

Singapore

REDUCE (previously ADD)

Consensus ratings*: Buy 4 Hold 0 Sell 0

Current price:	S\$0.72
Target price:	S\$0.63
Previous target:	S\$0.90
Up/downside:	-11.8%
CGS-CIMB / Consensus:	-31.3%
Reuters:	JAPF.SI
Bloomberg:	JAP SP
Market cap:	US\$983.6m
	S\$1,334m
Average daily turnover:	US\$1.51m
	S\$2.04m
Current shares o/s:	1,847m
Free float:	19.2%

*Source: Bloomberg

Key changes in this note

- Reduce FY19-20F EPS by 1.4%-5.9%.

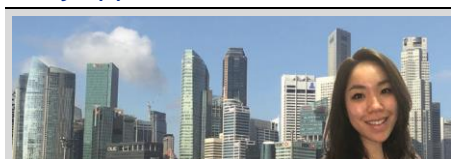


Source: Bloomberg

Price performance	1M	3M	12M
Absolute (%)	-9.5	-8.3	52.1
Relative (%)	-8	-11	62.2

Major shareholders

	% held
Rangi Management Ltd	50.3
Morze International Ltd	15.3
Tasburgh Ltd	6.9

Analyst(s)

Cezzane SEE

T (65) 6210 8699

E cezzane.see@cgs-cimb.com

Japfa Ltd

Peaked for now

- At 9.4x CY20F, the market has priced in weaker Vietnam profits after the African Swine Fever (ASF) outbreak in Vietnam since 19 Feb, in our view.
- But narrower net profit growth in its Indonesia poultry business post 3Q19F, and larger-than-expected disruption in Vietnam are potential downside risks.
- Valuations could retrace to the -0.5 s.d. level (c.8.0x), until headwinds dissipate. Downgrade to Reduce from Add with a lower SOP TP of S\$0.63.

More downside in the longer term; downgrade to Reduce

At current valuations, we believe the market has priced in weaker Vietnam swine profits, mainly attributable to the potential impact of ASF outbreak in Vietnam. Share price could re-rate till 3Q19F on sustained Indonesia poultry margins ahead of the Lebaran season and the continual day old chick (DOC) supply shortage. However, in the longer term, potentially narrower yoy growth for JAP's poultry business towards FY20F and larger-than-expected disruption in the Vietnam swine business could be risk factors, in our view. As such, we believe the stock could retrace to 0.5 s.d. below average mean levels. We lower our SOP-based TP to S\$0.63 as we turn cautious on the stock.

African Swine Fever (ASF) outbreak in Vietnam

According to the PigProgress website as at 11 Mar, the outbreak of African Swine Fever in the north of Vietnam is spreading at a rapid pace, with the number of infected communities rising to 79. Based on the ongoing ASF outbreak in China since Aug 18, we believe industrialised farmers (like JAP) may stand a better chance but there are no guarantees they will not be affected. A silver lining is that swine prices may at least be maintained as the supply dwindles. However, if there is a shift in consumption to other proteins, the demand for JAP's swine could also decline. JAP said it could see higher costs due to enhanced biosecurity measures and lower swine feed sales volumes. We conservatively forecast JAP's Vietnam FY19F EBIT to shrink by 47.3% yoy as we assume lower margins of 4.4% (vs. CY18: 8.0%).

Poultry tailwinds could moderate in FY20F

Our Indonesian analyst foresees DOC prices rising in FY19F in Indonesia, and broiler price staying weak in Feb 19 before eventually inching up in Mar 19. These are near-term catalysts for PT Japfa Tbk's business (at least till 3Q19F). But supply/demand could stabilise towards CY20F as the DOCs imported in CY18 hit the market. Local Indonesia corn prices also rose at end-CY18, which could stifle further growth in feed margins. All in, margins could moderate in the medium term.

Forecast revision

We lower our FY19-20F EPS by 1.4-5.9% due to lower expectations for the Vietnam swine business and moderation in Indonesia poultry margins. Potential catalysts/risks include: i) sustained/lower margins for Indonesia poultry; ii) lower/higher-than-expected losses in Vietnam swine business; and iii) higher/lower profits from the dairy business.

Financial Summary	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Revenue (US\$m)	3,190	3,533	3,528	3,588	3,654
Operating EBITDA (US\$m)	285.7	448.0	418.8	424.7	433.2
Net Profit (US\$m)	0.7	100.4	102.8	103.3	104.2
Core EPS (US\$)	0.018	0.056	0.056	0.056	0.056
Core EPS Growth	(72%)	221%	(1%)	0%	1%
FD Core P/E (x)	29.98	9.13	9.47	9.43	9.35
DPS (US\$)	0.010	0.010	0.010	0.010	0.010
Dividend Yield	1.90%	1.90%	1.90%	1.90%	1.90%
EV/EBITDA (x)	6.89	5.30	5.44	5.39	5.29
P/FCFE (x)	NA	NA	7.75	46.58	31.67
Net Gearing	69.4%	92.8%	69.0%	57.7%	48.1%
P/BV (x)	1.34	1.25	1.10	0.99	0.89
ROE	4.2%	14.2%	12.4%	11.1%	10.0%
% Change In Core EPS Estimates			(1.43%)	(5.91%)	
CIMB/consensus EPS (x)			0.84	0.79	0.69

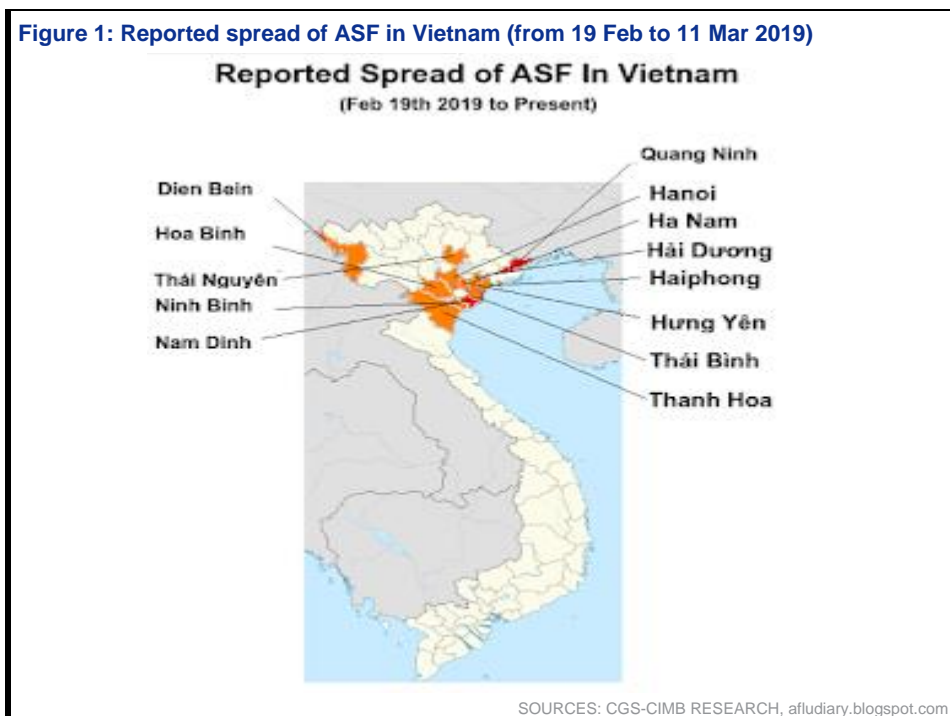
SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Peaked for now

African Swine Fever (ASF) outbreak in Vietnam ►

According to the PigProgress website, Vietnam's first case of African Swine Fever (ASF) was reported on 19 Feb, in eight households in three locations in Hung Yen and Thai Binh provinces, southeast of the capital of Hanoi. On 11 Mar, the PigProgress website announced that the outbreak of African Swine Fever in the north of Vietnam is spreading at a rapid pace, with the number of infected communities rising to 79. It mentioned that in total about c.6.7k pigs in 10 provinces have been killed or culled to avoid further contamination, mainly in villages (i.e. no professional farms have been reported thus far).

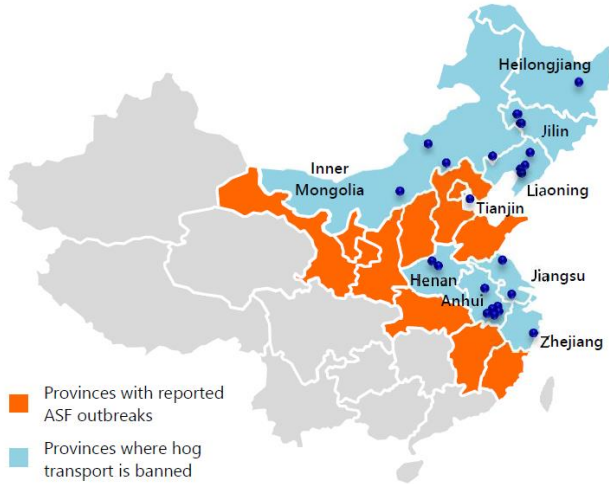
Figure 1: Reported spread of ASF in Vietnam (from 19 Feb to 11 Mar 2019)



To recap, the most recent large outbreak of ASF was in China. It started in early Aug 18 in the Liaoning province in Northeast China. According to Rabobank's 4Q18 quarterly report, since AFS was first reported, there were over 30 separate cases reported in eight provinces between Aug and Oct 18. It also mentioned that larger farms could be more defensive against the disease, given their heightened biosecurity measures. However, in Rabobank's latest 1Q19 pork quarterly summary, it said that the ASF outbreak in large, modern farms in China has astonished the market, a sign that controlling the disease can be complicated, in our view. The World Organisation for Animal Health recently mentioned that since the first occurrence of ASF in China, 115 outbreaks have been reported in 28 different administrative divisions.

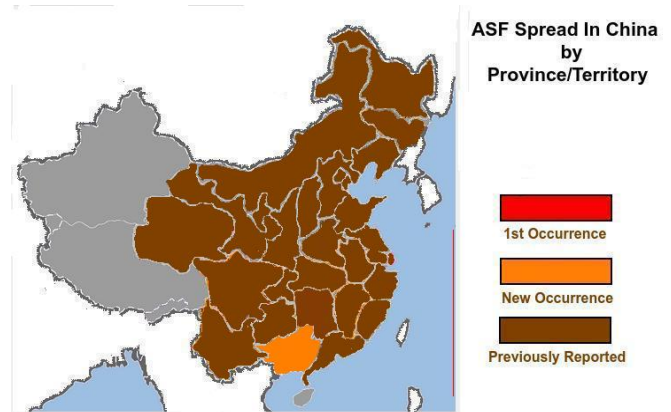
To contain the disease, the Chinese government has put into effect transport bans on the affected regions since Aug 18. This resulted in price mismatches (live hog prices fell below breakeven levels in the northern and northeastern provinces whilst prices in hog-deficit provinces increased). The shortage of pork has resulted in some changing protein patterns whereby beef and poultry consumption has increased.

Figure 2: ASF outbreak in China as at 15 Oct 2018 (according to Rabobank)



SOURCES: CGS-CIMB RESEARCH, Raboank's "Pork Quarterly 4Q2018"

Figure 3: ASF outbreak in China as at 7 Mar 2019 (according to the Avian Flu Diary website)

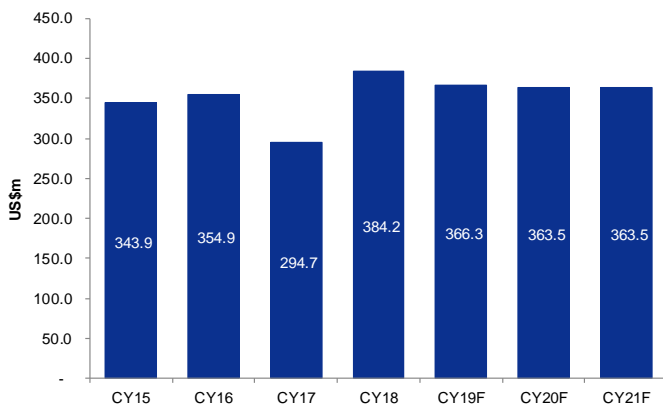


SOURCES: CGS-CIMB RESEARCH, afludairy.blogspot.com

Based on the outbreak in China, we believe that i) whilst industrialised farmers (like JAP) may stand a better chance in Vietnam, there are no guarantees that they will not be affected by the disease as well; ii) swine prices may increase or at least stay flat as the supply declines and iii) if there is a shift in consumption to other proteins, demand for JAP's swine will also fall, though this could be offset by an increase in poultry demand.

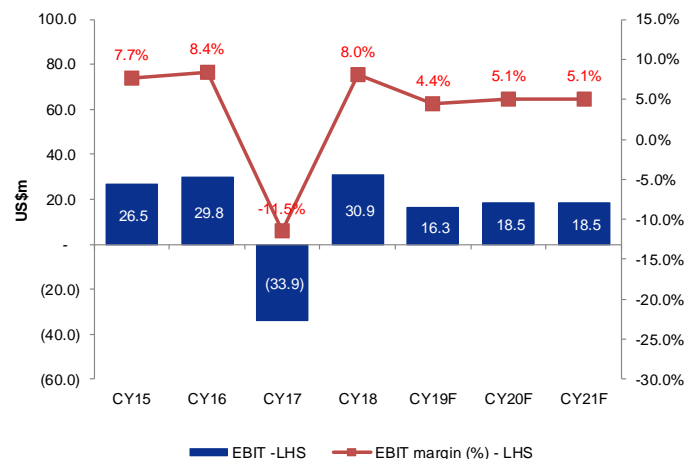
JAP guided that none of its swine farms have been impacted to date. In its recent 4Q18 results announcement it mentioned i) its cost of production could increase due to the implementation of enhanced biosecurity measures, ii) sales volume of its swine feed sold to external parties could continue to fall as the swine population in Vietnam is likely to decline with the culling of infected animals (CY18: -8.7% yoy as the Vietnam swine industry was impacted by China's ban on Vietnam swine since end-CY16) and iii) sales volume of JAP's fattening swine (CY18: +3.7% yoy) could be impacted in the event that any of its farms are directly affected by ASF. It is still early days, but for now we conservatively forecast JAP's Vietnam revenue to fall by 4.7% in FY19F, and EBIT to shrink by 47.3% as we assume lower margins of 4.4% (vs. CY18: 8.0%). Vietnam accounted for c.68% of revenue and 94% of EBIT for JAP's Animal Protein Other segment in CY18F.

Figure 4: Historical and forecast Vietnam revenue



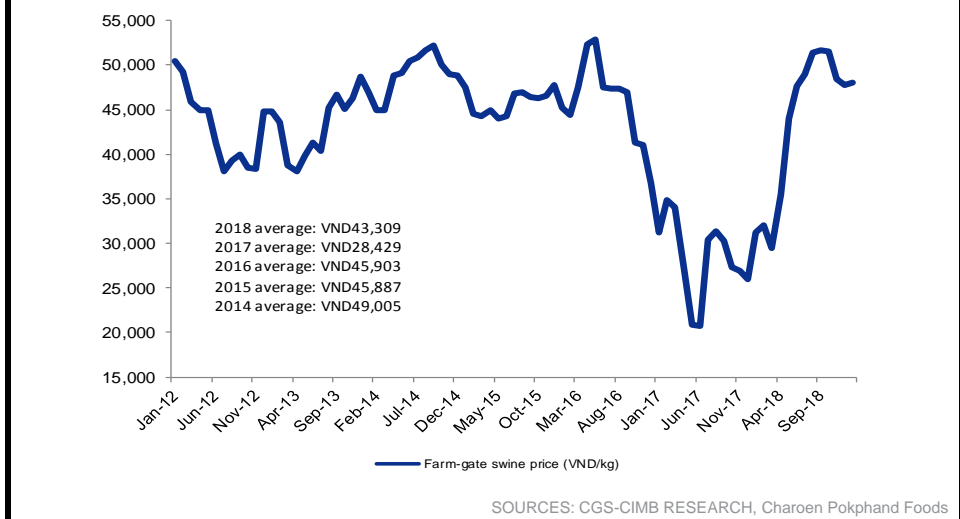
SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 5: Historical and forecast Vietnam EBIT and EBIT margins



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 6: Historical Vietnam farmgate swine prices



Poultry tailwinds could moderate towards FY20F ➤

Pt Japfa Tbk’s (JAP’s Indonesian subsidiary) FY18 EBIT grew 63% yoy, driven mainly by higher average selling prices (ASP) for day old chick (DOC) and broiler poultry due to the lack of DOC supply.

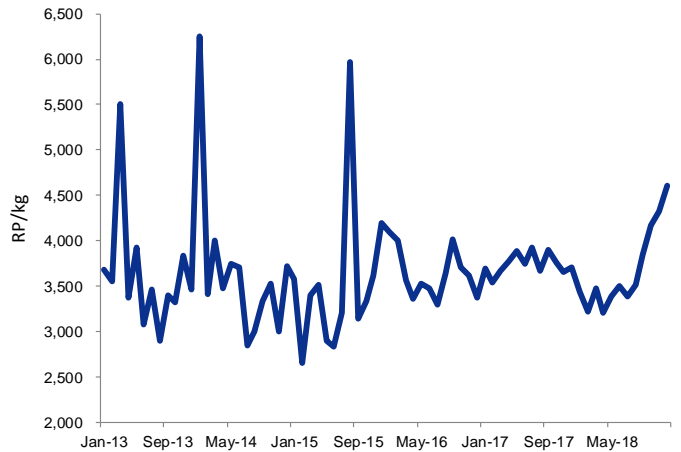
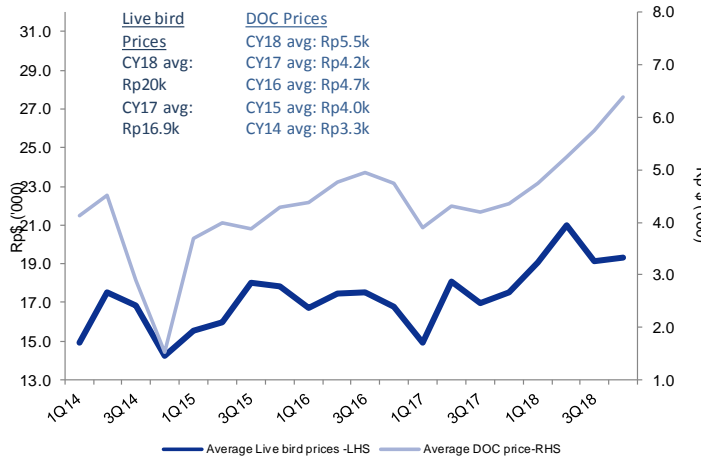
According to our Indonesian analyst, poultry supply and demand should have reached an equilibrium in 2018 (following the massive culling exercises in 2016-17) but the ban on antibiotics in poultry feed in Jan 18 resulted in an increased mortality rate and growth cycle, disrupting supply and leading to all-time high DOC and broiler prices of Rp20k and Rp5.5k, respectively, in FY18. Pinsar (an Indonesian poultry organisation) projects the poultry supply shortage to be worse in FY19F, with poultry supply of 3bn chicks vs. FY18’s 3.2bn. While grandparent stock (GPS) imports jumped 9% yoy in 2018, these DOC will likely only hatch by 3Q19F. Our Indonesian analyst expects DOC prices to continue to rise in FY19F given the growth cycle of DOC, though broiler prices could remain weak in Feb 19, before eventually inching up in Mar 19.

The increase in DOC prices in FY19F is a boon and will catalyse Pt Japfa Tbk’s earnings throughout the Lebaran season (May 19) and at least until 3Q19F, in our view. However, supply/demand could stabilise towards CY20F as the DOCs imported in CY18 hit the market, and potentially moderate forward earnings growth. We also note that local Indonesia corn prices rose at end-CY18, which could stifle further growth in feed margins.

We forecast PT Japfa Tbk’s FY19/20/21F EBIT to decline by 4.6%/2.5%/0.2% on the back of more conservative margins of 10.3%/9.7%/9.5% (vs. CY18: 11.0%).

Figure 7: Indonesia's Live bird and DOC monthly average prices

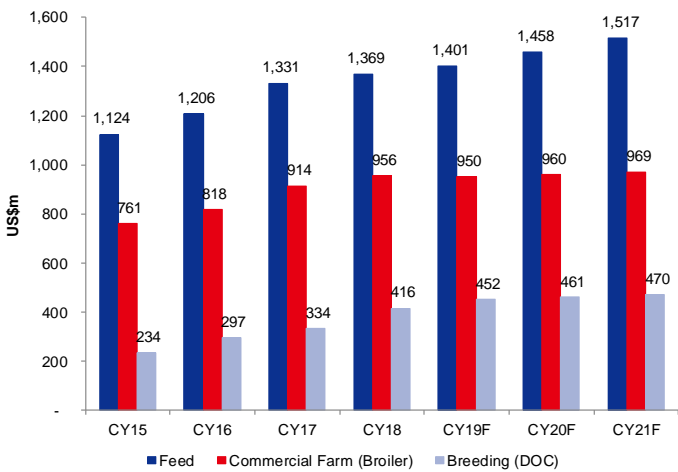
Figure 8: Indonesia local corn price (Rp/kg)



Note: Average monthly market prices of West Java. Live bird weight range: 1.6-1.8kg ; Broiler DOC
SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

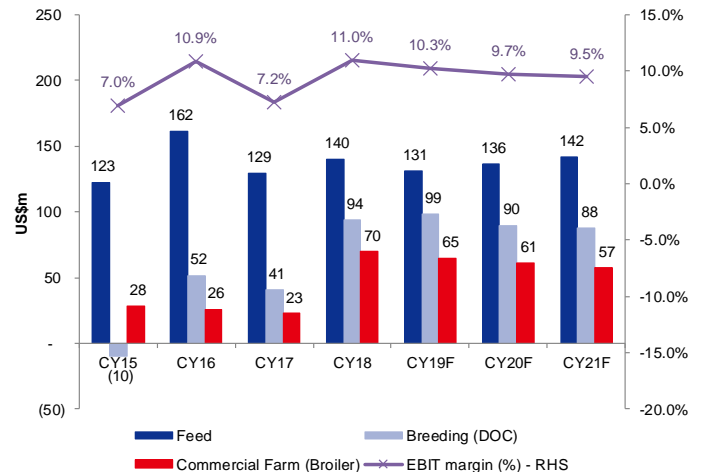
SOURCES: CGS-CIMB RESEARCH, INDONESIA'S MINISTRY OF AGRICULTURE

Figure 9: Historical and forecast PT Japfa Tbk's revenue



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 10: Historical and forecast PT Japfa Tbk's EBIT and EBIT margins



SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Forecast revisions ➤

Our lower expectations for the Vietnam swine business (-44.6% and -40.7% for FY19-20F EBIT), and the continued moderation in Indonesian poultry margins (expect margins to fall to 10.3% and 9.7% in CY19 and CY20F vs. 11% in CY18) lower our FY19 and FY20F EPS forecasts by 1.4% and 5.9%, respectively.

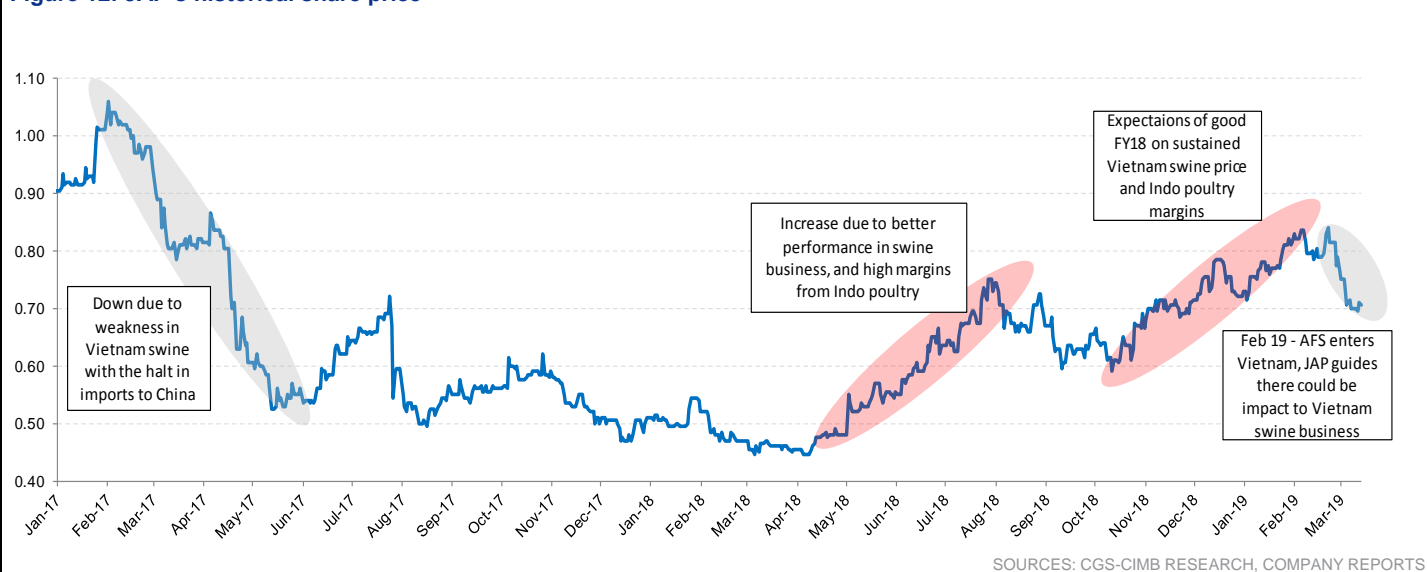
Figure 11: Forecast revisions

US\$m	New		Old		% Change	
	2019F	2020F	2019F	2020F	2019F	2019F
Revenue	3,527.7	3,587.7	3,446.5	3,550.5	2.4%	1.0%
Gross profit	745.7	748.9	763.2	794.4	-2.3%	-5.7%
GPM (%)	21.1%	20.9%	22.1%	22.4%	-1.0%pt	-1.5%pt
EBIT	317.8	313.8	318.6	326.8	-0.2%	-4.0%
OPM (%)	9.0%	8.7%	9.2%	9.2%	-0.2%pt	-0.5%pt
Core net profit	102.8	103.3	104.3	109.8	-1.4%	-5.9%
Core EPS	5.6	5.6	5.6	5.9	-1.4%	-5.9%
Group Revenue	3,527.7	3,587.7	3,446.5	3,550.5	2.4%	1.0%
PT Japfa Comfeed	2,382.7	2,446.4	2,311.9	2,387.0	3.1%	2.5%
Animal protein Other	544.3	541.6	561.4	589.5	-3.0%	-8.1%
Dairy	400.7	399.7	373.2	374.1	7.4%	6.9%
Consumer food	200.0	200.0	200.0	200.0	0.0%	0.0%
Group EBIT	317.8	313.8	318.6	326.8	-0.2%	-4.0%
PT Japfa Comfeed	244.3	238.2	233.0	239.4	4.9%	-0.5%
Animal protein Other	18.0	20.3	32.6	34.2	-44.6%	-40.7%
Dairy	72.1	72.0	69.0	69.2	4.5%	4.0%
Consumer food	(16.6)	(16.6)	(16.0)	(16.0)	3.8%	3.8%
Group EBIT Margin	9.0%	8.7%	9.2%	9.2%	-0.2%pt	-0.5%pt
PT Japfa Comfeed	10.3%	9.7%	10.1%	10.0%	0.2%pt	-0.3%pt
Animal protein Other	3.3%	3.7%	5.8%	5.8%	-2.5%pt	-2.1%pt
Dairy	18.0%	18.0%	18.5%	18.5%	-0.5%pt	-0.5%pt
Consumer food	-8.3%	-8.3%	-8.0%	-8.0%	-0.3%pt	-0.3%pt

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Valuation and recommendation ►

JAP's share price is down 16% from its high of S\$0.84 on 21 Feb and 8% since its results announcement on 28 Feb. We believe the decline in the share price was due to the reports of AFS outbreak in Vietnam and JAP's guidance in its results announcement that its Vietnam swine business could potentially be affected by higher costs and lower swine feed volumes.

Figure 12: JAP's historical share price


SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

At current valuations, we believe the market has priced in weaker Vietnam profits attributable to the swine business. However, it may not have priced in the

medium-term effects of potentially narrower yoy growth for JAP's poultry business towards FY20F. As such, we believe the stock could trade closer to 0.5 s.d. below average mean level in the longer term.

- **Japfa Comfeed and consumer segment.** We value Japfa's consumer segment together with PT Japfa Comfeed as both are largely driven by the Indonesian business. We now ascribe 11x CY20F PER (vs. 16.2x previously), in line with Pt Japfa Comfeed's (Not Rated) long-term average mean. Japfa Comfeed typically trades at a discount to CPIN (Add; TP: Rp8,400) and at a premium to MAIN (Add; TP: Rp2,500), given its slower earnings growth.
- **Animal Protein Other (APO) division:** We reduce the PER applied to 6.5x (vs. 8.5x) CY20F P/E, which is the average of 0.5 s.d. and 1 s.d. below Japfa's FY14-17 mean P/E.

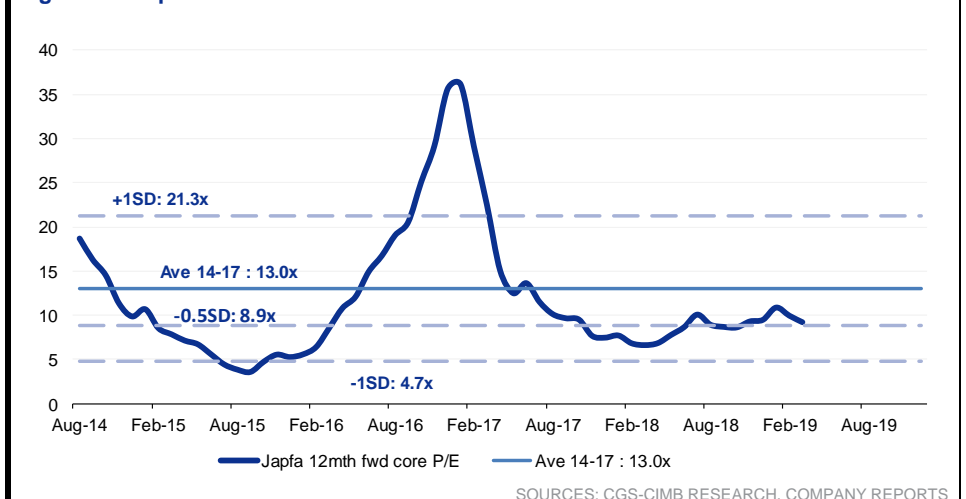
Downgrade the stock to Reduce with a lower SOP-based TP of S\$0.63/share.

Figure 13: Japfa's SOP valuation

	CY20F net profit (US\$m)	Applied P/E multiple	Valuation basis	Value (US\$m)
Animal protein Indonesia and consumer segment	55.0	11.0	Close to long-term average PER of 10.9x for PT Japfa Comfeed (Not Rated)	604.5
Animal protein Other	10.6	6.5	Average between 1SD and 0.5SD level	69.0
Dairy	37.7	5.0	c. 15% discount to implied China Modern Dairy valuation	188.6
Total	103.3			862.1
Shares outstanding (m)				1,847
Value per share (US\$)				0.47
Value per share (S\$)			based on US\$:S\$1.35	0.63
Implied CY19F P/E based on TP				8.4
Implied CY20F P/E based on TP				8.3

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 14: Japfa 12mth fwd core P/E



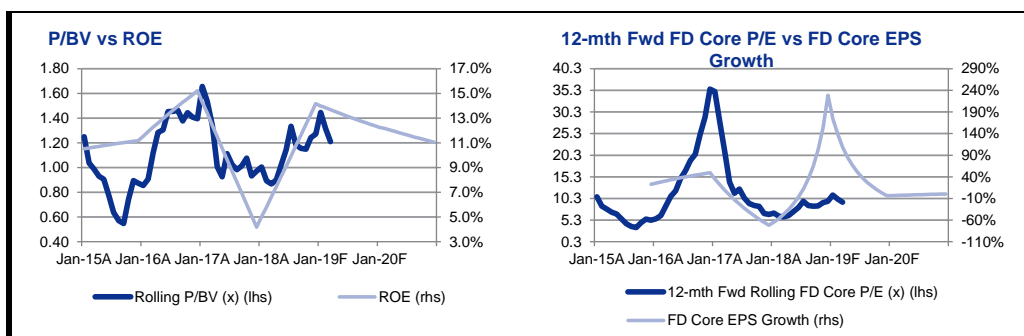
SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

Figure 15: Peers Comparison

Company	Bloomberg Ticker	Recom.	Price (lcl curr)	Target Price (lcl curr)	Market Cap (US\$ m)	Core P/E (x)		2-year EPS CAGR	P/BV (x) CY19F	Recurring ROE (%) CY19F	Dividend Yield (%) CY19F
Japfa Ltd	JAP SP	Reduce	0.72	0.63	984	9.5	9.4	-0.5%	1.10	12.4%	1.9%
Animal protein peers											
Japfa Comfeed Indonesia Tbk F	JPFA IJ	Not rated	2,400	NA	1,975	11.3	10.3	6.9%	2.30	20.9%	2.6%
Charoen Pokphand Indonesia	CPIN IJ	Add	7,300	8,400	8,392	22.8	20.1	12.4%	5.24	24.6%	1.6%
Malindo Feedmill	MAIN IJ	Add	1,505	2,500	236	9.2	7.7	23.4%	1.50	17.1%	3.4%
Simple average						14.4	12.7	14.2%	3.01	20.9%	2.5%
Dairy peers											
China Modern Dairy Holdings	1117 HK	Add	1.14	1.20	890	6.4	5.9	27.9%	0.86	13.6%	0.0%
China Mengniu Dairy	2319 HK	Add	24.50	28.50	12,259	21.4	18.3	19.1%	2.93	14.4%	1.4%
Inner Mongolia Yili Industrial	600887 CH	Not rated	26.37	NA	23,889	23.1	20.0	12.4%	5.24	23.5%	2.9%
Simple average						18.4	14.7	19.8%	2.46	13.8%	1.7%
Swine peers											
						0.0	0.0	0.0%	0.00	0.0%	0.0%
Charoen Pokphand Foods	CPF TB	Add	26	30.25	7,082.5	22.2	19.1	20.6%	1.31	6.0%	2.0%
DABACO Corp	DBC VN	Not rated	23400	NA	83.6	5.9	na	na	0.65	12.9%	2.1%
Hoa Phat Group JSC	HPG VN	Not rated	34350	NA	3,146.0	7.3	5.9	14.6%	1.53	23.0%	3.9%
Mitraco Livestock JSC	MLS VN	Not rated	#N/A N/A	NA	#N/A N/A	na	na	na	na	na	na
Vietnam Livestock Corp JSC	VLC VN	Not rated	16500	NA	44.9	na	na	na	na	na	na
Simple average						11.8	12.5	17.6%	1.16	14.0%	2.7%

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS, BLOOMBERG

BY THE NUMBERS



Profit & Loss

(US\$m)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Net Revenues	3,190	3,533	3,528	3,588	3,654
Gross Profit	574	770	746	749	757
Operating EBITDA	286	448	419	425	433
Depreciation And Amortisation	(98)	(106)	(101)	(111)	(120)
Operating EBIT	188	342	318	314	313
Financial Income/(Expense)	(63)	(78)	(92)	(90)	(87)
Pretax Income/(Loss) from Assoc.	(0)	0	(1)	(1)	(1)
Non-Operating Income/(Expense)	(18)	(20)	0	0	0
Profit Before Tax (pre-EI)	107	244	226	224	226
Exceptional Items					
Pre-tax Profit	107	244	226	224	226
Taxation	(51)	(65)	(61)	(59)	(60)
Exceptional Income - post-tax					
Profit After Tax	56	178	165	164	166
Minority Interests	(55)	(78)	(62)	(61)	(62)
Preferred Dividends					
FX Gain/(Loss) - post tax					
Other Adjustments - post-tax					
Net Profit	1	100	103	103	104
Recurring Net Profit	31	104	103	103	104
Fully Diluted Recurring Net Profit	31	104	103	103	104

Cash Flow

(US\$m)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
EBITDA	285.7	448.0	418.8	424.7	433.2
Cash Flow from Invt. & Assoc.					
Change In Working Capital	(86.0)	(117.7)	104.2	(10.0)	(10.4)
(Incr)/Decr in Total Provisions					
Other Non-Cash (Income)/Expense					
Other Operating Cashflow	21.0	(2.2)	0.0	0.0	0.0
Net Interest (Paid)/Received	(67.3)	(82.5)	(91.8)	(89.5)	(87.2)
Tax Paid	(80.2)	(72.2)	(60.5)	(59.3)	(59.8)
Cashflow From Operations	73.2	173.5	370.7	265.9	275.7
Capex	(211.6)	(221.4)	(200.0)	(200.0)	(200.0)
Disposals Of FAs/subsidiaries					
Acq. Of Subsidiaries/investments	0.0	0.0	0.0	0.0	0.0
Other Investing Cashflow	(25.2)	(13.6)	(15.0)	(15.0)	(15.0)
Cash Flow From Investing	(236.8)	(235.0)	(215.0)	(215.0)	(215.0)
Debt Raised/(repaid)	5.2	53.5	(30.0)	(30.0)	(30.0)
Proceeds From Issue Of Shares	0.0	0.0	0.0	0.0	0.0
Shares Repurchased					
Dividends Paid					
Preferred Dividends					
Other Financing Cashflow	(6.4)	2.7	2.6	4.1	4.1
Cash Flow From Financing	(1.2)	56.2	(27.4)	(25.9)	(25.9)
Total Cash Generated	(164.8)	(5.4)	128.2	25.0	34.8
Free Cashflow To Equity	(158.4)	(8.1)	125.7	20.9	30.7
Free Cashflow To Firm	(96.4)	21.0	247.5	140.4	148.0

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

BY THE NUMBERS... cont'd
Balance Sheet

(US\$m)	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Total Cash And Equivalents	235	168	294	315	346
Total Debtors	179	194	188	191	195
Inventories	671	817	713	728	743
Total Other Current Assets	151	160	160	160	160
Total Current Assets	1,236	1,340	1,356	1,395	1,444
Fixed Assets	1,011	1,010	1,109	1,198	1,278
Total Investments	12	11	10	10	9
Intangible Assets	351	365	380	395	410
Total Other Non-Current Assets	133	163	163	163	163
Total Non-current Assets	1,507	1,549	1,662	1,766	1,861
Short-term Debt	318	440	440	440	440
Current Portion of Long-Term Debt					
Total Creditors	623	389	383	391	399
Other Current Liabilities	11	23	23	23	23
Total Current Liabilities	951	852	846	854	862
Total Long-term Debt	627	777	747	717	687
Hybrid Debt - Debt Component					
Total Other Non-Current Liabilities	123	92	92	92	92
Total Non-current Liabilities	749	869	839	809	779
Total Provisions	20	37	37	37	37
Total Liabilities	1,720	1,759	1,723	1,701	1,679
Shareholders' Equity	694	779	882	986	1,090
Minority Interests	329	351	413	474	536
Total Equity	1,023	1,130	1,295	1,460	1,626

Key Ratios

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
Revenue Growth	5.2%	10.8%	(0.2%)	1.7%	1.8%
Operating EBITDA Growth	(27.9%)	56.8%	(6.5%)	1.4%	2.0%
Operating EBITDA Margin	9.0%	12.7%	11.9%	11.8%	11.9%
Net Cash Per Share (US\$)	(0.40)	(0.57)	(0.48)	(0.46)	(0.42)
BVPS (US\$)	0.39	0.42	0.48	0.53	0.59
Gross Interest Cover	2.80	4.14	3.46	3.50	3.59
Effective Tax Rate	48.0%	26.8%	26.8%	26.5%	26.5%
Net Dividend Payout Ratio	1824%	13%	13%	13%	13%
Accounts Receivables Days	19.48	19.29	19.80	19.37	19.30
Inventory Days	89.5	98.3	100.4	92.9	92.6
Accounts Payables Days	64.50	66.84	50.62	49.86	49.72
ROIC (%)	7.6%	13.8%	10.4%	10.2%	9.7%
ROCE (%)	9.8%	15.8%	13.0%	12.1%	11.5%
Return On Average Assets	3.91%	8.41%	7.92%	7.50%	7.16%

Key Drivers

	Dec-17A	Dec-18A	Dec-19F	Dec-20F	Dec-21F
ASP (% chg, main prod./serv.)	-3.7%	3.4%	1.0%	1.0%	1.0%
Unit sales grth (% , main prod./serv.)	15.3%	5.9%	3.0%	3.0%	3.0%
Util. rate (% , main prod./serv.)	N/A	N/A	N/A	N/A	N/A
ASP (% chg, 2ndary prod./serv.)	N/A	N/A	N/A	N/A	N/A
Unit sales grth (% ,2ndary prod/serv)	N/A	N/A	N/A	N/A	N/A
Util. rate (% , 2ndary prod/serv)	N/A	N/A	N/A	N/A	N/A
ASP (% chg, tertiary prod/serv)	N/A	N/A	N/A	N/A	N/A
Unit sales grth (% ,tertiary prod/serv)	N/A	N/A	N/A	N/A	N/A
Util. rate (% , tertiary prod/serv)	N/A	N/A	N/A	N/A	N/A
Unit raw mat ASP (%chg,main)	N/A	N/A	N/A	N/A	N/A
Total Export Sales Growth (%)	N/A	N/A	N/A	N/A	N/A
Export Sales/total Sales (%)	N/A	N/A	N/A	N/A	N/A

SOURCES: CGS-CIMB RESEARCH, COMPANY REPORTS

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Description:	Excellent	Very Good	Good	N/A	

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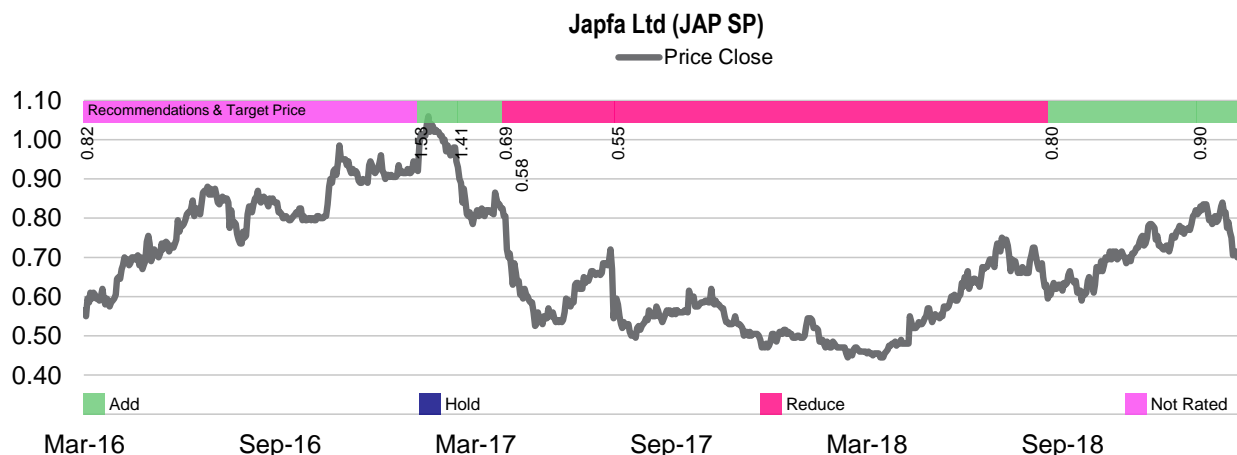
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Distribution of stock ratings and investment banking clients for quarter ended on 31 December 2018		
758 companies under coverage for quarter ended on 31 December 2018		
	Rating Distribution (%)	Investment Banking clients (%)
Add	61.2%	4.2%
Hold	25.1%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

Spitzer Chart for stock being researched (2 year data)



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, **CENDEL** – 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 exceed 10% over the next 12 months.
- Hold** The stock's total return is expected to be between 0% and positive 10% over the next 12 months.
- Reduce** The stock's total return is expected to fall below 0% or more 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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