

SELL

Initiation

TP: Bt 15.50

Downside : 11.9%

10 FEBRUARY 2023

Kerry Express (Thailand) (KEX TB)

A long game

We initiate coverage on KEX with a SELL rating. We see KEX's path toward a two-to-three player market as a long and painful one. While we estimate profit breakeven in 1H24F, the stock looks expensive to us at 56/46x PE in 2024-25F. We value KEX at Bt15.5/share.

**RATA LIMSUTHIWANPOOM**

662 – 483 8297

rata.lim@thanachartsec.co.th

Initiating with a SELL

We initiate coverage on KEX, one of the top-four largest last-mile express delivery companies in Thailand, with a SELL rating and a DCF-based 12-month TP (2023F base year) of Bt15.5/share. *First*, we see a very long game for the industry consolidation process with the top four players still managing to endure losses. *Second*, we expect KEX to see its breakeven point in 1H24F and for its earnings base in 2025F to be at only 55% of its peak level in 2020. *Third*, the stock looks expensive to us on 56/46x PE multiples in 2024-25F and P/BV of 5x on our 2023F numbers vs. China-listed peers' 2-3x.

A painful market consolidation path

KEX foresees the express delivery market in Thailand eventually being a two-player market with one being the state-owned Thailand Post. This is because one-day delivery is doable nationwide and scale benefits are optimal for two major players. But the consolidation process for the four existing major players and a few smaller ones looks set to be a lengthy one despite there being a price war with most players making losses. Expecting to be the top two player, we estimate its market share fell from a peak of 34% in 2019 to 20% in 2021 with Flash Express and Shopee Express now having sizable shares (see Exhibit 7). With the e-commerce market decelerating post-COVID, delivery volume growth is also slowing, delaying the optimum scale point.

Profits not rosy beyond breakeven

KEX has made losses since 4Q21 due to price competition. The 25% y-y volume growth in 9M22 wasn't enough to offset its 33% y-y price cut. We estimate a full-year loss of Bt2.8bn in 2022F, improving to Bt1.4bn in 2023F on cost-cutting and efficiency improvements via more automation in its work process. We expect a cost-and-volume driven breakeven point in 1H24F but project only a Bt763m profit in 2025F, or at 55% of its peak of Bt1.4bn in 2020. Taking KEX's view of easing price competition after a 46% fall from 2020, we assume -5/+10/+10% revenue growth in 2023-25F from 10% p.a. volume growth and stable pricing. But the 2023F average price is still below 2022's by 14%.

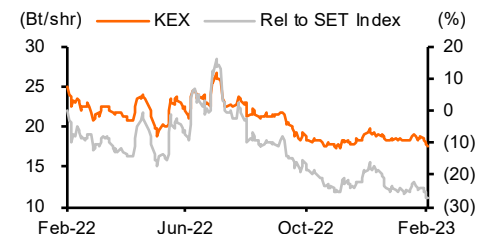
No winner anytime soon

KEX views the market as two winners taking all. While it is expecting market consolidation within the next couple of years, we see a risk of the process dragging on longer. This is because competitors such as Flash Express and Shopee Express still have strong financial support from deep-pocketed shareholders to fight this war. Flash Express recently underwent another round of funding via its IPO plan. KEX itself also still has a strong balance sheet with a Bt2bn net-cash position.

COMPANY VALUATION

Y/E Dec (Bt m)	2021A	2022F	2023F	2024F
Sales	18,818	17,124	16,199	17,819
Net profit	47	(2,757)	(1,413)	545
Consensus NP	—	(2,380)	(365)	415
Diff frm cons (%)	—	na	na	31.3
Norm profit	47	(2,757)	(1,413)	545
Norm EPS (Bt)	0.0	(1.6)	(0.8)	0.3
Norm EPS grw (%)	(96.7)	na	na	na
Norm PE (x)	543.1	na	na	56.3
EV/EBITDA (x)	8.8	na	94.9	8.9
P/BV (x)	3.3	4.8	5.2	4.6
Div yield (%)	4.2	0.0	0.0	0.7
ROE (%)	0.5	na	na	8.7
Net D/E (%)	(56.6)	(17.1)	(13.8)	(20.2)

PRICE PERFORMANCE



COMPANY INFORMATION

Price as of 10-Feb-23 (Bt)	17.60
Market Cap (US\$ m)	907.7
Listed Shares (m shares)	1,742.6
Free Float (%)	30.3
Avg Daily Turnover (US\$ m)	1.8
12M Price H/L (Bt)	26.75/17.40
Sector	Transportation
Major Shareholder	KLN Logistics (Thailand) 41.6%

Sources: Bloomberg, Company data, Thanachart estimates

Initiating with a SELL

A long and painful game

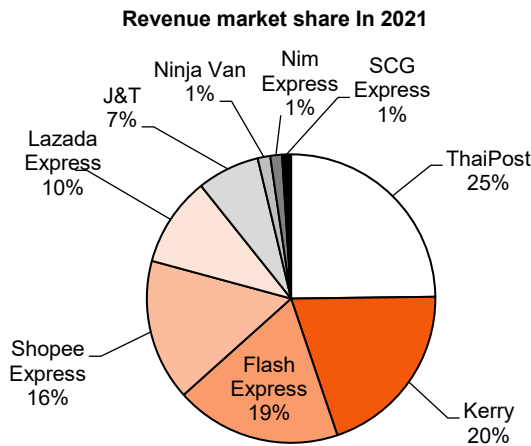
Kerry Express Thailand (KEX) is one of the four largest last-mile express delivery companies in Thailand. We initiate coverage on the counter with a SELL rating and a DCF-based 12-month TP (2023F base year) of Bt15.5/share.

First, we foresee a very long game for the industry consolidation process with the top four players still managing to endure losses.

Second, we expect KEX to reach breakeven point in 1H24F and its earnings base in 2025F to be at only 55% of its peak in 2020.

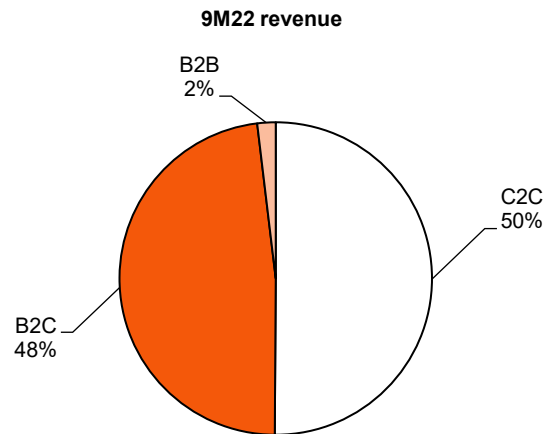
Third, the stock looks expensive to us on 56/46x PE multiples in 2024-25F and P/BV of 5x on our 2023F numbers vs. its China-listed peers' 2-3x.

Ex 1: KEX Among 4 Biggest Last-mile Delivery Players



Sources: Business Online (BOL), Thanachart Compilation

Ex 2: KEX's Customer Breakdown



Source: Company data

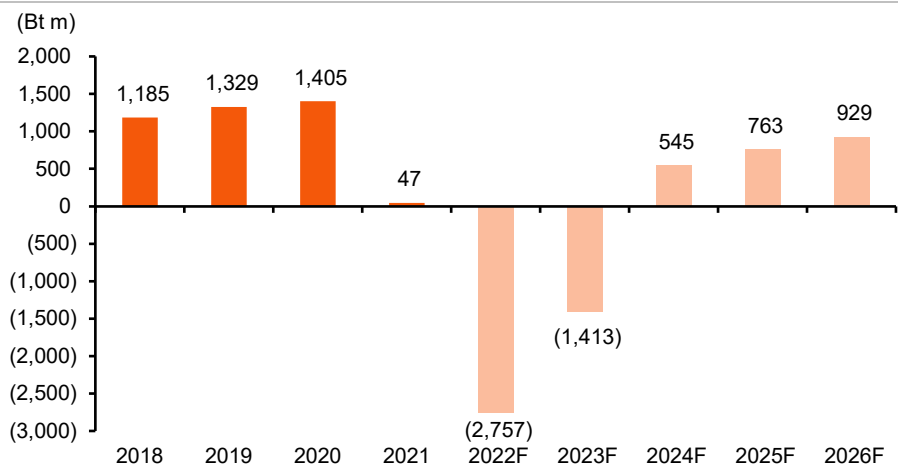
Note

C2C: Serving individual customers through over 26,000 service points

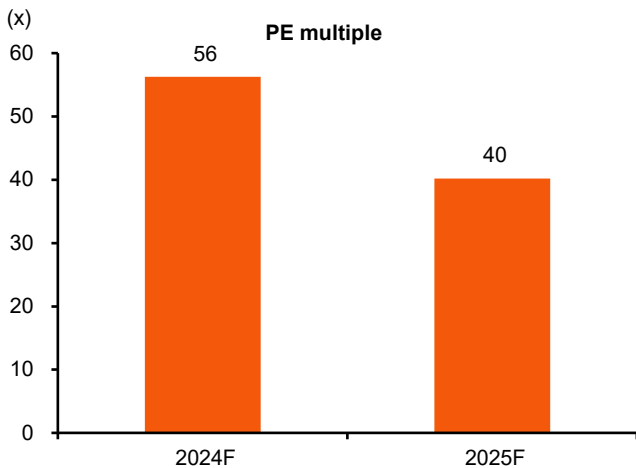
B2C: Serving nearly all e-commerce and social platforms and home-shopping in Thailand

B2B: Serving corporate customers delivering to their other business locations

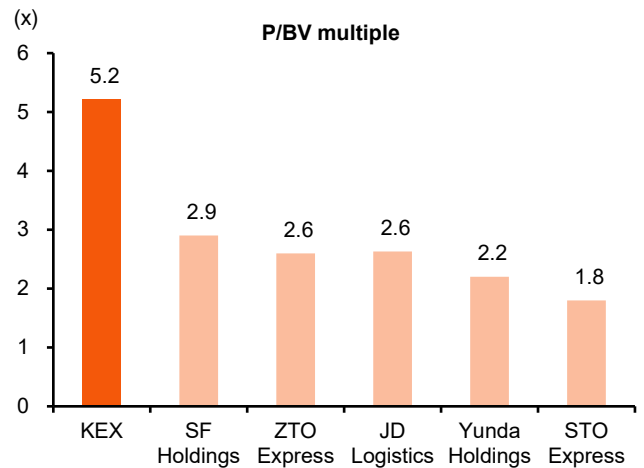
Ex 3: We Expect KEX's 2025F Earnings To Reach Just 55% Of 2020's Level



Sources: Company data, Thanachart estimates

Ex 4: KEX Looks Expensive At 56/46x PE In 2024-25F

Sources: Company data, Thanachart estimates

Ex 5: KEX's 2023F P/BV Far Above China-listed Peers'

Sources: Company data, Thanachart estimates

A painful market consolidation path

KEX believes Thailand can accommodate only two players

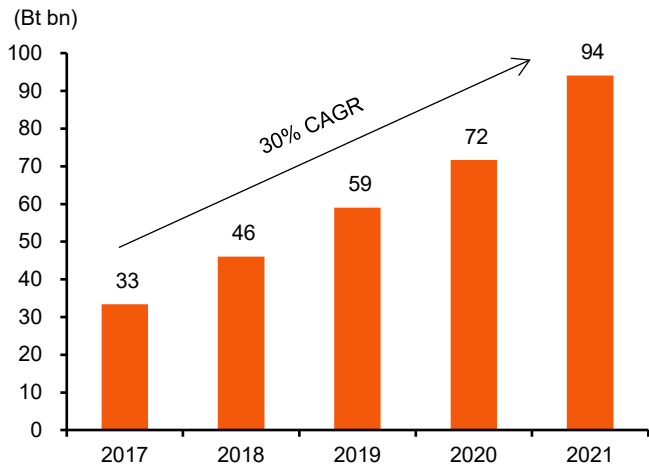
KEX foresees the market in Thailand eventually becoming a two-player one with the biggest being the state-owned Thailand Post. Thailand is quite a small market given a north-south distance of just 2,000km and a population of 70 million. One-day delivery is doable nationwide and scale benefits are optimal for two major players. This will likely follow the trend in other countries with similar characteristics. Japan's delivery market, for example, is a well-established, highly competitive one with only a few players dominating the market, including Yamato Holdings and Nippon Express. The South Korean market also has only a few key players led by the oldest and largest parcel delivery firm, CJ Logistics.

Market consolidation looks set to be a lengthy process

In Thailand, the market is consolidating and we see the path being painful. The robust express delivery growth at a 30% CAGR over the past five years and decent profitability have been attracting new players, both local and foreign, resulting in an aggressive price war and intense competition. While KEX expecting to eventually be among the top-two players post market consolidation, we estimate its market share fell from a peak of 34% in 2019 to 20% in 2021 with Thailand Post's share declining from 76% in 2017 to 25% in 2021. Flash Express and Shopee Express, owned by the Shopee e-commerce platform, have captured significant market shares at 19% and 16%, respectively, in 2021. With Flash Express and Shopee Express now having sizable market shares, the consolidation process of the four existing major players, commanding 79% of the industry, based on our estimate, and a few smaller ones looks set to be a lengthy one despite a price war already being under way with most players making losses.

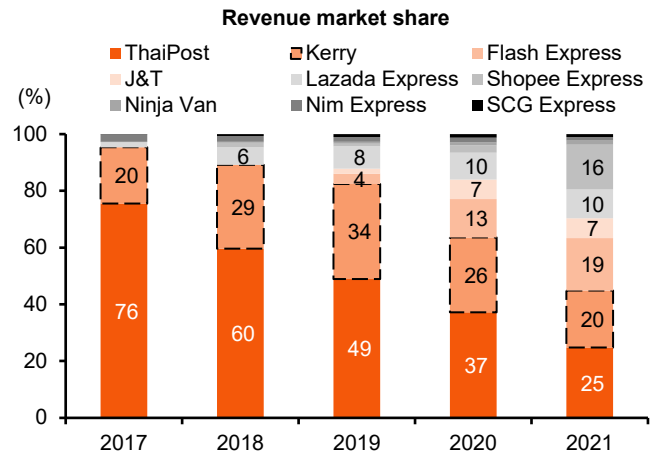
With the e-commerce market decelerating post-COVID, delivery volume growth is also slowing down, delaying the optimum scale point. The Thai E-Commerce Association projects Thailand's e-commerce industry to grow at just single digits in 2023, dropping from an estimated 18% last year, as shoppers return to stores post-COVID. The market is also consolidating with JD Central exiting. Aggressive promotions by Shopee and Lazada to fight for market share will likely lessen and hence negatively impact express delivery volume.

Ex 6: 30% CAGR Growth Of Express Delivery Market



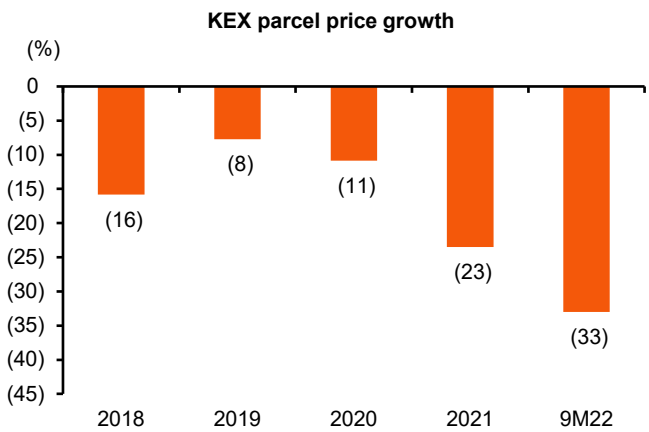
Sources: Business Online (BOL), Thanachart compilation

Ex 7: KEX Losing While Peers Now Have Sizable Shares



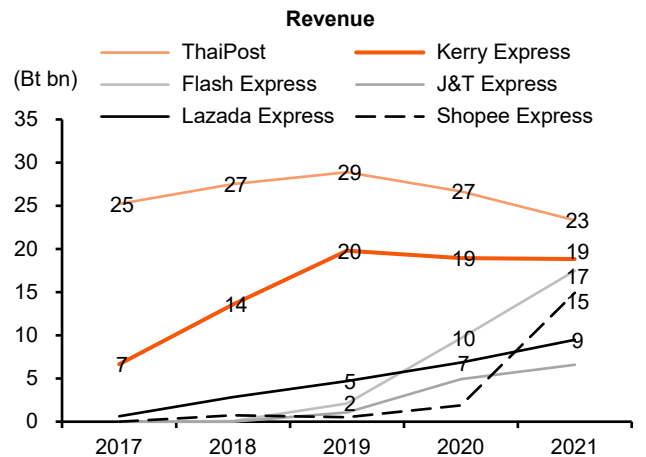
Sources: Business Online (BOL), Thanachart compilation

Ex 8: Industry Wide Aggressive Price Cuts, Including KEX



Sources: Company data, Thanachart estimates

Ex 9: Amid Industry Growth, KEX's Revenue Was Flat



Sources: Business Online (BOL), Thanachart compilation

Profits not rosy beyond breakeven

KEX has made losses since 4Q21

KEX has made losses since 4Q21 due to price competition. The 25% y-y volume growth in 9M22 wasn't enough to offset its 33% y-y price cut, leading KEX to make a loss of Bt1.9bn in 9M22.

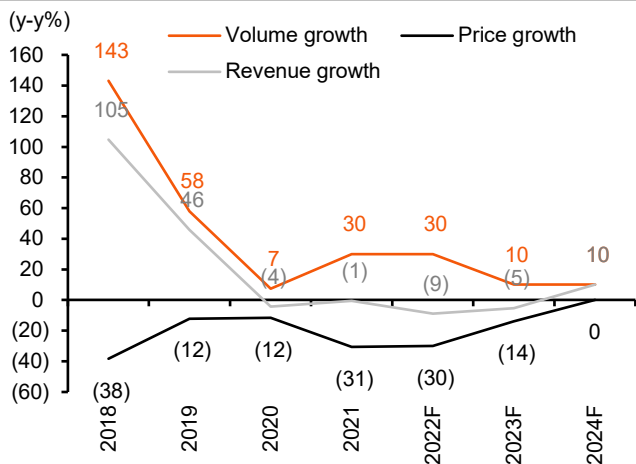
We project a lower loss in 2023F on cost cuts and efficiency improvements

We estimate a full-year loss for KEX of Bt2.4bn in 2022F before falling to Bt1.2bn in 2023F on cost-cutting and efficiency improvements via more automation. KEX launched its "LEAN" programme which consists of (i) aggressive cost reduction and wastage elimination, (ii) pay cuts for its top executives, (iii) a headcount freeze across all departments until further notice, and (iv) the closure of non-performing sites and locations. KEX is also speeding up its capital investment on machinery, equipment and systems which helps to automate the work process in many areas, using technology and industrial know-how from affiliates such as SF Holdings in China and Kerry Logistics Network (KLN) in Hong Kong. The first batch of new equipment is targeted to be operational in 2Q23.

We expect breakeven for KEX in 1H24F

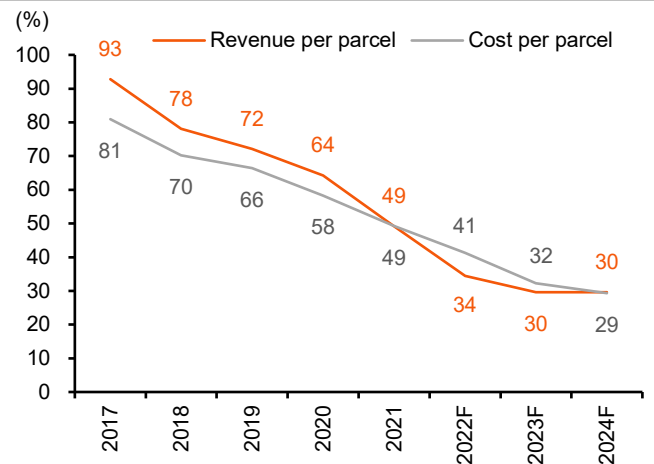
We expect a cost-and-volume driven breakeven point to be reached in 1H24F but estimate only a Bt770m profit in 2025F, or at 50% of its peak of Bt1.4bn in 2020. Taking KEX's view of easing price competition after an estimated 46% drop from 2020, we assume -5/+10/+10% revenue growth in 2023-25F from 10% p.a. volume growth and stable pricing. But in 2023F the average price is still below that in 2022 by 14%.

Ex 10: We Expect Volume Growth And Stable Pricing



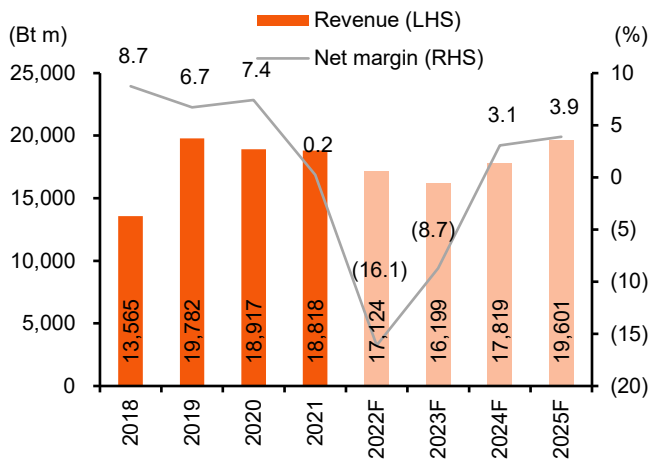
Sources: Company data, Thanachart estimates

Ex 11: Cost-Cutting Will Help Push Down Cost Per Parcel



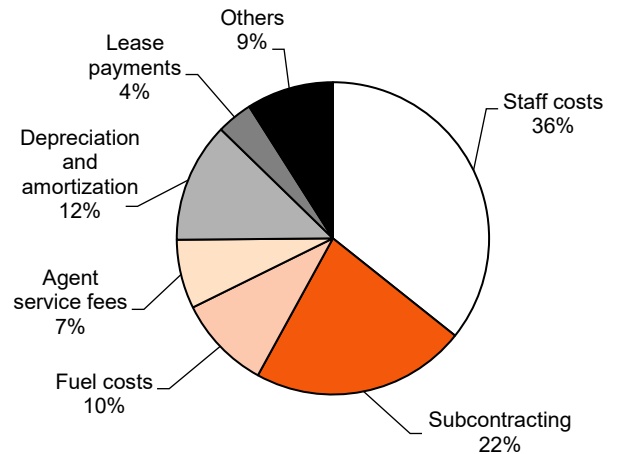
Sources: Company data, Thanachart estimates

Ex 12: Revenue And Net Margin Forecasts



Sources: Company data, Thanachart estimates

Ex 13: 2021 Cost Breakdown



Source: Company data

No winner anytime soon

Each big player has deep-pocketed shareholders' support to fight this war

KEX foresees this market as two winners taking all. While the company expects market consolidation within the next couple of years, we see a risk of the process dragging on longer. This is because competitors such as Flash Express and Shopee Express still have strong financial support from deep-pocketed shareholders to fight this war.

Shopee Express is backed by a leading global consumer internet company, SEA Group. KEX itself also still has a strong balance sheet with a Bt2bn net-cash position. Meanwhile, Flash Express closed Bt15bn (US\$447m) in Series F fundraising in December 2022 from undisclosed existing and new shareholders, according to its CEO and founder, and it is now valued at Bt70bn (US\$524m). Its existing shareholders from previous rounds of fundraising include Buer Capital from Singapore, SCB 10X, eWTP, PTT Oil and Retail (OR TB, SELL, Bt21.7), Durbell, and Krungsri Finnovate. In his interviews with local newspapers he said that the new funding will be used to invest in automation and overseas expansion in ASEAN, where it now has express delivery services in Thailand, Laos, the Philippines and Malaysia, over the next two to three years. In Thailand, Flash Express aims to expand its fulfillment space from 100,000 sqm to 1 million sqm, including 300,000 sqm that it has developed with a listed real estate firm, SC Asset. It plans to launch an IPO in 2025.

Ex 14: 12-month DCF-based TP Calculation Using A Base Year Of 2023F

(Bt m)	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032	2033F	Terminal value
EBITDA	(625)	2,140	2,445	2,888	3,394	4,032	4,759	5,474	6,159	6,887	7,615	—
Free cash flow	(791)	478	862	1,096	1,280	1,574	1,956	2,334	2,597	2,906	3,234	45,119
PV of free cash flow	(789)	407	678	796	839	948	1,082	1,186	1,214	1,247	1,214	16,939
Risk-free rate (%)	2.5											
Market risk premium (%)	8.0											
Beta	0.8											
WACC (%)	8.3											
Terminal growth (%)	2.0											
Enterprise value - add investments*	25,763											
Net debt (2022F)	(1,102)											
Minority interest	(2)											
Equity value	26,866											
# of shares (m)	1,740											
Equity value / share (Bt)	15.5											

Source: Thanachart estimates

Valuation Comparison

Ex 15: Comparison With Regional Peers

Name	BBG Code	Country	EPS growth		— PE —		— P/BV —		EV/EBITDA		Div Yield	
			22F (%)	23F (%)	22F (x)	23F (x)	22F (x)	23F (x)	22F (x)	23F (x)	22F (%)	23F (%)
SF Holding	002352 CH	China	42.3	40.8	43.4	30.8	3.2	2.9	12.9	11.1	0.4	0.6
Yunda Holding	002120 CH	China	(1.7)	70.5	28.9	17.0	2.5	2.2	10.6	8.1	0.4	1.1
STO Express	002468 CH	China	na	125.9	50.2	22.2	1.9	1.8	11.7	8.8	0.1	0.3
JD Logistics	2618 HK	Hong Kong	na	na	na	50.8	2.2	2.2	10.0	7.5	0.0	0.0
ZTO Express Cayman	2057 HK	Hong Kong	na	23.0	23.6	19.2	2.9	2.6	13.4	11.1	1.3	1.6
Yamato Holdings	9064 JP	Japan	(15.9)	21.00	18.5	15.3	1.4	1.3	7.0	6.0	2.0	2.1
Nippon Express Holdings	9147 JP	Japan	137.3	(48.0)	5.2	10.0	0.9	0.9	3.3	3.9	5.5	3.5
CJ Logistics Corp	000120 KS	South Korea	26.5	13.4	8.7	7.6	0.5	0.5	5.7	5.7	0.6	0.6
Kerry Express (Thailand)	KEX TB	Thailand	na	na	na	na	4.8	5.2	na	94.9	0.0	0.0
Average			37.7	35.2	25.5	21.6	2.3	2.2	9.3	17.5	1.1	1.1

Sources: Company data, Thanachart estimates

Note: * Thanachart estimates, using Thanachart normalized EPS

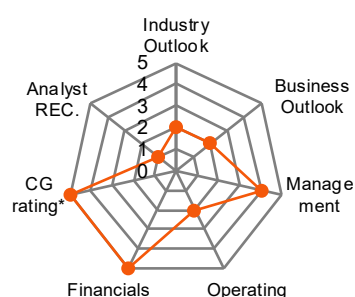
Based on 10 Feb 2023 closing prices

COMPANY DESCRIPTION

Kerry Express (Thailand) Public Company Limited is a top-four last-mile express delivery company in Thailand, having a strong network and nationwide coverage. It serves individual customers, e-commerce, social platform e-shopping as well as corporates. The company has over 37,000 service points nationwide.

Source: Thanachart

COMPANY RATING



Rating Scale

Excellent	5
Good	4
Fair	3
Weak	2
Very Weak	1
None	0

Source: Thanachart; * CG Rating

THANACHART'S SWOT ANALYSIS

S — Strength

- Industry-leading service quality and strong logistics brands
- Nationwide network coverage
- A scalable hub-and-spoke business
- Experienced management team

O — Opportunity

- M&As of small players
- Diversification into new, low-competition segments. i.e. cold chain express

W — Weakness

- High operating costs

T — Threat

- Aggressive competition and price cuts
- Weak e-commerce market post-COVID
- Weak purchasing power and sluggish economy

CONSENSUS COMPARISON

	Consensus	Thanachart	Diff
Target price (Bt)	17.42	15.50	-11%
Net profit 22F (Bt m)	(2,380)	(2,757)	na
Net profit 23F (Bt m)	(365)	(1,413)	na
Consensus REC	BUY: 1	HOLD: 1	SELL: 8

HOW ARE WE DIFFERENT FROM THE STREET?

- We expect larger losses than the Bloomberg consensus, which we attribute to us having less aggressive assumptions for cost cutting.
- Our TP is therefore lower.

Sources: Bloomberg consensus, Thanachart estimates

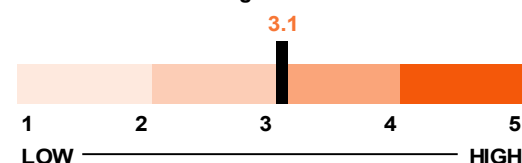
RISKS TO OUR INVESTMENT CASE

- Impact of cost-cutting and efficiency improvement is larger than we expected, resulting in upsides to our earnings forecasts
- Another upside can also come from larger than expected delivery volume and price growth

Source: Thanachart

KEX is one of the top-four largest last-mile express delivery logistics companies in Thailand with 22,000 employees. Its operations involve sorting and transporting parcels. KEX looks to be quite active in ESG areas, setting out its goals in late 2022. We assign an ESG score of 3.1.

Thanachart ESG Rating



	SETTHSI Index	THSI Index	DJSI Index	MSCI (CCC-AAA)	Arabesque S-Ray (0-100)	Refinitiv (0-100)	S&P Global (0-100)	Moody's (0-100)	CG Rating (0-5)
KEX	YES	YES	-	-	57.33	65.17	20.18	-	5.0

Sources: SETTRADE, SETTHSI Index, Thailand Sustainability Investment (THSI), The Dow Jones Industrial Average (DJSI), MSCI ESG Research LLC, Arabesque S-Ray®, Refinitiv ESG Information, S&P Global Market Intelligence, Moody's ESG Solutions, Thai IOD (CG rating)

Note: Please see third party on "terms of use" toward the back of this report.

Factors Our Comments

ENVIRONMENT

- Environmental Policies & Guidelines
- Energy Management
- Carbon Management
- Water Management
- Waste Management

- KEX is one of the largest last-mile express delivery logistics companies in Thailand. Its business involves parcel transportation which creates some greenhouse gas (GHG). KEX aims to align its business activities with Thailand's ambition of achieving net-zero emissions by 2065. It recently announced targets to achieve 100% sustainable packaging and a 10% reduction in carbon emissions by 2026 compared with 2021's level.
- Innovating its packaging materials, waste segregation, route planning to enhance emissions reduction, renewable energy and electronic vehicles (EV) are all under consideration for deployment in KEX's operations in the near future.
- Despite delivery volume growth of 30%, KEX's oil consumption was flat in 2021. KEX reported that its water consumption, waste from operations and total GHG emissions declined by 8%, 32% and 6%, respectively, in 2021.

SOCIAL

- Human Rights
- Staff Management
- Health & Safety
- Product Safety & Quality
- Social Responsibility

- KEX received the Gold HR Excellence Award in 2021 for outstanding HR practices with high employee engagement and a healthy workplace.
- Up to one third of its workforce comprise female employees. Average training hours doubled to 34 a year in 2021.
- KEX ensures safety in its operations that adhere to relevant standards, laws, and regulations, especially with its sorting hubs, distribution centers, and in its transportation processes, i.e., suitable working equipment and well-run transport vehicles.
- KEX also received the Winner of the Business+ Product of the Year Award 2021 under the logistics category, reflecting its performance in delivering the best products and services and its position as a top-notch brand in express delivery.

GOVERNANCE & SUSTAINABILITY

- Board
- Ethics & Transparency
- Business Sustainability
- Risk Management
- Innovation

- There are nine members on its board of directors (BOD), which we believe is a reasonable size for its business. The BOD has six non-executive members but only three independent directors and just one female. The BOD chairman is a non-executive and has no relationship with the CEO and senior executives.
- KEX has integrated enterprise risk management in its strategic planning process. Supervised by the BOD, its risk-management committee consists of four members, both executives and non-executives. It held four meetings in 2021
- KEX plans to continue to enhance cybersecurity to prevent cyber-attacks and secure customers' data privacy.
- KEX's code of business ethics has been launched to prevent conflicts of interest, whereas its anti-corruption and anti-bribery policy has been used to strengthen the company's ethical culture. There were two misconduct cases in 2021.

Sources: Thanachart, Company data

*Not a rosy earnings picture
post turnaround*

INCOME STATEMENT

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Sales	18,917	18,818	17,124	16,199	17,819
Cost of sales	15,850	17,479	18,734	16,199	15,681
Gross profit	3,067	1,339	(1,610)	0	2,138
% gross margin	16.2%	7.1%	-9.4%	0.0%	12.0%
Selling & administration expenses	1,314	1,380	1,995	1,885	1,599
Operating profit	1,753	(40)	(3,605)	(1,885)	540
% operating margin	9.3%	-0.2%	-21.1%	-11.6%	3.0%
Depreciation & amortization	2,356	2,342	1,870	2,200	2,740
EBITDA	4,109	2,302	(1,735)	315	3,280
% EBITDA margin	21.7%	12.2%	-10.1%	1.9%	18.4%
Non-operating income	93	154	171	162	178
Non-operating expenses	0	0	0	0	0
Interest expense	(112)	(97)	(81)	(66)	(63)
Pre-tax profit	1,734	17	(3,515)	(1,790)	655
Income tax	329	(28)	(738)	(358)	131
After-tax profit	1,405	45	(2,777)	(1,432)	524
% net margin	7.4%	0.2%	-16.2%	-8.8%	2.9%
Shares in affiliates' Earnings	0	0	0	0	0
Minority interests	0	2	20	19	21
Extraordinary items	0	0	0	0	0
NET PROFIT	1,405	47	(2,757)	(1,413)	545
Normalized profit	1,405	47	(2,757)	(1,413)	545
EPS (Bt)	1.0	0.0	(1.6)	(0.8)	0.3
Normalized EPS (Bt)	1.0	0.0	(1.6)	(0.8)	0.3

BALANCE SHEET

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
ASSETS:					
Current assets:	11,278	7,125	3,178	2,681	3,371
Cash & cash equivalent	9,697	5,272	1,183	806	1,326
Account receivables	1,467	1,613	1,783	1,687	1,855
Inventories	80	176	154	133	129
Others	35	64	59	55	61
Investments & loans	0	2,022	2,022	22	22
Net fixed assets	2,259	2,244	2,504	3,803	3,763
Other assets	5,782	5,653	4,778	4,788	4,849
Total assets	19,318	17,046	12,482	11,295	12,005
LIABILITIES:					
Current liabilities:	4,698	5,278	4,734	4,276	4,261
Account payables	1,962	2,701	2,361	2,042	1,976
Bank overdraft & ST loans	0	0	0	0	0
Current LT debt	800	0	0	0	0
Others current liabilities	1,936	2,577	2,373	2,234	2,284
Total LT debt	0	0	81	0	0
Others LT liabilities	3,773	2,451	1,214	1,163	1,190
Total liabilities	8,471	7,729	6,029	5,439	5,451
Minority interest	0	18	(2)	(21)	(42)
Preferreds shares	0	0	0	0	0
Paid-up capital	870	871	870	871	871
Share premium	8,111	8,139	8,139	8,139	8,139
Warrants	0	0	0	0	0
Surplus	33	74	83	83	83
Retained earnings	1,833	214	(2,638)	(3,217)	(2,498)
Shareholders' equity	10,847	9,299	6,455	5,877	6,596
Liabilities & equity	19,318	17,046	12,482	11,295	12,005

Sources: Company data, Thanachart estimates

Spending on more automation and systems to improve efficiency this year

CASH FLOW STATEMENT

FY ending Dec (Bt m)	2020A	2021A	2022F	2023F	2024F
Earnings before tax	1,734	17	(3,515)	(1,790)	655
Tax paid	(433)	28	738	358	(131)
Depreciation & amortization	2,356	2,342	1,870	2,200	2,740
Chg In working capital	(410)	497	(488)	(202)	(230)
Chg In other CA & CL / minorities	1,879	601	(198)	(136)	45
Cash flow from operations	5,125	3,484	(1,593)	430	3,079
Capex	(284)	(738)	(1,150)	(2,500)	(1,500)
Right of use	(6,887)	(1,106)	600	(800)	(1,200)
ST loans & investments	0	0	0	0	0
LT loans & investments	0	(2,022)	0	2,000	0
Adj for asset revaluation	0	(7)	0	0	0
Chg In other assets & liabilities	3,623	(1,648)	(1,941)	(261)	(33)
Cash flow from investments	(3,547)	(5,520)	(2,491)	(1,561)	(2,733)
Debt financing	0	(800)	81	(81)	0
Capital increase	8,861	29	(1)	1	0
Dividends paid	(1,646)	(1,676)	(95)	834	174
Warrants & other surplus	(5)	57	9	0	0
Cash flow from financing	7,209	(2,389)	(6)	754	174
Free cash flow	4,841	2,747	(2,743)	(2,070)	1,579

VALUATION

FY ending Dec	2020A	2021A	2022F	2023F	2024F
Normalized PE (x)	18.1	543.1	na	na	56.3
Normalized PE - at target price (x)	15.9	478.3	na	na	49.6
PE (x)	18.1	543.1	na	na	56.3
PE - at target price (x)	15.9	478.3	na	na	49.6
EV/EBITDA (x)	4.0	8.8	na	94.9	8.9
EV/EBITDA - at target price (x)	3.3	7.5	na	83.3	7.8
P/BV (x)	2.3	3.3	4.8	5.2	4.6
P/BV - at target price (x)	2.1	2.9	4.2	4.6	4.1
P/CFO (x)	5.0	7.3	(19.3)	71.3	10.0
Price/sales (x)	1.6	1.6	1.8	1.9	1.7
Dividend yield (%)	1.2	4.2	0.0	0.0	0.7
FCF Yield (%)	19.1	10.8	(8.9)	(6.7)	5.1
(Bt)					
Normalized EPS	1.0	0.0	(1.6)	(0.8)	0.3
EPS	1.0	0.0	(1.6)	(0.8)	0.3
DPS	0.2	0.7	0.0	0.0	0.1
BV/share	7.5	5.3	3.7	3.4	3.8
CFO/share	3.6	2.4	(0.9)	0.2	1.8
FCF/share	3.4	1.9	(1.6)	(1.2)	0.9

Sources: Company data, Thanachart estimates

Strong balance sheet with net cash

FINANCIAL RATIOS

FY ending Dec	2020A	2021A	2022F	2023F	2024F
Growth Rate					
Sales (%)	(4.4)	(0.5)	(9.0)	(5.4)	10.0
Net profit (%)	5.8	(96.7)	na	na	na
EPS (%)	5.8	(96.7)	na	na	na
Normalized profit (%)	5.8	(96.7)	na	na	na
Normalized EPS (%)	5.8	(96.7)	na	na	na
Dividend payout ratio (%)	22.5	2,755.5	40.0	40.0	40.0
Operating performance					
Gross margin (%)	16.2	7.1	(9.4)	0.0	12.0
Operating margin (%)	9.3	(0.2)	(21.1)	(11.6)	3.0
EBITDA margin (%)	21.7	12.2	(10.1)	1.9	18.4
Net margin (%)	7.4	0.2	(16.2)	(8.8)	2.9
D/E (incl. minor) (x)	0.1	0.0	0.0	0.0	0.0
Net D/E (incl. minor) (x)	(0.8)	(0.6)	(0.2)	(0.1)	(0.2)
Interest coverage - EBIT (x)	15.7	na	na	na	8.6
Interest coverage - EBITDA (x)	36.7	23.8	na	4.7	52.4
ROA - using norm profit (%)	11.1	0.3	na	na	4.7
ROE - using norm profit (%)	21.5	0.5	na	na	8.7
DuPont					
ROE - using after tax profit (%)	21.5	0.4	na	na	8.4
- asset turnover (x)	1.5	1.0	1.2	1.4	1.5
- operating margin (%)	9.8	0.6	na	na	4.0
- leverage (x)	1.9	1.8	1.9	1.9	1.9
- interest burden (%)	93.9	15.0	102.4	103.9	91.3
- tax burden (%)	81.0	262.6	na	na	80.0
WACC (%)	8.3	8.3	8.3	8.3	8.3
ROIC (%)	66.9	(5.4)	(70.7)	(28.2)	8.5
NOPAT (Bt m)	1,420	(106)	(2,848)	(1,508)	432
invested capital (Bt m)	1,951	4,027	5,353	5,071	5,270

Sources: Company data, Thanachart estimates

ESG Information - Third Party Terms

www.Settrade.com

SETTRADE: You acknowledge that the use of data, information or service displayed and/or contained in this website may require third party's data, content or software which is subject to the terms of third party provider. By accessing and/or using of such certain data, you acknowledge and agree to comply with and be bound by the applicable third party terms specified below.

ESG Scores by Third Party data from www.SETTRADE.com

1. MSCI (CCC- AAA)
2. Arabesque S-Ray (0-100)
3. Refinitiv (0-100)
4. S&P Global (0-100)
5. Moody's ESG Solutions (0-100)

SET THSI Index (SETTHSI)

Nowadays, long-term investment tends to be more focused on sustainable companies. The financial statement performance and the consideration in environmental, social and governance (ESG) perspective are keys aspects for analysis.

SET has created a Thailand Sustainability Investment (THSI) list since 2015 for using as an alternative investment in the high performance ESG stocks for investors while, supporting the sustainable Thai companies. SET defines the sustainable companies as the companies that embrace risk management, supply chain management and innovations together with responsibility for environmental, social and governance aspects

As a result, SET has created the SETTHSI for the purpose of indicating the price of these sustainable companies that pass the market capital size and liquidity criteria.

Arabesque S-Ray®

The S-Ray data here is published with a 3 month delay. For the latest data, please contact sray@arabesque.com

Arabesque S-Ray® is a service (the "Service") provided by Arabesque S-Ray GmbH ("Arabesque S-Ray") and its branch and subsidiary companies. Arabesque S-Ray is a limited liability company (Gesellschaft mit beschränkter Haftung) incorporated in Frankfurt am Main and organized under the laws of Germany with registered number HRB 113087 in the commercial register of the local court with its seat and business address at Zeppelinallee 15, 60325 Frankfurt am Main, Germany. The Service is unconnected to any of the asset management activities conducted within the wider group of Arabesque companies, and is not investment advice or a solicitation or an offer to buy any security or instrument or to participate in investment services. RELIANCE - Arabesque S-Ray makes no representation or warranty, express or implied, as to the accuracy or completeness of the information contained herein, and accepts no liability for any loss, of whatever kind, howsoever arising, in relation thereto, and nothing contained herein should be relied upon. ENQUIRIES - Any enquiries in respect of this document should be addressed to Arabesque S-Ray.

Arabesque S-Ray® - The ESG Score, ranging from 0 to 100, identifies sustainable companies that are better positioned to outperform over the long run, based on the principles of financial materiality. That is, when computing the ESG Score of a company, the algorithm will only use information that significantly helps explain future risk-adjusted performance. Materiality is applied by overweighting features with higher materiality and rebalancing these weights on a rolling quarterly basis to stay up-to-date

MSCI ESG Research LLC

"Certain information @2021 MSCI ESG Research LLC. Reproduced by permission"

"Although [User ENTITY NAME's] information providers, including without limitation, MSCI ESG Research LLC and its affiliates (the "ESG Parties"), obtain information (the "Information") from sources they consider reliable, none of the ESG Parties warrants or guarantees the originality, accuracy and/or completeness, of any data herein and expressly disclaim all express or implied warranties, including those of merchantability and fitness for a particular purpose. The Information may only be used for your internal use, may not be reproduced or disseminated in any form and may not be used as a basis for, or a component of, any financial instruments or products or indices. Further, non of the Information can in and of itself be used to determine which securities to buy or sell or when to buy or sell them. None of the ESG Parties shall have any liability for any errors or omissions in connection with any data herein, or any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages."

Score range	Description
CCC - B	LAGGARD: A company lagging its industry based on its high exposure and failure to manage significant ESG risks
BB - BBB - A	AVERAGE : A company with a mixed or unexceptional track record of managing the most significant ESG risks and opportunities relative to industry peers
AA - AAA	LEADER: A company leading its industry in managing the most significant ESG risks and opportunities

The Dow Jones Sustainability Indices (DJSI)

The Dow Jones Sustainability Indices (DJSI) are a family of best-in-class benchmarks for investors who have recognized that sustainable business practices are critical to generating long-term shareholder value and who wish to reflect their sustainability convictions in their investment portfolios. The family was launched in 1999 as the first global sustainability benchmark and tracks the stock performance of the world's leading companies in terms of economic, environmental and social criteria. Created jointly by S&P Dow Jones Indices and SAM, the DJSI combine the experience of an established index provider with the expertise of a specialist in Sustainable Investing to select the most sustainable companies from across 61 industries. The indices serve as benchmarks for investors who integrate sustainability considerations into their portfolios, and provide an effective engagement platform for investors who wish to encourage companies to improve their corporate sustainability practices.

S&P Global Market Intelligence

Copyright © 2021, S&P Global Market Intelligence (and its affiliates as applicable). Reproduction of any information, opinions, views, data or material, including ratings ("Content") in any form is prohibited except with the prior written permission of the relevant party. Such party, its affiliates and suppliers ("Content Providers") do not guarantee the accuracy, adequacy, completeness, timeliness or availability of any Content and are not responsible for any errors or omissions (negligent or otherwise), regardless of the cause, or for the results obtained from the use of such Content. In no event shall Content Providers be liable for any damages, costs, expenses, legal fees, or losses (including lost income or lost profit and opportunity costs) in connection with any use of the Content. A reference to a particular investment or security, a rating or any observation concerning an investment that is part of the Content is not a recommendation to buy, sell or hold such investment or security, does not address the suitability of an investment or security and should not be relied on as investment advice. Credit ratings are statements of opinions and are not statements of fact.

ESG risk combines the concepts of management and exposure to arrive at an absolute assessment of ESG risk. We identify five categories of ESG risk severity that could impact a company's enterprise value

Moody's ESG Solutions

© 2022 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved.

CREDIT RATINGS ISSUED BY MOODY'S CREDIT RATINGS AFFILIATES ARE THEIR CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MATERIALS, PRODUCTS, SERVICES AND INFORMATION PUBLISHED BY MOODY'S (COLLECTIVELY, "PUBLICATIONS") MAY INCLUDE SUCH CURRENT OPINIONS. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT OR IMPAIRMENT. SEE APPLICABLE MOODY'S RATING SYMBOLS AND DEFINITIONS PUBLICATION FOR INFORMATION ON THE TYPES OF CONTRACTUAL FINANCIAL OBLIGATIONS ADDRESSED BY MOODY'S CREDIT RATINGS. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS, NON-CREDIT ASSESSMENTS ("ASSESSMENTS"), AND OTHER OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR COMMENTARY PUBLISHED BY MOODY'S ANALYTICS, INC. AND/OR ITS AFFILIATES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS DO NOT COMMENT ON THE SUITABILITY OF AN INVESTMENT FOR ANY PARTICULAR INVESTOR. MOODY'S ISSUES ITS CREDIT RATINGS, ASSESSMENTS AND OTHER OPINIONS AND PUBLISHES ITS PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS, AND PUBLICATIONS ARE NOT INTENDED FOR USE BY RETAIL INVESTORS AND IT WOULD BE RECKLESS AND INAPPROPRIATE FOR RETAIL INVESTORS TO USE MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS OR PUBLICATIONS WHEN MAKING AN INVESTMENT DECISION. IF IN DOUBT YOU SHOULD CONTACT YOUR FINANCIAL OR OTHER PROFESSIONAL ADVISER.

ALL INFORMATION CONTAINED HEREIN IS PROTECTED BY LAW, INCLUDING BUT NOT LIMITED TO, COPYRIGHT LAW, AND NONE OF SUCH INFORMATION MAY BE COPIED OR OTHERWISE REPRODUCED, REPACKAGED, FURTHER TRANSMITTED, TRANSFERRED, DISSEMINATED, REDISTRIBUTED OR RESOLD, OR STORED FOR SUBSEQUENT USE FOR ANY SUCH PURPOSE, IN WHOLE OR IN PART, IN ANY FORM OR MANNER OR BY ANY MEANS WHATSOEVER, BY ANY PERSON WITHOUT MOODY'S PRIOR WRITTEN CONSENT.

MOODY'S CREDIT RATINGS, ASSESSMENTS, OTHER OPINIONS AND PUBLICATIONS ARE NOT INTENDED FOR USE BY ANY PERSON AS A BENCHMARK AS THAT TERM IS DEFINED FOR REGULATORY PURPOSES AND MUST NOT BE USED IN ANY WAY THAT COULD RESULT IN THEM BEING CONSIDERED A BENCHMARK.

All information contained herein is obtained by MOODY'S from sources believed by it to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, all information contained herein is provided "AS IS" without warranty of any kind. MOODY'S adopts all necessary measures so that the information it uses in assigning a credit rating is of sufficient quality and from sources MOODY'S considers to be reliable including, when appropriate, independent third-party sources. However, MOODY'S is not an auditor and cannot in every instance independently verify or validate information received in the rating process or in preparing its Publications.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability to any person or entity for any indirect, special, consequential, or incidental losses or damages whatsoever arising from or in connection with the information contained herein or the use of or inability to use any such information, even if MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers is advised in advance of the possibility of such losses or damages, including but not limited to: (a) any loss of present or prospective profits or (b) any loss or damage arising where the relevant financial instrument is not the subject of a particular credit rating assigned by MOODY'S.

To the extent permitted by law, MOODY'S and its directors, officers, employees, agents, representatives, licensors and suppliers disclaim liability for any direct or compensatory losses or damages caused to any person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING, ASSESSMENT, OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any credit rating, agreed to pay to Moody's Investors Service, Inc. for credit ratings opinions and services rendered by it fees ranging from \$1,000 to approximately \$5,000,000. MCO and Moody's Investors Service also maintain policies and procedures to address the independence of Moody's Investors Service credit ratings and credit rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold credit ratings from Moody's Investors Service and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moody's.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy." Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

Additional terms for Hong Kong only: Any Second Party Opinion or other opinion that falls within the definition of "advising on securities" under the Hong Kong Securities and Futures Ordinance ("SFO") is issued by Vigeo Eiris Hong Kong Limited, a company licensed by the Hong Kong Securities and Futures Commission to carry out the regulated activity of advising on securities in Hong Kong. This Second Party Opinion or other opinion that falls within the definition of "advising on securities" under the SFO is intended for distribution only to "professional investors" as defined in the SFO and the Hong Kong Securities and Futures (Professional Investors) Rules. This Second Party Opinion or other opinion must not be distributed to or used by persons who are not professional investors.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any credit rating, agreed to pay to MJKK or MSFJ (as applicable) for credit ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY550,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

Refinitiv ESG

These Terms of Use govern your access or use of the ESG information and materials on the Refinitiv website and any AI powered voice assistance software ("Refinitiv ESG Information"). 2020© Refinitiv. All rights reserved. Refinitiv ESG Information is proprietary to Refinitiv Limited and/or its affiliates ("Refinitiv").

The Refinitiv ESG Information is for general informational and non-commercial purposes only. Reproduction, redistribution or any other form of copying or transmission of the Refinitiv ESG Information is prohibited without Refinitiv's prior written consent.

All warranties, conditions and other terms implied by statute or common law including, without limitation, warranties or other terms as to suitability, merchantability, satisfactory quality and fitness for a particular purpose, are excluded to the maximum extent permitted by applicable laws. The Refinitiv ESG Information is provided "as is" and Refinitiv makes no express or implied warranties, representations or guarantees concerning the accuracy, completeness or currency of the information in this service or the underlying Third Party Sources (as defined below). You assume sole responsibility and entire risk as to the suitability and results obtained from your use of the Refinitiv ESG Information.

The Refinitiv ESG Information does not amount to financial, legal or other professional advice, nor does it constitute: (a) an offer to purchase shares in the funds referred to; or (b) a recommendation relating to the sale and purchase of instruments; or (c) a recommendation to take any particular legal, compliance and/or risk management decision. Investors should remember that past performance is not a guarantee of future results.

The Refinitiv ESG Information will not be used to construct or calculate and index or a benchmark, used to create any derivative works or used for commercial purposes. Refinitiv's disclaimer in respect of Benchmark Regulations applies to the Refinitiv ESG Information.

No responsibility or liability is accepted by Refinitiv its affiliates, officers, employees or agents (whether for negligence or otherwise) in respect of the Refinitiv ESG Information, or for any inaccuracies, omissions, mistakes, delays or errors in the computation and compilation of the Refinitiv ESG Information (and Refinitiv shall not be obliged to advise any person of any error therein). For the avoidance of doubt, in no event will Refinitiv have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of the Refinitiv ESG Information.

You agree to indemnify, defend and hold harmless Refinitiv from and against any claims, losses, damages, liabilities, costs and expenses, including, without limitation, reasonable legal and experts' fees and costs, as incurred, arising in any manner out of your use of, or inability to use, any Information contained on the Refinitiv web site or obtained via any AI powered voice assistance software.

You represent to us that you are lawfully able to enter into these Terms of Use. If you are accepting these Terms of Use for and on behalf of an entity such as the company you work for, you represent to us that you have legal authority to bind that entity.

By accepting these Terms of Use you are also expressly agreeing to the following Refinitiv's website Terms of Use.

Refinitiv ESG scores are derived from third party publicly available sources ("Third Party Sources") and are formulated on the basis of Refinitiv own transparent and objectively applied methodology. Refinitiv's ESG Information methodology can be accessed here.

Score range	Description	
0 to 25	First Quartile	Scores within this range indicates poor relative ESG performance and insufficient degree of transparency in reporting material ESG data publicly.
> 25 to 50	Second Quartile	Scores within this range indicates satisfactory relative ESG performance and moderate degree of transparency in reporting material ESG data publicly.
> 50 to 75	Third Quartile	Scores within this range indicates good relative ESG performance and above average degree of transparency in reporting material ESG data publicly.
> 75 to 100	Fourth Quartile	Score within this range indicates excellent relative ESG performance and high degree of transparency in reporting material ESG data publicly.

CG Report : by Thai Institute of Directors Association (Thai IOD), Established in December 1999, the Thai IOD is a membership organization that strives to promote professionalism in directorship. The Thai IOD offers directors certification and professional development courses, provides a variety of seminars, forums and networking events, and conducts research on board governance issues and practices. Membership comprises board members from companies ranging from large publicly listed companies to small private firms.

90-100	▲▲▲▲▲	Excellent
80-89	▲▲▲▲	Very Good
70-79	▲▲▲	Good
60-69	▲▲	Satisfactory
50-59	▲	Pass
Below		N/A

General Disclaimers And Disclosures:

This report is prepared and issued by Thanachart Securities Public Company Limited (TNS) as a resource only for clients of TNS, Thanachart Capital Public Company Limited (TCAP) and its group companies. Copyright © Thanachart Securities Public Company Limited. All rights reserved. The report may not be reproduced in whole or in part or delivered to other persons without our written consent.

This report is prepared by analysts who are employed by the research department of TNS. While the information is from sources believed to be reliable, neither the information nor the forecasts shall be taken as a representation or warranty for which TNS or TCAP or its group companies or any of their employees incur any responsibility. This report is provided to you for informational purposes only and it is not, and is not to be construed as, an offer or an invitation to make an offer to sell or buy any securities. Neither TNS, TCAP nor its group companies accept any liability whatsoever for any direct or consequential loss arising from any use of this report or its contents.

The information and opinions contained herein have been compiled or arrived at from sources believed reliable. However, TNS, TCAP and its group companies make no representation or warranty, express or implied, as to their accuracy or completeness. Expressions of opinion herein are subject to change without notice. The use of any information, forecasts and opinions contained in this report shall be at the sole discretion and risk of the user.

TNS, TCAP and its group companies perform and seek to perform business with companies covered in this report. TNS, TCAP, its group companies, their employees and directors may have positions and financial interest in securities mentioned in this report. TNS, TCAP or its group companies may from time to time perform investment banking or other services for, or solicit investment banking or other business from, any entity mentioned in this report. Therefore, investors should be aware of conflict of interest that may affect the objectivity of this report.

Note: Thanachart Securities Public Company Limited act as a Market Maker and Derivative Warrants Issuer. At present, TNS has issued 47 Derivative Warrants which are ADVANC16C2302A, AOT16C2305A, AOT16C2302A, BANPU16C2303A, BANPU16C2302A, BBL16C2305A, BCP16C2305A, BEC16C2305A, BGRIM16C2302A, BH16C2304A, BH16C2303A, BLA16C2302A, CBG16C2305A, CBG16C2302A, COM716C2305A, COM716C2302A, CPN16C2303A, CRC16C2303A, DELTA16C2305A, DOHOME16C2303A, EA16C2305A, EA16C2303A, ESSO16C2303A, ESSO16C2302A, GPSC16C2302A, GULF16C2302A, GULF16C2302B, GUNKUL16C2302A, HANA16C2303A, JMART16C2303A, JMT16C2305A, JMT16C2302A, KBANK16C2304A, KBANK16C2302A, KCE16C2305A, KCE16C2303A, KCE16C2302A, KTB16C2303A, MINT16C2302A, PTTEP16C2303A, RCL16C2303A, SAWAD16C2305A, SAWAD16C2302A, SCGP16C2303A, SET5016P2303B, SET5016P2303A, SET5016C2303A, (underlying securities are (ADVANC, AOT, BANPU, BBL, BCP, BEC, BGRIM, BH, BLA, CBG, COM7, CPN, CRC, DELTA, DOHOME, EA, ESSO, GPSC, GULF, GUNKUL, HANA, JMART, JMT, KBANK, KCE, KTB, MINT, PTTEP, RCL, SAWAD, SCGP, SET50). before making investment decisions.

Note: Our major shareholder TCAP (Thanachart Capital Pcl) which holding 89.96% of Thanachart Securities and also TCAP holding 100% of Thanachart SPV1 Co. Ltd. TCAP and Thanachart SPV1 Co. Ltd has stake in THANI for 60% and being the major shareholder of THANI.

Note: Thanachart Capital Public Company Limited (TCAP), TMBThanachart Bank Public Company Limited (TTB), are related companies to Thanachart Securities Public Company Limited (TNS). Thanachart Securities Pcl is a subsidiary of Thanachart Capital Pcl (TCAP) which holds 24.33% of the shareholding in TMBThanachart Bank Pcl.

Thanachart Capital Public Company Limited (TCAP), Ratchthani Leasing Public Company Limited (THANI), MBK PUBLIC COMPANY LIMITED (MBK) and PATUM RICE MILL AND GRANARY PUBLIC COMPANY LIMITED (PRG) are related companies to Thanachart Securities Public Company Limited (TNS) . Since TNS covers those securities in research report, consequently TNS incurs conflicts of interest.

Disclosure of Interest of Thanachart Securities

Investment Banking Relationship

Within the preceding 12 months, Thanachart Securities has lead-managed public offerings and/or secondary offerings (excluding straight bonds) of the securities of the following companies: The One Enterprise Pcl. (ONEE TB)

Recommendation Structure:

Recommendations are based on absolute upside or downside, which is the difference between the target price and the current market price. If the upside is 10% or more, the recommendation is BUY. If the downside is 10% or more, the recommendation is SELL. For stocks where the upside or downside is less than 10%, the recommendation is HOLD. Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on the market price and the formal recommendation.

For sectors, an "Overweight" sector weighting is used when we have BUYs on majority of the stocks under our coverage by market cap. "Underweight" is used when we have SELLs on majority of the stocks we cover by market cap. "Neutral" is used when there are relatively equal weightings of BUYs and SELLs.

Thanachart Securities Pcl.

Research Team

18 Floor, MBK Tower

444 Phayathai Road, Pathumwan Road, Bangkok 10330

Tel: 662 - 779-9119

Email: thanachart.res@thanachartsec.co.th

Pimpaka Nichgaroon, CFA

Head of Research

Tel: 662-779-9199

pimpaka.nic@thanachartsec.co.th

Pattarawan Wangmingmat

Senior Technical Analyst

Tel: 662-779-9105

pattarawan.wan@thanachartsec.co.th

Phannarai Tiyapittayarut

Property, Retail

Tel: 662-779-9109

phannarai.von@thanachartsec.co.th

Sarachada Sornsong

Bank, Finance

Tel: 662-779-9106

sarachada.sor@thanachartsec.co.th

Witchanan Tambamroong

Technical Analyst

Tel: 662-779-9123

witchanan.tam@thanachartsec.co.th

Adisak Phupiphathirungul, CFA

Retail Market Strategy

Tel: 662-779-9120

adisak.phu@thanachartsec.co.th

Nuttapop Prasitsuksant

Telecom, Utilities

Tel: 662-483-8296

nuttapop.pra@thanachartsec.co.th

Rata Limsuthiwanoom

Auto, Industrial Estate, Media, Prop. Fund

Tel: 662-483-8297

rata.lim@thanachartsec.co.th

Siriporn Arunothai

Small Cap, Healthcare, Hotel

Tel: 662-779-9113

siriporn.aru@thanachartsec.co.th

Sittichet Rungrassameephat

Analyst, Quantitative

Tel: 662-483-8303

sittichet.run@thanachartsec.co.th

Chak Reungsinpinya

Strategy, Insurance, Paper

Tel: 662-779-9104

chak.reu@thanachartsec.co.th

Pattadol Bunnak

Electronics, Food & Beverage, Shipping

Tel: 662-483-8298

pattadol.bun@thanachartsec.co.th

Saksid Phadthananarak

Construction, Transportation

Tel: 662-779-9112

saksid.pha@thanachartsec.co.th

Yupapan Polpornprasert

Energy, Petrochemical

Tel: 662-779-9110

yupapan.pol@thanachartsec.co.th

Thaloengsak Kucharoenpaisan

Analyst, Retail Market

Tel: 662-483-8304

thaloengsak.kuc@thanachartsec.co.th