

Vietnam

ADD (no change)

Consensus ratings*: Buy 9 Hold 1 Sell 0

Current price:	VND36,300
Target price:	VND47,800
Previous target:	VND77,300
Up/downside:	31.7%
CGS-CIMB / Consensus:	-6.5%
Reuters:	HPG.HM
Bloomberg:	HPG.VN
Market cap:	US\$3,312m
	VND77,097,832m
Average daily turnover:	US\$10.06m
	VND230,310m
Current shares o/s:	2,124m
Free float:	67.6%

*Source: Bloomberg

Key changes in this note

- FY18-19F EPS cut by 32.5%, adjusting for stock dividend payment in May 2018.



Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	0	-6.4	57.3
Relative (%)	-5.9	0.1	35.6

Major shareholders	% held
Tran Dinh Long	25.2
Vu Thi Hien	7.3
VOF Investment Limited	4.7

Analyst(s)



My TRAN Ha

T (84) 96 681 1636
E my.tranha@vndirect.com.vn

Hung Xuan NGUYEN

T (84) 28 7300 0688
E hung.nguyexuan@vndirect.com.vn

Hoa Phat Group

Only minor headwinds from US-China trade war

- Tariffs shield Vietnam's long steel industry from the fall out of an US-China trade war.
- The US-China trade war, to some extent, could benefit HPG in the medium term.
- HPG will remain competitive vs. imported Chinese steel even after Vietnam's import tariffs expire in 2020F, according to our calculations.
- HPG's significant upcoming capacity expansion can be absorbed gradually by the incremental growth in demand, in our view.
- Maintain Add as HPG's stock price is a victim of souring sentiment on steel stocks but is better protected from trade-related shocks than most global peers.

HPG already protected by stiff import tariffs on Chinese steel

The US applied tariffs on Chinese steel in Nov 2015 after which Chinese steel producers tried to diversify their export markets by selling cheap steel to Asian neighbours, including Vietnam. In 2016, the Vietnamese government imposed tariffs on Chinese steel to protect domestic steel producers. In 1H18, imported Chinese steel continued to decrease, by 17.6%yoy in terms of volume. While exports to the region could be a "safety valve" for excess Chinese steel unable to enter the US market, Vietnam is unlikely to be impacted much. Also, exports to the US account for only 1-2% of HPG's sales.

US-China trade war could benefit HPG in the medium term

We expect rising US protectionism aimed at China to push more export-oriented factories to relocate from China to Vietnam to circumvent trade barriers. We observe an increasing trend of registered FDI from China into Vietnam during 2014-17 and believe this will lead to a rise in demand for steel in Vietnam for industrial facility construction. We think HPG can capitalise on this given its leading position in the long steel market and capacity addition from its new Dung Quat plant (phase 1 will come on stream in Aug 2018).

Even without tariffs, HPG remains competitive vs. Chinese steel

Vietnam's tariffs on Chinese steel will expire in Mar 2020 and the likelihood of an extension is unknown at this point. However, we expect HPG to remain competitive as: 1) environmental measures in China could raise output costs for Chinese steel producers by inducing them to shift to the more environmentally-friendly but costlier electric arc furnace (EAF) production method, and to use less polluting but more costly high-grade iron ore and coking coal; and 2) rising economies of scale due to HPG's capacity growth.

HPG's additional capacity can be absorbed gradually

We estimate domestic capacity for long steel will surge nearly 5m tonnes in the next three years, equivalent to over 40% of 2017 capacity. With HPG's leading position in Vietnam's steel industry, we think its sales growth could track the increased demand for construction steel (assuming 10% p.a. over the next two years). Moreover, HPG has a proven ability to continually grab market share from competitors, particularly during periods of market weakness. We also expect imported Chinese long steel volume (15-20% of total long steel demand) to continue to decrease due to continued import tariffs; this will leave more room for domestic players, especially a market leader like HPG.

Maintain Add with target price of VND47,800

The huge cuts in our TP and EPS estimates reflect HPG's larger outstanding share base following its recent 40% stock dividend. As valuations of regional peers have declined sharply amid fears of a supply glut due to steel tariffs applied by the US, we cut our target 12M forward P/E multiple from 10.2x to 8.7x, still at a premium of 30% over regional peers given its higher ROE and less exposure to the trade war. Our VND47,800 TP is based on an equal weighting of: 1) 8.7x forward P/E on the average EPS over CY18-19F, and 2) DCF valuation over 5-year period. Potential re-rating catalysts include 1) sharp fall in steel prices, 2) rising raw materials, and 3) stricter environment controls in Vietnam.

Financial Summary	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
Revenue (VNDb)	27,453	33,283	46,162	60,111	78,587
Operating EBITDA (VNDb)	5,982	9,530	11,626	15,362	24,220
Net Profit (VNDb)	3,325	6,036	7,826	8,891	13,428
Core EPS (VND)	1,359	2,451	3,411	3,977	6,006
Core EPS Growth		80.3%	39.2%	16.6%	51.0%
FD Core P/E (x)		14.81	10.64	9.13	6.04
DPS (VND)	254.6	519.1	1.8	0.0	1,000.0
Dividend Yield	0.70%	1.43%	0.00%	0.00%	2.75%
EV/EBITDA (x)	13.62	8.29	7.39	5.87	3.78
P/FCFE (x)		39.3	NA	244.6	11.2
Net Gearing	31.0%	9.6%	26.9%	31.3%	27.2%
P/BV (x)	5.34	3.90	2.39	1.87	1.47
ROE		30.4%	27.8%	23.0%	27.2%
% Change In Core EPS Estimates				(32.5%)	(32.4%)
CIMB/consensus EPS (x)				0.97	1.12

SOURCES: VND RESEARCH, HPG

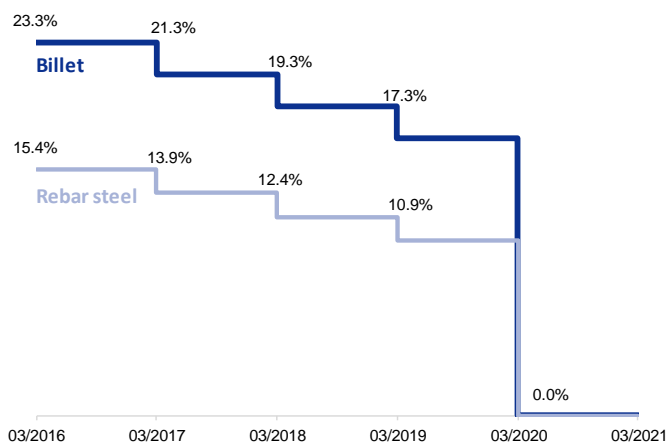
NOTE: net profit after bonus and welfare payment

Only minor headwinds from US-China trade war

Domestic steel industry protected from cheap Chinese steel

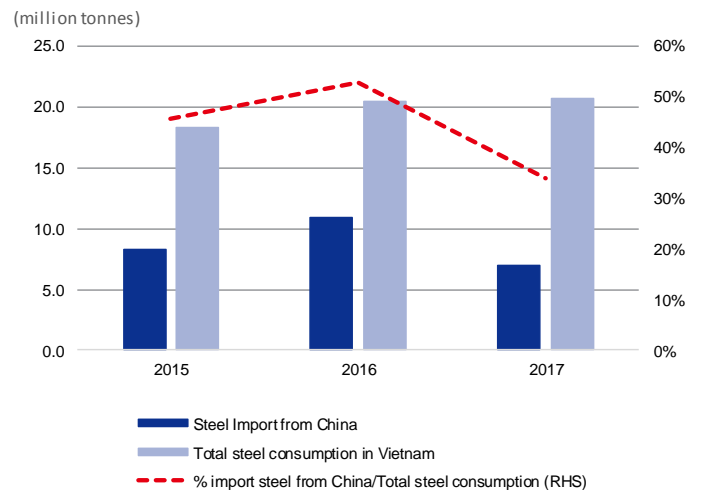
The US-China trade war has recently escalated with a hefty 25% tariff imposed by the US on imported steel from China. In reality, the US did many investigations and imposed multiple import protection measures (including anti-dumping duties and countervailing duties) on Chinese steel as early as Nov 2015, prompting Chinese steel manufacturers to further diversify their export markets to include countries such as Vietnam. In 2016, the Vietnamese government imposed tariffs on Chinese steel to protect domestic steel producers. As a result, Chinese steel import volumes into Vietnam decreased 35.4%yoy in 2017. This trend continued in 1H18, with the volume of imported Chinese steel decreasing 17.6%yoy.

Figure 1: The schedule of anti-dumping duties on imported Chinese steel



SOURCES: MOIT, VND RESEARCH

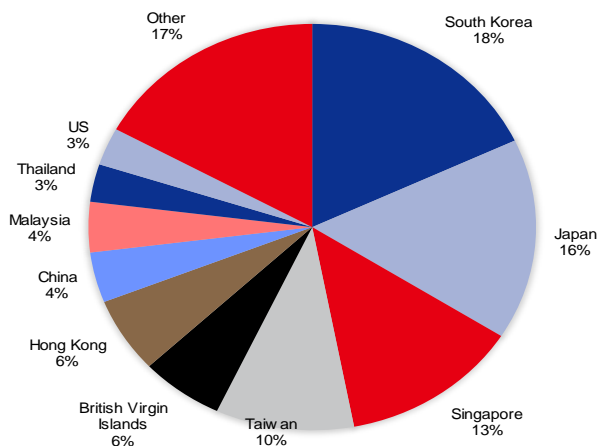
Figure 2: After imposing tariffs, steel imported from China decreased



SOURCES: VSA, VND RESEARCH

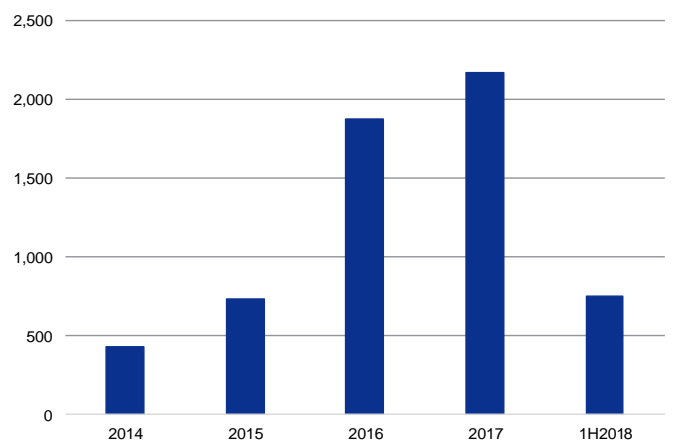
US-China trade war could benefit HPG in the medium term

Figure 3: China is among the top 10 FDI investors in Vietnam (2017)



SOURCES: FII, VND RESEARCH

Figure 4: Rising registered FDI from China (2014-1H18)



SOURCES: FII, VND RESEARCH

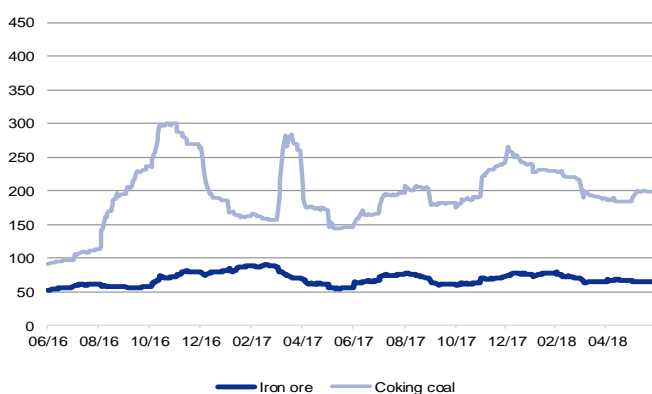
Registered FDI from China into Vietnam increased considerably in 2014-17 on the back of 1) Vietnam’s development as a new manufacturing hub that is very close to China’s export manufacturing heartland; and 2) Chinese factories relocating to Vietnam to offset rising labour costs in China and to circumvent rising US protectionism. We believe any further escalation of the US-China trade war could accelerate FDI flows from China into Vietnam. This will support demand for industrial construction and raise domestic long steel demand. HPG, with its additional capacity from its Dung Quat plant (the first phase with a capacity of 2m tonnes of long steel products scheduled to come on stream by end-Jul 2018), is well-positioned to benefit from this opportunity.

HPG will remain competitive vs. imported Chinese steel even after import tariffs expire in 2020F

As mentioned above, the Vietnam government imposed tariffs on Chinese steel back in 2016. These tariffs decrease gradually every year and will expire in Mar 2020. There is a possibility of a tariff renewal or extension but this cannot be counted on. However, we believe HPG will remain competitive against imported Chinese steel even after the import tariffs expire in 2020F due to the following reasons:

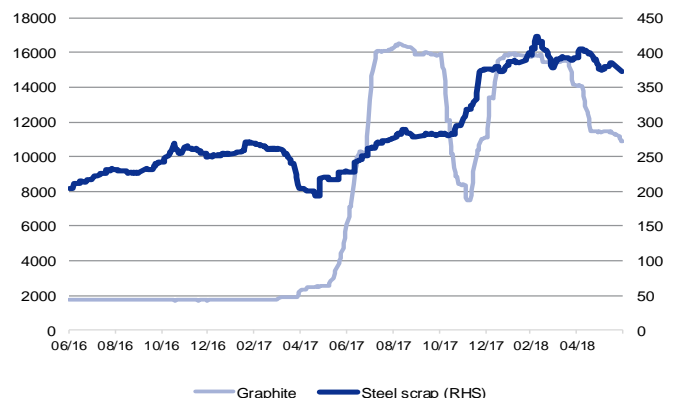
- China is more concerned about environmental issues now and this will ultimately raise costs for its steel producers as they adopt environmentally-friendly but costlier production methods. In contrast, Vietnamese steel producers do not have to comply with strict environmental protection laws. We see Chinese steel producers switching to more high-grade ore and coal compared to the past. Based on our estimation, Chinese blast oxygen furnace (BOF) is a less environmentally-friendly production method than electricity arc furnace (EAF) and steel manufacturers will experience up to a 15% increase in their costs if they switch to using all high-grade iron ore and coking coal instead of low-grade equivalents conventionally used. This implies that Chinese BOF steel producers will have higher costs than a Vietnamese one if the environmental regulations are fully enforced. In order to protect their margins, Chinese steel producers have to raise their selling prices. Chinese steel prices might hence even increase, raising the international market prices for steel and indirectly benefiting Vietnamese steel producers.
- We expect Chinese EAF production capacity to increase in the upcoming years because of 1) stricter environmental measures, and 2) the trend to tap local sources for scrap steel. This is currently one of the Chinese government’s aims for its steel industry. According to our calculations across North America, Europe, China and Vietnam, current raw material prices make BOF a more cost-effective method than EAF for steel production. We estimate that unit production costs for an EAF mill are on average 20-30% higher than that from a BOF mill (based on raw material prices as of 31 Jul 2018).

Figure 5: BOF mill’s main raw material prices (US\$/tonne)



Note: Iron ore and coking coal account for 29% and 25% respectively in total cost of BOF mills
SOURCES: VND RESEARCH, BLOOMBERG

Figure 6: EAF mill’s main raw material prices (US\$/tonne)



Note: Scrap and electricity account for 56% and 26% respectively in total cost of EAF mills
SOURCES: VND RESEARCH, BLOOMBERG

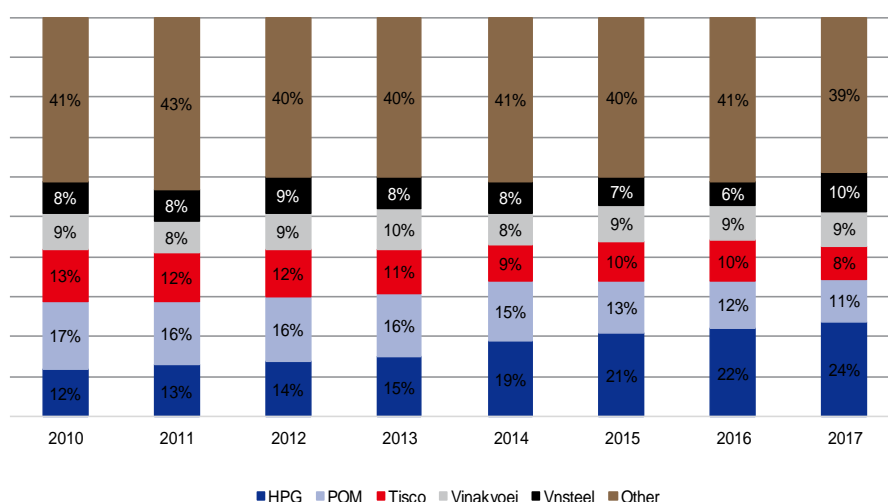
- High volatility in the cost of raw materials makes it difficult to forecast BOF and EAF input price levels three years from now. However, we still believe environmental controls in China could increase the cost base for Chinese BOF steel producers.
- Due to lower construction costs in Vietnam relative to the Asia region, we believe HPG has capex efficiency advantages compared to Chinese steel producers. We estimate HPG has an average capex per tonne of US\$230 vs. an average of US\$450 for Chinese BOF steel makers. This ultimately translates into an advantage in terms of fixed operating costs in the form of lower D&A expenses.

HPG's additional capacity can be well-absorbed

HPG's Dung Quat-Hoa Phat plant consists of two phases. Phase 1 will produce total 2.0m tpy of long steel, including 1.0m tpy of rebar steel and another 1.0m tpy of wire rod and high-quality long steel. Phase 2 will produce 2.0m tpy of hot rolled coil, a semi-finished flat steel product.

We believe HPG's additional long steel capacity can be absorbed based on the following observations:

- The current demand for Vietnamese steel is approximately 18.5m tonne per annum, of which long steel products account for around 12.6m tonne per annum. Additional capacity of 2.0m tpy of long steel products coming into the market will be equivalent to 16% of current long steel demand. Assuming growth of 10% per year in domestic long steel demand, HPG's new long steel factory will be able to run at full capacity within 1-2 years from the commissioning of its first phase, assuming HPG can garner the majority of the incremental demand in the market due to its leading market position.
- Import tariffs have significantly reduced imported steel volumes. Imported Chinese steel accounted for around 23% of total steel demand (including semi-finished and finished products) in 2017, having decreased from 9.4m tonnes in 2016 to just under 7.0m tonnes in 2017. We estimate that Chinese long steel imports currently account for only 15-20% of total long steel consumption. This secular fall in imported steel will create more room for domestic players, especially a leading one like HPG.
- Even if domestic long steel manufacturers increase their operating capacity in the near future (see Figure 8), HPG still has its own distinctive advantages. Based on our estimates, there will be from 4.0m-5.0m tpy of additional production capacity for long steel products in Vietnam by 2020F, which is equivalent to around 40-50% of current long steel demand. HPG will account for about half of this additional capacity. Current capacity utilisation of Vietnam's steel industry is estimated at around 77%. However, while other companies run at low capacity (less than 60%), HPG usually runs at full capacity because of its cost advantages. The company has been able to grab market share from both inefficient competitors and imported steel manufacturers. We expect it to continue to do so.
- However, based on our baseline scenario, the supply growth (a CAGR of 20% in 2017-20F) will outpace demand growth (assuming 10% per year). As such, we expect domestic steel prices to decline in 2020F then remain muted in 2021-22F, despite rising inflation in Vietnam.

Figure 7: Construction steel market share in Vietnam (2010-17)


SOURCES: VSA, VND RESEARCH

Figure 8: Planned capacity expansion of Vietnam steel industry (2018-22F)

Project	Investors	Capacity			Commissioning date
		HRC	CRC	GI/GL	
Flat steel					
Formosa Ha Tinh BF2	Formosa	1,800,000			May-18
Dung Quat Steel Complex	Hoa Phat Group	2,000,000			Dec-19
Hoa Sen Nhon Hoi - Binh Dinh	Hoa Sen Group		350,000	250,000	Q2&Q32018
Nam Kim 3	Nam Kim Steel			350,000	Sep-18
Nam Kim BR-VT	Nam Kim Steel	1,000,000	1,000,000	1,000,000	2022
Unnamed	Dong A Steel		400,000	500,000	Q12018
Unnamed	Phuong Nam Steel			150,000	May-20
Unnamed	Pomina Steel			600,000	Jan-19
Total		4,800,000	1,750,000	2,850,000	
Long steel					
		Crude steel	Rebar	Wire rod	
Formosa Ha Tinh BF2	Formosa	NA	600,000	600,000	May-18
Dung Quat Steel Complex	Hoa Phat Group	2,000,000	1,000,000	1,000,000	Jul-18
Unnamed	Tung Ho Steel	600,000		600,000	Q32018
Unnamed	Kyoei Vietnam	700,000		500,000	NA
Unnamed	Pomina Steel	800,000		500,000	End-2019
Total		4,100,000	3,200,000	1,600,000	

SOURCES: VND RESEARCH

 NOTE: GI/GL: galvanized steel, HRC: hot rolled coil, CRC: cold rolled coil
 HRC and CRC are inputs for GI/GL production and Crude steel is input for rebar and wire rod production.

In the flat steel product segment, HPG aims to move upstream in the flat steel production chain even as the Vietnamese flat steel market is currently experiencing a shortage of hot rolled coil (HRC), a semi-finished flat steel product. We expect the company to use most of its HRC products as an input for producing steel pipes and galvanized steel. After the completion of Phase 2, HPG will become only the second steel producer in Vietnam, after Formosa (a foreign-owned, Vietnam-based steel manufacturer) to be able to produce both long and flat steel products.

Maintain Add rating with target price of VND47,800

Despite market concerns over trade war and HPG's capacity expansion, we remain positive on HPG. The big cut in our target price and forecasts reflects HPG's larger outstanding share base following its recent 40% stock dividend (see Figure 9). Given that valuations of regional peers had declined sharply amid fears of a supply glut due to steel tariffs applied by the US, we revise down our target 12M forward P/E for HPG from 10.2x to 8.7x (Figure 11), still at 30% premium over the average regional peer median as HPG has a higher ROE than its peers and is better protected from the US-China trade tensions than Chinese steel producers which make up most of its peer universe. We arrived at our target price of VND47,800, based on an equal weighting of: 1) a forward P/E of 8.7x on the average EPS over CY18-19F, and 2) a DCF valuation over a 5-year

projection period (Figure 12). We maintain our Add recommendation. Potential re-rating catalysts include 1) sharp fall in steel prices; 2) rising raw materials and 3) stricter environment controls in Vietnam. Upside risks include 1) stronger-than-expected market share expansion, and 2) continued rise in domestic steel prices after the expiration of tariffs in 2020F.

Figure 9: Changes in our forecasts (VND bn unless otherwise noted)

	Old forecasts		New forecasts		Changes	
	FY18F	FY19F	FY18F	FY19F	FY18F	FY19F
Revenue	60,064	78,313	60,111	78,587	0.1%	0.3%
Gross profit	13,184	19,403	13,121	19,360	-0.5%	-0.2%
EBIT	11,563	17,313	11,498	17,262	-0.6%	-0.3%
EBT	10,997	16,556	10,931	16,490	-0.6%	-0.4%
Net profit	9,416	14,191	9,360	14,134	-0.6%	-0.4%
Number of shares outstanding (million shares)	1,517	1,517	2,124	2,124	40.0%	40.0%
EPS (VND)	5,896	8,886	3,977	6,006	-32.5%	-32.4%

SOURCES: VND RESEARCH, COMPANY REPORTS

Figure 10: Regional sector comparison

Company	Bloomberg Ticker	Recom.	Closing price	Target price	Market cap (US\$ m)	ROE (%)		P/BV (x)		P/E (x)	
			(local curr.)	(local curr.)		CY18F	CY19F	CY18F	CY19F	CY18F	CY19F
JSW Steel	JSTL IN	Reduce	327.6	222.0	11,593	23.6	19.5	2.4	2.0	10.6	10.6
Tata Steel	TATA IN	Reduce	555.8	460.0	9,305	13.7	12.7	1.0	0.9	7.5	7.4
NMDC	NMDC IN	Add	107.0	138.9	4,955	15.7	12.8	1.3	1.3	8.2	8.3
Shanxi Taigang Stainless-A	000825 CH	Not rated	5.8	na	4,815	15.8	14.7	1.1	0.9	7.2	6.1
Sansteel Minguang Co Ltd -A	002110 CH	Add	19.7	31.0	4,722	30.7	27.2	1.8	1.4	5.5	5.1
Steel Authority of India	SAIL IN	Reduce	76.9	58.0	4,648	8.2	9.1	0.8	0.7	9.4	7.7
Maanshan Iron & Steel-A	600808 CH	Add	4.0	4.9	4,371	17.7	15.8	1.1	1.0	6.8	6.5
Hunan Valin Steel Co Ltd -A	000932 CH	Add	9.6	12.2	4,239	35.5	27.7	1.8	1.3	5.3	5.1
Liuzhou Iron & Steel Co-A	601003 CH	Not rated	9.5	na	3,554	40.4	32.3	2.4	1.9	6.6	6.3
Xinyu Iron & Steel Co Ltd-A	600782 CH	Add	7.2	9.5	3,346	23.4	21.1	1.4	1.2	5.8	5.4
Nanjing Iron & Steel Co-A	600282 CH	Hold	4.8	5.3	3,125	24.9	21.1	1.4	1.2	5.7	5.4
Jindal Steel & Power Ltd	JSP IN	Reduce	201.7	123.0	2,859	3.4	6.2	0.6	0.6	20.5	10.1
Xinxing Ductile Iron Pipes-A	000778 CH	Not rated	4.5	na	2,659	6.5	6.9	0.9	0.8	11.6	10.6
SGIS Songshan Co Ltd-A	000717 CH	Add	7.3	9.7	2,599	54.6	37.1	2.9	1.9	5.7	5.6
Average regional peers						22.4	18.9	1.5	1.2	8.3	7.1
Median regional peers						20.5	17.7	1.3	1.2	7.0	6.4
Hoa Phat Group JSC	HPG VN	Add	37,600	47,817	3,432	24.2	28.7	1.9	1.5	9.0	5.9

 SOURCES: VND RESEARCH, BLOOMBERG
 NOTE: AS OF 01 AUG 2018

Figure 11: DCF model - key assumptions & input, based on our estimates

General assumptions	2016A	2017A	2018F	2019F	2020F	2021F	2022F	Terminal
Risk free rate (10-year VGB yield)	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%
Equity risk premium (%)	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%	10.1%
Beta (source: BB)	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08
Cost of equity (%)	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%	15.9%
Long-term growth rate (%)								2.1%
ROE (%)								23.0%
(in VND bn, otherwise noted)								
PV of DCF (5 years)			22,585					
PV of Terminal value			92,213					
Enterprise value			114,797					
Less: Total Debt			12,980					
Plus: Cash and Cash equiv.			4,265					
Implied EV			106,082					
No. of o/s shares (mn shares)			2,124					
Implied value per share (VND)			49,944					

SOURCES: VND RESEARCH

Figure 12: P/E method, key inputs, based on our estimates

	FY18F	FY19F	Avg. CY18-19F
EPS	4,186	6,322	5,254
Industry median multiple	7.0	6.4	6.7
Premium			30.0%
Target multiple			8.7
Implied value per share (VND)			45,691

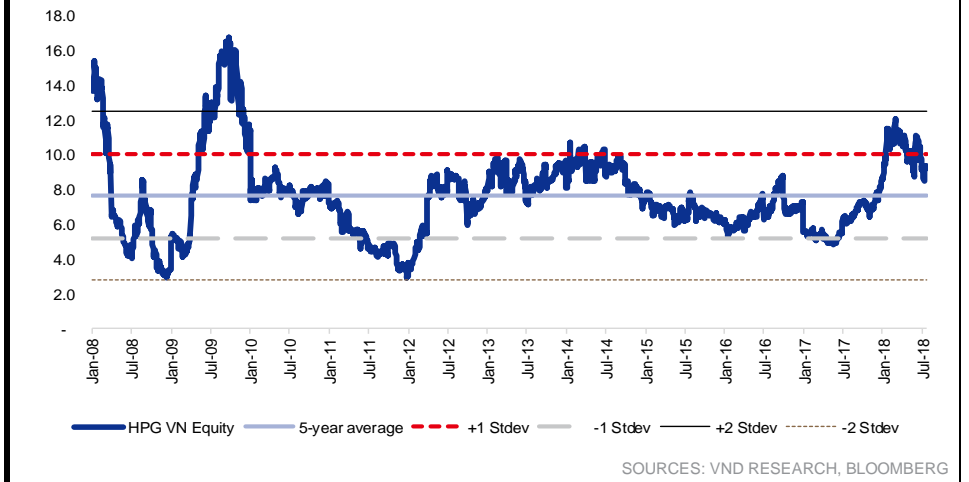
SOURCES: VND RESEARCH

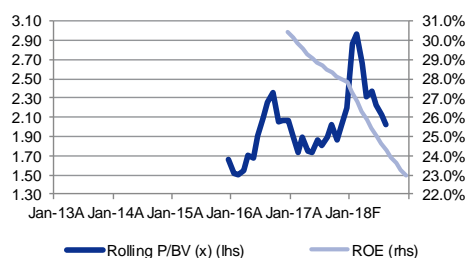
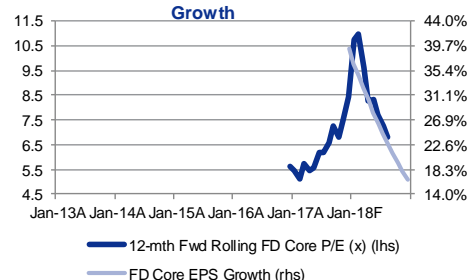
Figure 13: Blended target price, based on our estimates

Method	Implied value per share (VND)	Weight (%)	Weighted price (VND)
DCF	49,944	50%	24,972
P/E	45,691	50%	22,845
Target price (VND)			47,817

SOURCES: VND RESEARCH

Figure 14: HPG's 2019 forward P/E (6.0x) is lower than its 5-year historical average (7.6x)



BY THE NUMBERS
P/BV vs ROE

12-mth Fwd FD Core P/E vs FD Core EPS Growth

Profit & Loss

(VNDb)	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
Total Net Revenues	27,453	33,283	46,162	60,111	78,587
Gross Profit	5,594	8,751	10,674	13,121	19,360
Operating EBITDA	5,982	9,530	11,626	15,362	24,220
Depreciation And Amortisation	(1,573)	(1,674)	(2,005)	(3,863)	(6,958)
Operating EBIT	4,409	7,856	9,622	11,498	17,262
Financial Income/(Expense)	(318)	(171)	(370)	(603)	(808)
Pretax Income/(Loss) from Assoc.	0	0	0	0	0
Non-Operating Income/(Expense)	(102)	17	36	36	36
Profit Before Tax (pre-EI)	3,990	7,702	9,288	10,931	16,490
Exceptional Items					
Pre-tax Profit	3,990	7,702	9,288	10,931	16,490
Taxation	(485)	(1,096)	(1,274)	(1,551)	(2,339)
Exceptional Income - post-tax					
Profit After Tax	3,504	6,606	8,015	9,380	14,151
Minority Interests	(19)	(4)	(8)	(21)	(16)
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax	(160)	(566)	(181)	(468)	(707)
Net Profit	3,325	6,036	7,826	8,891	13,428
Recurring Net Profit	2,886	5,205	7,245	8,447	12,756
Fully Diluted Recurring Net Profit	2,886	5,205	7,245	8,447	12,756

Cash Flow

(VNDb)	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
EBITDA	5,982	9,530	11,626	15,362	24,220
Cash Flow from Inv. & Assoc.					
Change In Working Capital	(410)	(1,405)	(3,149)	1,072	(6,026)
(Incr)/Decr in Total Provisions	0	0	0	0	0
Other Non-Cash (Income)/Expense	13	22	(5)	0	0
Other Operating Cashflow	(141)	(421)	(361)	(288)	(315)
Net Interest (Paid)/Received	(419)	(154)	(333)	(567)	(772)
Tax Paid	(448)	(753)	(1,724)	(1,551)	(2,339)
Cashflow From Operations	4,576	6,819	6,055	14,028	14,768
Capex	(3,387)	(3,417)	(8,875)	(20,871)	(21,058)
Disposals Of FAs/subsidiaries	32	28	7	0	0
Acq. Of Subsidiaries/investments					
Other Investing Cashflow	(410)	261	(9,058)	2,000	7,000
Cash Flow From Investing	(3,764)	(3,128)	(17,926)	(18,870)	(14,057)
Debt Raised/(repaid)	108	(1,731)	5,837	5,158	6,184
Proceeds From Issue Of Shares	0	0	5,057	0	0
Shares Repurchased	0	0	0	0	0
Dividends Paid	(541)	(1,102)	(4)	0	(2,124)
Preferred Dividends					
Other Financing Cashflow	(0)	(7)	1	(164)	(470)
Cash Flow From Financing	(433)	(2,840)	10,891	4,993	3,589
Total Cash Generated	379	851	(980)	151	4,300
Free Cashflow To Equity	920	1,960	(6,034)	315	6,894
Free Cashflow To Firm	1,231	3,845	(11,537)	(4,275)	1,482

SOURCES: VND, COMPANY REPORTS

BY THE NUMBERS... cont'd
Balance Sheet

(VNDb)	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
Total Cash And Equivalents	2,373	4,559	4,265	5,105	6,801
Total Debtors	1,608	2,395	6,555	3,607	7,466
Inventories	6,937	10,247	11,769	15,506	19,545
Total Other Current Assets	997	982	10,489	8,599	1,931
Total Current Assets	11,915	18,183	33,077	32,817	35,742
Fixed Assets	12,582	13,846	18,652	34,942	49,047
Total Investments	103	79	17	17	17
Intangible Assets	255	257	240	234	229
Total Other Non-Current Assets	652	862	1,035	1,087	1,141
Total Non-current Assets	13,592	15,044	19,945	36,280	50,434
Short-term Debt	6,117	5,488	11,329	11,421	14,146
Current Portion of Long-Term Debt					
Total Creditors	3,527	6,097	6,487	8,458	10,661
Other Current Liabilities					
Total Current Liabilities	9,643	11,585	17,815	19,879	24,807
Total Long-term Debt	739	972	1,651	6,605	6,982
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	658	819	1,158	1,322	1,793
Total Non-current Liabilities	1,397	1,791	2,809	7,928	8,775
Total Provisions	0	0	0	0	0
Total Liabilities	11,040	13,376	20,624	27,807	33,582
Shareholders' Equity	14,444	19,745	32,287	41,180	52,484
Minority Interests	23	106	111	111	111
Total Equity	14,467	19,850	32,398	41,291	52,594

Key Ratios

	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
Revenue Growth	N/A	21.2%	38.7%	30.2%	30.7%
Operating EBITDA Growth	N/A	59.3%	22.0%	32.1%	57.7%
Operating EBITDA Margin	21.8%	28.6%	25.2%	25.6%	30.8%
Net Cash Per Share (VND)	(2,111)	(895)	(4,104)	(6,084)	(6,746)
BVPS (VND)	6,801	9,297	15,202	19,389	24,712
Gross Interest Cover	17.54	28.06	20.06	15.46	17.49
Effective Tax Rate	12.2%	14.2%	13.7%	14.2%	14.2%
Net Dividend Payout Ratio	16.3%	18.3%	0.0%	NA	15.8%
Accounts Receivables Days	N/A	22.01	35.38	30.85	25.71
Inventory Days	N/A	128.2	113.2	105.9	108.0
Accounts Payables Days	N/A	71.79	64.71	58.04	58.91
ROIC (%)	N/A	40.3%	42.8%	27.2%	31.1%
ROCE (%)	N/A	33.6%	27.1%	22.2%	26.2%
Return On Average Assets	N/A	21.1%	19.0%	15.6%	18.4%

Key Drivers

	Dec-15A	Dec-16A	Dec-17A	Dec-18F	Dec-19F
ASP (% Change)	-16.2%	-10.9%	9.7%	7.0%	5.0%
Unit Sales Growth (%)	25.4%	51.1%	21.1%	22.8%	31.6%
Utilisation Rate (%)	100.2%	91.0%	106.4%	95.9%	60.9%

SOURCES: VND, 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 August 3, 2018 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 August 3, 2018, 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 CIMB Securities (Singapore) Pte. Ltd. and CIMB Securities 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. CIMB Securities (Singapore) Pte. Ltd. and CIMB Securities Limited do not hold, and are not required to hold an Australian financial services license. CIMB Securities (Singapore) Pte. Ltd. and CIMB Securities 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 CIMB Securities 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 CIMB Securities 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.

This publication is strictly confidential and is for private circulation only to clients of CHK.

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

India: This report is issued and distributed in India by 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, CIMB India is not required to seek registration with the Securities and Exchange Board of India ("SEBI") as an Investment Adviser. 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 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 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 received compensation from the following mentioned companies in the past 12 months : CIMB Securities (USA) Inc. does not make a market on other securities mentioned in the report.

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 CIMB Sekuritas Indonesia ("CIMBI"). The views and opinions in this research report are our own as of the date hereof and are subject to change. CIMBI 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 by CIMB solely for the benefit of and for the exclusive use of our clients. 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 CIMB Research Pte Ltd ("CIMBR"). 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 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 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. 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 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, 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 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 CIMBR is exempt from Section 27 of the FAA, the recipient will also not be able to file a civil claim against CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by 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 CIMBR for any loss or damage arising from the recipient's reliance on any recommendation made by CIMBR which would otherwise be a right that is available to the recipient under Section 27 of the FAA.

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, 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 August 3, 2018,, CIMBR does not have a proprietary position in the recommended securities in this report.

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 CIMB Securities Limited, Korea Branch ("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 CIMB Securities (Thailand) Co. Ltd. ("CIMBT") 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 CIMBT has no obligation to update its opinion or the information in this research report.

CIMBT 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. CIMBT 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 CIMB Securities (UK) Limited ("CIMB UK"). 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 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 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 CIMB Securities (USA) Inc, a U.S. registered broker-dealer and a related company of CIMB Research Pte Ltd, PT CIMB Sekuritas Indonesia, CIMB Securities (Thailand) Co. Ltd, CIMB Securities Limited, 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. 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 CIMB Securities (USA) Inc.

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

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

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

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.

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.

Anirban Lahiri – Head of Research

Email: anirban.lahiri@vndirect.com.vn

My TRAN Ha –

Email: my.tranha@vndirect.com.vn

Hung Xuan NGUYEN –

Email: hung.nguyenxuan@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>