

Commodities Update

Key message

Dubai crude price dropped 3% WoW to US\$79.0/bbl last Friday after weak Asian economic data pressured sentiment on global oil demand. However, crude price on Monday rebounded slightly from last week as investors expect OPEC+ to make further crude supply cuts or for Saudi Arabia and Russia to extend their voluntary crude supply cuts of 1.0MBD and 300KBD into early next year. For the refinery market, Gasoline spread inched up 2% WoW to US\$15.6/bbl, supported by i) unplanned shutdowns of Residue Fluid Catalytic Cracking (RFCC) units at two Taiwanese refineries in 4Q23 and ii) lower gasoline exports from China. Jet oil and diesel spread also recovered 1% WoW to US\$22.6/bbl and 4% WoW to US\$20.1/bbl, respectively thanks to i) low middle-distillate inventories with stocks below the five-year average and ii) high seasonal diesel demand in winter. Thai Oil (TOP.BK/TOP TB)* remains our Energy top pick.

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Consistent increase in US commercial crude stocks

Event

Weekly commodities update.

Impact

Crude market: Higher US commercial crude stocks WoW

Dubai crude price dropped 3% WoW to US\$79.0/bbl last Friday after weak Asian economic data pressured sentiment on global oil demand. In addition, US commercial crude inventories increased for the fourth consecutive week by 3.6mn bbls WoW to 439mn bbls. US crude production remained at a record high of 13.2MBD, flat WoW. However, crude price on Monday rebounded slightly from last week as investors expect OPEC+ to make further crude supply cuts or for Saudi Arabia and Russia to extend their voluntary crude supply cuts of 1.0MBD and 300KBD into early next year. The upcoming meeting of OPEC+ is scheduled for November 26.

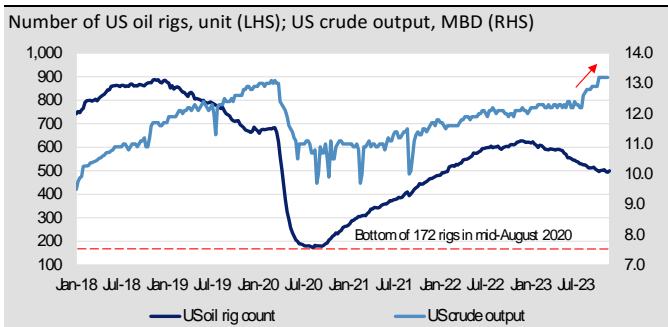
Refinery market: Better gasoline, jet oil, and diesel spreads WoW

Singapore GRM jumped 28% WoW to US\$6.4/bbl thanks to higher spreads for refinery products. Gasoline spread inched up 2% WoW to US\$15.6/bbl, supported by i) unplanned shutdowns of Residue Fluid Catalytic Cracking (RFCC) units at two Taiwanese refineries: CPC's Dalin refinery and Formosa Plastics Corp's Mailiao refinery in 4Q23 and ii) lower gasoline exports from China. Jet oil and diesel spreads also recovered 1% WoW to US\$22.6/bbl and 4% WoW to US\$20.1/bbl, respectively, thanks to i) low middle-distillate inventories with stocks below the five-year average and ii) high seasonal diesel demand in the winter. We maintain our forecast for good refinery margins in 4Q23F, which will be beneficial to refinery companies that have refinery business contribute the largest proportion to earnings such as Star Petroleum Refining (SPRC.BK/SPRC TB)*, ESSO Thailand (ESSO.BK/ESSO TB)*, Thai Oil (TOP.BK/TOP TB)*, and Bangchak Corporation (BCP.BK/BCP TB)*.

Petrochemical market: Lower HDPE, PP, and PET spreads in WoW

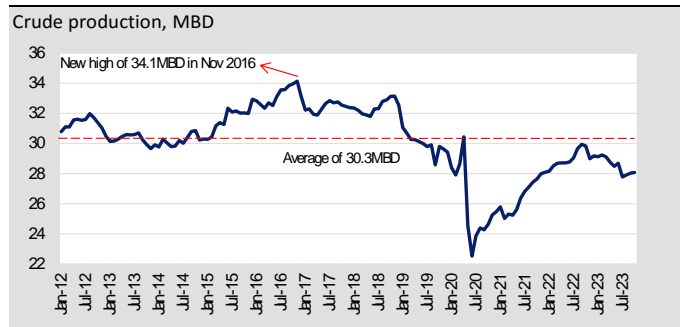
HDPE and PP spreads dropped 3% WoW to US\$373/ton and 5% WoW to US\$298/ton, staying at very poor levels (below US\$500/ton and US\$550/ton, respectively) due to large new polyolefins supplies with PE capacity of 7.3MTA and 4.0MTA in 2023F-2024F and PP capacity of 7.6MTA and 7.2MTA for both years. For the polyester market, PET spread in Asia plunged 12% WoW to US\$51/ton, standing at a very bad level (below US\$100/ton), pressured by low seasonal demand in the winter and PET supply additions of 2.0MTA in 2023F and 4.8MTA in 2024F. However, there are temporary shutdowns of approximately 4.0MTA in PET production in China due to the poor spread.

Figure 1: US oil rig rose by 6 WoW to 500, but US crude output was flat WoW at 13.2MBD



Source: Baker Hughes, Bloomberg, KGI Securities Research

Figure 2: OPEC crude production inched up by 50KBD MoM to 28.1MBD in October



Source: Bloomberg, KGI Securities Research

Figure 3: Commodities Table

Commodity-prices	Last	1 Week	2022	%Chg		Average					Related Stock
	17-Nov-23	10-Nov-23	30-Dec-22	WoW	YTD	4QTD23	3Q23	2Q23	1Q23	4Q22	
Crude											
Brent (US\$/bbl)	80.0	83.7	85.0	(4.3)	(5.8)	88.0	87.3	78.1	81.3	88.5	- PTTEP
Dubai (US\$/bbl)	79.0	81.8	78.7	(3.4)	0.4	87.3	87.4	77.1	79.6	84.5	- PTTEP
WTI (US\$/bbl)	75.9	77.2	80.3	(1.7)	(5.4)	82.6	83.1	73.6	76.0	82.9	- PTTEP
Tapis (US\$/bbl)	83.4	86.3	89.4	(3.4)	(6.7)	92.3	91.1	80.3	85.8	97.3	- PTTEP
Refinery											
Singapore GRM (US\$/bbl)	6.4	5.0	10.2	27.7	(36.8)	4.4	9.6	4.0	8.2	6.4	+ TOP, PTTGC, BCP, IRFC, SFRG, ESSO
Implied Thailand GRM (US\$/bbl)*	6.9	6.0	13.2	14.5	(47.9)	6.6	11.2	3.5	9.0	12.7	
Gasoline spread (US\$/bbl)	15.6	15.3	14.9	2.1	4.7	12.0	18.9	16.6	18.7	9.4	
Jet oil spread (US\$/bbl)	22.6	22.3	37.6	1.3	(40.0)	23.3	26.1	14.0	26.5	33.5	
Diesel spread (US\$/bbl)	20.1	19.3	35.8	3.9	(43.9)	21.9	26.9	14.6	25.2	39.3	
HSFO spread (US\$/bbl)	(10.2)	(12.8)	(16.8)	19.7	39.2	(12.8)	(5.4)	(8.7)	(16.3)	(22.5)	
LSFO spread (US\$/bbl)	11.3	10.5	3.9	7.3	190.5	7.2	1.3	3.7	5.0	6.5	
Petrochemical											
Olefins											
HDPE (US\$/ton)	1,015	1,020	1,015	(0.5)	0.0	1,036	1,035	1,033	1,085	1,032	- PTTGC
PP (US\$/ton)	940	950	990	(1.1)	(5.1)	979	972	990	1,094	995	- PTTGC
Naphtha (US\$/ton)	642	635	647	1.1	(0.8)	659	648	600	688	673	
Spread											
HDPE spread (US\$/ton)	373	385	368	(3.1)	1.4	377	387	433	397	359	- SOC, IRFC
PP spread (US\$/ton)	298	315	343	(5.4)	(13.0)	320	324	391	406	322	- SOC, IRFC
Aromatics											
PX (US\$/ton)	1,016	1,007	950	0.9	7.0	1,031	1,073	1,027	1,035	977	
BZ (US\$/ton)	894	880	863	1.6	3.6	909	898	873	934	824	
Spread											
PX spread (US\$/ton)	374	372	302	0.5	23.7	372	425	428	347	304	+ PTTGC, TOP
BZ spread (US\$/ton)	252	245	216	2.9	16.9	250	250	274	246	152	+ PTTGC, TOP
Polyesters											
PTA (US\$/ton)	758	750	752	1.1	0.8	767	791	797	775	758	
PET (US\$/ton)	880	878	915	0.2	(3.8)	883	893	955	971	913	
Spread											
PTA spread (US\$/ton)	77	75	116	2.6	(33.1)	76	72	107	82	102	+ IM
PET spread (US\$/ton)	51	58	92	(11.7)	(44.6)	52	40	90	117	90	- IM
Integrated PET spread (US\$/ton)	117	122	191	(4.1)	(38.6)	117	102	183	187	178	- IM
Coal											
Newcastle Coal (US\$/ton)	125	121	404	3.3	(69.0)	130	149	160	252	388	+ BANFU
Gas											
Henry Hub (US\$/mmbtu)	2.6	2.7	3.5	(3.3)	(25.6)	2.9	2.6	2.1	2.6	5.4	
Dutch TTF (EUR/MWh)	45.1	46.6	76.3	(3.4)	(41.0)	47.7	33.6	34.4	53.7	117.4	
JKM Japan/Korea (US\$/mmbtu)	17.3	17.2	33.0	0.6	(47.5)	16.6	12.5	11.2	18.1	31.9	

*We calculate implied Thailand GRM, based on yield of LPG (5%), ULG85 (15%), JO (15%), GO (45%), and HSFO (10%) plus Murban premium/discount (45%)

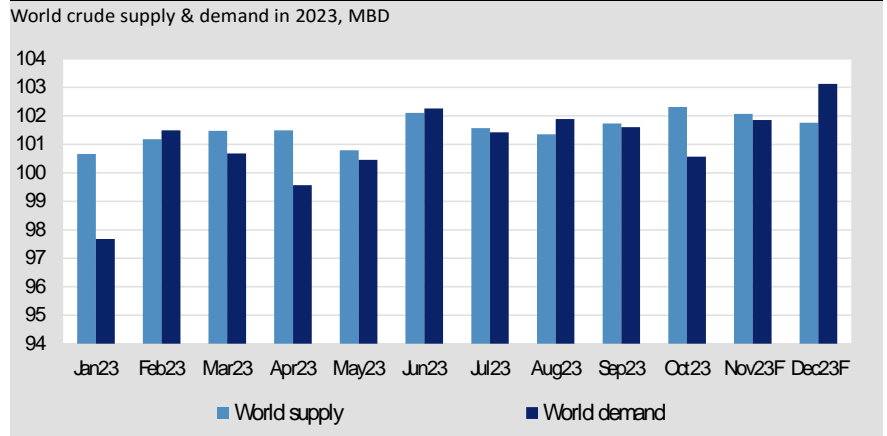
Source: Bloomberg, BANPU Plc, PTTGC Plc, KGI Securities Research, www.dit.go.th

Figure 4: World crude supply & demand in 2023 (based on EIA's November report)

	Jan23	Feb23	Mar23	Apr23	May23	Jun23	Jul23	Aug23	Sep23	Oct23	Nov23F	Dec23F
World supply	100.7	101.2	101.5	101.5	100.8	102.1	101.6	101.4	101.7	102.3	102.1	101.8
World demand	97.7	101.5	100.7	99.6	100.5	102.3	101.4	101.9	101.6	100.6	101.9	103.1

Source: EIA's STEO in November 2023, KGI Securities Research

Figure 5: Crude supply is expected to hover at 101-102KBD in 4Q23F



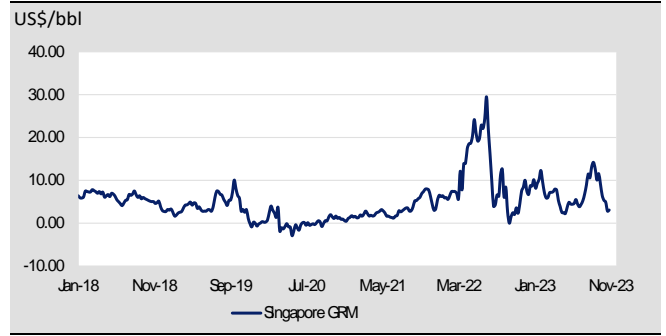
Source: EIA's STEO in November 2023, KGI Securities Research

Figure 6: Crude Price



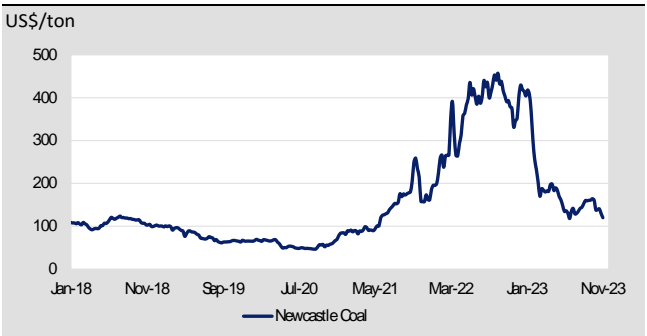
Source: Bloomberg

Figure 7: Singapore GRM



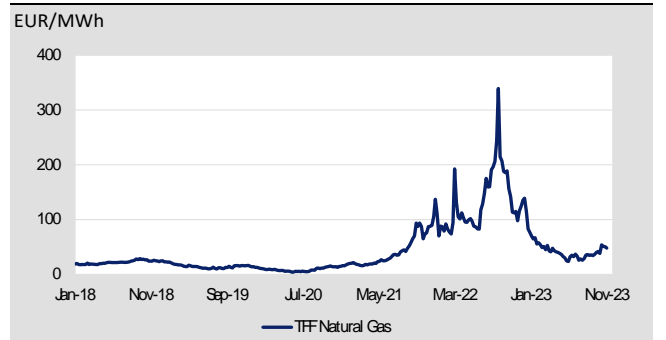
Source: Reuters

Figure 8: NEX Coal Price



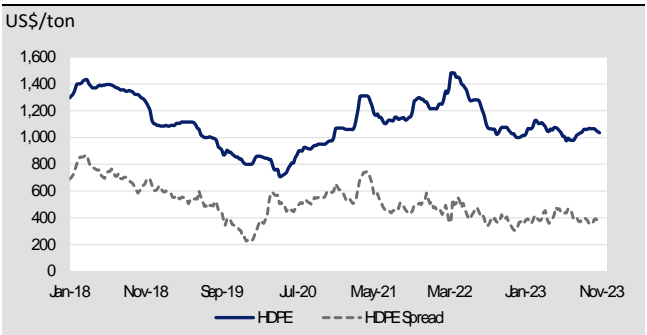
Source: BANPU

Figure 9: Dutch TTF Gas Price



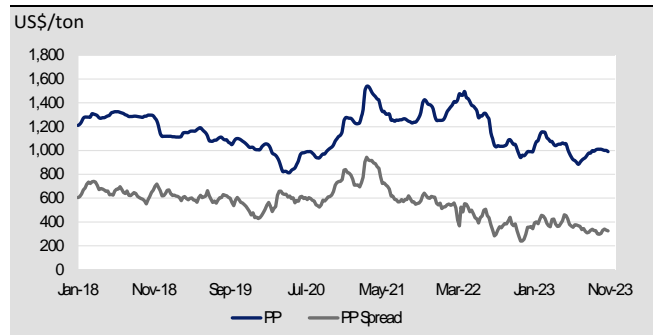
Source: Bloomberg

Figure 10: HDPE Price, HDPE Spread



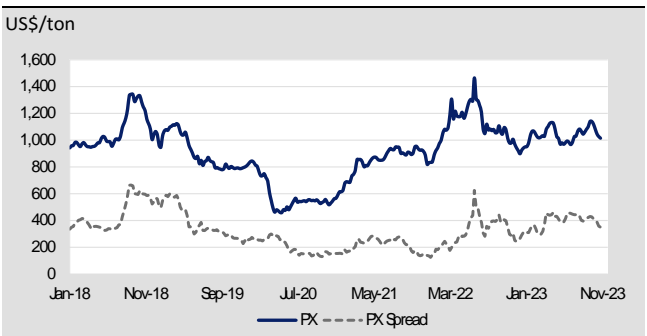
Source: Bloomberg

Figure 11: PP Price, PP Spread



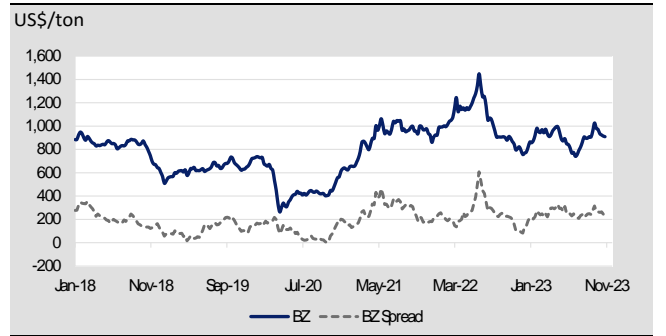
Source: Bloomberg

Figure 12: PX Price, PX Spread



Source: Bloomberg

Figure 13: BZ Price, BZ Spread



Source: Bloomberg

Corporate Governance Report of Thai Listed Companies



Companies with Excellent CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
AAV	ASA AVIATION	GLOBAL	SIAM GLOBAL HOUSE	RATCH	RATCH GROUP
ADVANC	ADVANCED INFO SERVICE	GPSC	GLOBAL POWER SYNERGY	RBF	R&B FOOD SUPPLY
AMA	AMA MARINE	GULF	GULF ENERGY DEVELOPMENT	SAT	SOMBOON ADVANCE TECHNOLOGY
AMATA	AMATA CORPORATION	HANA	HANA MICROELECTRONICS	SCB	SCB X
ANAN	ANANDA DEVELOPMENT	HENG	HENG LEASING AND CAPITAL	SCC	THE SIAM CEMENT
AOT	AIRPORTS OF THAILAND	HIMPRO	HOME PRODUCT CENTER	SCCC	SIAM CITY CEMENT
AP	AP (THAILAND)	INTUCH	INTOUCH HOLDINGS	SCGP	SCG PACKAGING
BAFS	BANGKOK AVIATION FUEL SERVICES PCL	IRPC	IRPC	SEAFCO	SEAFCO
BAM	BANGKOK COMMERCIAL ASSET MANAGEMENT	IVL	INDORAMA VENTURES	SHR	S HOTELS AND RESORTS
BANFU	BANFU	KBANK	KASIKORNBANK	SICT	SILICON CRAFT TECHNOLOGY
BBL	BANGKOK BANK	KCE	KCE ELECTRONICS	SMPC	SAHAMITR PRESSURE CONTAINER
BCP	BANGCHAK CORPORATION	KEX	KERRY EXPRESS (THAILAND)	SNC	SNC FORMER
BCPG	BCPG	KKP	KIATNAKIN PHATRA BANK	SPALI	SUPALAI
BDM S	BANGKOK DUST MEDICAL SERVICES	KTB	KRUNG THAI BANK	SPRC	STAR PETROLEUM REFINING
BEM	BANGKOK EXPRESSWAY AND METRO	KTC	KRUNGTHAI CARD	STEC	SINO-THAI ENGINEERING AND CONSTRUCTION
BGRIM	B.GRIMM POWER	LPN	L.P.N. DEVELOPMENT	STGT	SRI TRANG GLOVES (THAILAND)
BPP	BANFU POWER	MAJOR	MAJOR CINEPLEX GROUP	SUN	SUNSWEET
BTS	BTS GROUP HOLDINGS	MBK	MBK	SVI	SVI
CENTEL	CENTRAL PLAZA HOTEL	MINT	MINOR INTERNATIONAL	TACC	T.A.C. CONSUMER
CK	CH. KARNCHANG	MTC	MUANGTHAI CAPITAL	TCAP	THANACHART CAPITAL
CKP	CK POWER	OR	PIT OIL AND RETAIL BUSINESS	THCOM	THAICOM
COM7	COM7	ORI	ORIGIN PROPERTY	TISCO	TISCO FINANCIAL GROUP
CPALL	CP ALL	OSP	OSOTSPA	TKN	TAOKAENOI FOOD & MARKETING
CPAXT	CP AXTRA	PLANB	PLAN B MEDIA	TOP	THAI OIL
CPF	CHAROEN FOKPHAND FOODS	PSH	FRUKSA HOLDING	TTB	TMBTHANACHART BANK
CPN	CENTRAL PATTANA	PTG	PTG ENERGY	TU	THAI UNION GROUP
DELTA	DELTA ELECTRONICS (THAILAND)	PIT	PIT	VGI	VGI
DOHOM	DOHOME	PTTEP	PIT EXPLORATION AND PRODUCTION	WHA	WHA CORPORATION
EGCO	ELECTRICITY GENERATING	PTTGC	PIT GLOBAL CHEMICAL	WHAUP	WHA UTILITIES AND POWER
GFPT	GFPT	PYLON	PYLON	ZEN	ZEN CORPORATION GROUP
GGC	GLOBAL GREEN CHEMICALS	QH	QUALITY HOUSES		



Companies with Very Good CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
AEONTS	AEON THANA SINSAP (THAILAND)	JMT	JMT NETWORK SERVICES	SFT	SHRINKFLEX (THAILAND)
BCH	BANGKOK CHAIN HOSPITAL	LH	LAND AND HOUSES	SINGER	SINGER THAILAND
BEC	BEC WORLD	M	MK RESTAURANT GROUP	SM D	SAINTMED
BH	BUMRUNGRAD HOSPITAL	MEGA	MEGA LIFESCIENCES	SNNP	SRINANAPORN MARKETING
CBG	CARABAO GROUP	NETBAY	NETBAY	SPA	SIAM WELLNESS GROUP
CHG	CHULARAT HOSPITAL	PJW	PANJAWATTANA PLASTIC	TFG	THAIFOODS GROUP
ERW	THE ERWAN GROUP	SAK	SAKSAM LEASING	TIDLOR	NGERN TID LOR
ESSO	ESSO (THAILAND)	SAPPE	SAPPE	TNP	THANAPIRIYA
HUMAN	HUMANICA	SAWAD	SRISAWAD CORPORATION	UBE	UBON BIO ETHANOL
IIG	I&I GROUP	SFLEX	STARFLEX	XO	EXOTIC FOOD



Companies with Good CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
AU	AFTER YOU	LPH	LADPRAO GENERAL HOSPITAL	TPCH	TPC POWER HOLDING
EKH	EKACHAI MEDICAL CARE	MENA	MENA TRANSPORT		
JMART	JAYMART GROUP HOLDINGS	SISB	SISB		

Companies classified Not in the three highest score groups

Stock	Company name	Stock	Company name	Stock	Company name
BBGI	BBGI	NTSC	Nutrition SC	TGE	THACHANG GREEN ENERGY
BTG	BETAGRO	PLT	Platus Marine		
ITC	i-Tail Corporation	PQS	Premier Quality Starch		

Source: www.thai-iod.com

Disclaimer: The disclosure of the survey result of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an assessment of operation and is not based on inside information. The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey result may be changed after that date or when there is any change to the relevant information. Nevertheless, KGI Securities (Thailand) Public Company Limited (KGI) does not confirm, verify, or certify the accuracy and completeness of such survey result.

Anti-corruption Progress Indicator

Level 5: Extended

Stock	Company name	Stock	Company name	Stock	Company name
ADVANC	ADVANCED INFO SERVICE	GLOBAL	SAM GLOBAL HOUSE	QH	QUALITY HOUSES
ANAN	ANANDA DEVELOPMENT	GPSC	GLOBAL POWER SYNERGY	RATCH	RATCHABURI ELECTRICITY GENERATING HOLDING
BBL	BANGKOK BANK	HIMPRO	HOME PRODUCT CENTER	ROBINS	ROBINSON DEPARTMENT STORE
BCH	BANGKOK CHAIIN HOSPITAL	IRPC	IRPC	SCC	THE SIAM CEMENT
BDMS	BANGKOK DUST MEDICAL SERVICES	KBANK	KASIKORN BANK	SRI	SANSRI
BIGC	BIG C SUPERCENTER	KCE	KCE ELECTRONICS	SPALI	SUPALAI
CK	CK KARNOCHANG	KKP	KIATNAKIN BANK	STEC	SINO-THAI ENGINEERING AND CONSTRUCTION
DCC	DYNASTY CERAMIC	KTB	KRUNG THAI BANK	TCAP	THANACHART CAPITAL
DELTA	DELTA ELECTRONICS (THAILAND)	LPH	LADPRAO GENERAL HOSPITAL	TISCO	TISCO FINANCIAL GROUP
DRT	DIAMOND ROOFING TILES	PACE	PACE DEVELOPMENT CORPORATION	TMT	THAI METAL TRADE
EGCO	ELECTRICITY GENERATING	PTT	PTT	TOP	THAI OIL
GFPT	GFPT	PTTGC	PTT GLOBAL CHEMICAL		

Level 4: Certified

Stock	Company name	Stock	Company name	Stock	Company name
AAV	ASA AVIATION	ERW	THE ERWAN GROUP	SAPPE	SAPPE
AP	ASIAN PROPERTY DEVELOPMENT	GLOW	GLOW ENERGY	SAWAD	SRSAWAD POWER 1979
BA	BANGKOK AIRWAYS	GUNKUL	GUNKUL ENGINEERING	SCB	THE SIAM COMMERCIAL BANK
BANFU	BANFU	IJLINK	INTERLINK COMMUNICATION	SCN	SCAN INTER
BCP	THE BANGCHAK PETROLEUM	KTC	KRUNGTHAI CARD	SEAFOO	SEAFOO
BH	BUMRUNGRAD HOSPITAL	LH	LAND AND HOUSES	SM	SM
BCHH	BCH HEAVY INDUSTRIES	LPN	L.P.N. DEVELOPMENT	TASCO	TIFOO ASPHALT
CBG	CARABAO GROUP	MAKRO	SAM MAKRO	TKN	TACKAENCI FOOD & MARKETING
CENTEL	CENTRAL PLAZA HOTEL	MALEE	MALEE SAMPRAN	TMB	TMB BANK
CHG	CHULARAT HOSPITAL	MINT	MINOR INTERNATIONAL	TRT	TIRATHAI
CKP	CK POWER	MODERN	MODERNFORM GROUP	TRUE	TRUE CORPORATION
CPF	CHAROEN POKPHAND FOODS	NOK	NOK AIRLINES	TVO	THAI VEGETABLE OIL
CPN	CENTRAL PATTANA	PTTEP	PTT EXPLORATION AND PRODUCTION		
DTAC	TOTAL ACCESS COMMUNICATION	PYLON	PYLON		

Level 3: Established

Stock	Company name	Stock	Company name	Stock	Company name
BEM	BANGKOK EXPRESSWAY AND METRO	MTLS	MUANGTHAI LEASING	SPRC	STAR PETROLEUM REFINING
CPALL	CP ALL	SCI	SCI ELECTRIC		

No progress

Stock	Company name	Stock	Company name	Stock	Company name
AOT	AIRPORTS OF THAILAND	BPP	BANFU POWER	FN	FN FACTORY OUTLET
BCPG	BCPG	BTS	BTS GROUP HOLDINGS	TPCH	TPC POWER HOLDING

Source: www.cgthailand.org

Disclaimer: The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by the relevant institution as disclosed by the Office of the Securities and Exchange Commission, is made in order to comply with the policy and sustainable development plan for the listed companies. The relevant institution made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, KGI Securities (Thailand) Public Company Limited (KGI) does not confirm, verify, or certify the accuracy and completeness of the assessment result.

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Rating	Definition
Outperform (OP)	The stock's excess return over the next twelve months is ranked in the top 40% of KGI's coverage universe in the related market (e.g. Taiwan)..
Neutral (N)	The stock's excess return over the next twelve months is ranked in the range between the top 40% and the bottom 40% of KGI's coverage universe in the related market (e.g. Taiwan)
Under perform (U)	The stock's excess return over the next twelve months is ranked in the bottom 40% of KGI's coverage universe in the related market (e.g. Taiwan).
Not Rated (NR)	The stock is not rated by KGI.
Restricted (R)	KGI policy and/or applicable law regulations preclude certain types of communications, including an investment recommendation, during the course of KGI's engagement in an investment banking transaction and in certain other circumstances. <i>Excess return = 12M target price/current price-</i>
Note	When an analyst publishes a new report on a covered stock, we rank the stock's excess return with those of other stocks in KGI's coverage universe in the related market. We will assign a rating based on its ranking. If an analyst does not publish a new report on a covered stock, its rating will not be changed automatically.

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