

Vietnam

ADD (no change)

Consensus ratings*: Buy 6 Hold 0 Sell 1

Current price:	VND25,200
Target price:	VND29,700
Previous target:	VND29,700
Up/downside:	17.9%
CGS-CIMB / Consensus:	-2.1%
Reuters:	HPG.HM
Bloomberg:	HPG VN
Market cap:	US\$2,997m
	VND69,579,064m
Average daily turnover:	US\$5.98m
	VND138,593m
Current shares o/s:	2,761m
Free float:	59.7%

*Source: Bloomberg

Key changes in this note

➤ N/A



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	5	14.5	20
Relative (%)	6.8	22.9	16.7

Major shareholders

	% held
Tran Dinh Long	25.4
Dragon Capital	7.7
Vu Thi Hien	7.3

Analyst(s)

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Hoa Phat Group

4Q19: Net profit growth recovered as expected

- Robust 4Q19 topline growth propelled yoy net profit growth to 10.6% after three sluggish quarters.
- HPG gained more market share despite weak domestic demand for construction steel in 2019, thanks to its competitive pricing strategy
- Reiterate Add with an unchanged TP of VND29,700.

4Q19 net profit bounced back after three sluggish quarters

4Q19 net revenue grew 24.9% yoy on the back of a 17.4% yoy increase of steel sales volume and 84.8% yoy growth in agriculture business revenue. However, 4Q19 blended GM shrank 200bp yoy, due to 1) the 16.5% yoy drop in its steel ASP during the quarter though iron ore prices rose 27.3% yoy; 2) the proportion of lower-margin agricultural sales to total revenue widened to 14.5% in 4Q19 from 9.8% in 4Q18. All in, 4Q19 net profit grew a modest 10.6% yoy after three sluggish quarters. Overall, FY19 net profit shrank 11.6% yoy to VND7,578bn, in line with our forecast.

Strong sales volume growth amid slower market demand in 2019

HPG's combined output of construction steel and steel pipes rose a robust 17.4% yoy in 4Q19. FY19 steel output grew 16.2% yoy to 3.5m tonnes, at 103.4% of our estimate. According to Vietnam Steel Association (VSA), Vietnam's total steel sales volume grew only 5.0% yoy in 2019. Consequently, HPG's share of Vietnam's construction steel market expanded 2.4% pts to 26.2% last year.

DQSC Phase 2 expected to complete HPG's flat steel value chain

Management guided for Phase 2 of its Dung Quat Steel Complex (DQSC) to start test runs at end-1H20 and come onstream by end-FY20. At full utilisation, Phase 2 will add 2.5m tonnes of hot rolled coil (HRC) capacity to HPG's total annual output capacity. It will also help HPG complete its integrated flat steel process, from iron ore to final products (galvanised steel and steel pipes). We expect the internal supply of HRC from Phase 2 to boost HPG's flat steel segment gross margin by 8.6-9.0% pts in FY20-21F vs. FY19.

We see a solid outlook for HPG in FY20-21F

We forecast HPG's revenue to grow 15.7% yoy and net profit rise 18.9% yoy in FY20-21F on the back of: (1) 20.7% FY19-21F CAGR in construction steel volume and 9.1% CAGR in steel pipe volume; (2) estimated iron ore prices of US\$75-80/tonne, (3) tax exemption for DQSC in its first four years, and (4) lower transportation costs for DQSC.

Reiterate Add with a target price of VND29,700

Our TP is based on an equal weighting of (1) 12M forward P/E of 8.0x on FY20F EPS; and (2) a DCF valuation over a 10-year projection period. Lower-than-expected iron ore prices are a potential re-rating catalyst. Risks to our Add call include: (1) slower-than-expected steel demand growth, and (2) lower-than-expected utilisation rate at DQSC.

Financial Summary

	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
Revenue (VNDb)	55,836	63,658	72,825	85,160	95,704
Operating EBITDA (VNDb)	12,524	11,914	17,556	19,872	22,710
Net Profit (VNDb)	8,392	7,326	8,903	10,416	13,216
Core EPS (VND)	3,039	2,653	3,225	3,773	4,787
Core EPS Growth	7.2%	(12.7%)	21.5%	17.0%	26.9%
FD Core P/E (x)	8.29	9.50	7.82	6.68	5.26
DPS (VND)	2	0	500	500	1,000
Dividend Yield	0.01%	0.00%	1.98%	1.98%	3.97%
EV/EBITDA (x)	7.00	8.43	5.73	4.57	3.38
P/FCFE (x)	NA	38.44	55.89	27.64	22.29
Net Gearing	44.5%	64.3%	54.0%	31.2%	8.9%
P/BV (x)	1.72	1.46	1.22	1.03	0.88
ROE	23.1%	16.6%	17.0%	16.8%	18.1%
% Change In Core EPS Estimates			0.00%	(0.19%)	(0.51%)
CGS-CIMB/Consensus EPS (x)			1.02	1.05	

SOURCES: VND RESEARCH, COMPANY REPORTS

4Q19: Net profit growth recovered as expected

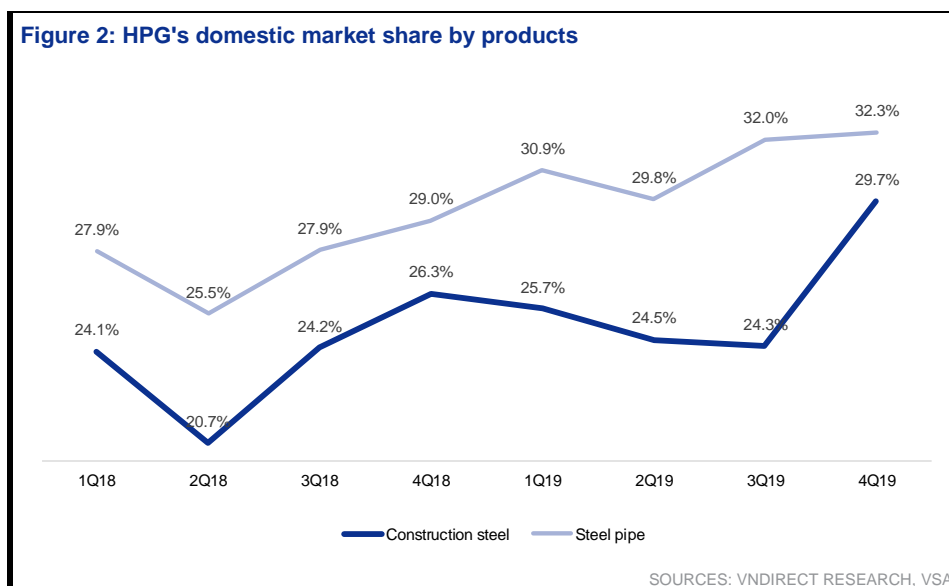
Figure 1: Results comparison

	4Q19	4Q18	%yoy	19A	18A	%yoy	vs full year forecast	Comment
Total revenue	17,975	14,386	24.9%	63,658	55,836	14.0%	104.0%	
Steel	14,289	11,924	19.8%	50,179	46,424	8.1%	102.5%	
Industrial production	641	747	-14.3%	3,172	3,144	0.9%	91.0%	
Agriculture	2,607	1,411	84.8%	7,985	4,596	73.7%	111.7%	Pork price soared 54% in 4Q19, significantly supporting the business results of the livestock segment. Meanwhile, consumption of Australian beef and clean chicken eggs posted steady growth.
Real estates	275	304	-9.5%	1,621	1,672	-3.0%	99.8%	
Gross profit	2,836	2,561	10.7%	11,185	11,671	-4.2%	98.0%	
Gross profit margin	15.8%	17.8%	-2.0% pts	17.6%	20.9%	-3.3% pts	-1.1% pts	Below our forecast as the agricultural segment with low GM contributed more to net revenue.
SG&A expense	376	401	-6.4%	1,442	1,121	28.7%	98.4%	
EBITDA	3,263	2,427	34.4%	12,381	12,524	-1.1%	104.1%	HPG has recorded DQSC as fixed assets earlier than expected, instead of keeping its status as "construction in progress". Therefore, 4Q19 depreciation expenses increased sharply.
Interest expense	248	145	71.2%	937	540	73.5%	95.8%	
Pretax profit	2,285	2,037	12.2%	9,097	10,071	-9.7%	100.0%	
Net profit	1,923	1,739	10.6%	7,578	8,573	-11.6%	100.8%	In line with our expectation.
Net margin	10.7%	12.1%	-1.4% pts	11.9%	15.4%	-3.4% pts	-0.4% pts	
EBITDA margin	18.2%	16.9%	1.3% pts	19.4%	22.4%	-3.0% pts	0.0% pts	
SG&A as % of revenue	2.1%	2.8%	-0.7% pts	2.3%	2.0%	0.3% pts	-0.1% pts	
Sale volume (tonnes)	1,008,568	858,822	17.4%	3,525,503	3,033,209	16.2%	103.4%	
Construction steel (tonnes)	807,868	685,222	17.9%	2,774,703	2,379,309	16.6%	103.9%	Higher than our forecast as sales volume of construction steel reached a record high in the last two months of 2019.
Steel pipe (tonnes)	200,700	173,600	15.6%	750,800	653,900	14.8%	101.6%	

SOURCES: VNDIRECT RESEARCH, COMPANY REPORTS

HPG's market share expanded despite slowing demand in 2019

Figure 2: HPG's domestic market share by products



SOURCES: VNDIRECT RESEARCH, VSA

HPG's construction steel sales volume rose 16.6% yoy to 2.8m tonnes in 2019, beating the overall industry growth of 6.0%. Meanwhile, the company's steel pipes sales volume rose 14.8% yoy to 0.75m tonnes in 2019 vs. the industry's 0.9% yoy increase. As a result, HPG's market shares in construction steel and steel pipe expanded to 26.2% and 31.3%, respectively, in 2019, from 23.8% and 27.7% in 2018.

For 2020F, the company targets 3.6m tonnes (+29.7% yoy) sales volume of construction steel, with the doubling of sales volume in the southern market to 1.0m tonnes. With this, we estimate HPG's share in Vietnam's construction steel market will rise by 4.9-6.2% pts. We believe these targets are achievable, thanks to the gradual commission of DQSC which will enhance HPG's competitiveness in the southern region. We think HPG is striking the best trade-off between competitive pricing and market share gain in the context of weaker domestic demand in 2020F.

We expect iron ore prices to fluctuate in the range of US\$75-80/tonne in 2020F

Vale will cut production in 1Q20 to check mining safety

Vale (Vale3 BZ, Not rated), the world's largest iron ore producer, said it has suspended the disposal of iron ore tailings for an expected one to two months at a dam serving its Brucutu mine, while the company assesses the dam's "geotechnical characteristics", affecting processing at the major high-grade ore mine.

Vale has published its 1Q20 guidance for iron ore production of 68m-73m tonnes, or 12.0-18.1% lower than its 4Q19 output. The company had already reduced its iron ore exports in Dec 2019 to 24.67m tonnes, from 27.25m tonnes in Nov 2019 and 33.2m tonnes in Dec 2018.

The supply cut is the main reason for the sharp increase in iron ore prices globally, from as low as US\$80.3/tonne in mid-Nov 2019 (11 Nov in detail) to US\$94.8/tonne on 20 Jan 2020, or up 18.1% in just over two months.

Figure 3: Iron ore (Fe 62%) price movements (US\$/Mt) between Jan 2019 and Jan 2020



2019 nCoV outbreak expected to lower China's iron ore demand in 1Q20F

The Wuhan coronavirus (nCoV) outbreak, which surfaced in China's Hubei province in late-Dec 2019, will affect China's steel demand due to 1) a delayed restart of construction and manufacturing activities after the Chinese government extended the Lunar New Year break, and 2) transport restrictions which will hinder the distribution of steel products and raw materials. Furthermore, Hubei, known as China's heavy industry hub, hosts the headquarters of the country's largest steel manufacturing companies, including Baowu Steel Group's Wuhan Iron and

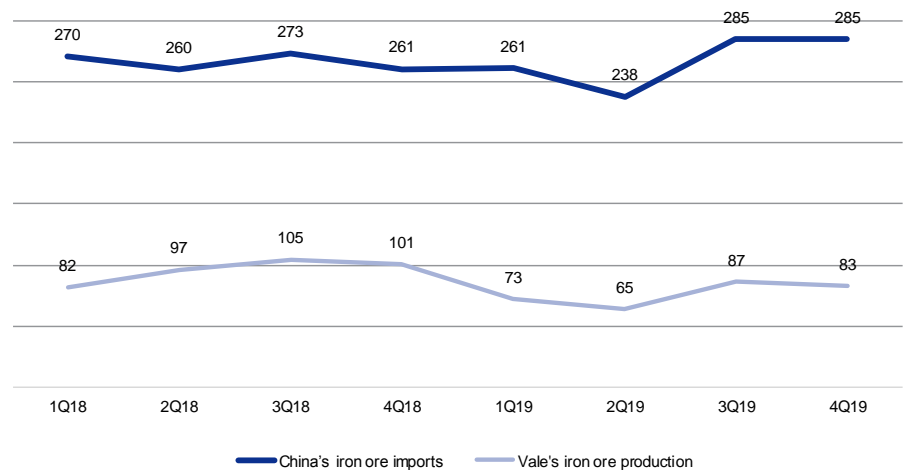
Steel Corp. As China accounts for around 70-80% of global seaborne iron ore trades, reduced demand from China will significantly hurt global iron ore demand.

We keep unchanged our forecast that the average price of iron ore in 2020F will be 14.0-19.4% lower yoy

We forecast iron ore prices will trade at around US\$75-80/tonne this year, down 14.0-19.4% yoy, due to the following reasons:

- Iron ore prices reached a peak in 2019, averaging at an estimated US\$93.1/tonne (+33.7% yoy) as the iron ore market faced a supply shock after a dam collapse in southern Brazil in Jan 2019 (resulting in closure of the Brucutu mine and other mines in its vicinity), coupled with tightened supply from Australia.
- Operation at the Brutucu mine is slated to resume after safety tests complete in 2Q20. Furthermore, mining operations in Australia have recovered.
- Other operators continue to maintain high production levels in 2019 in order to partially offset the shortage of Vale's output in 1H19, so as to ensure iron ore supply shocks may not repeat.
- Crude steel production in Hubei province accounted for about 4% of the country's steel output in 2019, according to China Iron and Steel Association (CISA). Iron ore demand in Hubei was around 2.5m tonnes/month in 2019, according to our estimates. As efforts are stepped up to prevent the nCoV from spreading, we estimate Hubei's reduced demand will mitigate the impact of Vale's production cut, thereby helping to keep iron ore prices at a low level in 1Q20F. Additionally, China's iron ore demand (excluding from Hubei province) reached 87m tonnes/month in 2019. Assuming a decline of only 10% in China's iron ore demand due to nCoV, the global iron ore demand will drop 5.0-5.3%, according to our estimates.

Figure 4: China's iron ore import vs. Vale's iron ore production (m tonnes)



SOURCES: VNDIRECT RESEARCH, COMPANY REPORTS, CISA

Valuation and forecast

Figure 5: VNDS Research's FY20-21F forecast summary (VNDbn)

	FY18A	FY19A	FY20F	FY21F
Total revenue	55,836	63,658	72,825	85,160
Steel	46,424	50,179	60,169	72,372
Gross profit	11,671	11,185	14,316	16,255
Gross profit margin	20.9%	17.6%	19.7%	19.1%
SG&A expense	1,121	1,442	1,744	2,040
EBITDA	12,524	11,914	17,556	19,901
Interest expense	540	937	1,782	1,536
Pretax profit	10,071	9,097	10,776	12,626
NPATMI	8,573	7,508	9,132	10,705
Net margin	15.4%	11.4%	12.5%	12.6%
EBITDA margin	18.5%	18.7%	17.0%	16.4%
SG&A as % of revenue	2.0%	2.3%	2.4%	2.4%
Revenue growth	21.0%	14.0%	14.4%	16.9%
Net profit growth	7.1%	-12.4%	21.6%	17.2%
EPS	3,039	2,655	3,225	3,780
Sale volume (tonnes)				
Construction steel	2,379	2,775	3,591	4,041
Steel pipe	654	751	813	894
ASP growth (%)	9.8%	-6.5%	-3.6%	0.1%

SOURCES: VNDIRECT RESEARCH, COMPANY REPORTS

Reiterate Add with a target price of VND29,700

We keep our TP unchanged and maintain our Add call in light of a better outlook in FY20-21F thanks to 1) continual domestic market share expansion, and 2) the commissioning of Dung Quat Steel Complex Phase 2. Our TP is based on an equal weighting of (1) 12M forward P/E of 8.0x on FY20F EPS; and (2) a DCF valuation over a 10-year projection period. Lower-than-expected iron ore prices are a potential re-rating catalyst. Risks to our Add call include: (1) slower-than-expected steel demand growth, and (2) lower-than-expected utilisation rate at DQSC.

Figure 6: DCF model - key assumptions & input, based on our estimates

General assumptions	
Risk free rate (10-year VGB yield)	4.0%
Equity risk premium	10.0%
Beta (source: BB, 1-y adj. beta)	1.1
Cost of equity	15.1%
Long-term growth rate	2.0%
Cost of Debt	5.0%
WACC	11.8%
(in VND bn, otherwise noted)	
PV of DCF (10 years)	84,926
PV of Terminal value	45,876
Enterprise value	130,802
Less: Total Debt	41,605
Plus: Cash and Cash equiv.	3,503
Less: Minority Interest	154
Implied EV	92,546
No. of o/s shares (mn shares)	2,761
Implied value per share (VND)	33,518

SOURCES: VNDIRECT RESEARCH, COMPANY REPORTS

Figure 7: P/E method, key assumptions, based on our estimates

EPS 2020	3,225
Industry average multiple	5.8
Premium	37.7%
Target multiple	8.0
Implied value per share (VND)	25,800

SOURCES: VNDIRECT RESEARCH

Figure 8: Blended target price, based on our estimates

Method	Implied value per share (VND)	Weight (%)	Weighted price (VND)
DCF	33,518	50%	16,759
P/E	25,800	50%	12,900
Target price (VND, rounded)			29,700

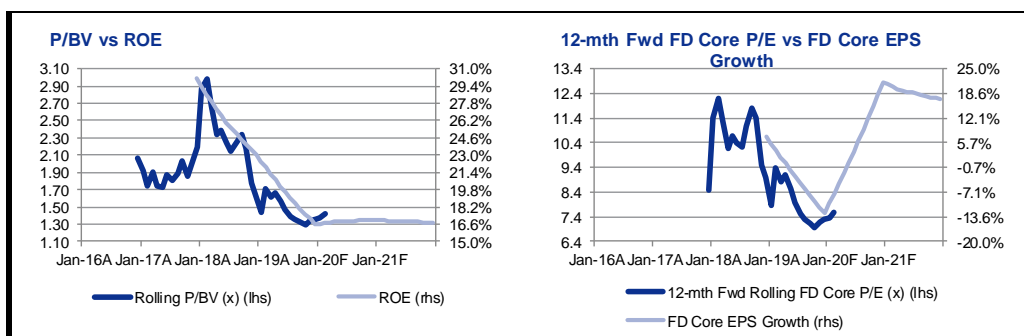
SOURCES: VNDIRECT RESEARCH

Figure 9: Peer comparison

Company	Ticker	Recom.	Price	TP	Mkt cap	P/E (x)		3-year EPS	P/BV (x)		EV/EBITDA (x)		ROE (%)	
			LC\$	LC\$	US\$ m	CY20F	CY21F	CAGR (%)	CY20F	CY21F	CY20F	CY21F	CY20F	CY21F
Regional listed steel producers														
Sansteel Minguang Co Ltd -A	002110 CH	na	7.58	na	2,653	3.9	4.2	na	0.9	0.8	2.7	2.6	19.7	18.7
Xinxing Ductile Iron Pipes-A	000778 CH	na	3.43	na	1,955	7.1	6.7	76.7	0.6	0.6	5.1	4.9	8.0	8.0
Xinyu Iron & Steel Co Ltd-A	600782 CH	na	4.2	na	1,912	3.8	3.8	437.3	0.6	0.5	3.2	2.7	15.8	13.8
Nanjing Iron & Steel Co-A	600282 CH	na	2.94	na	1,860	4.0	3.9	na	0.8	0.7	4.0	3.9	18.6	17.1
Liuzhou Iron & Steel Co-A	601003 CH	na	4.66	na	1,705	5.6	5.2	na	1.0	0.9	14.0	63.8	18.8	17.9
Hangzhou Iron & Steel Co-A	600126 CH	na	4.46	na	2,151	na	na	na	na	na	14.8	14.4	na	na
SGIS Songshan Co Ltd-A	000717 CH	na	3.58	na	1,237	4.7	4.7	na	1.1	0.9	3.2	3.1	23.1	18.9
<i>Average</i>					2,141	6.2	5.4		0.8	0.7	6.9	13.7	14.8	13.9
<i>Median</i>					2,099	4.9	4.7		0.8	0.7	3.9	3.9	17.5	15.7
Hoa Phat Group	HPG VN	Add	25,200	29,700	2,997	7.8	6.7	7.7	1.2	1.0	5.7	4.6	17.0	16.8

Note: Not Rated forecasts based on Bloomberg consensus estimates.
SOURCES: VNDIRECT RESEARCH, BLOOMBERG, DATA AS OF 06 FEB 2020

BY THE NUMBERS



Profit & Loss

(VNDb)	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
Total Net Revenues	55,836	63,658	72,825	85,160	95,704
Gross Profit	11,671	11,185	14,316	16,255	19,368
Operating EBITDA	12,524	11,914	17,556	19,872	22,710
Depreciation And Amortisation	-2,206	-2,417	-5,194	-5,965	-5,965
Operating EBIT	10,318	9,498	12,362	13,906	16,745
Financial Income/(Expense)	-245	-465	-1,563	-1,295	-720
Pretax Income/(Loss) from Assoc.	0	-1	0	0	0
Non-Operating Income/(Expense)	-1	66	-22	-10	-45
Profit Before Tax (pre-EI)	10,071	9,097	10,776	12,602	15,980
Exceptional Items					
Pre-tax Profit	10,071	9,097	10,776	12,602	15,980
Taxation	-1,471	-1,518	-1,616	-1,890	-2,397
Exceptional Income - post-tax					
Profit After Tax	8,601	7,578	9,160	10,712	13,583
Minority Interests	-28	-71	-28	-28	-28
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax	-181	-182	-229	-268	-340
Net Profit	8,392	7,326	8,903	10,416	13,216
Recurring Net Profit	8,392	7,326	8,903	10,416	13,216
Fully Diluted Recurring Net Profit	8,392	7,326	8,903	10,416	13,216

Cash Flow

(VNDb)	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
EBITDA	12,524	11,914	17,556	19,872	22,710
Cash Flow from Inv. & Assoc.	0	-1	0	0	0
Change In Working Capital	-2,766	-8,494	-2,054	-5,302	-1,731
(Incr)/Decr in Total Provisions	-73	0	0	0	0
Other Non-Cash (Income)/Expense	0	0	0	0	0
Other Operating Cashflow	-86	-8	-134	-128	-383
Net Interest (Paid)/Received	-540	-937	-1,782	-1,600	-1,064
Tax Paid	-1,416	-1,518	-1,616	-1,890	-2,397
Cashflow From Operations	7,642	955	11,970	10,951	17,136
Capex	-27,594	-27,594	-1,099	-800	-500
Disposals Of FAs/subsidiaries	65	0	0	0	0
Acq. Of Subsidiaries/investments	6,148	2,350	629	0	0
Other Investing Cashflow	849	41	-41	0	0
Cash Flow From Investing	-20,533	-25,203	-510	-800	-500
Debt Raised/(repaid)	11,137	26,058	-10,214	-7,634	-13,514
Proceeds From Issue Of Shares	11	0	0	0	0
Shares Repurchased					
Dividends Paid	-6	0	-1,381	-1,381	-2,761
Preferred Dividends					
Other Financing Cashflow					
Cash Flow From Financing	11,143	26,058	-11,595	-9,014	-16,276
Total Cash Generated	-1,748	1,810	-136	1,137	360
Free Cashflow To Equity	-1,754	1,810	1,245	2,517	3,121
Free Cashflow To Firm	-12,351	-23,311	13,241	11,751	17,699

SOURCES: VND RESEARCH, COMPANY REPORTS

BY THE NUMBERS... cont'd

Balance Sheet

(VNDb)	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
Total Cash And Equivalents	6,240	5,939	5,175	6,388	7,066
Total Debtors	3,210	3,575	6,173	8,166	7,555
Inventories	14,115	19,412	19,360	22,786	26,247
Total Other Current Assets	1,743	1,546	2,274	2,659	2,988
Total Current Assets	25,309	30,472	32,982	39,999	43,856
Fixed Assets	50,852	68,992	69,684	65,732	61,780
Total Investments	67	26	67	67	67
Intangible Assets	217	269	195	183	172
Total Other Non-Current Assets	1,778	2,032	2,319	2,712	3,048
Total Non-current Assets	52,914	71,319	72,264	68,694	65,066
Short-term Debt	11,495	16,838	19,492	13,349	2,073
Current Portion of Long-Term Debt					
Total Creditors	8,707	6,178	8,071	9,247	10,675
Other Current Liabilities	2,435	3,982	3,175	3,713	4,173
Total Current Liabilities	22,636	26,998	30,738	26,309	16,921
Total Long-term Debt	12,811	19,842	16,574	14,082	11,992
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	2,153	7,163	728	852	957
Total Non-current Liabilities	14,964	27,005	17,302	14,934	12,949
Total Provisions	0	0	0	0	0
Total Liabilities	37,600	54,003	48,040	41,243	29,870
Shareholders' Equity	40,496	47,605	57,024	67,240	78,815
Minority Interests	127	183	182	210	237
Total Equity	40,623	47,788	57,206	67,450	79,052

Key Ratios

	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
Revenue Growth	21.0%	14.0%	14.4%	16.9%	12.4%
Operating EBITDA Growth	9.7%	(4.9%)	47.4%	13.2%	14.3%
Operating EBITDA Margin	22.4%	18.7%	24.1%	23.3%	23.7%
Net Cash Per Share (VND)	-6,543	-11,134	-11,188	-7,621	-2,535
BVPS (VND)	14,667	17,241	20,653	24,353	28,545
Gross Interest Cover	19.11	10.14	6.94	8.69	15.74
Effective Tax Rate	14.6%	16.7%	15.0%	15.0%	15.0%
Net Dividend Payout Ratio	0.1%	NA	13.1%	11.2%	17.7%
Accounts Receivables Days	31.92	19.45	24.50	30.73	29.98
Inventory Days	106.9	116.6	121.3	111.6	117.2
Accounts Payables Days	53.44	51.77	44.56	45.87	47.63
ROIC (%)	27.9%	13.0%	12.3%	13.3%	15.9%
ROCE (%)	19.2%	13.3%	14.2%	15.1%	18.2%
Return On Average Assets	15.4%	10.3%	11.5%	12.6%	14.9%

Key Drivers

	Dec-18A	Dec-19A	Dec-20F	Dec-21F	Dec-22F
ASP (% Change)	9.8%	-6.1%	-3.9%	0.1%	-0.4%
Unit Sales Growth (%)	6.4%	13.0%	27.8%	20.1%	14.5%
Utilisation Rate (%)	84.7%	63.9%	68.9%	77.6%	83.3%

SOURCES: VND RESEARCH, COMPANY REPORTS

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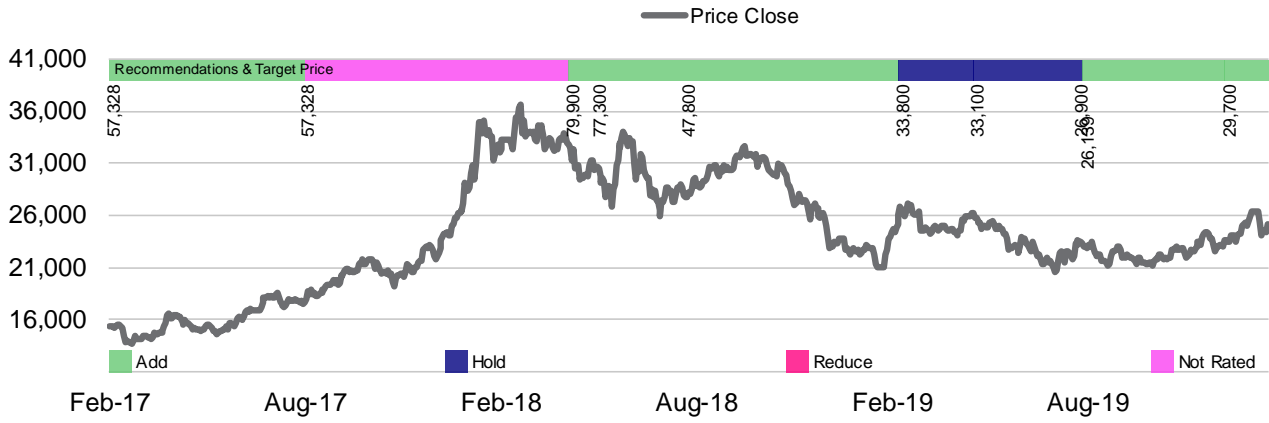
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	Rating Distribution (%)	Investment Banking clients (%)
Add	61.4%	0.0%
Hold	25.2%	0.0%
Reduce	13.4%	0.0%

Spitzer Chart for stock being researched (2 year data)

Hoa Phat Group (HPG VN)



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

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

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

2 AGM Level 2018 from Thai Investors Association

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

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

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

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

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

RECOMMENDATION FRAMEWORK

Stock Ratings

Definition:

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

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

Sector Ratings

Definition:

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

Country Ratings

Definition:

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

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