Bt738mn

# Petrochemicals

SET Petro Index Close: 23/1/2024 Bloomberg ticker: SETPETRO 663.63 -5.66 / -0.85%



# Wider olefins spread to be short-lived

Product spreads of olefins chain improved WoW, held up by better PP and LDPE spread, though still weak against cash cost of US\$350/t, likely due to short-term inventory replenishment ahead of Chinese New Year and thus unlikely to stay around long, given capacity additions and an iffy global economic outlook. We expect investors to wait for some catalysts from company guidance after releasing 4Q23 results before entering. We stay wary though earnings likely bottomed in 2023 and valuation is undemanding.

Average PE/PP spread improved WoW, led by PP and LDPE. Average PE/PP spread rose 2% WoW to US\$346/t (vs. 12MMA of US\$365/t) driven by wider PP (+5% WoW) and LDPE (+4% WoW) spreads despite higher naphtha cost (+1% WoW). This will be short-lived, especially for PP, as weak demand and economic challenges will continue to haunt the global propylene and polypropylene markets in 2024. (S&P Global) Around 4mtpa of additional Chinese propylene production is expected to come on line in 1H24 against limited maintenance shutdowns, accelerating global capacity rationalization of olefins and derivatives in 2024, in our view.

**Aromatics spread continued to widen.** Benzene spread widened 4% WoW to a 4month high of US\$291/t (+31% MoM), far above 12MMA of US\$253/t, indicating market concern about the impact of severe winter weather on production in the US, as was seen in 2022 when benzene rose to >US\$350/t in 2Q22. PX spread also rose 1% WoW to US\$436/t, though is still below the 12MMA of US\$454/t. Higher demand for gasoline blending curtailed feedstock to produce PX despite additional capacity. S&P Global expects steady gasoline blending demand in the US ahead of the summer driving season and in Asia, tighter paraxylene supplies are expected to support Asian PX prices in 2024.

**Higher feedstock cost hit integrated PET spread**. Integrated PET spread fell 8% WoW to US\$101/t, far below 12MMA of US\$140/t, narrowed by a 2% WoW rise in MEG (feedstock) cost. MEG price surged 15% over the past three months on high ethylene cost and accelerating inventory decline, but MEG spread remained weak. Price for PTA, a key intermediate feedstock for PET and polyester, also rose 1% WoW to an 11-week high of US\$790/t on more PTA plant maintenance shutdowns in China and short-term demand from polyester producers. PET bottle chip price was steady WoW at US\$920/t, which could attract more demand from beverage producers as they accelerate production for the upcoming summer season.

#### Valuation summary Ratina Price TP ETR P/E (x) P/BV (x) (Bt) (Bt) (%) 23F 24F 23F 8.9 10.5 17.5 n.m. 15.5 0.9 23.2 35.0 52.2 48.4 10.1 0.7 Underperform 0.8 Neutral PTTGC Neutral 34.0 50.0 48.5 n.m. 11.5 0.5 0.5 Average 48.412.4 0.7 0.7 Source: InnovestX Research Price performance Absolute Relative to SET 1M 12M 12M (%) 3M 1M 3M GGC (1.7)(14.9) (41.0) 1.9 (12.7) (26.8)IVI (14 9) (3.3) (44.4) (11.8) (0.9) (31.1) PTTGC (11.7)(33.3) (17.3)4.6 (8.5)7.3 Source: SET and InnovestX Research PBV band – SETPETRO 2.2 PBV (x) 1.7 +2SD +1SD 1.2 ∕g.=1.11x -1SD 0.7 -25D 0.2 ΜM Jan-Sep-Jun-Jun-Sep-Feb-Nov-Aug-Oct lay-Jul Apr

Source: SET, InnovestX Research

#### Analyst

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#### Key product prices and spread

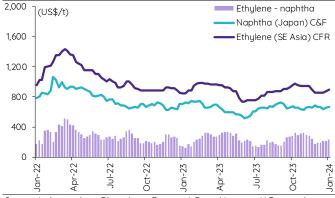
(US\$/t)	Current 19-Jan-24	-1W	-1M	-3M	-6M	-12M	1Q24 QTD	4Q23	QoQ%	2024 YTD	YoY%	12MMA
Naphtha (Japan) C&F	664	1%	0%	-2%	10%	-5%	654	657	0%	654	-4%	653
Ethylene (SE Asia) CFR	895	2%	5%	-6%	19%	6%	875	919	-5%	875	2%	886
Propylene (SE Asia) CFR	945	7%	17%	17%	24%	4%	890	806	10%	890	0%	853
HDPE (SE Asia Film) CFR	1,010	1%	3%	-4%	3%	-2%	1,000	1,001	0%	1,000	-2%	1,031
LDPE (SE Asia Film) CFR	1,060	2%	5%	1%	13%	-6%	1,043	1,019	2%	1,043	-8%	1,047
LLDPE (SE Asia Film) CFR	1,000	0%	3%	0%	5%	-4%	1,000	975	3%	1,000	-3%	1,010
PP (SE Asia Inj) CFR	970	2%	3%	1%	5%	-6%	957	947	1%	957	-5%	986
Related stocks	PTTGC (+)	SCC (+)	IRPC (+)									
Paraxylene (FOB)	1,100	1%	0%	1%	-1%	0%	1,093	1,083	1%	1,093	4%	1,106
Benzene (FOB Korea Spot)	955	2%	7%	3%	12%	1%	932	894	4%	932	3%	905
Related stocks	PTTGC (+)	TOP (+)										
MEG (SE Asia) CFR	545	2%	2%	15%	11%	0%	542	493	10%	542	3%	501
PTA (SE Asia) CFR	790	1%	1%	-1%	-2%	-3%	783	776	1%	783	-1%	801
PET Bottle (NE Asia) FOB	920	0%	2%	3%	-1%	-4%	920	904	2%	920	-3%	949
Related stocks	PTTGC (-)	IVL (-)										
ABS (SE Asia) CFR	1,300	0%	2%	-5%	0%	-6%	1,293	1,331	-3%	1,293	-7%	1,355
PS GPPS (SE Asia) CFR	1,230	0%	1%	-3%	6%	-4%	1,220	1,254	-3%	1,220	-2%	1,248
Related stocks	IRPC (-)											
PVC (SE Asia) CFR	750	0%	-3%	-3%	-9%	-17%	750	786	-5%	750	-15%	838
Related stocks	SCC (-)	PTTGC (-)										
Spread												
Ethylene - naphtha	231	7%	23%	-17%	56%	60%	221	263	-16%	221	21%	233
Propylene - naphtha	281	27%	97%	120%	78%	34%	236	150	58%	236	10%	200
HDPE - naphtha	346	1%	11%	-7%	-9%	5%	346	344	0%	346	0%	378
LDPE - naphtha	396	4%	16%	6%	17%	-8%	389	363	7%	389	-14%	394
LDPE - Ethylene	165	0%	6%	74%	-13%	-42%	168	100	68%	168	-38%	161
LLDPE - naphtha	336	-1%	11%	4%	-4%	-1%	346	319	8%	346	-3%	357
PP - naphtha	306	5%	12%	6%	-4%	-7%	302	290	4%	302	-9%	333
PX - naphtha	436	1%	1%	6%	-15%	11%	439	426	3%	439	17%	453
BZ - naphtha	291	4%	31%	18%	17%	19%	277	238	17%	277	23%	252
MEG - Ethylene	-10	n.a.	n.a.	n.a.	n.a.	n.a.	-1	-76	n.a.	-1	n.a.	-48
PTA - PX	53	7%	23%	-18%	-16%	-35%	51	50	1%	51	-38%	60
PET spread	55	-18%	17%	23%	-17%	-25%	62	69	-10%	62	-30%	89
ABS spread	734	-1%	-4%	-10%	-13%	-13%	743	804	-8%	743	-14%	832
PS spread	216	-8%	-20%	-18%	-20%	-25%	230	281	-18%	230	-19%	276
PVC - ethylene	263	-3%	-11%	-11%	-40%	-46%	271	315	-14%	271	-42%	387

Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

Note: The impact on related stocks is based on WoW change.

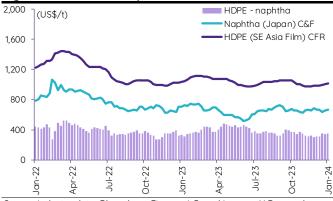


#### Figure 1: Ethylene vs. naphtha



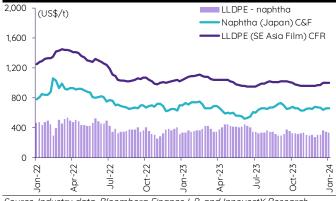
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

# Figure 3: HDPE vs. naphtha



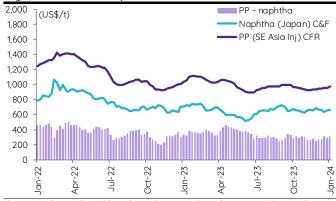
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

# Figure 5: LLDPE vs. naphtha



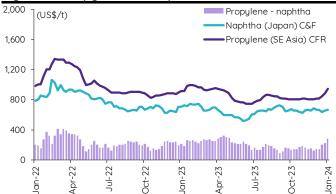
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

## Figure 7: PP vs. naphtha



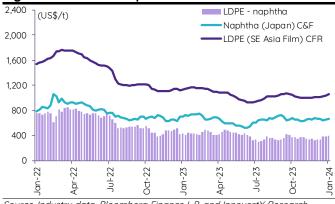
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

#### Figure 2: Propylene vs. naphtha



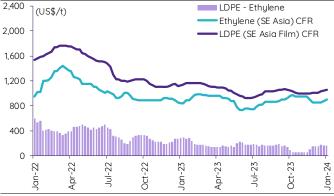
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

#### Figure 4: LDPE vs. naphtha



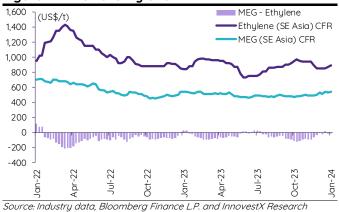
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

# Figure 6: LDPE vs. ethylene



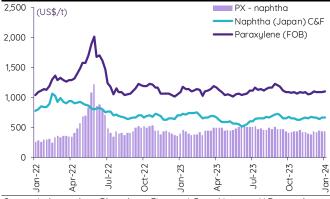
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

### Figure 8: MEG vs. ethylene



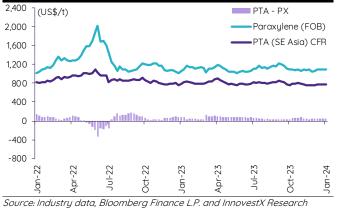


### Figure 9: Paraxylene vs. naphtha

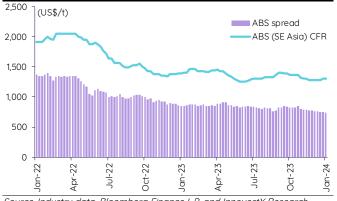


Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

# Figure 11: PTA vs. paraxylene



# Figure 13: ABS price and product spread



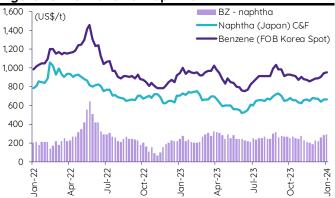
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research





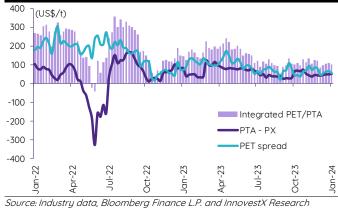
Source: Bloomberg Finance L.P. and InnovestX Research

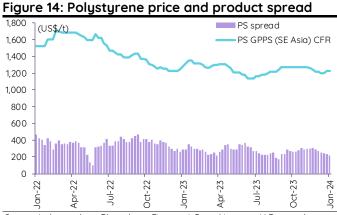
### Figure 10: Benzene vs. naphtha



Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

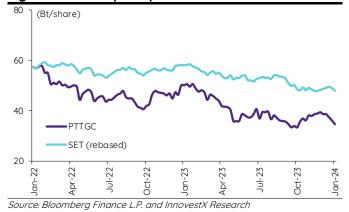
# Figure 12: Integrated PET spread





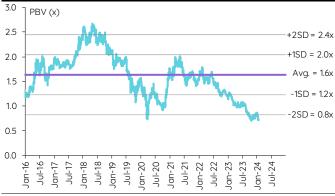
Source: Industry data, Bloomberg Finance L.P. and InnovestX Research

Figure 16: Share price performance - PTTGC





## Figure 17: PBV band - IVL



# Figure 18: PBV band - PTTGC



Source: InnovestX Research

# Figure 19: Product spread - heat map

Product	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	1Q23	2Q23	3Q23	4Q23	1Q24	Product
HDPE	362	497	518	607	583	576	462	505	421	445	368	336	373	436	361	344	346	HDPE
LDPE	430	577	601	831	968	917	740	880	741	782	600	472	446	437	343	363	389	LDPE
LLDPE	357	485	471	565	581	583	510	557	445	477	389	344	369	408	337	319	346	LLDPE
PP	464	560	525	653	754	695	547	550	428	432	352	291	359	393	295	290	302	PP
PX	294	196	122	149	226	312	274	179	286	635	501	468	401	484	490	426	439	PX
ΒZ	170	100	31	107	188	352	324	198	200	357	272	157	238	270	256	238	277	ΒZ
PS	372	459	411	574	511	498	450	472	395	305	392	365	285	306	239	281	230	PS
ABS	976	992	1,222	1,571	1,925	1,976	1,760	1,785	1,366	1,231	1,024	945	863	863	816	804	743	ABS
PET	146	175	129	132	145	149	118	217	203	201	200	69	109	117	66	69	62	PET
Int PET	198	279	213	208	241	224	209	321	269	172	257	113	166	190	106	112	106	Int PET
PVC	454	445	465	543	619	710	548	629	472	579	446	412	453	354	453	315	271	PVC

Source: InnovestX Research

# Figure 20: Valuation summary (price as of Jan 23, 2024)

	Rating	Price	Target	ETR	P/E (x)	EPS growth (%)			P/BV (x)			ROE (%)			Div. '	Yield	(%)	EV/EBITDA (x)		
		(Bt/Sh)	(Bt/Sh)	(%)	22A 23F 24F	22A	23F	24F	22A :	23F	24F	22A	23F	24F	22A	23F	24F	22A	23F	24F
GGC	Underperform	8.85	10.5	17.5	9.0 n.m. 15.5	30	n.m.	n.m.	0.9	0.9	0.8	10	(3)	6	5.6	(1.1)	3.3	4.2	18.0	4.9
IVL	Neutral	23.20	35.0	52.2	3.4 48.4 10.1	44	(93)	377	0.7	0.7	0.7	22	1	7	6.9	1.3	3.0	4.2	7.0	5.0
PTTGC	Neutral	34.00	50.0	48.5	11.1 n.m. 11.5	(57)	n.m.	n.m.	0.5	0.5	0.5	4	(1)	4	2.9	1.5	4.4	8.6	11.4	7.2
Average					7.8 48.4 12.4	6	(93)	377	0.7	0.7	0.7	12	(1)	6	5.2	0.5	3.6	5.6	12.1	5.7

Source: InnovestX Research

# Figure 21: Regional peer comparison

Company	PE (x)		EPS Growth (%)			P	BV (x)		R	OE (%)		Div.	Yield (%	)	EV/EBITDA (x)			
	23F	24F	25F	23F	24F	25F	23F	24F	25F	23F	24F	25F	23F	24F	25F	23F	24F	25F
Sinopec Shanghai Petrochem	107.5	23.5	14.1	109.1	358.3	66.4	1.0	1.0	1.0	0.9	4.5	6.4	n.a	1.9	4.8	10.0	6.1	4.9
China Petroleum & Chemical	8.8	8.0	7.6	9.3	10.0	5.9	0.8	0.7	0.7	8.8	9.5	9.5	7.5	7.4	7.5	4.6	4.2	4.0
PetroChina Co Ltd	5.0	5.0	5.4	11.1	(1.1)	(6.5)	0.6	0.5	0.5	11.7	10.5	9.1	9.9	9.4	8.8	3.3	3.3	3.3
Reliance Industries Ltd	n.m.	22.3	19.9	n.m.	n.m.	12.4	2.1	2.0	1.8	8.7	9.3	9.6	0.3	0.4	0.4	13.3	11.7	10.5
Mitsui Chemicals Inc	11.5	9.7	8.2	(16.6)	17.9	19.0	1.0	0.9	0.9	9.9	10.8	11.6	3.0	3.3	3.6	7.4	6.7	5.9
Asahi Kasei Corp	31.8	13.6	12.0	273.5	133.7	13.7	0.9	0.9	0.8	5.3	6.4	7.0	3.2	3.2	3.3	7.8	7.0	6.4
Sumitomo Chemical Co Ltd	n.m	17.2	7.6	(222.0)	157.1	126.2	0.5	0.5	0.5	n.m.	2.6	6.5	3.9	3.8	4.4	29.9	15.2	7.4
Lotte Chemical Corp	107.8	13.6	7.4	(38.1)	694.4	83.1	0.3	0.3	n.a.	0.2	2.3	4.3	2.0	2.7	3.3	13.0	7.4	5.8
Far Eastern New Century Corp	19.8	18.5	14.7	(5.0)	7.1	25.2	0.7	0.7	0.7	3.8	4.1	4.9	3.8	4.5	4.8	11.3	10.5	10.0
Formosa Chemicals & Fibre	35.3	24.8	23.2	25.4	42.3	6.7	1.0	1.0	1.1	3.1	3.2	3.8	2.1	3.0	3.4	21.4	17.2	13.5
Formosa Plastics Corp	37.8	25.8	24.6	(66.9)	46.6	5.0	1.3	1.2	1.2	3.7	5.1	6.6	2.1	3.0	3.5	34.4	22.2	17.9
Nan Ya Plastics Corp	29.2	21.1	18.8	(49.1)	38.6	12.3	1.3	1.2	1.2	2.8	5.9	6.9	1.6	3.4	4.2	22.7	15.0	11.6
Formosa Petrochemical Corp	30.0	25.3	22.0	59.9	18.6	14.8	2.1	1.8	2.0	7.5	7.9	9.4	2.5	2.9	3.6	18.7	13.6	12.6
Petronas Chemicals Group Bhd	23.9	17.5	14.3	(64.1)	36.6	22.2	1.4	1.3	1.2	5.7	7.5	8.6	2.5	3.1	3.8	11.5	9.8	8.6
Indorama Ventures PCL	35.1	12.2	8.7	(87.7)	188.4	40.1	0.7	0.7	0.6	1.8	4.9	7.7	1.9	2.6	4.0	9.2	7.8	6.8
IRPC PCL	n.m	12.3	6.4	80.0	469.0	93.5	0.5	0.5	0.5	(1.0)	3.0	4.6	1.0	2.3	3.5	10.9	8.3	6.6
PTT Global Chemical PCL	n.m	15.4	10.5	84.8	850.7	46.4	0.6	0.5	0.5	5.9	3.1	5.3	7.0	3.0	4.7	11.3	9.2	8.0
Global Green Chemicals	354.0	12.8	11.5	(97.3)	2,660.0	11.6	0.9	0.8	0.8	(0.0)	6.9	7.1	1.1	3.3	4.4	11.3	6.1	5.9
Alpek SA de CV	19.1	6.4	6.6	(91.0)	197.1	(2.7)	0.6	0.5	0.5	3.6	5.5	7.4	13.2	8.5	9.1	4.4	4.2	4.2
Eastman Chemical Co	14.2	11.4	9.8	(3.8)	24.0	16.6	1.9	1.7	1.6	13.9	16.0	17.0	3.6	3.8	4.0	9.5	8.4	7.7
Average	54.4	15.8	12.7	(4.7)	313.1	30.6	1.0	1.0	1.0	5.1	6.4	7.7	3.8	3.8	4.5	13.3	9.7	8.1

Source: Bloomberg Finance L.P., InnovestX Research



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#### CG Rating 2023 Companies with CG Rating

#### Companies with Excellent CG Scoring

7UP, AAV, ABM, ACE, ACG, ADB, ADD, ADVANC, AEONTS, AF, AGE, AH, AHC, AIRA, AIT, AJ, AKP, AKR, ALLA, ALT, AMA, AMARIN, AMATAV, ANAN, AOT, AP, APCO, APCS, ARIP, ARROW, ASEFA, ASK, ASP, ASW, ATP30, AUCT, AWC, AYUD, B, BA, BAFS, BAM, BANPU, BAY, BBGI, BBIK, BBL, BC, BCH, BCP, BCPG, BDMS, BEC, BEM, BEYOND, BGC, BGRIM, BH, BIZ, BJC, BJCHI, BKI, BLA, BOL, BPP, BRI, BROOK, BRR, BTS, BTW, BWG, BYD, CBG, CENTEL, CFRESH, CHASE, CHEWA, CHG, CHOW, CIMBT, CIVIL, CK, CKP, CM, CNT, COLOR, COM7, COTTO, CPALL, CPAXT, CPF, CPI, CPN, CPW, CPN, CPW, CRO, CSC, CSS, CV, DCC, DDD, DELTA, DEMCO, DMT, DOHOME, DRT, DUSIT, EA, EASTW, CCF, ECL, EE, EGCO, EPG, ERW, ETC, ETE, FE, FLOYD, FN, FPI, FPT, FSX, FVC, GBX, GC, GCAP, GENCO, GFPT, GGC, GLAND, GLOBAL, GPSC, GRAMMY, GULF, GUNKUL, HANA, HARN, HENG, HMPRO, HPT, HTC, ICC, ICHI, ICN, III, ILINK, ILM, IMH, IND, INET, INTUCH, IP, IRC, IRPC, ITC, ITEL, IVL, JAS, JTS, KBANK, KCC, KCE, KEX, KKP, KSL, KTB, KTC, KTMS, KUMWEL, KUN, LALIN, LANNA, LH, LHFG, LIT, LOXLEY, LPN, LRH, LST, M, MAJOR, MALEE, MATCH, MBK, MC, M-CHAI, MCOT, MEGA, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NC, NCH, NCL, NDR, NER, NKI, NOBLE, NRF, NTV, NVD, NWR, NYT, OCC, OISHI<sup>1</sup>, ONEE, OR, ORI, OSP, OTO, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PIMO, PJW, PLANB, PLAT, PLUS, PM, POLY, PORT, PPP, PPS, PR9, PRG, PRINC, PRM, PRTR, PSH, PSL, PT, PTC, PTT, PTTEP, PTTGC, Q-CON, QH, QTC, RATCH, RBF, RPH, RS, RT, S, S&J, SA, SABINA, SAK, SAMART, SAMTEL, SAPPE, SAT, SBNEXT, SC, SCB, SCC, SCCC, SCG, SCGP, SCM, SDC, SEAFCO, SEAOIL, SECURE, SELIC, SENA, SENX, SFP2, SFT, SGC, SGF, SGP, SHR, SICT, SIRI, SIS, SITHAI, SJWD, SKR, SM, SMPC, SMT, SNC, SNNP, SNP, SO, SPALI, SPC, SPCG, SPI, SPRC, SR, SSC, SSF, SSSC, STA, STC, STEC, STGT, STI, SUC, SUN, SUSCO, SUTHA, SVI, SYT, SYMC, SYNEX, SYNTEC, TACC, TAE, TCAP, TCMC, TEAMG, TEGH, TFG, TFMAMA, TGE, TGH, THANA, THANI, THCOM, THIP, THRE, THREL, TIDLOR, TIPH, TISCO, TK, TKN, TKS, TKT, TLI, TM, TMC, TMD, TMT, TNDT, TNITY, TNL, TNR, TOA, TOG, TOP, TPBI, TPCS, TPIPL, TPIPP, TPS, TQM, TQA, TRT, TRUE, TRV, TSC, TSTE, TSTH, TTA, TTB, TTCL, TTW, TURTLE, TVDH, TVH, TVO, TVT, TWPC, UAC, UBE, UBIS, UKEM, UP, UPF, UPOIC, UV, VCOM, VGI, VIBHA, VIH, VL, WACOAL, WGE, WHA, WHAUP, WICE, WINMED, WINNER, XPG, YUASA, ZEN

#### Companies with Very Good CG Scoring

25, A5, AAI, AIE, ALUCON, AMR, APURE, ARIN, AS, ASIA, ASIAN, ASIMAR, ASN, AURA, BR, BSBM, BTG, CEN, CGH, CH, CHIC, CI, CIG, CMC, COMAN, CSP, DOD, DPAINT, DV8, EFORL, EKH, ESSO, ESTAR, EVER, FORTH, FSMART, FTI, GEL, GPI, HEALTH, HUMAN, IFS, INSET, IT, J, JCKH, JDF, JKN, JMART, JUBILE, K, KCAR, KGI, KIAT, KISS, KK, KTIS, KWC, KWM, LDC, LEO, LHK, MACO, METCO, MICRO, MK, MVP, NCAP, NOVA, NTSC, PACO, PIN, PQS, PREB, PRI, PRIME, PROEN, PROS, PROUD, PSTC, PTECH, PYLON, RCL, SALEE, SANKO, SCI, SCN, SE, SE-ED, SFLEX, SINGER, SKN, SONIC, SORKON, SPVI, SSP, SST, STANLY, STP, SUPER, SVOA, SWC, TCC, TEKA, TFM, TMILL, TNP, TPLAS, TPOLY, TRC, TRU, TRUBB, TSE, VRANDA, WAVE, WFX, WIIK, WIN, WP, XO

#### Companies with Good CG Scoring

24CS, AMANAH, AMARC, AMC, APP, ASAP, BCT, BE8, BIG, BIOTEC, BLESS, BSM, BVG, CAZ, CCET, CHARAN, CHAYO, CHOTI, CITY, CMAN, CMR, CRANE, CWT, DHOUSE, DTCENT, EASON, FNS, FTE, GIFT, GJS, GTB, GTV, GYT, HL, HTECH, HYDRO, IIG, INGRS, INSURE, IRCP, ITD, ITNS, JCK, JMT, JR, JSP, KBS, KGEN, KJL, L&E, LEE, MASTER, MBAX, MEB, MENA, META, MGT, MITSIB, MJD, MOSHI, MUD, NATION, NNCL, NPK, NSL, NV, OGC, PAF, PCC, PEACE, PICO, PK, PL, PLANET, PLE, PMTA, PPM, PRAKIT, PRAPAT, PRECHA, PRIN, PSG, RABBIT, READY, RJH, RSP, RWI, S11, SAAM, SAF, SAMCO, SAWAD, SCAP, SCP, SIAM, SKE, SKY, SMART, SMD, SMIT, SOLAR, SPA, STECH, STPI, SVR, TC, TCCC3, TEAM, TFI, TIGER, TITLE, TKC, TMI, TNH, TPA, TPAC, TRITN, UBA, UMI, UMS, UTP, VARO, VPO, W, WARRIX, WORK, WPH, YONG, ZIGA

#### 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 2022 to 31 October 2023) is publicized.

<sup>1</sup>OISHI was voluntarily delisted from the Stock Exchange of Thailand, effectively on September 6, 2023

<sup>2</sup>SFP was voluntarily delisted from the Stock Exchange of Thailand, effectively on July 19, 2023

<sup>3</sup>TCCC was voluntarily delisted from the Stock Exchange of Thailand effectively on August 25, 2023

#### Anti-corruption Progress Indicator

#### Certified (ได้รับการรับรอง)

2S, 7UP, AAI, ADVANC, AF, AH, AI, AIE, AIRA, AJ, AKP, AMA, AMANAH, AMATAV, AP, APCS, AS, ASIAN, ASK, ASP, AWC, AYUD, B, BAFS, BAM, BANPU, BAY, BBGI, 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, CPALL, CPAXT, CPF, CPI, CPL, CPN, CPW, CRC, CSC, DCC, DELTA, DEMCO, DIMET, DOHOME, DRT, DUSIT, EA, EASTW, ECF, EGCO, EP, EPG, ERW, ESTAR, ETC, ETE, FNS, FPI, FPT, FSMART, FTE, GBX, GC, GCAP, GEL, GFPT, GGC, GJS, GPI, GPSC, GSTEEL, GULF, GUNKUL, HANA, HARN, HENG, HMPRO, HTC, ICC, ICHI, IFS, III, ILINK, ILM, INET, INOX, INSURE, INTUCH, IRPC, ITEL, IVL, JAS, JKN, JR, JTS, KASET, KBANK, KBS, KCAR, KCC, KCE, KGEN, KGI, KKP, KSL, KTB, KTC, L&E, LANNA, LHFG, LHK, LPN, LRH, M, MAJOR, MALEE, MATCH, MBAX, MBK, MC, MCOT, META, MFC, MFEC, MILL, MINT, MONO, MOONG, MSC, MST, MTC, MTI, NATION, NCAP, NEP, NKI, NOBLE, NRF, NWR, OCC, OGC, OR, ORI, PAP, PATO, PB, PCSGH, PDG, PDJ, PG, PHOL, PIMO, PK, PL, PLANB, PLANET, PLAT, PM, PPP, PPPM, PPS, PR9, PREB, PRG, PRINC, PRM, PROS, PSH, PSL, PSTC, PT, PTECH, PTG, PTT, PTTEP, PTTGC, PYLON, Q-CON, QH, QLT, QTC, RABBIT, RATCH, RML, RS, RWI, S&J, SAAM, SABINA, SAK, SAPPE, SAT, SC, SCCC, SCG, SCGP, SCM, SCN, SEAOIL, SE-ED, SELIC, SENA, SGC, SGP, SIÑI, 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, TGE, TGH, THANI, THCOM, THIP, THRE, THREL, TIDLOR, TIPCO, TISCO. TKS, TKT, TMD, TMILL, TMT, TNITY, TNL, TNP, TNR, TOG, TOP, TOP, TPA, TPCS, TRT, TRU, TSC, TSI, TSTE, TSTH, TTA, TTB, TTCL, TU, TVDH, TVO, TWPC, UBE, UBIS, UEC, UKEM, UOBKH, UV, VCOM, VGI, VIH, WACOAL, WHA, WHAUP, WICE, WIIK, XO, YUASA, ZEN, ZIGA

#### Declared (ประกาศเจตนารมณ์)

ACE, ADB, ALT, AMC, ASW, BLAND, BTG, BYD, CAZ, CBG, CV, DEXON, DMT, EKH, FSX, GLOBAL, GREEN, ICN, IHL, ITC, J, JMART, JMT, LEO, LH, MENA, MITSIB, MODERN, NER, NEX, OSP, OTO, PLUS, POLY, PQS, PRIME, PROEN, PRTR, RBF, RT, SA, SANKO, SCB, SENX, SFLEX, SIS, SKE, SM, SVOA, TBN, TEGH, TIPH, TKN, TPAC, TPLAS, TQM, TRUE, W, WPH, XPG

#### N/A

24CS, 3K-BAT, A, A5, AAV, ABM, ACAP, ACC, ACG, ADD, AEONTS, AFC, AGE, AHC, AIT, AJA, AKR, AKS, ALL, ALLA, ALPHAX, ALUCON, AMARC, AMARIN, AMR, ANAN, ANI, AOT, APCO, APEX, APP, APURE, AQUA, ARIN, ARIP, ARROW, ASAP, ASEFA, ASIA, ASIMAR, ASN, ATP30, AU, AUCT, AURA, B52, BA, BBIK, BC, BCT, BDMS, BEAUTY, BEM, BGT, BH, BIG, BIOTEC, BIS, BIZ, BJC, BJCHI, BKD, BLC, BLESS, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BSRC, BTNC, BTW, BUI, BVG, CCET, CCP, CEYE, CGD, CH, CHARAN, CHASE, CHAYO, CHG, CHIC, CHO, CI, CITY, CIVIL, CK, CKP, CMAN, CMO, CMR, CNT, COCOCO, COLOR, COMAN, CPANEL, CPH, CPR, CPT, CRANE, CRD, CSP, CSR, CSS, CTW, CWT, D, DCON, DDD, DHOUSE, DITTO, DOD, DPAINT, DTCENT, DTCI, DV8, EASON, ECL, EE, EFORL, EMC, ETL, EVER, F&D, FANCY, FE, FLOYD, FMT, FN, FORTH, FTI, FVC, GABLE, GENCO, GFC, GIFT, GL, GLAND, GLOCON, GLORY, GRAMMY, GRAND, GSC, GTB, GTV, GYT, HEALTH, HFT, HL, HPT, HTECH, HUMAN, HYDRO, 12, IFEC, IIG, IMH, IND, INGRS, INSET, IP, IRC, IRCP, IT, ITD, ITNS, ITTHI, JAK, JCK, JCKH, JCT, JDF, JPARK, JSP, JUBILE, K, KAMART, KC, KCG, KCM, KDH, KEX, KIAT, KISS, KJL, KK, KKC, KLINIQ, KOOL, KTIS, KTMS, KUMWEL, KUN, KWC, KWI, KWM, KYE, LALIN, LDC, LEE, LIT, LOXLEY, LPH, LST, MANRIN, MASTER, MATI, MCA, M-CHAI, MCS, MDX, MEB, MEGA, METCO, MGC, MGI, MGT, MICRO, MIDA, MJD, MK, ML, MORE, MOSHI, MTW, MUD, MVP, NAM, NC, NCH, NCL, NDR, NETBAY, NEW, NEWS, NFC, NNCL, NOK, NOVA, NPK, NSL, NTSC, NTV, NUSA, NV, NVD, NYT, OHTL, ONEE, ORN, PACE, PACO, PAF, PCC, PEACE, PERM, PF, PHG, PICO, PIN, PJW, PLE, PLT, PMTA, POLAR, POMPUI, PORT, POST, PPM, PRAKIT, PRAPAT, PRECHA, PRI, PRIN, PRO, PROUD, PSG, PSP, PTC, PTL, RAM, RCL, READY, RICHY, RJH, ROCK, ROCTEC, ROH, ROJNA, RP, RPC, RPH, RSP, S, S11, SABUY, SAF, SAFARI, SAFE, SALEE, SAM, SAMART, SAMCO, SAMTEL, SAUCE, SAV, SAWAD, SAWANG, SBNEXT, SCAP, SCGD, SCI, SCL, SCP, SDC, SE, SEAFCO, SECURE, SFT, SGF, SHANG, SHR, SIAM, SICT, SIMAT, SINGER, SINO, SISB, SJWD, SK, SKN, SKN, SLM, SLP, SMART, SMD, SMT, SNNP, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPVI, SQ, SR, SRS, SSC, SSS, STANLY, STARK, STC, STEC, STECH, STHAI, STI, STP, STPI, SUC, SUN, SUC, SUN, SUTHA, SVR, SVT, SWC, SYNEX, TACC, TAN, TAPAC, TC, TCO, TCJ, TCOAT, TEAM, TEAMG, TEKA, TFM, TGPRO, TH, THAI, THANA, THE, THG, THMUI, TIGER, TITLE, TK, TKC, TLI, TM, TMC, TMI, TMW, TNDT, TNH, TNPC, TOA, TPBI, TPCH, TPIPL, TPIPP, TPL, TPOLY, TPP, TPS, TQR, TR, TRC, TRITN, TRP, TRUBB, TRV, TSE, TTI, TTT, TTW, TURTLE, TVH, TVT, TWP, TWZ, TYCN, UAC, UBA, UMI, UMS, UNIQ, UP, UPF, UPOIC, UREKA, UTP, UVAN, VARO, VIBHA, VL, VNG, VPO, VRANDA, WARRIX, WAVE, WFX, WGE, WIN, WINDOW, WINMED, WINNER, WORK, WORLD, WP, YGG, YONG, ZAA

#### Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of November 1, 2023) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC