# Betagro

Betagro Public Company Limited Wed, Dec 7, 2022

BTG



Bloomberg BTG TB Reuters BTG.BK

# Expanding to cement market position

BTG is Thailand's leading integrated agro-industrial and food producer. Its goal is to further improve its business in Thailand and enhance its market position, expand its international presence and explore new growth opportunities. We expect core earnings CAGR of 122% in 2021-24F, grounded in expanded production capacity, widened margin via high market selling prices and more emphasis on high-margin products and channels. We initiate BTG as Outperform with an end-2023 SOTP TP at Bt46.

**Cementing position as Thailand's lead integrated agro-industrial and food producer.** BTG has a fully integrated business model covering all stages of the food value chain, with R&D capabilities, well-accepted food safety standards, well-known brands, and diversified distribution channels with its own outlets. BTG plans to 1) further improve its business in Thailand via raising production capacity, strengthening distribution channels, emphasis on high value-added products and digitization to improve operational efficiency; 2) expand internationally via more investment overseas using an asset-light investment strategy and export focus; 3) explore new growth opportunities with more investment in new ventures.

**Increasing protein consumption in Thailand and CLM.** GlobalData's 2021-26F projected CAGR in protein consumed in Thailand is 5.1%, fueled by rising income, urbanization, higher population and improvement in standard of living. GlobalData's estimated 2022F protein consumption per capita is 47kg in Thailand and 27kg on average in Cambodia, Laos, and Myanmar, still below the 64kg average in Singapore, China, and Japan, implying ample room for growth. More protein consumption will support growth in animal feed consumption.

**Robust earnings growth.** We expect its core earnings to grow at a 122% CAGR in 2021-24F to Bt8.8bn from Bt811mn, mainly on 1) a rise in sales volume in tandem with its capacity expansion in Thailand and overseas (Cambodia, Laos, and Myanmar); 2) wider EBIT margin from high market selling prices from tight market demand and supply, efforts to add high-margin products and sales channels and better operational efficiency in SG&A/sales.

**4Q22F outlook.** We expect 4Q22F core earnings to rise YoY on a wider margin from a greater rise in product selling prices than in costs and higher sales volume but drop QoQ from seasonality.

**Valuation and risks.** We initiate BTG as Outperform with an end-2023 TP of Bt46 based on sum-of-the-parts: Bt13 for the feed business (30% of sales; target PE at 10x), Bt7 for the farm business (19% of sales; target PE at 8x), and Bt26 for the food business (51% of sales, target PE at 12x). Key risks are inflationary pressure on demand and costs, government price controls, higher interest rate, and a stronger THB against the US dollar.

#### Forecasts and valuation

For ecusis and value						
Year to 31 Dec	Unit	2020	2021	2022F	2023F	2024F
Revenue	(Btmn)	80,102	85,424	112,138	123,472	134,108
EBITDA	(Btmn)	7,085	5,436	13,892	10,495	11,219
Core profit	(Btmn)	2,319	811	7,546	8,247	8,824
Reported profit	(Btmn)	2,361	1,011	8,043	8,247	8,824
Core EPS	(Bt)	3.86	1.23	4.80	4.26	4.56
DPS	(Bt)	2.25	10.23	8.21	1.28	1.37
P/E, core	(X)	9.0	28.3	7.2	8.2	7.6
EPS growth, core	(%)	231.3	(68.2)	290.3	(11.2)	7.0
P/BV, core	(X)	1.2	1.5	1.8	1.9	1.6
ROE	(%)	14.3	5.0	33.1	25.0	22.6
Dividend yield	(%)	6.5	29.4	23.6	3.7	3.9
FCF yield	(X)	26.4	(12.0)	6.9	7.1	8.7
EV/EBIT	(X)	13.1	38.3	7.7	14.5	13.3
EBIT growth, core	(%)	244.3	(56.9)	602.2	(39.7)	4.4
EV/CE	(X)	1.0	1.1	1.4	1.4	1.3
ROCE	(%)	5.5	0.4	13.5	13.6	13.6
EV/EBITDA	(X)	5.9	9.6	5.3	8.0	7.2
EBITDA growth	(%)	63.1	(23.3)	155.6	(24.5)	6.9

Source: InnovestX Research

See the end of this report for disclaimer

# Tactical: OUTPERFORM

# (3-month)

Last close (Dec 6) (Bt)	34.75
Target price (Bt)	46.00
Mkt cap (Btbn)	67.23
Mkt cap (US\$mn)	1,916
Beta	М
Mkt cap (%) SET	0.34
Sector % SET	5.99
Shares issued (mn)	1,935
Par value (Bt)	5.00
12-m high / low (Bt)	39.8 / 32.5
Avg. daily 6m (US\$mn)	22.14
Foreign limit / actual (%)	49 / 26
Free float (%)	37.3
Dividend policy (%)	≥ 30

### 2022 Sustainability / 2021 ESG Score

Sustainability Index (THSI) Not Included

ESG Bloomberg Score	n.a.
Environmental Score	n.a.
Social Score	n.a.
Governance Score	n.a.
Source: Bloomberg Finance L.P.	

Share performance								
(%)	1M	3M	12M					
Absolute	(4.8)	n.a.	n.a.					
Relative to SET	(5.3)	n.a.	n.a.					
Source: SET. InnovestX	' Research							

### Analyst

Sirima Dissara, CFA

Fundamental Investment Analyst on Securities (66-2) 949-1004 sirima.dissara@scb.co.th



#### Value proposition

Betagro PCL (BTG) is a leading integrated agro-industrial and food company in Thailand. It produces and sells animal feed, animal health products, livestock, swine, and poultry products, eggs, related processed food and pet food, distributes farm equipment and engages in related research and development.

Of total revenue from sales in 9M22, 25% came from the agro business, 68% from the food and protein business (30% from consumer food, 11% from exports, 8% from non-packaged meat products, 13% from co and byproducts and other food and 6% from livestock), 5% from international business and 2% from the pet business.

Its owned distribution channels (25% of its sales in food and protein business in 2021) include Betagro branches and Betagro shops nationwide for B2B customers, with Betagro Deli and hygienic meat shops operated by other parties for B2C customers. As of Sep 30, 2022, it had 96 Betagro branches, 210 Betagro shops, 30 Betagro Delis and 782 hygienic meat shops in Thailand. It had 9 Betagro shops in Cambodia and Laos.

It distributes products under well-known brands, "BETAGRO" and "S-Pure" for fresh and processed meat and food products, "ITOHAM" for premium quality sausage products, "BETAGRO", "Balance" and "MASTER" for animal feed products, "Better Pharma" and "Nexgen" for pet pharmaceutical products and dietary supplements and "Perfecta", "DOG n joy", and CAT n joy" for pet food products.

#### **Business outlook**

BTG's business strategy is to 1) improve its business in Thailand via raising production capacity, strengthening distribution channels, emphasizing high value-added products and digitization to improve operational efficiency; 2) expand internationally via more investment overseas using an asset-light investment strategy and export focus; 3) explore new growth opportunities with more investment in new ventures.

In 2021-26F, BTG plans to increase capacity as follows: 1) raise annual feed production by 10% CAGR to 5.5mn tons in the agro unit; 2) raise annual pig, chicken and egg production by 3-14% CAGR to 4.8mn pigs, 270mn chickens and 1,700mn eggs, respectively, and annual processed food and meat production by 10% CAGR to 223K tons in the food and protein unit; 3) raise annual pet food production by 4% CAGR to 56K tons in the pet food unit; 4) expand capacity in Cambodia, Laos, and Myanmar, raising annual feed production by 19% CAGR to 504K tons and annual pig and chicken production to 1.3mn pigs and 24.7mn chickens in the international unit.

In 2023F, we expect core earnings to grow 9% YoY with higher sales from capacity expansion and better control of SG&A/sales from better efficiency offsetting a softer gross margin from a slight drop in product selling prices in the food and protein business. Key risks are inflationary pressure on demand and costs, government price controls, higher interest rate, and a stronger THB against the US dollar.

Bullish views	Bearish views
1. Continued high local swine and broiler prices on revived	1. Weak demand from inflationary pressure and product
demand and tight supply (lower pig supply from ASF)	price control by the government to limit product price rises
2. Feed costs to soften from the expectation of more	2. Feed costs to stay high from tight global supply from the
favorable weather for the next crop season.	war (Russia and Ukraine are major wheat and corn
	exporters) and revived global demand.

Key catalysts			
Factor	Event	Impact	Comment
4Q22F earnings outlook	Better product price and cost gap YoY	Up YoY but down QoQ	We expect 4Q22 core earnings to rise YoY off a wider margin from a faster rise in product selling prices than in costs plus higher sales volume but drop QoQ from seasonality.
2023F earnings outlook	Capacity expansion	Up YoY	In 2023, we expect core earnings growth of 9% YoY, with higher sales brought by capacity expansion and better control over SG&A/sales outstripping a softer gross margin.

Sensitivity Analysis		
Factor	Earnings impact	TP impact
Change in THB1/US\$	1%	Bt0.5/sh.
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# **Betagro PCL**

Disclosure Score		
Bloomberg ESG Score	n.a.	CG Rating 0-5 DJSI SETTHSI THSI
Rank in Sector	n.a.	BTG - No No No
		Source: Thai Institute of Directors (IOD), SET

### Environmental Issue (E)

- In 2022, BTG targets reducing energy consumption per unit of production by 3% from 2021. In 2021, BTG reduced the use of electricity and heat energy by 28mn megajoules from maintenance and efficiency improvement of equipment and it implemented solar • energy to generate more than 40MW of clean energy, reducing GHG emissions by more than • 22,000 tons.
- In 2022, it plans to expand the scope of greenhouse gas emissions assessment to pork and egg products, covering all major products in its food and feed businesses to set a target to reduce GHG emissions in accordance with international guidelines.
- By 2025, it targets a 10% increase in the reuse and recycle of water withdrawal. By 2030, BTG targets a 20% reduction in water usage from 2020.
- We view that BTG provides the moderate information in the environment issue compared to other companies in the sector.

### Governance Issue (G)

- BTG is committed to conducting its business in accordance with good corporate governance principles, management excellence, moral transparency and accountability without corruption.
- In 2021, BTG's board of directors consists of 11 directors. Of this, 8 are non-executive directors (73% of the entire board), 4 are independent directors (36% of the entire board) and 5 are female (45% of the Disclaimer entire board).
- We view BTG's management and governance as satisfactory, reflecting management's expertise and experience in the business, diversity for board of directors and transparency with stakeholders.

# Social Issue (S)

- BTG ensures the quality and safety of products by • using quality control process throughout the food production chain in line with international food safety standards.
- It has established labor standards in accordance with Thailand's labor laws and international human rights.
- It supports activities to promote social equality and reduce inequality as well as uplift the quality of life and sustainable cohabitation such as community reforestation project, conservation and development of Khung Bang Kachao area project, and Saitarn Foundation.
- We view that BTG provides the moderate information in the social issue compared to other companies in the sector

#### ESG Disclosure Score

	2021
ESG Disclosure Score	
Environment	n.a.
Social	n.a.
Governance	n.a.
Source: Bloomberg Eingnee L.P.	

Bloomberg ESG Disclosure Scores rate companies on their level of disclosure of ESG data. Bloomberg offers four disclosure scores, for overall ESG, as well as Environmental, Social, and Governance such as energy consumption, board composition, and workforce accidents.

Company ESG reporting has evolved since our ESG Disclosure Score was originally created in 2010. In order to reflect the evolution in corporate reporting, in early 2022 Bloomberg updated its ESG disclosure scores methodology. The methodology changes were implemented for all years of data for all companies in the ESG Coverage universe.

To review the fully transparent methodology, calculate disclosure scores for any company, and compare a company's scores vs its peers, see ESG Disclosure Score Model in Bloomberg.



# Betagro PCL

# Financial statement

FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Total revenue	(Btmn)	2017 n.a.	82,954	74,232	80,102	85,424	112,138	123,472	134,108
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Cost of goods sold	(Btmn)	n.a.	(77,509)	(63,960)	(66,927)	(74,260)	(90,383)	(99,889)	(108,895)
Gross profit	(Btmn)	n.a.	5,445	10,272	13,175	11,164	21,755	23,583	25,212
SG&A	(Btmn)	n.a.	(9,424)	(9,713)	(10,460)	(10,914)	(12,775)	(13,797)	(14,763)
Other income	(Btmn)	n.a.	558	365	465	1,121	643	708	769
Interest expense	(Btmn)	n.a.	(480)	(571)	(513)	(577)	(624)	(655)	(689)
Pre-tax profit	(Btmn)	n.a.	(3,900)	353	2,667	793	8,999	9,840	10,531
Corporate tax	(Btmn)	n.a.	(51)	233	(382)	(208)	(1,620)	(1,771)	(1,896)
Equity a/c profits	(Btmn)	n.a.	135	89	14	54	54	54	54
Minority interests	(Btmn)	n.a.	72	24	20	172	112	123	134
Core profit	(Btmn)	n.a.	(3,744)	700	2,319	811	7,546	8,247	8,824
Extra-ordinary items	(Btmn)	n.a.	453	592	42	199	497	0	0
Net Profit	(Btmn)	n.a.	(3,290)	1,292	2,361	1,011	8,043	8,247	8,824
EBITDA	(Btmn)	n.a.	(555)	4,344	7,085	5,436	13,892	10,495	11,219
Core EPS (Bt)	(Btmn)	n.a.	(11.44)	1.17	3.86	1.23	4.80	4.26	4.56
Net EPS (Bt)	(Bt)	n.a.	(10.05)	2.15	3.93	1.53	5.11	4.26	4.56
DPS (Bt)	(Bt)	n.a.	0.00	1.00	2.25	10.23	8.21	1.28	1.37
Balance Sheet (Btmn) FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Total current assets	(Btmn)	n.a.	24,445	20,882	23,210	28,457	43,624	48,594	53,374
Total fixed assets	(Btmn)	n.a.	26,993	26,639	27,133	29,018	28,432	29,780	30,749
Total assets	(Btmn)	n.a.	51,438	47,522	50,342	57,475	72,057	78,374	84,122
Total loans	(Btmn)	n.a.	25,825	23,370	21,368	30,043	27,590	26,590	24,590
Total current liabilities	(Btmn)	n.a.	22,824	19,927	18,111	28,558	28,690	28,003	29,255
Total long-term liabilities	(Btmn)	n.a.	14,316	12,202	15,084	13,395	13,334	14,504	12,652
Total liabilities	(Btmn)	n.a.	37,140	32,129	33,196	41,953	42,024	42,508	41,906
Paid-up capital	(Btmn)	n.a.	3,000	3,000	3,000	7,500	10,000	10,000	10,000
Total equity	(Btmn)	n.a.	14,299	15,393	17,146	15,522	30,032	35,866	42,216
BVPS (Bt)	(Bt)	n.a.	43.69	25.65	28.58	23.52	19.10	18.54	21.82
Cash Flow Statement (Btmn	)								
FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Core Profit	(Btmn)	n.a.	(3,744)	700	2,319	811	7,546	8,247	8,824
Depreciation and amortization	(Btmn)	n.a.	2,866	3,420	3,905	4,066	4,269	4,696	5,166
Operating cash flow	(Btmn)	n.a.	(3,903)	5,450	5,719	(1,587)	7,252	10,362	11,488
Investing cash flow	(Btmn)	n.a.	(5,246)	(2,390)	(225)	(1,177)	(3,480)	(5,617)	(5,664)
Financing cash flow	(Btmn)	n.a.	9,050	(3,032)	(5,388)	2,702	4,014	(3,413)	(4,474)
Net cash flow	(Btmn)	n.a.	(99)	28	106	(61)	7,787	1,332	1,350
Key Financial Ratios									
FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Gross margin	(%)	n.a.	6.6	13.8	16.4	13.1	19.4	19.1	18.8
Operating margin	(%)	n.a.	(4.8)	0.8	3.4	0.3	8.0	7.9	7.8
EBITDA margin	(%)	n.a.	(0.7)	5.9	8.8	6.4	12.4	8.5	8.4
EBIT margin	(%)	n.a.	(4.1)	1.2	4.0	1.6	8.6	8.5	8.4
Net profit margin	(%)	n.a.	(4.0)	1.7	2.9	1.2	7.2	6.7	6.6
ROE	(%)	n.a.	(52.4)	4.7	14.3	5.0	33.1	25.0	22.6
ROA	(%)	n.a.	(14.6)	1.4	4.7	1.5	11.7	11.0	10.9
Net D/E	(X)	n.a.	1.8	1.5	1.2	1.9	0.6	0.5	0.3
Interest coverage	(x)	n.a.	(1.2)	7.6	13.8	9.4	22.3	16.0	16.3
Debt service coverage	(X)	na	(0,0)	03	0.7	03	0.7	0.6	0.7

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Debt service coverage	(X)	n.a.	(0.0)	0.3	0.7	0.3	0.7	0.6	0.7
Payout Ratio	(%)	n.a.	0.0	46.4	57.2	668.0	160.6	30.0	30.0
Main Assumptions									
FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Sales growth	(%)	n.a.	n.a.	(10.5)	7.9	6.6	31.3	10.1	8.6
Agro business sales	(Bt mn)	n.a.	n.a.	19,814	21,794	24,795	28,323	31,241	34,215
Food & protein business sales	(Bt mn)	n.a.	n.a.	50,638	53,418	54,171	75,417	81,739	85,873
International business sales	(Bt mn)	n.a.	n.a.	2,717	3,636	4,881	6,175	8,108	11,464
Pet business sales	(Bt mn)	n.a.	n.a.	908	1,150	1,491	2,130	2,281	2,443
FX	Bt/US\$	n.a.	n.a.	31.00	31.30	31.98	36.00	35.00	35.00



# Betagro PCL

#### Financial statement Profit and Loss Statement

Profit and Loss Statement									
FY December 31	Unit	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22
Total revenue	(Btmn)	n.a.	21,258	21,397	19,671	23,098	25,312	27,973	29,492
Cost of goods sold	(Btmn)	n.a.	(17,643)	(18,328)	(17,772)	(20,517)	(20,771)	(22,498)	(23,233)
Gross profit	(Btmn)	n.a.	3,615	3,069	1,899	2,581	4,541	5,474	6,259
SG&A	(Btmn)	n.a.	(2,679)	(2,628)	(3,120)	(2,487)	(2,895)	(3,008)	(3,376)
Other income	(Btmn)	n.a.	119	115	166	721	160	133	147
Interest expense	(Btmn)	n.a.	(137)	(131)	(133)	(176)	(150)	(152)	(151)
Pre-tax profit	(Btmn)	n.a.	918	424	(1,187)	638	1,656	2,448	2,877
Corporate tax	(Btmn)	n.a.	(179)	(75)	(19)	65	(361)	(373)	(467)
Equity a/c profits	(Btmn)	n.a.	1	20	(41)	75	4	(5)	23
Minority interests	(Btmn)	n.a.	13	18	162	(21)	3	(57)	(104)
Core profit	(Btmn)	n.a.	753	387	(1,087)	758	1,302	2,014	2,329
Extra-ordinary items	(Btmn)	n.a.	49	11	(5)	145	668	(145)	(26)
Net Profit	(Btmn)	n.a.	802	398	(1,092)	903	1,970	1,869	2,303
EBITDA	(Btmn)	n.a.	2,023	1,487	(44)	1,970	2,870	3,589	4,103
Core EPS (Bt)	(Btmn)	n.a.	1.26	0.64	(1.81)	1.14	0.87	1.34	1.55
Net EPS (Bt)	(Bt)	n.a.	1.34	0.66	(1.82)	1.35	1.31	1.25	1.54

#### Balance Sheet (Btmn)

FY December 31	Unit	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22
Total current assets	(Btmn)	n.a.	n.a.	n.a.	n.a.	28,457	28,297	29,019	31,312
Total fixed assets	(Btmn)	n.a.	n.a.	n.a.	n.a.	29,018	28,937	29,131	28,741
Total assets	(Btmn)	n.a.	n.a.	n.a.	n.a.	57,475	57,234	58,150	60,053
Total loans	(Btmn)	n.a.	n.a.	n.a.	n.a.	30,590	27,881	27,001	27,244
Total current liabilities	(Btmn)	n.a.	n.a.	n.a.	n.a.	28,558	28,238	27,579	38,989
Total long-term liabilities	(Btmn)	n.a.	n.a.	n.a.	n.a.	13,395	11,518	11,812	11,036
Total liabilities	(Btmn)	n.a.	n.a.	n.a.	n.a.	41,953	39,756	39,391	50,025
Paid-up capital	(Btmn)	n.a.	n.a.	n.a.	n.a.	7,500	7,500	7,500	7,500
Total equity	(Btmn)	n.a.	n.a.	n.a.	n.a.	15,522	17,478	18,759	10,028
BVPS (Bt)	(Bt) (Bt)		n.a.	n.a.	n.a.	23.24	11.65	12.51	6.69

#### Cash Flow Statement (Btmn)

FY December 31	Unit	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22
Core Profit	(Btmn)	n.a.	753	1,140	(700)	(328)	2,060	3,316	4,342
Depreciation and amortization	(Btmn)	n.a.	968	932	1,010	1,155	1,064	989	1,074
Operating cash flow	(Btmn)	n.a.	393	702	(1,718)	(964)	4,006	2,044	2,103
Investing cash flow	(Btmn)	n.a.	(477)	(472)	(588)	360	(246)	(512)	(638)
Financing cash flow	(Btmn)	n.a.	(236)	434	1,883	621	(3,059)	(2,241)	(748)
Net cash flow	(Btmn)	n.a.	(320)	665	(423)	17	701	(709)	717

#### **Key Financial Ratios**

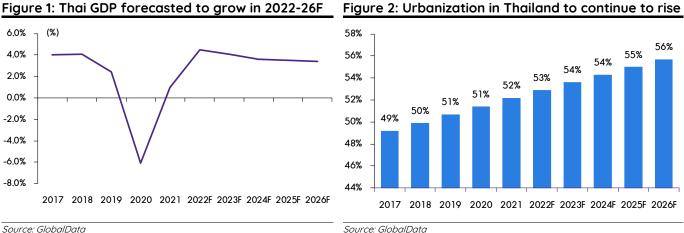
Unit	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22
(%)	n.a.	17.0	14.3	9.7	11.2	17.9	19.6	21.2
(%)	n.a.	4.4	2.1	(6.2)	0.4	6.5	8.8	9.8
(%)	n.a.	9.5	7.0	(0.2)	8.5	11.3	12.8	13.9
(%)	n.a.	5.0	2.6	(5.4)	3.5	7.1	9.3	10.3
(%)	n.a.	3.8	1.9	(5.5)	3.9	7.8	6.7	7.8
(%)	n.a.	n.a.	n.a.	n.a.	n.a.	31.6	44.5	64.7
(%)	n.a.	n.a.	n.a.	n.a.	n.a.	9.1	14.0	15.8
(x)	n.a.	n.a.	n.a.	n.a.	n.a.	1.5	1.4	2.6
(x)	n.a.	n.a.	n.a.	n.a.	n.a.	19.1	23.6	27.1
(X)	n.a.	n.a.	n.a.	n.a.	n.a.	0.6	0.7	0.9
	(%) (%) (%) (%) (%) (%) (%) (x) (x)	(%)         n.a.           (%)         n.a.	C         C           (%)         n.a.         17.0           (%)         n.a.         4.4           (%)         n.a.         9.5           (%)         n.a.         5.0           (%)         n.a.         3.8           (%)         n.a.         n.a.           (%)         n.a.         n.a.	C         C         C         C           (%)         n.a.         17.0         14.3           (%)         n.a.         4.4         2.1           (%)         n.a.         9.5         7.0           (%)         n.a.         5.0         2.6           (%)         n.a.         3.8         1.9           (%)         n.a.         n.a.         n.a.           (x)         n.a.         n.a.         n.a.	C         C         C         C         C           (%)         n.a.         17.0         14.3         9.7           (%)         n.a.         4.4         2.1         (6.2)           (%)         n.a.         9.5         7.0         (0.2)           (%)         n.a.         5.0         2.6         (5.4)           (%)         n.a.         3.8         1.9         (5.5)           (%)         n.a.         n.a.         n.a.         n.a.           (X)         n.a.         n.a.         n.a.         n.a.	C         C <thc< th=""> <thc< th=""> <thc< th=""> <thc< th=""></thc<></thc<></thc<></thc<>	Na.         17.0         14.3         9.7         11.2         17.9           (%)         n.a.         14.4         2.1         (6.2)         0.4         6.5           (%)         n.a.         9.5         7.0         (0.2)         8.5         11.3           (%)         n.a.         5.0         2.6         (5.4)         3.5         7.1           (%)         n.a.         5.0         2.6         (5.4)         3.5         7.1           (%)         n.a.         3.8         1.9         (5.5)         3.9         7.8           (%)         n.a.         n.a.         n.a.         n.a.         1.6         31.6           (%)         n.a.         n.a.         n.a.         n.a.         1.5         1.5           (%)         n.a.         n.a.         n.a.         n.a.         1.5           (%)         n.a.         n.a.         n.a.         n.a.         1.5           (X)         n.a.         n.a.         n.a.         n.a.         1.6	(%)         n.a.         17.0         14.3         9.7         11.2         17.9         19.6           (%)         n.a.         4.4         2.1         (6.2)         0.4         6.5         8.8           (%)         n.a.         9.5         7.0         (0.2)         8.5         11.3         12.8           (%)         n.a.         5.0         2.6         (5.4)         3.5         7.1         9.3           (%)         n.a.         5.0         2.6         (5.4)         3.5         7.1         9.3           (%)         n.a.         3.8         1.9         (5.5)         3.9         7.8         6.7           (%)         n.a.         n.a.         n.a.         n.a.         n.a.         14.0           (%)         n.a.         n.a.         n.a.         n.a.         1.5         1.4           (%)         n.a.         n.a.         n.a.         n.a.         1.5         1.4           (x)         n.a.         n.a.         n.a.         n.a.         1.5         1.4

#### Main Assumptions

FY December 31	Unit	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22
Sales growth	(%)	n.a.	n.a.	n.a.	n.a.	n.a.	19.1	30.7	49.9
Agro business sales	(Bt mn)	n.a.	6,075	6,428	6,185	6,107	6,292	6,807	7,482
Food & protein business sales	(Bt mn)	n.a.	13,794	13,417	11,795	15,166	17,290	19,159	19,618
International business sales	(Bt mn)	n.a.	1,057	1,180	1,297	1,347	1,281	1,489	1,741
Pet business sales	(Bt mn)	n.a.	308	354	380	449	432	518	650
FX	Bt/US\$	n.a.	30.26	31.36	32.90	33.40	33.05	34.40	36.42

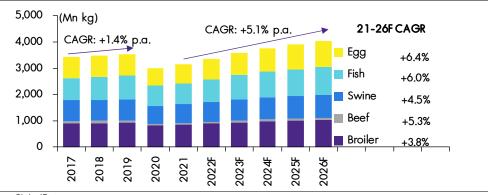


Industry: Rising GDP growth, urbanization and middle-class population to support more protein consumption in Thailand. Thailand's disposable income and purchasing power will continue to grow in tandem with the rise in GDP. Based on GlobalData, Thailand GDP is forecast to grow 3.8% p.a. on average from 2022F to 2026F and its population growth is put at 0.23% CAGR over 2022-2026 to reach 71.6mn by 2026. Thailand's urban population surpassed its rural population for the first time in 2019 as people migrate to urban areas in search of a better quality of life and more job opportunities; the percentage of those living in urban centers in Thailand is forecast to grow to 56% in 2026F from 52% in 2021. The percentage of middle-income population in Thailand with annual income of between US\$20,000 to US\$40,000 will be the most common household income bracket, accounting for 33.9% of Thai households in 2022F, and is forecasted to rise to 34.7% of total households in 2026F. Rising income and improvement in standard of living will support growth in protein consumption.



Industry: Thailand's increasing protein consumption, boosting animal feed consumption. Based on GlobalData, the total volume of protein consumed in Thailand in 2021 was 3.2bn kg and this is forecasted to grow to 4.1bn kg in 2026, implying a 5.1% CAGR from 2021 to 2026. Of total protein consumption in Thailand in 2021, 27% came from broilers, 25% from fish, 23% from eggs, 23% from swine and 2% from beef. Animal feed consumption is set to grow in tandem with protein consumption.



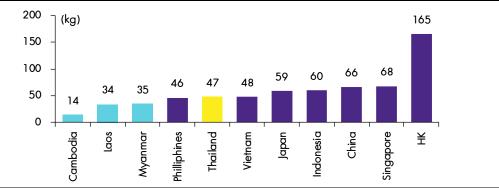


Source: GlobalData

Industry: Growing protein consumption per capita in Thailand and CLM. Based on GlobalData, in 2022F, protein consumption per capita is set to be 47kg in Thailand and to average 27kg in Cambodia, Laos, and Muanmar, well below the 64kg average in Singapore, China, and Japan and far below Hong Kong's 165kg. This implies ample room to grow protein consumption in Thailand and neighboring countries, in tandem with higher GDP and disposable income.



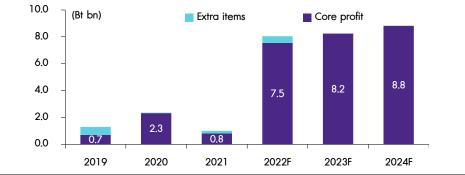
### Figure 4: Protein consumption per capita, excluding industrials, in Thailand, Cambodia, Laos and Myanmar still below other countries in Asia in 2022F



Source: GlobalData

**BTG's earnings to improve in 2022-24F.** We expect core earnings to shoot up with a 122% CAGR in 2021-2024F to Bt8.8bn from Bt811mn, grounded in 1) higher sales volume from capacity expansion along the food value chain in Thailand and overseas; and 2) better EBIT margin with high market selling prices from tight market demand and supply, the addition of high-margin products and sales channels and better operational efficiency in SG&A/sales.





Source: InnovestX Research

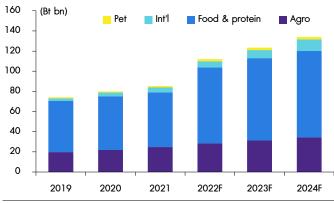
**BTG's revenue on the rise in 2021-24F.** We expect revenue from the sale of goods and services to grow at a 16% CAGR from Bt85bn in 2021 to Bt134bn in 2024F, on the following assumptions.

- <u>Sales volume</u>. We expect sales volume to grow in tandem with the increase in production capacity along the entire value chain. In 2021-26F, we incorporate increased capacity as follows: 1) raising feed production by 10% CAGR in the agro unit;
   2) raising pig, chicken and egg production by 3-14% CAGR and processed food and meat production by 10% CAGR in the food and protein unit; 3) raising pet food production by 4% CAGR in the pet food unit; 4) raising feed production in Cambodia, Laos, and Myanmar by 19% CAGR in the international unit.
- <u>Product selling price</u>. In 2022F, we expect average product selling prices to grow YoY, boosted by the food and protein business, with high local market prices: swine price is at Bt99/kg (+31% YoY), broiler price at Bt43/kg (+33% YoY) and egg price at Bt3.3/kg (+20% YoY) in 2022TD. In 2023-24F, average product selling prices are expected to decline upon a drop in local swine and broiler product prices in the mid single digits YoY in tandem with lower feed costs on expectation of better weather for the next crops and a drop in freight costs. However, prices are set to be higher than historical average from continued tight demand (revived market demand post COVID) and supply (local pig supply damaged by African Swine Fever, ASF, in 2022). As substitute products, demand for broilers and eggs will be solid as cheaper sources of protein than pork.

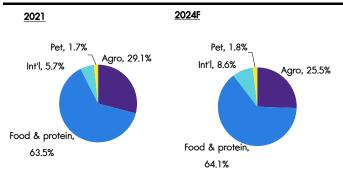
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## Betagro PCL

# Figure 6: Revenue to grow in 2022-24F, boosted by higher sales volume from capacity expansion



# Figure 7: Revenue breakdown by business unit in 2021 vs 2024F

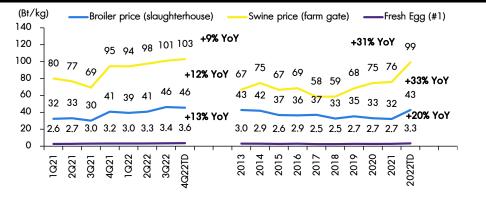


Source: InnovestX Research

### Source: InnovestX Research

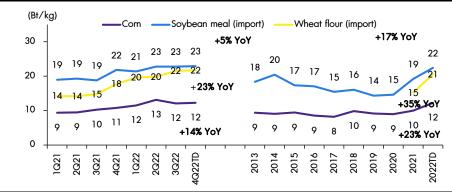
Figure 8: Targeted production capacity expansion from 2021-2026F										
Production capacity	2021	2026F	% CAGR (2021-26F)							
Thailand										
Feed ('000 tons/year)	3,393	5,500	10.1%							
Pig (mn pigs/year)	2.51	4.80	13.9%							
Chicken (mn chickens/year)	182	270	8.2%							
Egg (mn eggs/year)	1,458	1,700	3.1%							
Processed food & meat ('000 tons/year)	136	223	10.4%							
Pet food ('000 tons/year)	47	56	3.6%							
Overseas (Cambodia, Laos, Myanmar)										
Feed mill ('000 tons/year)	216	504	18.5%							
Pig (mn pigs/year)	-	1.3	n.a.							
Chicken (mn chickens/year)	1.5	24.7	75.1%							
Source: Company data										

# Figure 9: Local product prices set to rise YoY in 2022F but drop in mid-single digits YoY in 2023-24F from lower feed costs, but still above historical average from tight demand and supply



Source: CPF and InnovestX Research

### Figure 10: Feed costs tend to rise YoY in 2022F but soften somewhat in 2023-24F

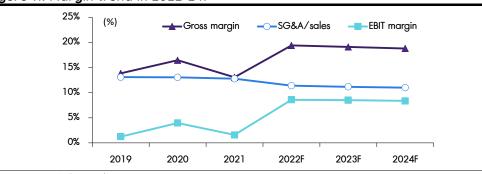


Source: CPF, Thai Feed Mill Association and InnovestX Research



Expect BTG's wider EBIT margin in 2022-24F than 2021. We expect EBIT margin to rise from 1.6% in 2021 to 8.6% in 2022F but edge down to 8.5% in 2023 and 8.4% in 2024F based on the factors below.

- Gross margin is expected to rise YoY to 19.4% in 2022F from 13.1% in 2021, lifted by higher product selling prices in the food and protein business. However, we expect gross margin to soften YoY to 19.1% in 2023F and 18.8% in 2024F, in tandem with a slight drop in product selling prices in the food and protein business. We expect its efforts to increase high-margin products by shifting into swine feed and food and protein businesses, ready-to-eat and ready-to-cook products, high-margin premium brands and high-margin distribution channels with greater focus on expanding its owned outlets to lift gross margin in 2023-24F above 2019-21's.
- SG&A/sales is expected to decline to 11.0% in 2024F from 12.8% in 2021 upon better operational efficiency and additional cost savings from digitization. After setting up the ERP system to automate business operations and provided integrated real-time data across all departments in 2021, it plans on full automation of operations and to leverage artificial intelligence for data utilization from 2024 onwards.



### Figure 11: Margin trend in 2022-24F

Source: InnovestX Research

Sum-of-the-parts (SOTP) valuation. To assess BTG's valuation, we use the sum-of-theparts methodology, similar to the approach that we are currently using for listed agroindustrial and food operators in Thailand - Charoen Pokphand Foods PCL (CPF) and GFPT PCL (GFPT) - under our coverage. We initiate BTG as Outperform with an end-2023 SOTP TP of Bt46. This consists of Bt13 for the feed business (30% of sales; target PE at 10x), Bt7 for the farm business (19% of sales; target PE at 8x), and Bt26 for the food business (51% of sales, target PE at 12x).

Key risks are inflationary pressure on demand and costs, government price control, higher interest rate, and stronger THB against US dollar.

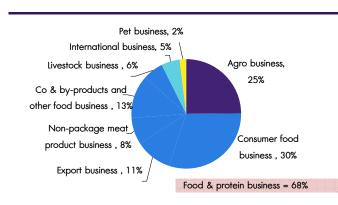
Figure 12: Breakdown	of sum-of-the-narts	(SOTD)	valuation at end-2023

Business Targeted PE % sales SOTP valuation				Details
	(X)	contribution (%)	(Bt/share)	
Feed	10.0	30.0%	13	Agro, International businesses
Farm	8.0	19.0%	7	Co and byproducts, livestock businesses
Food	12.0	51.0%	26	Consumer food, export, non-package meat, and pet food businesses
end-23 SOTP PT			46	
Source: InnovestX Reser	arch			

rce: InnovestX Research

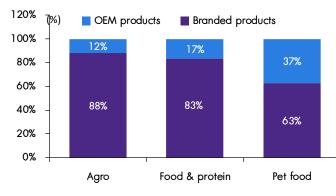
# Appendix

Figure 13: Revenue breakdown by business in 9M22



Source: Company data and InnovestX Research

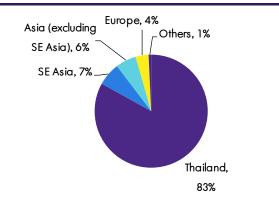
# Figure 15: Branded vs OEM products in key business units in 1H22



# Figure 14: Revenue breakdown by destination in 1H22

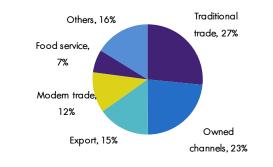
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Source: Company data and InnovestX Research

Figure 16: Food and protein revenue breakdown by distribution channels in 1H22



Source: Company data and InnovestX Research

Source: Company data and InnovestX Research

## Figure 17: Physical footprint extends across 4 countries in Southeast Asia as of September 30, 2022





#### **Betagro PCL**

#### Figure 18: Valuation summary (price as of Dec 6, 2022)

	Rating	Price	Target	ETR	P/E	P/E (x) E		EPS g	EPS growth (%)		P/BV (x)		ROE (%)		6)	Div. Yield (%)			EV/EBITDA (x)		(x)	
		(Bt/Sh)	(Bt/Sh)	(%)	21A	22F	23F	21A	22F	23F	21A	22F	23F	21A	22F	23F	21A	22F	23F	21A	22F	23F
BTG	Outperform	34.75	46.0	36.1	28.3	7.2	8.2	(68)	290	(11)	1.5	1.8	1.9	5	33	25	29.4	23.6	3.7	9.6	5.3	8.0
CPF	Outperform	23.60	32.0	38.3	2,602.4	16.8	14.7	(100)	15,427	14	0.7	0.6	0.6	0	4	4	2.8	2.8	2.8	12.6	8.8	8.7
GFPT	Outperform	13.20	19.0	46.6	115.0	7.9	7.5	(87)	1,357	5	1.1	1.0	0.9	1	13	13	0.8	2.5	2.7	16.3	7.1	6.5
TU	Neutral	16.90	22.0	35.5	11.0	10.8	11.0	17	2	(2)	1.3	1.2	1.1	13	12	11	5.6	5.3	5.3	9.6	9.7	9.2
Average					689.2	10.7	10.3	(60)	4,269	1	1.1	1.2	1.1	5	16	13	9.6	8.6	3.6	12.0	7.7	8.1

Source: InnovestX Research

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AAV, ADVANC, AF, AH, AIRA, AJ, AKP, AKR, ALLA, ALT, AMA, AMARIN, AMATA, AMATAV, ANAN, AOT, AP, APURE, ARIP, ASP, ASW, AUCT, AWC, AYUD, BAFS, BAM;BANPU, BAY, BBIK, BBL, BCP, BCPG, BDMS, BEM, BEYOND, BGC, BGRIM, BIZ, BKI, BOL, BPP, BRR, BTS, BTW, BWG, CENTEL, CFRESH, CGH, CHEWA, CHO, CIMBT, CK, CKP, CM, CNT, COLOR, COM7, COMAN, COTTO, CPALL, CPF, CPI, CPN, CRC, CSS, DDD, DELTA, DEMCO, DOHOME, DRT, DTAC, DUSIT, EA, EASTW, ECF, ECL, EE, EGCO, EPG, ETC, ETE, FN, FNS, FPI, FPT, FSMART, FVC, GC, GEL, GFPT, GGC, GLAND, GLOBAL, GPI, GPSC, GRAMMY, GULF, GUNKUL, HANA, HARN, HENG, HMPRO, ICC, ICHI, III, ILINK, ILM, IND, INTUCH, IP, IRC, IRPC, ITEL, IVL, JTS, JWD, K, KBANK, KCE, KEX, KGI, KKP, KSL, KTB, KTC, LALIN, LANNA, LHFG, LIT, LOXLEY, LPN, LRH, LST, MACO, MAJOR, MAKRO, MALEE, MBK, MC, MCOT, METCO, MFEC, MINT, MONO, MOONG, MSC, MST, MTC, MVP, NCL, NEP, NER, NKI, NOBLE, NSI, NVD, NYT, OISHI, OR, ORI, OSP, OTO, PAP, PCSGH, PDG, PDJ, PG, PHOL, PLANB, PLANET, PLAT, PORT, PPS, PR9, PREB, PRG, PRM, PSH, PSL, PTG, PTT, PTTEP, PTTGC, PYLON, Q-CON, QH, QTC, RATCH, RBF, RS, S, S&J, SAAM, SABINA, SAMART, SAMTEL, SAT, SC, SCB, SCC, SCCC, SCG, SCGP, SCM, SCN, SCC, SEAFCO, SEAOIL, SE-ED, SELIC, SENA, SENAJ, SGF, SHR, SICT, SIRI, SIS, SITHAI, SMPC, SNC, SONIC, SORKON, SPALI, SPI, SPRC, SPVI, SSC, SSSC, SST, STA, STEC;STGT, STI, SUN, SUSCO, SUTHA, SVI, SYMC, SYNTEC, TACC, TASCO\*;TCAP, TEAMG;TFMAMA, THANA, THANA, THAOM, THG\*;THIP, THRE, THREL, TIPCO, TISCO, TK, TKN, TKS, TKT, TMILL, TMT, TNDT, TNITY, TOA, TOP, TPBI, TQM, TRC, TRUE\*;TSC, TSR, TSTE, TSTH, TTA, TTB, TTCL, TTW, TU, TVDH, TVI, TVO, TWPC, U, UAC, UBIS, UPOIC, UV, VCOM, VGI, VIH, WACOAL, WAVE, WHA, WHAUP, WICE, WINNER, XPG, ZEN

#### Companies with Very Good CG Scoring

25, 7UP, ABICO, ABM, ACE, ACG, ADB, ADD, AEONTS, AGE, AHC, AIE, AIT, ALUCON, AMANAH, AMR, APCO, APCS, AQUA, ARIN, ARROW, AS, ASAP, ASEFA, ASIA, ASIAN, ASIMAR, ASK, ASN, ATP30, B, BA, BC, BCH, BE8, BEC, SCAP, BH, BIG, BJC, BJCHI, BLA, BR, BRI, BROOK, BSM, BYD, CBG, CEN, CHARAN, CHAYO, CHG, CHOTI, CHOW, CI, CIG, CITY, CIVIL, CMC, CPL, CPW, CRANE, CRD, CSC, CSP, CV, CWT, DCC, DHOUSE, DITTO, DMT, DOD, DPAINT, DV8, EASON, EFORL, ERW, ESSO, ESTAR, FE, FLOYD, FORTH, FSS, FTE, GBX, GCAP, GCAP, GCAO, GJS, GTB, GYT, HEMP, HPT, HTC, HUMAN, HYDRO, ICN, IFS, IIG, IMH, INET, INGRS, INSET, INSURE, IRCP, IT, ITD, J, JAS, JCK, JCKH, JMT, JR, KBS, KCAR, KIAT, KISS, KK, KOOL, KTIS, KUMWEL, KUN, KWC, KWM, L&E, LDC, LEO, LH, LHK, M, MATCH, MBAX, MEGA, META, MFC, MGT, MICRO, MILL, MITSIB, MK, MODERN\*, MTI, NBC, NCAP, NCH, NDR, NETBAY, NEX, NINE, NATION, NNCL, NOVA, NPK, NRF, NTV, NUSA, NWR, OCC, OGC, ONEE, PACO, PATO, PB, PICO, PIMO, PIN, PJW, PL, PLE, PM, PMTA, PPP, PPPM, PRAPAT, PRECHA, PRIME, PRIN, PRINC, PROEN, PROS, PROUD, PSG, PSTC, PT, PTC, QLT, RCL, RICHY, RJH, ROJNA, RPC, RT, RWI, S11, SA, SABUY, SAK, SALEE, SAMCO, SANKO, SAPPE, SAWAD, SCI, SCP, SE, SECURE, SFLEX, SFP, SFT, SGP, SIAM, SINGER, SKE, SKN, SKR, SKY, SLP, SMART, SMD, SMIT, SMT, SNNP, SNP, SO, SPA, SPC, SPCG, SR, SRICHA, SSF, SSP, STANLY, STC, STPI, SUC, SVOA, SVT, SWC, SYNEX, TAE, TAKUNI, TCC, TCMC, TFG, TFI, TFM, TGH, TIDLOR, TIGER, TIPH, TITLE, TM, TMC, TMD, TMI, TNL, TNP, TNR, TOG, TPA, TPAC, TPCS, TPIPL, TPIPP, TPLAS, TPS, TQR, TRITN, TRT, TRU, TRV, TSE, TVT, TWP, UBE, UEC, UKEM, UMI, UOBKH, UP, UPF, UTP, VIBHA, VL, VPO, VRANDA, WGE, WIIK, WIN, WINMED, WORK, WP, XO, YUASA, ZIGA

#### Companies with Good CG Scoring

A, A5, AI, ALL, ALPHAX, AMC, APP, AQ, AU, B52, BEAUTY, BGT, BLAND, BM, BROCK, BSBM, BTNC, CAZ, CCP, CGD, CMAN, CMO, CMR, CPANEL, CPT, CSR, CTW, D, DCON, EKH, EMC, EP, EVER, F&D, FMT, GIFT, GLOCON, GLORY, GREEN, GSC, HL, HTECH, IHL, INOX, JAK, JMART, JSP; JUBILE, KASET, KCM, KWI, KYE, LEE, LPH, MATI, M-CHAI, MCS, MDX, MENA, MJD, MORE, MPIC, MUD, NC, NEWS, NFC, NSL, NV, PAF, PEACE, PF, PK, PPM, PRAKIT, PTL, RAM, ROCK, RP, RPH, RSP, SIMAT, SISB, SK, SOLAR, SPACK, SPG, SQ, STARK, STECH, SUPER, SVH, PTECH, TC; TCCC, TCJ, TEAM, THE, THMUI, TKC; TNH, TNPC, TOPP, TPCH, TPOLY, TRUBB, TTI, TYCN, UMS, UNIQ:UPA, UREKA, VARO, W, WFX, WPH YGG

#### Corporate Governance Report

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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. InnovestX Securities Company Limited does not conform nor certify the accuracy of such survey result.

To recognize well performers, the list of companies attaining "Good", "Very Good" and "Excellent" levels of recognition (Not including listed companies qualified in the "no announcement of the results" clause from 1 January 2021 to 27 October 2022) is publicized.

\* บริษัทหรือกรรมการหรือผู้บริหารของบริษัทที่มีข่าวด้านการกำกับดูแลกิจการ เช่น การกระทำผิดเกี่ยวกับหลักทรัพย์ การทุจริต กอร์รัปชัน เป็นต้น ซึ่งการใช้ข้อมูล CGR กวรตระหนักถึงข่าวดังกล่าวประกอบด้วย

#### Anti-corruption Progress Indicator

#### Certified (ได้รับการรับรอง)

25, 7UP, ADVANC, AF, AI, AIE, AIRA, AJ, AKP, AMA, AMANAH, AMATAV, AP, APCS, AS, ASIAN, ASK, ASP, AWC, AYUD, B, BAFS, BAM, BANPU, BAY, BBL, BCH, BCP, BCPG, BE8, BEC, BEYOND, BGC, BGRIM, BKI, BLA, BPP, BROOK, BRR, BSBM, BTS, BWG, CEN, CENTEL, CFRESH, CGH, CHEWA, CHOTI, CHOW, CIG, CIMBT, CM, CMC, COM7, COTTO, CPALL, CPF, CPI, CPL, CPN, CRC, CSC, DCC, DELTA, DEMCO, DIMET, DTA, DTAC, DUSIT, EA, EASTW, EGCO, EP, EPG, ERW, ESTAR, ETE, FE, FNS, FPI, FPT, FSMART, FSS, FTE, GBX, GC, GCAP, GEL, GFPT, GGC, GJS, GPI, GPSC, GSTEEL, GULF, GUNKUL, HANA, HARN, HEMP, HENG, HMPRO, HTC, ICC, ICHI, IFS, III, ILINK, INET, INSURE, INTUCH, IRC, IRPC, ITEL, IVL, JKN, JR, K, KASET, KBANK, KBS, KCAR, KCE, KGI, KKP, KSL, KTB, KTC, KWI, L&E, LANNA, LH, LHFG, LHK, LPN, LRH, M, MAJOR, MAKRO, MALEE, MATCH, MBAX, MBK, MC, MCOT, META, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NBC, NEP, NINE, NKI, NOBLE, NOK, NSI, NWR, OCC, OGC, ORI, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PK, PL, PLANB, PLANET, PLAT, PM, PPP, PPPM, PPS, PR9, PREB, PRG, PRINC, PRM, PROS, PSH, PSL, PSTC, PT, PTG, PTT, PTTGC, PYLON, Q-CON, QH, QLT, QTC, RATCH, RML, RWI, S&J, SAAM, SABINA, SAPPE, SAT, SC, SCB, SCC, SCCC, SCG, SCGP, SCM, SCN, SEAOIL, SE-ED, SELIC, SENA, SGP, SINGER, SIRI, SITHAI, SKR, SMIT, SMK, SMPC, SNC, SNP, SORKON, SPACK, SPALI, SPC, SPI, SPRC, SRICHA, SSF, SSP, SSSC, SST, STA, STGT, STOWER, SUSCO, SVI, SYMC, SYNTEC, TAE, TAKUNI, TASCO, TCAP, TCMC, TFG, TFI, TFMAMA, TGH, THANI, THCOM, THIP, THRE, THREL, TIDLOR, TIPCO, TISCO, TKS, TKT, TMILL, TMT, TNITY, TNL, TNP, TNR, TOG, TOP, TOPP, TPA, TPCS, TPP, TRU, TRUE, TSC, TSTE, TSTH, TTA, TTB, TTCL, TU, TVDH, TVI, TVO, TWPC, U, UBE, UBIS, UEC, UKEM, UOBKH, UPF, UV, VGI, VIH, WACOAL, WHA, WHAUP, WICE, WIIK, XO, YUASA, ZEN, ZIGA

#### Declared (ประกาศเจตนารมณ์)

AH, ALT, APCO, ASW, B52, CHG, CI, CPR, CPW, DDD, DHOUSE, DOHOME, ECF, EKH, ETC, EVER, FLOYD, GLOBAL, ILM, INOX, J, JMART, JMT, JTS, KEX, KUMWEL, LDC, MEGA, NCAP, NOVA, NRF, NUSA, OR, PIMO, PLE, RS, SAK, SIS, SSS, STECH, SUPER, SVT, TKN, TMD, TMI, TQM, TRT, TSI, VARO, VCOM, VIBHA, W, WIN

N/A

24CS, 3K-BAT, A, A5, AAI, AAV, ABICO, ABM, ACAP, ACC, ACE, ACG, ADB, ADD, AEONTS, AFC, AGE, AHC, AIT, AJA, AKR, ALL, ALLA, ALPHAX, ALUCON, AMARC, AMARIN, AMC, AMR, ANAN, AOT, APEX, APP, APURE, AQ, AQUA, ARIN, ARIP, ARROW, ASAP, ASEFA, ASIA, ASIMAR, ASN, ATP30, AU, AUCT, AURA, BA, BBGI, BBIK, BC, BCT, BDMS, BEAUTY, BEM, BGT, BH, BIG, BIOTEC, BIS, BIZ, BJC, BJCHI, BKD, BLAND, BLESS, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BTG, BTNC, BTW, BUI, BYD, CAZ, CBG, CCET, CCP, CEYE, CGD, CH, CHARAN, CHAYO, CHIC, CHO, CITY, CIVIL, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, CPANEL, CPH, CPT, CRANE, CRD, CSP, CSS, CTW, CV, CWT, D, DCON, DITTO, DMT, DOD, DPAINT, DTCENT, DTCI, DV8, EASON, ECL, EE, EFORL, EMC, ESSO, F&D, FANCY, FMT, FN, FORTH, FTI, FVC, GENCO, GIFT, GL, GLAND, GLOCON, GLORY, GRAMMY, GRAND, GREEN, GSC, GTB, GYT, HFT, HL, HPT, HTECH, HUMAN, HYDRO, ICN, IFEC, IHL, IIG, IMH, IND, INGRS, INSET, IP, IRCP, IT, ITC, ITD, ITNS, JAK, JAS, JCK, JCKH, JCT, JDF, JSP, JUBILE, JWD, KAMART, KC, KCC, KCM, KDH, KIAT, KISS, KJL, KK, KKC, KLINIQ, KOOL, KTIS, KUN, KWC, KWM, KYE, LALIN, LEE, LEO, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MATI, MAX, M-CHAI, MCS, MDX, MENA, METCO, MGT, MICRO, MIDA, MITSIB, MJD, MK, ML, MODERN, MORE, MPIC, MTW, MUD, MVP, NATION, NC, NCH, NCL, NDR, NER, NETBAY, NEW, NEWS, NEX, NFC, NNCL, NPK, NSL, NTV, NV, NVD, NYT, OHTL, OISHI, ONEE, OSP, OTO, PACE, PACO, PAF, PCC, PEACE, PERM, PF, PICO, PIN, PJW, PLUS, PMTA, POLAR, POLY, POMPUI, PORT, POST, PPM, PRAKIT, PRAPAT, PRECHA, PRI, PRIME, PRIN, PRO, PROEN, PROUD, PSG, PTC, PTECH, PTL, RAM, RBF, RCL, PJW, PLUS, PMTA, POLAR, POLT, POMPU, PORT, POST, PPM, PRART, PRAPAT, PRECHA, PAI, PHIME, PHIN, PRO, PROUD, PSG, PTC, PTECH, PTT, HAM, RBF, RCL, RICHY, RJH, ROCK, ROH, ROJNA, RP, RPC, RPH, RSP, RT, S, S11, SA, SABUY, SAFARI, SALEE, SAM, SAMART, SAMCO, SAMTEL, SANKO, SAUCE, SAWAD, SAWANG, SCAP, SCI SCP, SDC, SE, SEAFCO, SECURE, SENAJ, SFLEX, SFP, SFT, SGC, SGF, SHANG, SHR, SIAM, SICT, SIMAT, SISB, SK, SKE, SKN, SKY, SLM, SLP, SMART, SMD, SMT, SNNP, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPV, SQ, SR, SSC, STANLY, STARK, STC, STEC, STHAI, STI, STP, STPI, SUC, SUN, SUTHA, SVH, SVOA, SWC, SYNEX, TACC, TAPAC, TC, TCC, TCC, TCOAT, TEAM, TEAMG, TEGH, TEKA, TFM, TGE, TGPRO, TH, THAI, THANA, THE, THG, THL, THMUI, TIGER, TIPH, TITLE, TK, TKC, TLI, TM, TMC, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPIPL, TPIPP, TPLAS, TPOLY, TPS, TQR, TR, TRC, TRITN, TRUBB, TRV, TSE, TSF, TSR, TTI, TTW, TVT, TWP, TWZ, TYCN, UAC, UBA, UMI, UMS, UNIQ, UP, UPA, UPOIC, UREKA, UTP, UVAN, VL, VNG, VPO, VRANDA, WAVE, WFX, WGE, WINMED, WINNER, WORK, WORLD, WP, WPH, XPG, YGG, YONG

#### Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of July 7, 2022) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC.