F COGS. We also raise our FY20-21 EPS forecast in light of lower oil price assumed for the period.

Figure 6: Forecast revision

Unit: VNDbn, otherwise noted	2019F			2020F			2021F			Note
	Old	New	%Δ	Old	New	%Δ	Old	New	%Δ	
Brent crude oil (average, US\$/bbl)	73.7	65.0	-12%	73.7	67.0	-9%	73.7	68.6	-7%	As oil prices showed sharp correction in 4Q18, we revise down 2019 average oil price to US\$65/bbl.
Urea ASP (VND/kg)	6,817	7,020	3%	6,960	7,167	3%	7,106	7,318	3%	We adjust 2019 ASP assumption (0% growth in 2019 ASP vs. the old forecast of 2%) as 2018 price level was higher than our expectation and we expect the market conditions to remain supportive of urea consumption.
Urea volume ('000 tonnes)	820	811	-1%	828	819	-1%	828	819	-1%	We adjust the 2019 sales volume to be in line with the company's 2019 target.
Revenue from chemicals (petrochemicals, CO ₂ , UFC85)	312	272	-13%	324	275	-15%	338	277	-18%	We adjust revenue from petrochemicals downward as 2018 revenue from this segment trailed our expectation with lower sales volumes.
Net revenue	9,541	9,608	1%	10,183	10,247	1%	10,582	10,637	1%	
Gross profit	2,127	2,202	4%	2,309	2,587	12%	2,378	2,582	9%	DPM's transportation tariff increases from US\$ 0.98/mmbtu in 2018 to US\$ 1/mmbtu in 2019, as stated in gas supply contract with PVN. We also adjust the gas cost in 2019 to include the 10% VAT charged on natural gas, as the VAT law amendment has not been approved. The VAT expenses remain excluded from COGS from 2020 onwards.
Selling expenses	703	708	1%	729	733	1%	746	749	0%	
G&A expenses	626	630	1%	649	653	1%	665	668	0%	
Operating profit	798	864	8%	931	1,201	29%	968	1,166	20%	
Pre-tax profit	878	933	6%	1,049	1,320	26%	1,123	1,324	18%	We update DPM's financial income and expense to reflect higher long-term debt balance in 2018 than expected.
Net profit	715	756	6%	854	1,069	25%	933	1,074	15%	
Basic EPS (VND/share)	1,826	1,932	6%	2,183	2,731	25%	2,339	2,745	17%	
Adjusted EPS (VND/share)	1,552	1,642	6%	1,855	2,321	25%	1,989	2,333	17%	

SOURCES: VND RESEARCH

Valuation

Sensitivity analysis ►

Figure 7: Sensitivity of DPM's EPS to 2019F oil price and ASP growth

ASP growth	2019 oil price				
	62	64	65	66	68
-4.0%	1,732	1,629	1,524	1,419	1,311
-2.0%	1,934	1,831	1,726	1,620	1,513
0.0%	2,140	2,037	1,932	1,827	1,719
2.0%	2,346	2,243	2,138	2,033	1,926
4.0%	2,556	2,453	2,348	2,243	2,136

SOURCES: VND RESEARCH

Figure 8: Sensitivity of DPM's target price to 2019F oil price and ASP growth

ASP growth	2019 oil price				
	62	64	65	66	68
-4.0%	21,898	21,116	20,318	19,519	18,705
-2.0%	23,403	22,621	21,824	21,026	20,212
0.0%	24,938	24,157	23,360	22,563	21,749
2.0%	26,472	25,692	24,895	24,098	23,285
4.0%	28,036	27,256	26,460	25,663	24,851

SOURCES: VND RESEARCH

Based on our analysis, a 2% change in the oil price will result in a 4% change in EPS forecast for 2019F, but a 2% change in ASP growth could lead to 6-7% change in EPS forecast. This implies that changes in ASP would have a higher impact on the company's earnings (and valuation) than changes in the oil price.

Valuation ►

We increase our target price by 1.3% to VND23,400, to reflect the upward revision in our FY19-22F EPS on lower gas input price, which should support a higher urea GPM. Our target price is based on a 40:30:30 weighting of: (1) a DCF valuation over 5-year period from FY19-23F, (2) target FY19F P/E of 10.3x, equal to 1 s.d. above historical 6-year average P/E of 7.2x, as DPM's recovery cycle remains well on track, and (3) target FY19F P/BV of 0.95x, using the historical 6-year average P/BV. The DCF valuation also takes into account DPM's potential debt obligation to PVTex.

We maintain our Add rating for DPM, in anticipation that the company will benefit the most among all listed fertiliser producers in Vietnam once the VAT policy change is approved. This is also on the back of lower gas input cost (thus higher margins), and improving contribution from the NH₃-NPK project.

Our valuation model incorporates the potential effect of a change in VAT policy from 2020F. In the event the VAT policy does not come through, DPM will not receive tax deductions; this will reduce our FY20-23F net profit by 20% p.a., and our target price by 10%.

Figure 9: DCF model - key assumption and inputs, based on our estimates

General assumptions (in VND bn, otherwise noted)	2019F	2020F	2021F	2022F	2023F	Terminal
Net income	756	1,069	1,074	1,105	1,095	
Tax rate (%)	17.5%	17.5%	17.4%	17.1%	16.9%	
Interest expense	69	55	45	36	27	
-Changes in working capital	203	(72)	(106)	(111)	(15)	
-Net Capex	(350)	(360)	(370)	(381)	(392)	
+Depreciation & Amortisation	689	662	636	610	561	
FCFF	1,355	1,345	1,272	1,254	1,272	11,699
PV of FCFF	1,198	1,051	879	766	688	6,323
PV of DCF (5 years)	4,583					Risk free rate (10-year VGB yield) 5%
PV of Terminal value	6,323					Equity risk premium 11%
Enterprise Value	10,907					Beta (Source: BB, adj. beta) 0.8
Less: Total debt	1,234					WACC 13%
Less: Total liability relating to PVTex investment	1,311					Terminal growth rate 2%
Less: Minority interest	168					
Plus: Cash and Cash equiv.	2,672					
Implied EV	10,866					
No. of o/s shares (m)	391					
Implied value per share (VND)	27,761					

SOURCES: VND RESEARCH

Figure 10: P/E and P/BV valuation - key inputs

	FY19F
EPS (VND)	1,932
Target multiple (based on historical 6-year average P/E + 1 s.d.)	10.3x
Implied value per share (VND)	19,896
BVPS (VND)	22,058
Target multiple (based on historical 6-year average P/BV)	0.95x
Implied value per share (VND)	20,955

SOURCES: VND RESEARCH

Figure 11: Blended target price

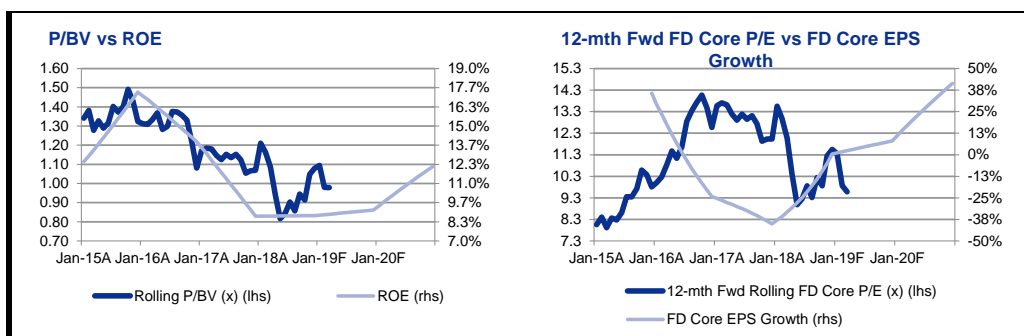
Valuation method	Implied value per share (VND)	Weight (%)	Weighted value per share (VND)
DCF	27,761	40%	11,105
P/E	19,896	30%	5,969
P/BV	20,955	30%	6,287
Fair value			23,360
Target price (rounded up)			23,400

SOURCES: VND RESEARCH

Figure 12: Peer comparison for urea producers

Company	Bloomberg Ticker	Share Price (local curr)	Target Price (local curr)	Market Cap (US\$ m)	P/E (x)		P/BV (x)		Recurring ROE (%)		EV/EBITDA (x)		Dividend Yield (%)		
					FY19F	FY20F	FY19F	FY20F	FY19F	FY20F	FY19F	FY20F	FY19F	FY20F	
Grupa Azoty Zaklady Azotowe Pulawy SA	ZAP PW	NR	108	N/A	540.2	16.6	6.6	0.0	0.0	3.9%	9.4%	4.7	2.5	5.5%	4.7%
Fatima Fertilizer Co Ltd	FATIMA PA	NR	31	N/A	468.0	4.9	4.7	0.9	0.8	18.6%	17.4%	N/A	N/A	10.2%	12.7%
Stanley Agricultural Group Co Ltd	002588 CH	NR	5	N/A	870.2	19.1	14.9	1.3	1.2	7.4%	10.3%	N/A	N/A	1.2%	1.5%
Engro Fertilizers Ltd	EFERT PA	NR	74	N/A	708.0	6.7	6.3	2.2	2.1	32.7%	33.3%	3.4	3.2	13.1%	13.7%
Fauji Fertilizer Co Ltd	FFC PA	NR	107	N/A	974.1	9.1	8.6	3.4	2.8	41.0%	42.1%	6.1	6.1	8.2%	8.9%
Engro Corp Ltd	ENGRO PA	NR	315	N/A	1,187.1	12.2	8.9	1.0	1.0	8.8%	11.9%	8.4	7.4	7.3%	8.7%
Hubei Xinyangfeng Fertilizer Co Ltd	000902 CH	NR	11	N/A	2,119.8	17.2	14.1	2.3	2.0	13.4%	14.7%	N/A	N/A	1.7%	2.2%
Average					981.0	12.2	9.2	1.6	1.4	18.0%	19.9%	5.7	4.8	6.8%	7.5%
Median					870.2	12.2	8.6	1.3	1.2	13.4%	14.7%	5.4	4.6	7.3%	8.7%
PetroVietnam Fertilizer and Chemicals	DPM VN	ADD	20,150	24,800	339.9	10.5	7.0	0.9	0.9	9.1%	12.8%	3.6	2.4	5.0%	5.0%

DATA AS OF MAR 18
SOURCES: VND RESEARCH, COMPANY REPORTS

BY THE NUMBERS

Profit & Loss

(VNDb)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Net Revenues	7,996	9,297	9,608	10,247	10,637
Gross Profit	2,303	2,432	2,891	3,249	3,218
Operating EBITDA	862	1,334	1,553	1,864	1,802
Depreciation And Amortisation	(191)	(533)	(689)	(662)	(636)
Operating EBIT	670	801	864	1,201	1,166
Financial Income/(Expense)	163	50	51	97	138
Pretax Income/(Loss) from Assoc.	0	0	0	0	0
Non-Operating Income/(Expense)	19	19	18	21	20
Profit Before Tax (pre-EI)	853	871	933	1,320	1,324
Exceptional Items					
Pre-tax Profit	853	871	933	1,320	1,324
Taxation	(145)	(158)	(163)	(231)	(230)
Exceptional Income - post-tax					
Profit After Tax	708	712	770	1,089	1,094
Minority Interests	(13)	(13)	(14)	(20)	(20)
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	694	700	756	1,069	1,074
Recurring Net Profit	694	700	756	1,069	1,074
Fully Diluted Recurring Net Profit	694	700	756	1,069	1,074

Cash Flow

(VNDb)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
EBITDA	862	1,334	1,553	1,864	1,802
Cash Flow from Inv. & Assoc.					
Change In Working Capital	(681)	(298)	203	(72)	(106)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense	(11)	(153)	(1)	(1)	(1)
Other Operating Cashflow	(97)	(9)	7	10	9
Net Interest (Paid)/Received	158	64	62	108	149
Tax Paid	(150)	(144)	(163)	(231)	(230)
Cashflow From Operations	81	795	1,662	1,678	1,623
Capex	(1,392)	(1,325)	(350)	(360)	(370)
Disposals Of FAs/subsidiaries	24	0	0	0	0
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	(680)	63	129	(15)	(9)
Cash Flow From Investing	(2,048)	(1,262)	(220)	(374)	(379)
Debt Raised/(repaid)	629	604	(292)	(147)	(147)
Proceeds From Issue Of Shares	0	0	0	0	0
Shares Repurchased	0	0	0	0	0
Dividends Paid	(398)	(783)	(391)	(391)	(391)
Preferred Dividends					
Other Financing Cashflow	0	0	0	0	0
Cash Flow From Financing	230	(178)	(683)	(539)	(539)
Total Cash Generated	(1,737)	(645)	758	765	705
Free Cashflow To Equity	(1,338)	138	1,149	1,156	1,097
Free Cashflow To Firm	(1,967)	(404)	1,510	1,358	1,290

SOURCES: VND RESEARCH, COMPANY REPORTS

BY THE NUMBERS... cont'd

Balance Sheet

(VNDb)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Cash And Equivalents	3,257	2,672	3,430	4,195	4,900
Total Debtors	257	521	315	364	406
Inventories	1,223	1,663	1,665	1,722	1,810
Total Other Current Assets	281	317	328	349	363
Total Current Assets	5,017	5,172	5,737	6,630	7,479
Fixed Assets	939	4,453	4,118	3,819	3,557
Total Investments	47	47	47	47	47
Intangible Assets	896	860	863	867	870
Total Other Non-Current Assets	3,366	602	466	473	475
Total Non-current Assets	5,247	5,962	5,493	5,205	4,948
Short-term Debt	0	202	0	0	0
Current Portion of Long-Term Debt					
Total Creditors	720	1,178	1,184	1,229	1,261
Other Current Liabilities	697	133	138	147	153
Total Current Liabilities	1,418	1,514	1,322	1,376	1,413
Total Long-term Debt	629	1,032	942	795	647
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	174	334	334	334	334
Total Non-current Liabilities	803	1,365	1,275	1,128	981
Total Provisions	0	0	0	0	0
Total Liabilities	2,221	2,879	2,597	2,504	2,394
Shareholders' Equity	7,872	8,087	8,452	9,129	9,812
Minority Interests	171	168	182	201	221
Total Equity	8,043	8,255	8,634	9,331	10,034

Key Ratios

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Revenue Growth	0.9%	16.3%	3.3%	6.6%	3.8%
Operating EBITDA Growth	(38.6%)	54.9%	16.4%	20.0%	(3.3%)
Operating EBITDA Margin	10.8%	14.4%	16.2%	18.2%	16.9%
Net Cash Per Share (VND)	6,713	3,674	6,357	8,687	10,866
BVPS (VND)	20,113	20,662	21,594	23,325	25,070
Gross Interest Cover	3,595	13	13	22	26
Effective Tax Rate	17.0%	18.2%	17.5%	17.5%	17.4%
Net Dividend Payout Ratio	57%	112%	52%	37%	36%
Accounts Receivables Days	5.87	11.11	12.09	8.39	9.44
Inventory Days	68.80	76.72	90.40	88.55	86.89
Accounts Payables Days	24.78	18.97	22.04	20.50	19.10
ROIC (%)	15.9%	14.5%	12.2%	18.7%	18.7%
ROCE (%)	9.8%	10.2%	10.4%	13.9%	13.1%
Return On Average Assets	5.49%	6.19%	6.43%	8.60%	7.88%

Key Drivers

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Oil Price (US\$/bbl)	54.2	71.2	65.0	67.0	68.6
Volume Growth (%)	-3.5%	1.1%	1.0%	1.0%	0.0%
Ratio Of Up To Downstream (x)	N/A	N/A	N/A	N/A	N/A
Operating Cash Cost (US\$/bbl)	N/A	N/A	N/A	N/A	N/A
Ratio Of High To Low Margin (x)	N/A	N/A	N/A	N/A	N/A

SOURCES: VND RESEARCH, COMPANY REPORTS

DISCLAIMER

The content of this report (including the views and opinions expressed therein, and the information comprised therein) has been prepared by and belongs to VNDIRECT Securities Corporation, and is distributed by CGS-CIMB or CIMB Investment Bank Berhad (“CIMB”), as the case may be, pursuant to an arrangement between VNDIRECT Securities Corporation and CGS-CIMB. VNDIRECT Securities Corporation is not an affiliate of CGS-CIMB or CIMB.

This report is not directed to, or intended for distribution to or use by, any person or entity who is a citizen or resident of or located in any locality, state, country or other jurisdiction where such distribution, publication, availability or use would be contrary to law or regulation.

By accepting this report, the recipient hereof represents and warrants that he is entitled to receive such report in accordance with the restrictions set forth below and agrees to be bound by the limitations contained herein (including the “Restrictions on Distributions” set out below). Any failure to comply with these limitations may constitute a violation of law. This publication is being supplied to you strictly on the basis that it will remain confidential. No part of this report may be (i) copied, photocopied, duplicated, stored or reproduced in any form by any means or (ii) redistributed or passed on, directly or indirectly, to any other person in whole or in part, for any purpose without the prior written consent of CGS-CIMB or CIMB, as the case may be.

The information contained in this research report is prepared from data believed to be correct and reliable at the time of issue of this report.

VNDIRECT Securities Corporation may or may not issue regular reports on the subject matter of this report at any frequency and may cease to do so or change the periodicity of reports at any time. None of VNDIRECT Securities Corporation, CGS-CIMB or CIMB is under any obligation to update this report in the event of a material change to the information contained in this report. None of VNDIRECT Securities Corporation, CGS-CIMB or CIMB has any and will accept any, obligation to (i) check or ensure that the contents of this report remain current, reliable or relevant, (ii) ensure that the content of this report constitutes all the information a prospective investor may require, (iii) ensure the adequacy, accuracy, completeness, reliability or fairness of any views, opinions and information, and accordingly, VNDIRECT Securities Corporation, CGS-CIMB and CIMB and their respective affiliates and related persons including China Galaxy International Financial Holdings Limited (“CGIFHL”) and CIMB Group Sdn. Bhd. (“CIMBG”) and their respective related corporations (and their respective directors, associates, connected persons and/or employees) shall not be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof. In particular, VNDIRECT Securities Corporation, CGS-CIMB and CIMB disclaim all responsibility and liability for the views and opinions set out in this report.

Unless otherwise specified, this report is based upon reasonable sources. Such sources will, unless otherwise specified, for market data, be market data and prices available from the main stock exchange or market where the relevant security is listed, or, where appropriate, any other market. Information on the accounts and business of company(ies) will generally be based on published statements of the company(ies), information disseminated by regulatory information services, other publicly available information and information resulting from our research. Whilst every effort is made to ensure that statements of facts made in this report are accurate, all estimates, projections, forecasts, expressions of opinion and other subjective judgments contained in this report are based on assumptions considered to be reasonable as of the date of the document in which they are contained and must not be construed as a representation that the matters referred to therein will occur. Past performance is not a reliable indicator of future performance. The value of investments may go down as well as up and those investing may, depending on the investments in question, lose more than the initial investment. No report shall constitute an offer or an invitation by or on behalf of CGS-CIMB, CIMB, or VNDIRECT Securities Corporation, or their respective affiliates (including CGIFHL, CIMBG and their respective related corporations) to any person to buy or sell any investments.

CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation and/or their respective affiliates and related corporations (including CGIFHL, CIMBG and their respective related corporations), their respective directors, associates, connected parties and/or employees may own or have positions in securities of the company(ies) covered in this research report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities. Further, CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation, and/or their respective affiliates and their respective related corporations (including CGIFHL, CIMBG and their respective related corporations) do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in securities of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation and/or their respective affiliates (including CGIFHL, CIMBG and their respective related corporations) may enter into an agreement with the company(ies) covered in this report relating to the production of research reports. CGS-CIMB, CIMB and/or VNDIRECT Securities Corporation may disclose the contents of this report to the company(ies) covered by it and may have amended the contents of this report following such disclosure.

The analyst responsible for the production of this report hereby certifies that the views expressed herein accurately and exclusively reflect his or her personal views and opinions about any and all of the issuers or securities analysed in this report and were prepared independently and autonomously. No part of the compensation of the analyst(s) was, is, or will be directly or indirectly related to the inclusion of specific recommendations(s) or view(s) in this report. The analyst(s) who prepared this research report is prohibited from receiving any compensation, incentive or bonus based on specific investment banking transactions or for providing a specific recommendation for, or view of, a particular company. Information barriers and other arrangements may be established where necessary to prevent conflicts of interests arising. However, the analyst(s) may receive compensation that is based on his/their coverage of company(ies) in the performance of his/their duties or the performance of his/their recommendations and the research personnel involved in the preparation of this report may also participate in the solicitation of the businesses as described above. In reviewing this research report, an investor should be aware that any or all of the foregoing, among other things, may give rise to real or potential conflicts of interest. Additional information is, subject to the duties of confidentiality, available on request.

The term “VNDIRECT Securities Corporation” shall, unless the context otherwise requires, mean VNDIRECT Securities Corporation and its affiliates, subsidiaries and related companies. The term “CGS-CIMB” shall denote, where appropriate, the relevant entity distributing or disseminating the report in the particular jurisdiction referenced below, or, in every other case except as otherwise stated herein, CIMB Securities

International Pte. Ltd. and its affiliates, subsidiaries and related corporations.

CGS-CIMB

Country	CGS-CIMB Entity	Regulated by
Hong Kong	CGS-CIMB Securities Limited	Securities and Futures Commission Hong Kong
India	CGS-CIMB Securities (India) Private Limited	Securities and Exchange Board of India (SEBI)
Indonesia	PT CGS-CIMB Sekuritas Indonesia	Financial Services Authority of Indonesia
Singapore	CGS-CIMB Research Pte. Ltd.	Monetary Authority of Singapore
South Korea	CGS-CIMB Securities Limited, Korea Branch	Financial Services Commission and Financial Supervisory Service
Thailand	CGS-CIMB Securities (Thailand) Co. Ltd.	Securities and Exchange Commission Thailand

CIMB

Country	CIMB Entity	Regulated by
Malaysia	CIMB Investment Bank Berhad	Securities Commission Malaysia

(i) As of March 19, 2019 VNDIRECT Securities Corporation has a proprietary position in the securities (which may include but not limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

(ii) As of March 19, 2019, the analyst(s) who prepared this report, and the associate(s), has / have an interest in the securities (which may include but not limited to shares, warrants, call warrants and/or any other derivatives) in the following company or companies covered or recommended in this report:

(a) -

This report does not purport to contain all the information that a prospective investor may require. CGS-CIMB, and VNDIRECT Securities Corporation and their respective affiliates (including CGIFHL, CIMBG and their related corporations) do not make any guarantee, representation or warranty, express or implied, as to the adequacy, accuracy, completeness, reliability or fairness of any such information and opinion contained in this report. None of CGS-CIMB, CIMB and VNDIRECT Securities Corporation and their respective affiliates nor their related persons (including CGIFHL, CIMBG and their related corporations) shall be liable in any manner whatsoever for any consequences (including but not limited to any direct, indirect or consequential losses, loss of profits and damages) of any reliance thereon or usage thereof.

This report is general in nature and has been prepared for information purposes only. It is intended for circulation amongst CGS-CIMB's, CIMB's and their respective affiliates' (including CGIFHL's, CIMBG's and their respective related corporations') clients generally and does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. The information and opinions in this report are not and should not be construed or considered as an offer, recommendation or solicitation to buy or sell the subject securities, related investments or other financial instruments or any derivative instrument, or any rights pertaining thereto.

Investors are advised to make their own independent evaluation of the information contained in this research report, consider their own individual investment objectives, financial situation and particular needs and consult their own professional and financial advisers as to the legal, business, financial, tax and other aspects before participating in any transaction in respect of the securities of company(ies) covered in this research report. The securities of such company(ies) may not be eligible for sale in all jurisdictions or to all categories of investors.

Australia: Despite anything in this report to the contrary, this research is provided in Australia by CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited. This research is only available in Australia to persons who are "wholesale clients" (within the meaning of the Corporations Act 2001 (Cth) and is supplied solely for the use of such wholesale clients and shall not be distributed or passed on to any other person. You represent and warrant that if you are in Australia, you are a "wholesale client". This research is of a general nature only and has been prepared without taking into account the objectives, financial situation or needs of the individual recipient. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited do not hold, and are not required to hold an Australian financial services license. CGS-CIMB Securities (Singapore) Pte. Ltd. and CGS-CIMB Securities (Hong Kong) Limited rely on "passporting" exemptions for entities appropriately licensed by the Monetary Authority of Singapore (under ASIC Class Order 03/1102) and the Securities and Futures Commission in Hong Kong (under ASIC Class Order 03/1103).

Canada: This research report has not been prepared in accordance with the disclosure requirements of Dealer Member Rule 3400 – Research Restrictions and Disclosure Requirements of the Investment Industry Regulatory Organization of Canada. For any research report distributed by CIBC, further disclosures related to CIBC conflicts of interest can be found at <https://researchcentral.cibcwm.com>.

China: For the purpose of this report, the People's Republic of China ("PRC") does not include the Hong Kong Special Administrative Region, the Macau Special Administrative Region or Taiwan. The distributor of this report has not been approved or licensed by the China Securities Regulatory Commission or any other relevant regulatory authority or governmental agency in the PRC. This report contains only marketing information. The distribution of this report is not an offer to buy or sell to any person within or outside PRC or a solicitation to any person within or outside of PRC to buy or sell any instruments described herein. This report is being issued outside the PRC to a limited number of institutional investors and may not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose.

France: Only qualified investors within the meaning of French law shall have access to this report. This report shall not be considered as an offer to subscribe to, or used in connection with, any offer for subscription or sale or marketing or direct or indirect distribution of financial instruments and it is not intended as a solicitation for the purchase of any financial instrument.

Germany: This report is only directed at persons who are professional investors as defined in sec 31a(2) of the German Securities Trading Act (WpHG). This publication constitutes research of a non-binding nature on the market situation and the investment instruments cited here at the time of the publication of the information.

The current prices/yields in this issue are based upon closing prices from Bloomberg as of the day preceding publication. Please note that neither the German Federal Financial Supervisory Agency (BaFin), nor any other supervisory authority exercises any control over the content of this report.

Hong Kong: This report is issued and distributed in Hong Kong by CGS-CIMB Securities (Hong Kong) Limited (“CHK”) which is licensed in Hong Kong by the Securities and Futures Commission for Type 1 (dealing in securities), Type 4 (advising on securities) and Type 6 (advising on corporate finance) activities. Any investors wishing to purchase or otherwise deal in the securities covered in this report should contact the Head of Sales at CGS-CIMB Securities (Hong Kong) Limited. The views and opinions in this research report are of VNDIRECT Securities Corporation as of the date hereof and are subject to change. If the Financial Services and Markets Act of the United Kingdom or the rules of the Financial Conduct Authority apply to a recipient, our obligations owed to such recipient therein are unaffected. CHK has no obligation to update its opinion or the information in this research report.

CHK does not make a market on other securities mentioned in the report.

India: This report is issued and distributed in India by CGS-CIMB Securities (India) Private Limited (“CIMB India”) which is registered with the National Stock Exchange of India Limited and BSE Limited as a trading and clearing member under the Securities and Exchange Board of India (Stock Brokers and Sub-Brokers) Regulations, 1992. In accordance with the provisions of Regulation 4(g) of the Securities and Exchange Board of India (Investment Advisers) Regulations, 2013, CGS-CIMB India is not required to seek registration with the Securities and Exchange Board of India (“SEBI”) as an Investment Adviser. CGS-CIMB India is registered with SEBI as a Research Analyst pursuant to the SEBI (Research Analysts) Regulations, 2014 (“Regulations”).

This report does not take into account the particular investment objectives, financial situations, or needs of the recipients. It is not intended for and does not deal with prohibitions on investment due to law/jurisdiction issues etc. which may exist for certain persons/entities. Recipients should rely on their own investigations and take their own professional advice before investment.

The report is not a “prospectus” as defined under Indian Law, including the Companies Act, 2013, and is not, and shall not be, approved by, or filed or registered with, any Indian regulator, including any Registrar of Companies in India, SEBI, any Indian stock exchange, or the Reserve Bank of India. No offer, or invitation to offer, or solicitation of subscription with respect to any such securities listed or proposed to be listed in India is being made, or intended to be made, to the public, or to any member or section of the public in India, through or pursuant to this report.

The research analysts, strategists or economists principally responsible for the preparation of this research report are segregated from the other activities of CGS-CIMB India and they have received compensation based upon various factors, including quality, accuracy and value of research, firm profitability or revenues, client feedback and competitive factors. Research analysts', strategists' or economists' compensation is not linked to investment banking or capital markets transactions performed or proposed to be performed by CGS-CIMB India or its affiliates.

CGS-CIMB India has not received any investment banking related compensation from the companies mentioned in the report in the past 12 months.

CGS-CIMB India has not received any compensation from the companies mentioned in the report in the past 12 months.

Indonesia: This report is issued and distributed by PT CGS-CIMB Sekuritas Indonesia (“CGS-CIMB Indonesia”). The views and opinions in this research report are our own as of the date hereof and are subject to change. CGS-CIMB Indonesia has no obligation to update its opinion or the information in this research report. Neither this report nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable Indonesian capital market laws and regulations.

This research report is not an offer of securities in Indonesia. The securities referred to in this research report have not been registered with the Financial Services Authority (Otoritas Jasa Keuangan) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market law and regulations.

Ireland: CGS-CIMB is not an investment firm authorised in the Republic of Ireland and no part of this document should be construed as CGS-CIMB acting as, or otherwise claiming or representing to be, an investment firm authorised in the Republic of Ireland.

Malaysia: This report is distributed in Malaysia by CIMB solely for the benefit of and for the exclusive use of our clients. Recipients of this report are to contact CIMB, at 17th Floor Menara CIMB No. 1 Jalan Stesen Sentral 2, Kuala Lumpur Sentral 50470 Kuala Lumpur, Malaysia, in respect of any matters arising from or in connection with this report. CIMB has no obligation to update, revise or reaffirm its opinion or the information in this research reports after the date of this report.

New Zealand: In New Zealand, this report is for distribution only to persons who are wholesale clients pursuant to section 5C of the Financial Advisers Act 2008.

Singapore: This report is issued and distributed by CGS-CIMB Research Pte Ltd (“CGS-CIMBR”). CGS-CIMBR is a financial adviser licensed under the Financial Advisers Act, Cap 110 (“FAA”) for advising on investment products, by issuing or promulgating research analyses or research reports, whether in electronic, print or other form. Accordingly CGS-CIMBR is a subject to the applicable rules under the FAA unless it is able to avail itself to any prescribed exemptions.

Recipients of this report are to contact CGS-CIMB Research Pte Ltd, 50 Raffles Place, #16-02 Singapore Land Tower, Singapore in respect of any matters arising from, or in connection with this report. CGS-CIMBR has no obligation to update its opinion or the information in this research report. This publication is strictly confidential and is for private circulation only. If you have not been sent this report by CGS-CIMBR directly, you may not rely, use or disclose to anyone else this report or its contents.

If the recipient of this research report is not an accredited investor, expert investor or institutional investor, CGS-CIMBR accepts legal responsibility for the contents of the report without any disclaimer limiting or otherwise curtailing such legal responsibility. If the recipient is an accredited investor, expert investor or institutional investor, the recipient is deemed to acknowledge that CGS-CIMBR is exempt from certain requirements under the FAA and its attendant regulations, and as such, is exempt from complying with the following :

- (a) Section 25 of the FAA (obligation to disclose product information);
- (b) Section 27 (duty not to make recommendation with respect to any investment product without having a reasonable basis where you may be reasonably expected to rely on the recommendation) of the FAA;
- (c) MAS Notice on Information to Clients and Product Information Disclosure [Notice No. FAA-N03];
- (d) MAS Notice on Recommendation on Investment Products [Notice No. FAA-N16];

(e) Section 36 (obligation on disclosure of interest in securities), and
(f) any other laws, regulations, notices, directive, guidelines, circulars and practice notes which are relates to the above, to the extent permitted by applicable laws, as may be amended from time to time, and any other laws, regulations, notices, directive, guidelines, circulars, and practice notes as we may notify you from time to time. In addition, the recipient who is an accredited investor, expert investor or institutional investor acknowledges that a CGS-CIMBR is exempt from Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA, the recipient will also not be able to file a civil claim against CGS-CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CGS-CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA.

CGS-CIMBR, its affiliates and related corporations, their directors, associates, connected parties and/or employees may own or have positions in securities of the company(ies) covered in this research report or any securities related thereto and may from time to time add to or dispose of, or may be materially interested in, any such securities. Further, CGS-CIMBR, its affiliates and its related corporations do and seek to do business with the company(ies) covered in this research report and may from time to time act as market maker or have assumed an underwriting commitment in securities of such company(ies), may sell them to or buy them from customers on a principal basis and may also perform or seek to perform significant investment banking, advisory, underwriting or placement services for or relating to such company(ies) as well as solicit such investment, advisory or other services from any entity mentioned in this report.

As of March 19, 2019,, CGS-CIMBR does not have a proprietary position in the recommended securities in this report.

CGS-CIMBR does not make a market on the securities mentioned in the report.

South Korea: This report is issued and distributed in South Korea by CGS-CIMB Securities (Hong Kong) Limited, Korea Branch ("CGS-CIMB Korea") which is licensed as a cash equity broker, and regulated by the Financial Services Commission and Financial Supervisory Service of Korea. In South Korea, this report is for distribution only to professional investors under Article 9(5) of the Financial Investment Services and Capital Market Act of Korea ("FSCMA").

Spain: This document is a research report and it is addressed to institutional investors only. The research report is of a general nature and not personalised and does not constitute investment advice so, as the case may be, the recipient must seek proper advice before adopting any investment decision. This document does not constitute a public offering of securities.

CGS-CIMB is not registered with the Spanish Comision Nacional del Mercado de Valores to provide investment services.

Sweden: This report contains only marketing information and has not been approved by the Swedish Financial Supervisory Authority. The distribution of this report is not an offer to sell to any person in Sweden or a solicitation to any person in Sweden to buy any instruments described herein and may not be forwarded to the public in Sweden.

Switzerland: This report has not been prepared in accordance with the recognized self-regulatory minimal standards for research reports of banks issued by the Swiss Bankers' Association (Directives on the Independence of Financial Research).

Thailand: This report is issued and distributed by CGS-CIMB Securities (Thailand) Co. Ltd. ("CGS-CIMB Thailand") based upon sources believed to be reliable (but their accuracy, completeness or correctness is not guaranteed). The statements or expressions of opinion herein were arrived at after due and careful consideration for use as information for investment. Such opinions are subject to change without notice and CGS-CIMB Thailand has no obligation to update its opinion or the information in this research report.

CGS-CIMB Thailand may act or acts as Market Maker, and issuer and offerer of Derivative Warrants and Structured Note which may have the following securities as its underlying securities. Investors should carefully read and study the details of the derivative warrants in the prospectus before making investment decisions.

AAV, ADVANC, AMATA, ANAN, AOT, AP, BA, BANPU, BBL, BCH, BCP, BCPG, BDMS, BEAUTY, BEC, BEM, BJC, BH, BIG, BLA, BLAND, BPP, BTS, CBG, CENTEL, CHG, CK, CKP, COM7, CPALL, CPF, CPN, DELTA, DTAC, EA, EGCO, EPG, GFPT, GLOBAL, GLOW, GPSC, GUNKUL, HMPRO, INTUCH, IRPC, ITD, IVL, KBANK, KCE, KKP, KTB, KTC, LH, LHBANK, LPN, MAJOR, MALEE, MEGA, MINT, MONO, MTLs, PLANB, PSH, PTL, PTG, PTT, PTTEP, PTTGC, QH, RATCH, ROBINS, S, SAWAD, SCB, SCC, SCCC, SIRI, SPALI, SPRC, STEC, STPI, SUPER, TASCOS, TCAP, THAI, THANI, THCOM, TISCO, TKN, TMB, TOP, TPIPL, TRUE, TTA, TU, TVO, UNIQ, VGI, WHA, WORK.

Corporate Governance Report:

The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date. CGS-CIMB Thailand does not confirm nor certify the accuracy of such survey result.

Score Range:	90 - 100	80 – 89	70 - 79	Below 70 or	No Survey Result
Description:	Excellent	Very Good	Good	N/A	

United Arab Emirates: The distributor of this report has not been approved or licensed by the UAE Central Bank or any other relevant licensing authorities or governmental agencies in the United Arab Emirates. This report is strictly private and confidential and has not been reviewed by, deposited or registered with UAE Central Bank or any other licensing authority or governmental agencies in the United Arab Emirates. This report is being issued outside the United Arab Emirates to a limited number of institutional investors and must not be provided to any person other than the original recipient and may not be reproduced or used for any other purpose. Further, the information contained in this report is not intended to lead to the sale of investments under any subscription agreement or the conclusion of any other contract of whatsoever nature within the territory of the United Arab Emirates.

United Kingdom and European Economic Area (EEA): In the United Kingdom and European Economic Area, this material is also being distributed by CGS-CIMB Securities (UK) Limited ("CGS-CIMB UK"). CGS-CIMB UK is authorized and regulated by the Financial Conduct Authority

and its registered office is at 27 Knightsbridge, London, SW1X7YB. The material distributed by CGS-CIMB UK has been prepared in accordance with CGS-CIMB's policies for managing conflicts of interest arising as a result of publication and distribution of this material. This material is for distribution only to, and is solely directed at, selected persons on the basis that those persons: (a) are eligible counterparties and professional clients of CGS-CIMB UK; (b) have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended, the "Order"), (c) fall within Article 49(2)(a) to (d) ("high net worth companies, unincorporated associations etc") of the Order; (d) are outside the United Kingdom subject to relevant regulation in each jurisdiction, material (all such persons together being referred to as "relevant persons"). This material is directed only at relevant persons and must not be acted on or relied on by persons who are not relevant persons. Any investment or investment activity to which this material relates is available only to relevant persons and will be engaged in only with relevant persons.

Where this material is labelled as non-independent, it does not provide an impartial or objective assessment of the subject matter and does not constitute independent "research" (cannot remove research from here under the applicable rules of the Financial Conduct Authority in the UK. Consequently, any such non-independent material will not have been prepared in accordance with legal requirements designed to promote the independence of research (cannot remove research from here) and will not subject to any prohibition on dealing ahead of the dissemination of research. Any such non-independent material must be considered as a marketing communication.

United States: This research report is distributed in the United States of America by CGS-CIMB Securities (USA) Inc, a U.S. registered broker-dealer and a related company of CGS-CIMB Research Pte Ltd, PT CGS-CIMB Sekuritas Indonesia, CGS-CIMB Securities (Thailand) Co. Ltd, CGS-CIMB Securities (Hong Kong) Limited, CGS-CIMB Securities (India) Private Limited, and is distributed solely to persons who qualify as "U.S. Institutional Investors" as defined in Rule 15a-6 under the Securities and Exchange Act of 1934. This communication is only for Institutional Investors whose ordinary business activities involve investing in shares, bonds, and associated securities and/or derivative securities and who have professional experience in such investments. Any person who is not a U.S. Institutional Investor or Major Institutional Investor must not rely on this communication. The delivery of this research report to any person in the United States of America is not a recommendation to effect any transactions in the securities discussed herein, or an endorsement of any opinion expressed herein. CGS-CIMB Securities (USA) Inc, is a FINRA/SIPC member and takes responsibility for the content of this report. For further information or to place an order in any of the above-mentioned securities please contact a registered representative of CGS-CIMB Securities (USA) Inc.

CGS-CIMB Securities (USA) Inc. does not make a market on other securities mentioned in the report.

CGS-CIMB Securities (USA) Inc. has not managed or co-managed a public offering of any of the securities mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. has not received compensation for investment banking services from any of the company mentioned in the past 12 months.

CGS-CIMB Securities (USA) Inc. neither expects to receive nor intends to seek compensation for investment banking services from any of the company mentioned within the next 3 months.

Other jurisdictions: In any other jurisdictions, except if otherwise restricted by laws or regulations, this report is only for distribution to professional, institutional or sophisticated investors as defined in the laws and regulations of such jurisdictions.

Distribution of stock ratings and investment banking clients for quarter ended on 31 December 2018		
758 companies under coverage for quarter ended on 31 December 2018		
	Rating Distribution (%)	Investment Banking clients (%)
Add	61.2%	4.2%
Hold	25.1%	2.1%
Reduce	13.7%	0.4%

Spitzer Chart for stock being researched (2 year data)

PetroVietnam Fertilizer and Chemicals (DPM VN)



Corporate Governance Report of Thai Listed Companies (CGR). CG Rating by the Thai Institute of Directors Association (Thai IOD) in 2018, Anti-Corruption 2018

ADVANC – Excellent, Certified, **AEONTS** – Good, n/a, **AH** – Very Good, n/a, **AMATA** – Excellent, Declared, **ANAN** – Excellent, Declared, **AOT** – Excellent, Declared, **AP** – Excellent, Certified, **ASP** – Very Good, Certified, **BANPU** – Excellent, Certified, **BAY** – Excellent, Certified, **BBL** – Very Good, Certified, **BCH** – Good, Certified, **BCP** – Excellent, Certified, **BCPG** – Excellent, Certified, **BEM** – Very Good, n/a, **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, Declared, **BJCHI** – Very Good, Certified, **BPP** – Very Good, Declared, **BR** – Good, Declared, **BTS** – Excellent, Certified, **CBG** – Very Good, n/a, **CCET** – Good, n/a, **CENTEL** – Very Good, Certified, **CHG** – Very Good, Declared, **CK** – Excellent, n/a, **COL** – Excellent, Declared, **CPALL** – Very Good, Certified, **CPF** – Excellent, Certified, **CPN** – Excellent, Certified, **DELTA** – Excellent, n/a, **DEMCO** – Excellent, Certified, **DDD** – Very Good, Declared, **DIF** – 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, **HREIT** – Excellent, Certified, **ICHI** – Excellent, Declared, **HUMAN** – not available, n/a, **III** – Good, n/a, **INTUCH** – Excellent, Certified, **IRPC** – Excellent, Certified, **ITD*** – Very Good, n/a, **IVL** – Excellent, Certified, **JASIF** – not available, n/a, **KBANK** – Excellent, Certified, **KCE** – Excellent, Certified, **KKP** – Excellent, Certified, **KSL** – Excellent, Certified, **KTB** – Excellent, Certified, **KTC** – Excellent, Certified, **LH** – Very Good, n/a, **LPN** – Excellent, Certified, **M** – Very Good, Certified, **MACO** – Very Good, n/a, **MAJOR** – Very Good, n/a, **MAKRO** – Excellent, Declared, **MALEE** – Very Good, Certified, **MC** – Very Good, Certified, **MCOT** – Excellent, Certified, **MEGA** – Very Good, n/a, **MINT** – Excellent, Certified, **MTC** – Excellent, Declared, **NETBAY** – Good, n/a, **PLANB** – Excellent, Declared, **PLAT** – Very Good, Certified, **PSH** – Excellent, Certified, **PSTC** – Good, Certified, **PTT** – Excellent, Certified, **PTTEP** – Excellent, Certified, **PTTGC** – Excellent, Certified, **QH** – Excellent, Certified, **RATCH** – Excellent, Certified, **ROBINS** – Excellent, Certified, **RS** – Very Good, n/a, **RSP** – not available, n/a, **SAMART** – Excellent, n/a, **SAPPE** – Very Good, Declared, **SAT** – Excellent, Certified, **SAWAD** – Very Good, n/a, **SC** – Excellent, Declared, **SCB** – Excellent, Certified, **SCC** – Excellent, Certified, **SCN** – Very Good, Certified, **SF** – Good, 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** – Very Good, Declared, **TASCO** – Excellent, Certified, **TCAP** – Excellent, Certified, **TIPCO** – Very Good, Certified, **TISCO** – Excellent, Certified, **TKN** – Very Good, Declared, **TMB** – Excellent, Certified, **TNR** – Very Good, Declared, **TOP** – Excellent, Certified, **TPCH** – Good, n/a, **TIPIP** – Good, n/a, **TRUE** – Excellent, Certified, **TU** – Excellent, Certified, **TVO** – Very Good, Declared, **UNIQ** – Good, n/a, **VGI** – Excellent, Certified, **WHA** – Excellent, Certified, **WHART** – not available, n/a, **WORK** – Good, n/a.

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of August 31, 2018) are categorized into:

- Companies that have declared their intention to join CAC, and
- Companies certified by CAC

* The company, its director or management had been reportedly accused for breaching proper corporate governance such as violation of the SEC's regulations or charged with corruption.

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.

Hien Tran Khanh – Associate Director

Email: hien.trankhanh@vndirect.com.vn

Mai PHAM – Analyst

Email: mai.phamle@vndirect.com.vn

VNDIRECT Securities Corporation

1 Nguyen Thuong Hien Str – Hai Ba Trung Dist – Ha Noi | Tel: +84 2439724568

Email: research@vndirect.com.vn | Website: <https://vndirect.com.vn>