PTT Global Chemical

PTT Global Chemical Public Company Limited

Tue, Feb 15, 2022

PTTGC

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4Q21: Misses on impairment and write-offs

PTTGC's net profit of Bt3.2bn in 4Q21 missed expectations on asset impairment and write-offs, the latter raising depreciation expense in 4Q21. Excluding these non-recurring items, operating profit was still weaker than expected due to lower EBITDA margin for olefins at only 12% vs. a 5-year average of 22%, although it still contributed the most earnings in 4Q21. 2021 profit was Bt45bn, leaping from only Bt200mn, thanks to net stock gain (Bt4.5bn) and gain from divestment of GPSC (Bt21bn). Normalized profit of Bt24bn was also much healthier YoY (+224%). We expect 2022F normalized profit to weaken YoY due to major maintenance shutdown of its olefins crackers. Neutral, TP of 80.

Olefins: adjusted EBITDA margin at 6-quarter low. Earnings for olefins and polymers fell further from 3Q21 on a lower utilization rate for olefins crackers to 80% in 4Q21 from 91% in 3Q21 due to less favorable product spread off a higher naphtha price; it thus cut naphtha-based cracker utilization, including the olefins reconfiguration project (ORP). A more competitive feedstock cost led its gas-based olefins crackers to operate at 98% utilization, sufficient to accommodate downstream PE needs. Lower utilization rate and weaker naphtha cracker margin depressed the segment's adjusted EBITDA to only 12% - the lowest since 3Q20 - from a 5-year average of 22%.

Better GRM offset weak aromatics spread. Oil refinery contribution improved sharply from a loss of Bt1.8bn in 3Q21 to Bt2.4bn profit in 4Q21 thanks to a high utilization rate and much stronger GRM, doubling to US\$6.4/bbl in 4Q21F from US\$3.2/bbl in 3Q21 on a strong recovery in crack spread for middle distillate products (70% of product yield) and LSFO (16%). This included stock and hedging gains of US\$3.5/bbl on the pick-up in oil price in mid-Dec after falling from peak in early Nov. This helped offset weak aromatics, which turned to a net loss of Bt857mn in 4Q21, down from Bt3.5bn profit in 3Q21.

Performance materials: down QoQ but still strong. Adjusted EBITDA for performance materials - phenol and propylene oxide and polyol – fell 28% QoQ as EBITDA margin shrank to 22% from 29% in 3Q21, mainly for phenol and BPA. Behind this was a one-month shutdown of phenol plant 1, though product spread stayed good (+31% QoQ). The PO/Polyol plant was shut down for maintenance in 4Q21. Profit contribution from this segment improved sharply in 2021 on tight supply from unplanned outages for other regional producers while demand increased strongly.

TP of Bt80 and NEUTRAL rating intact. PTTGC's profit in 2022F will be clouded by the planned turnaround of its olefins crackers throughout the year. Further, as higher oil price continues to support olefins chain product price, PTTGC's new naphtha-based cracker will be depressed by higher feedstock cost. We expect PTTGC to operate more naphtha-based plants to make up for production loss from the gas cracker during shutdown. Profit contribution from Allnex will be gradual, in our view, hence unable to offset lower profit from olefins. With no new share price catalyst in sight, we maintain our Neutral rating with a TP of Bt80 based on 1.1x PBV (2022F). Key risk is oil price volatility, weaker demand and moves to ban single-use plastics (<3% of capacity).

Forecasts and valuation

Year to 31 Dec	Unit	2020	2021	2022F	2023F	2024F
Revenue	(Btmn)	329,291	468,953	464,488	470,514	469,950
EBITDA	(Btmn)	19,891	61,952	59,720	64,780	65,216
Core profit	(Btmn)	(932)	32,313	21,497	27,061	28,395
Reported profit	(Btmn)	200	44,982	21,497	27,061	28,395
Core EPS	(Bt)	(0.21)	7.17	4.77	6.00	6.30
DPS	(Bt)	1.00	3.75	2.40	3.00	3.10
P/E, core	(X)	n.a.	8.0	12.0	9.5	9.1
EPS growth, core	(%)	n.a.	n.a.	(33.5)	25.9	4.9
P/BV, core	(X)	0.9	0.8	0.8	0.8	0.7
ROE	(%)	(0.3)	10.5	6.5	7.9	7.9
Dividend yield	(%)	1.7	6.6	4.2	5.2	5.4
FCF yield	(x)	(2.4)	(30.5)	0.3	3.4	16.6
EV/ÊBIT	(X)	(861.8)	10.0	17.6	14.7	13.4
EBIT growth, core	(%)	n.a.	n.a.	(33.3)	20.4	2.4
EV/CE	(x)	1.1	1.1	1.4	1.4	1.4
ROCE	(%)	(0.8)	8.3	6.5	8.3	8.8
EV/EBITDA	(x)	17.4	6.3	7.7	7.2	6.7
EBITDA growth	(%)	(27.0)	211.5	(3.6)	8.5	0.7

Source: SCBS Investment Research

See the end of this report for disclaimer

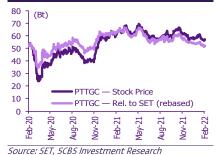
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Tactical: NEUTRAL

(3-month) Stock data

SLOCK GALA	
Last close (Feb 14) (Bt)	57.25
Target price (Bt)	80.00
Mkt cap (Btbn)	258.13
Mkt cap (US\$mn)	7,956
Beta	Н
Mkt cap (%) SET	1.30
Sector % SET	3.30
Shares issued (mn)	4,509
Par value (Bt)	10.00
12-m high / low (Bt)	70 / 54.3
Avg. daily 6m (US\$mn)	33.85
Foreign limit / actual (%)	37 / 16
Free float (%)	54.3
Dividend policy (%)	≥ 30

Price performance



Share performance

(%)	1M	3M	12M						
Absolute	(5.4)	(6.9)	(10.5)						
Relative to SET	(6.0)	(9.5)	(19.1)						
Source: SET. SCBS Investment Research									

Analyst

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Financial statement

Profit and Loss Statement

Profit and Loss Statement									
FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Total revenue	(Btmn)	439,921	518,655	412,810	329,291	468,953	464,488	470,514	469,950
Cost of goods sold	(Btmn)	382,271	466,026	390,619	317,093	409,783	420,797	422,789	422,236
Gross profit	(Btmn)	57,650	52,629	22,191	12,198	59,170	43,691	47,725	47,713
SG&A	(Btmn)	14,197	14,854	16,469	14,881	21,727	19,367	17,657	17,635
Other income	(Btmn)	2,364	2,694	2,319	2,283	1,771	1,846	1,437	2,184
Interest expense	(Btmn)	3,935	3,593	3,119	3,511	5,945	9,394	8,690	8,108
Pre-tax profit	(Btmn)	41,882	36,876	4,922	(3,912)	33,269	16,776	22,816	24,154
Corporate tax	(Btmn)	3,863	2,986	, 649	(109)	7,228	1,678	2,282	2,415
Equity a/c profits	(Btmn)	5,572	6,895	4,559	3,323	6,841	6,977	7,117	7,259
Minority interests	(Btmn)	(2,822)	(201)	(667)	(452)	(568)	(579)	(591)	(602)
Core profit	(Btmn)	40,768	40,583	8,164	(932)	32,313	21,497	27,061	28,395
Extra-ordinary items	(Btmn)	(1,470)	(514)	3,518	1,132	12,669	0	0	0
Net Profit	(Btmn)	39,298	40,069	11,682	200	44,982	21,497	27,061	28,395
EBITDA	(Btmn)	65,267	59,524	27,239	19,891	61,952	59,720	64,780	65,216
Core EPS	(Btmn)	9.04	9.00	1.81	(0.21)	7.17	4.77	6.00	6.30
Net EPS		8.72	8.89	2.59	0.04	9.98	4.77	6.00	6.30
DPS	(Bt) (Bt)	4.25	4.25	2.00	1.00	3.75	2.40	3.00	3.10
DFS	(DL)	4.25	4.20	2.00	1.00	5.75	2.40	5.00	5.10
Balance Sheet									
FY December 31	Unit	2017	2018	2019	2020	2021	2022F	2023F	2024F
Total current assets	(Btmn)	140,738	144,310	104,494	129,911	207,244	144,167	182,077	237,392
Total fixed assets	(Btmn)	294,226	324,945	348,020	359,472	546,871	538,399	527,243	513,864
Total assets	(Btmn)	434,964	469,255	452,514	489,383	754,115	682,567	709,320	751,256
Total loans	(Btmn)	96,022	95,655	106,778	148,002	209,163	236,966	265,804	297,141
Total current liabilities	(Btmn)	60,313	73,858	53,033	59,041	147,007	95,706	75,374	70,684
Total long-term liabilities	(Btmn)	94,387	91,915	105,886	141,347	279,506	251,655	282,992	314,328
Total liabilities	(Btmn)	154,700	165,773	158,919	200,389	426,512	347,361	358,366	385,012
	(Btmn)	45,088	45,088	45,088	45,088	45,088	45,088	45,088	45,088
Paid-up capital					,				
Paid-up capital Total equity			303.482	293.595	288,994	327.603	335.205	350.954	366.245
Total equity BVPS	(Btmn) (Bt)	280,264 60.96	303,482 65.66	293,595 63.39	288,994 62.33	327,603 70.58	335,205 72.14	350,954 75.50	366,245 78.76
Total equity	(Btmn)	280,264			•		,		
Total equity BVPS Cash Flow Statement	(Btmn) (Bt)	280,264 60.96	65.66	63.39	62.33	70.58	72.14	75.50	78.76 2024F
Total equity BVPS Cash Flow Statement FY December 31	(Btmn) (Bt) Unit	280,264 60.96 2017	65.66 2018	63.39 2019	62.33 2020	2021	72.14 2022F	75.50 2023F	78.76 2024F 28,395
Total equity BVPS Cash Flow Statement FY December 31 Core Profit	(Btmn) (Bt) Unit (Btmn)	280,264 60.96 2017 40,768	65.66 2018 40,583	63.39 2019 8,164	62.33 2020 (932)	70.58 2021 32,313	72.14 2022F 21,497	75.50 2023F 27,061	78.76 2024F 28,395 32,954
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization	(Btmn) (Bt) Unit (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451	65.66 2018 40,583 19,055	63.39 2019 8,164 19,198	62.33 2020 (932) 20,292	70.58 2021 32,313 22,738	72.14 2022F 21,497 33,550	75.50 2023F 27,061 33,274	78.76 2024F 28,395 32,954 62,308
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765 (41,545)	2018 40,583 19,055 53,554 (32,842)	2019 8,164 19,198 30,337 (41,780)	2020 (932) 20,292 21,953 (28,274)	2021 32,313 22,738 70,108	72.14 2022F 21,497 33,550 25,833 (25,078)	75.50 2023F 27,061 33,274 30,937 (22,118)	78.76 2024F 28,395 32,954 62,308 (19,575)
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765	65.66 2018 40,583 19,055 53,554	63.39 2019 8,164 19,198 30,337	62.33 2020 (932) 20,292 21,953	2021 32,313 22,738 70,108 (148,843)	2022F 21,497 33,550 25,833	75.50 2023F 27,061 33,274 30,937	78.76 2024F 28,395 32,954 62,308 (19,575)
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511)	2018 40,583 19,055 53,554 (32,842) (27,397)	2019 8,164 19,198 30,337 (41,780) (6,461)	62.33 2020 (932) 20,292 21,953 (28,274) 31,794	2021 32,313 22,738 70,108 (148,843) 90,036	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692)	2023F 27,061 33,274 30,937 (22,118) 17,524	2024F 28,395 32,954 62,308 (19,575) 18,232
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios	(Btmn) (Bt) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709	2018 40,583 19,055 53,554 (32,842) (27,397) (6,685)	2019 8,164 19,198 30,337 (41,780) (6,461) (17,904)	62.33 (932) 20,292 21,953 (28,274) 31,794 25,473	2021 32,313 22,738 70,108 (148,843) 90,036 11,300	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937)	2023F 27,061 33,274 30,937 (22,118) 17,524 26,343	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (6,685)	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343	78.76 2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn)	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (6,685) 2018 10.1	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 5.4	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 12.6	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1	78.76 2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2
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Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin Rot profit margin ROE	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btm	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 7.3 10.1 7.3 10.1 7.3 11.5 7.8 7.7 13.9	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 5.4 1.4 6.6 1.9 2.8 2.7	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3)	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 12,6 8,0 13,2 8,4 9,6 10,5	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.9 6.9
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBIT margin Net profit margin ROE ROA	(Btmn) (Bt) Unit (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btm) (6%) (%) (%) (%) (%) (%) (%)	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13,1 9,9 14,8 10,4 8,9 14,9 9,6	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 5.4 1.4 6.6 1.9 2.8 2.7 1.8	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2)	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 12,6 8,0 13,2 8,4 9,6 10,5 5,2	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.9 6.9 5.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9.2 9
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin Net profit margin Net profit margin ROE ROA Net D/E	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Gtm) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 5.4 1.4 6.6 1.9 2.8 2.7 1.8 0.3	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 12.6 8.0 12.6 8.0 13.2 8.4 9.6 10.5 5.2 0.4	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROF ROA Net D/E Interest coverage	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Gtm) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 5.4 1.4 6.6 1.9 2.8 2.7 1.8 0.3 8.7	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 12.6 8.0 12.6 8.0 13.2 8.4 9.6 10.5 5.2 0.4 10.4	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) (40,937) 2022F 2022F 2022F 2022F 3,4 5,6 4,6 6,5 3,0 0,6 6,4	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.0 7.9 6.0 7.9 3.9 0.5
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBIT margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btm) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 4.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6 3.7	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2.0	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 202 2021 202 202 20 20 20 20 20 20 20 20 20 20 2	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 3.5	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 6.7 5.8 7.9 3.9 0.6 7.5 3.9	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.0 7.9 3.9 0.5 8.0 4.8
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Gtm) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 5.4 1.4 6.6 1.9 2.8 2.7 1.8 0.3 8.7	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 12.6 8.0 12.6 8.0 13.2 8.4 9.6 10.5 5.2 0.4 10.4	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) (40,937) 2022F 2022F 2022F 2022F 3,4 5,6 4,6 6,5 3,0 0,6 6,4	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.0 7.9 6.0 7.9 3.9 0.5 8.0 4.8
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBIT margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio	(Btmn) (Bt) (Btm) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btm) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 4.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6 3.7	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2.0	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 202 2021 202 202 20 20 20 20 20 20 20 20 20 20 2	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 3.5	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 6.7 5.8 7.9 3.9 0.6 7.5 3.9	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio	(Btmn) (Bt) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btm) (Bt	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 4.8 48.8	 65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.8 7.7 13.9 9.0 0.1 16.6 3.7 47.8 	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2.	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 11,300 2021 2021 12.6 8.0 13.2 8.4 9.6 10.5 5.2 0.4 10.5 5.2 0.4 1.3 37.6	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3	2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 4.6 50.0	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.0 4.8 49.2
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio	(Btmn) (Bt) (Btmn) (Btm	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 4.8 48.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 10.1 7.3 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6 3.7 47.8 2018	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2.8 2.7 1.8 0.3 8.7 2.1 77.2	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 20,20 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2021 2021 2021 2024 204 10.5 5.2 0.4 10.5 5.2 0.4 10.4 1.3 37.6	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3 2022F	2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 8 7.9 3.9 0.6 7.5 4.6 50.0	78.76 2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.55 8.0 4.8 49.2 2024F
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio FY December 31 Utilization rate - Olefins	(Btmn) (Bt) (Btm) (Btmn	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 4.8 48.8 48.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (27,397) (6,685) 10.1 7.3 10.1 7.3 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6 3.7 4.7.8 9.0 0.1 16.6 3.7 4.7.8	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2.8 2.7 1.8 0.3 8.7 2.1 1.8 0.3 8.7 2.1 77.2 2019 2019 2019	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9 2020 32020 97.0	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2021 2021 2021 202 202	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3 2022F 80.0	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 2023F 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 8. 7.9 3.9 0.6 7.5 4.6 50.0 2023F 2023F	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.00 4.8 49.2 2024F 2024F
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio Main Assumptions FY December 31 Utilization rate - Olefins Utilization rate - Aromatics	(Btmn) (Bt) (Btm) (Btmn	280,264 60.96 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 6.0.1 16.6 4.8 48.8 48.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (27,397) (6,685) 10.1 7.3 10.1 7.3 10.1 7.3 10.1 7.3 11.5 7.8 7.7 13.9 9.0 0.1 16.6 3.7 47.8 47.8 2018 101.0 93.0	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2.8 2.7 1.8 0.3 8.7 2.1 77.2 2019 102.0 88.0	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9 2020 97.0 96.0	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2021 2021 2021 202 202	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3 2022F 2022F 80.0	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 8 7.9 3.9 0.6 7.5 4.6 50.0 2023F 2023F	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.00 4.8 49.2 2024F 2024F
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBIT margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio Main Assumptions FY December 31 Utilization rate - Olefins Utilization rate - Aromatics Utilization rate - Oil Refinery	(Btmn) (Bt) (Btm) (Btmn	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 0.1 16.6 4.8 48.8 2017 9.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.7 16.7 17.7 17.7 17.7 18.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7 19	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (27,397) (6,685) 2018 10.1 7,3 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 7,8 7,7 7,7 13.9 9,0 1,7 7,7 13.9 9,0 1,7 7,7 13.9 9,0 1,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2.8 2.7 1.8 0.3 8.7 2.1 77.2 2019 102.0 88.0 86.9	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9 2020 97.0 96.0	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2021 2021 202 30,4 10,5 5,2 0,4 10,4 1,3 37,6 2021 2021 2021 2021 2021 2020 2021 2020	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3 2022F 2022F 80.0 95.0 100.0	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 8 7.9 3.9 0.6 7.5 4.6 50.0 7.5 4.6 50.0 95.0 95.0 95.0 95.0	78.76 2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.00 4.8 49.2 2024F 95.0 95.0 95.0
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio Main Assumptions FY December 31 Utilization rate - Olefins Utilization rate - Oil Refinery HDPE-naphtha spread	(Btmn) (Bt) (Btm) (Btmn	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9,9 14.8 10.4 8,9 14.9 9,6 0.1 16.6 4.8 48.8 48.8 2017 9,6 0.1 16.6 4.8 4.8 48.8	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) 2018 7.7 13.9 9.0 0.1 10.1 7.8 7.8 7.7 13.9 9.0 0.1 16.6 3.7 47.8 47.8 2018 101.0 9.3.0 101.7 716	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2019 2.8 2.7 1.8 0.3 2.7 1.8 0.3 8.7 2.1 1.8 0.3 8.7 2.1 77.2 2019 102.0 88.0 86.9 468	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9 2,258.9 2,258.9 2020 97.0 96.0 97.3 499	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2024 2024 2024 2024 20	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 6.4 4.6 6.5 3.0 0.6 6.4 3.5 50.3 10.0 2022F 80.0 95.0 100.0 550	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 5.8 7.9 3.9 0.6 7.5 4.6 50.0 2023F 4.6 50.0 50.0 95.0 95.0 95.0	78.76 2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 0.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.0 4.8 49.2 2024F 95.0 95.0 10.00 550
Total equity BVPS Cash Flow Statement FY December 31 Core Profit Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBIT margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Payout Ratio Main Assumptions FY December 31 Utilization rate - Olefins Utilization rate - Aromatics	(Btmn) (Bt) (Btm) (Btmn	280,264 60.96 2017 40,768 19,451 61,765 (41,545) (9,511) 10,709 2017 13.1 9.9 14.8 10.4 8.9 14.9 9.6 0.1 16.6 0.1 16.6 4.8 48.8 2017 9.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.6 0.1 16.7 16.7 17.7 17.7 17.7 18.7 19.7 19.7 19.7 19.7 19.7 19.7 19.7 19	65.66 2018 40,583 19,055 53,554 (32,842) (27,397) (6,685) (27,397) (6,685) 2018 10.1 7,3 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 11.5 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 13.9 9,0 0,1 1,7 7,8 7,7 7,8 7,7 7,7 13.9 9,0 1,7 7,7 13.9 9,0 1,7 7,7 13.9 9,0 1,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7 7,7	63.39 2019 8,164 19,198 30,337 (41,780) (6,461) (17,904) 2019 2019 2019 2.8 2.7 1.8 0.3 8.7 2.1 77.2 2019 102.0 88.0 86.9	62.33 2020 (932) 20,292 21,953 (28,274) 31,794 25,473 25,473 2020 3.7 (0.8) 6.0 (0.1) 0.1 (0.3) (0.2) 0.3 5.7 0.8 2,258.9 2020 97.0 96.0	70.58 2021 32,313 22,738 70,108 (148,843) 90,036 11,300 2021 2021 2021 2021 2021 202 30,4 10,5 5,2 0,4 10,4 1,3 37,6 2021 2021 2021 2021 2021 2020 2021 2020	72.14 2022F 21,497 33,550 25,833 (25,078) (41,692) (40,937) 2022F 9.4 5.2 12.9 5.6 4.6 6.5 3.0 0.6 4.6 6.5 3.0 0.6 6.4 3.5 50.3 2022F 2022F 80.0 95.0 100.0	75.50 2023F 27,061 33,274 30,937 (22,118) 17,524 26,343 26,343 10.1 6.4 13.8 6.7 5.8 7.9 3.9 0.6 7.5 8 7.9 3.9 0.6 7.5 4.6 50.0 7.5 4.6 50.0 95.0 95.0 95.0 95.0	2024F 28,395 32,954 62,308 (19,575) 18,232 60,965 2024F 10.2 6.4 13.9 6.9 6.0 7.9 3.9 0.5 8.0 4.8

PTT Global Chemical PLC



Financial statement

Todel revenue (Bitm) 93,806 69,976 77,148 88,322 102,076 11.2,027 11.3,189 104,96 Grees profit (Bitm) (5,558) 3,461 4,601 9,737 14,756 16,272 13,283 14,475 15,223 393 408 333 557 432 Other Income (Bitm) 339 752 233 939 408 353 4557 433 Other Income (Bitm) (3,277) 11.1 557 4,562 10,025 10,654 9,643 1,045	Profit and Loss Statement FY December 31	Unit	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Case of goods sold (Binn) 99,364 69,494 72,346 78,808 87,920 96,491 77,421 128,02 Stack (Binn) 3,570 3,271 3,272 4,512 3,575 14,121 3,576 14,218 3,578 14,218 3,578 14,17 4,998 8,53 3,575 14,17 4,998 8,53 3,578 14,17 4,998 8,53 3,587 14,18 1,538 1,704 1,53 1,704 1,53 1,704 1,53 1,704 1,53 1,704 1,52 1,105 1,523 1,106 1,523 1,106 1,523 1,106 5,723 1,106 5,725 7,005 3,24 5,966 2,555 3,740 5,324 1,596 1,573 1,106 1,733 1,715 1,135 1,466 1,733 1,715 1,135 1,466 1,733 1,715 1,135 1,466 1,733 1,715 1,135 1,466 1,733 1,715 1,135 1,416 1,137 <td>Total revenue</td> <td>(Btmn)</td> <td>93,806</td> <td>69,976</td> <td>77,148</td> <td>88,362</td> <td>102,676</td> <td>112,627</td> <td>113,189</td> <td>140,46</td>	Total revenue	(Btmn)	93,806	69,976	77,148	88,362	102,676	112,627	113,189	140,46
Gross poriti (Binn) 55,550 3,461 4,601 9,473 14,756 15,218 15,768 12,42 SSGA (Binn) 339 752 2,223 939 408 353 557 4,717 3,728 4,512 3,557 4,717 4,728 1,748 1,748 4,758 1,758 1,748 4,758 1,758 4,778 4,758 1,758 4,738 4,778 1,758 4,778 1,758 4,778 1,758 1,778 1,728 1,758 1,728 1,7			-							-
SGA (Bern) 3,570 3,271 3,228 4,512 3,055 4,477 4,908 8,33 Interest cognes (Bern) 804 861 999 397 1,184 1,170 1,714 1,52 Copurate tax (Bern) (6,973) 111 587 4962 10.025 10.654 9,931 7,71 1,52 Copurate tax (Brun) (1,275) 4406 233 546 7,71 5,931 7,72 138 Minorby interacts (Brun) (1,278) 51.085 51.185 51.73 11.065 7.226 9,822 45.33 1,717 10.35 Care profit (Brun) (1,379) 1,161 1,120 1,138 1,666 1,723 1,11 0,26 4429 1,211 1,010 1,020 2021 5,35 1,53 0,71 State Profit (Brun) 1,200 2020 2021 1,33 2,444 2,145 5,35 1,53 0,71		. ,								12,42
Other income (Berm) 339 762 223 939 408 333 557 43 Pre-tax profit (Berm) 09,773 111 537 4,962 10,025 10,643 9,634 2,972 Spectar profit (Berm) 151 805 884 1,072 1,893 2,244 1,154 1,474 Minorby interest (Berm) 1623 (11) (74) (14) 1,232 (1,100) 1,414 1,232 (1,20) 1,780 (2,22) (4,49) Stare ordinary fitters (Berm) 1,000 1,416 (2,4) 1,232 (1,20) 1,780 (1,23) 1,142 1,235 1,1065 1,793 1,20 1,23 1,1065 1,793 1,20 1,23 1,1065 1,793 1,20 1,21 2,021 3,04 3,24 Stare offits (Berm) 1,427 1,42 1,42 2,15 5,55 1,55 1,55 1,55 1,55 1,55 1,55	•			•		•			•	8,35
Interest expense (Btmn) 094 861 999 977 1,184 1,270 1,704 1,52 Corporate tax (Btmn) (1,259) 406 223 546 721 55,91 727 19 Explay Ac profits (Btmn) (6,2) (1)1 (74) (246) (132) (1,41) (233) (2,42) (4)4 (233) (2,42) (4)4 (233) (2,42) (4)4 (4)4 (4)4 (4)4 (2,42) (4)4 <		. ,								433
Pre-tax print (bm) (0,573) 111 587 4,962 10,023 10,634 0,634 2,637 10,534 0,634 2,727 10 Equity af prints (Bmn) 551 805 584 1,002 1,933 (1,13) <td< td=""><td></td><td>, ,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		, ,								
Carporate kax (bern) (1,29) 406 225 546 721 5,591 72,7 19 Eterm (1,06) 511 805 884 10,72 1.033 2,234 1,154 1,47 Minorky interests (bern) (7,778 510 1,163 51,73 11,065 7,226 8,828 4,19 Extra ordinary items (bern) (1,06) 1,161 (254) 1,222 (1,370) (2,822) (0,47 (bern) (3,844) 5,989 6,575 11,181 10,665 7,226 7,005 3,24 EDTDA (bern) (3,854) 5,989 6,575 11,181 10,666 7,75 11,73 17,775 10,37 Core PFOE (bern) (1,73) 0,11 0,26 1,15 2,45 1,60 2,18 0,99 Net EPS (bern) (1,73) 0,11 0,26 1,15 2,45 1,60 2,18 0,99 Net EPS (bern) 33,373 35,392 325,297 339,472 364,44 222,66 321,15 2,00 (2,822) (1,75 Total arcent assets (bern) 33,373 35,392 355,297 339,472 364,44 222,66 351,15 50,0 57 Total arcent assets (bern) 10,264 89,393 55,207 39,472 364,44 222,66 158,143 30,90 546,87 Total arcent assets (bern) 10,264 139,521 139,269 39,041 68,911 73,277 101,041 147,00 Total arcent assets (bern) 11,07,304 130,544 89,383 352,692 581,115 589,464 754,11 Total arcent assets (bern) 11,07,304 130,544 89,383 352,692 581,113 589,124 317,472 20,104 Total arcent assets (bern) 11,07,304 130,544 89,383 352,692 581,113 73,277 101,041 147,00 Total arcent assets (bern) 11,07,304 130,544 84,942 129,864 489,383 52,692 581,113 589,464 754,11 Total arcent assets (bern) 11,07,304 130,544 84,942 129,864 45,088 4		. ,								
Equity of profile (Brm) 551 895 1072 1.483 2.324 1.154 1.470 Core profit (Brm) (7.778) 510 1.163 51.73 11.065 7.226 9.828 4.19 Exter andmay items (Brm) (1.056) 1.151 (2.54) 1.232 (1.370) 17.09 0.2822 (94) Net Profit (Brm) (1.354) 1.599 6.573 11.181 1.6666 17.73 10.35 Gere EPS (Brm) (1.373) 0.11 0.26 1.15 2.46 1.06 2.118 0.00 Net EPS (Brm) 1.920 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Total ners (Brm) 93.373 35.372 35.372 35.372 35.472 35.44 359.129 399.109 364.47 351.115 50.06 12.44 353.115 50.06 12.44 353.117 13.04 17.42 20.104 14.19 14.19		. ,	,			•	•		•	
Minority iterests (Btmn) (G2) (1) (77) (316) (122) (141) (22) (94) Exten outhary items (Btmn) (1,006) 1,161 (254) 1,232 (1,730) (2,822) (94) Exten outhary items (Btmn) (3,744) 1,615 5,173 11,733 17,757 17,853 17,977 <										
Core profit (Birm) (7,78) 510 1,163 5,173 11,050 7,226 9,828 4,19 Net Profit (Birm) (1,060) 1,161 (254) 1,232 (1,37) 17,790 (7,320) (7,37) 17,713 17,174 14,474 147,474 </td <td></td> <td>, ,</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td>-</td>		, ,				-		-	-	-
Extra-ordinary items (Bitmn) (1,06) 1,161 (254) (1,22) (1,23) (1,23) (1,23) (2,822) (9,42) EBITDA (Bitmn) (3,84) 5,989 6,575 1,181 1,666 17,753 17,175 10,20 3,224 EBITDA (Bitmn) (1,39) 0,31 0,26 1,151 2,45 1,60 2,18 0,09 Core EPS (Bitmn) 69,374 10,3054 98,951 125,911 185,244 22,266 221,154 207,24 402,24 Total acent assets (Bitmn) 33,173 354,352 355,279 39,474 354,472 354,472 345,448 348,363 552,692 581,113 580,444 754,311 141,474 147,474 457,444 448,433 145,007 107,624 119,401 147,20 20,51 10,101 142,93 174,927 10,101 141,91 141,91 141,91 141,91 141,91 141,91 141,91 141,91 141,91 141,91	,	. ,					. ,			
Next Profi (Brmn) (6,749) 1.671 906 6,405 9,605 25,035 7,005 3,245 Core EPS (Brmn) (1.73) 0.11 0.26 1.15 2.45 1.60 2.18 0.09 Next EPS (B) (1.95) 0.37 0.20 1.42 2.15 5.55 1.55 0.7 Balance Sheet Vincember 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 4Q2 Total carrent assets (Brmn) 89,374 103,054 99,951 129,911 188,244 322,980 251,154 207,44 746 7464 7464 747,446 747,446 747,446 747,446 747,446 747,446 748,41 149,002 190,003 192,493 177,427 203,14 147,023 103,777 118,374 149,407 149,407 149,417 149,417 149,417 149,417 149,417 149,417 149,417 149,417 149,417 149,417		. ,			•				-	-
EBITDA (Bmm) (2,354) 5,989 6,575 11,181 11,666 17,723 17,175 10,23 Net EPS (Bt) (1,33) 0.31 0.26 1,13 2,15 5,55 1,55 0,7 Balance Sheet (Bt) (1,95) 0.37 0.20 1,42 2,15 5,55 1,55 0,7 Total corrent assets (Btm) 59,374 103,054 98,951 129,911 188,244 22,366 20,154 207,24 Total assets (Btm) 353,373 354,424 489,383 552,269 281,113 580,464 729,41 Total assets (Btm) 107,644 130,474 123,374 141,474 148,474 489,303 552,269 281,113 580,464 729,51 101,611 147,06 177,62 107,043 141,377 11,337 141,374 143,971 163,527 201,114 202,463 279,52 105,81 70,53 177,53 101,61 120,21 202,14 221,439	,	. ,	,							
Core EPS (thmn) (1.73) 0.11 0.26 1.15 2.45 1.60 2.18 0.9 Net EPS (B) (1.95) 0.37 0.20 1.42 2.15 5.55 1.55 0.7 Balance Sheet V 0.01 1.02 2.020 3.020 4.020 1.021 2.021 3.021 4.022 Total corrent assets (Btmn) 98.374 103.054 99.591 12.911 188.244 22.986 221.154 207.464 754.64 754.249 459.249 489.383 552.692 551.155 80.64 756.471 Total assets (Btmn) 142.747 457.446 456.429 449.383 552.692 259.292 260.902 257.903 72.77 10.101 147.001 147.472 209.10 116.37 116.37 116.37 117.37 118.374 114.347 184.417 187.902 202.02 257.928 259.928 259.928 259.928 259.928 45.088 45.088<		. ,		•					-	
Net EPS (B) (1.95) 0.37 0.20 1.42 2.15 5.53 1.55 0.7 Balance Sheet (B) (1.95) 0.37 0.20 1.42 2.15 5.53 1.55 0.7 Balance Sheet (B) 1 1.20 2.220 3.20 4.220 3.21 3.221 3.201 4.220 3.21 4.220 3.21 4.220 3.21 4.220 3.201 4.220 3.21 4.220 3.203 4.462 3.21 4.220 3.21 4.220 3.21 4.200 4.200 4.200 4.200 4.201 4.230 4.440 4.200 4.420 4.411 4.47.00 7.477 7.01,0.41 4.70.00 7.263 2.750 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.271 7.272 7.271 7.271 7.272 7.272 7.271 7.272 7.272 7.272 7.272 7.272		. ,								
Balance Sheet PY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Total current sestis (Btmn) 353,373 355,392 355,297 359,472 344,448 359,112 359,309 546,87 Total assets (Btmn) 442,474 457,446 454,249 489,833 552,692 551,115 580,044 754,044 754,046 754,1115 580,006 159,448 73,777 101,014 147,004 147,047 7207,101,014 147,004 147,047 7207,101,014 147,004 147,047 7207,101,014 147,004 147,047 7207,101,014 147,004 147,047 7207,101,014 147,004 147,047 149,012 187,668 45,088		. ,								
FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Total rurent assets (Bmm) 89,374 103,054 99,951 129,911 188,274 222,196 221,154 207,47 Total assets (Bmm) 442,747 457,446 456,429 489,383 256,267 258,1115 580,464 754,111 Total assets (Bmn) 40,067 39,201 53,780 59,041 68,911 77,277 101,041 147,002 Total assets (Bmn) 112,633 116,374 112,413 144,002 190,008 45,08 589	Net EPS	(BL)	(1.95)	0.37	0.20	1.42	2.15	5.55	1.55	0.7
Total current assets (Brnn) 99,374 102,054 99,951 129,911 188,244 222,986 221,154 207,03 Total fixed assets (Brnn) 442,747 457,446 456,249 489,383 552,692 581,115 580,464 754,111 Total assets (Brnn) 107,804 110,574 129,834 148,002 190,008 192,493 177,427 209,167 Total asset (Brnn) 110,7804 110,574 129,834 148,017 187,072 101,041 147,000 Total anort: (Brnn) 142,633 137,077 118,374 114,117 187,026 157,983 279,502 Total anguity (Brnn) 145,088 45,088	Balance Sheet									
Total faces (Bmm) 333.373 354.392 355.297 359.474 354.448 358.129 359.399 956.87 Total assets (Btmn) 147.204 130,544 129,834 499,383 552,692 581.115 580,664 754.11 Total consterm liabilities (Btmn) 146,067 39,201 53,780 59,041 68,911 73,227 101,041 147,002 Total consterm liabilities (Btmn) 112,633 137,077 118,374 144,147 184,012 187,683 45,088 45,085 5,892 5,811 <td< td=""><td>FY December 31</td><td>Unit</td><td>1Q20</td><td>2Q20</td><td>3Q20</td><td>4Q20</td><td>1Q21</td><td>2Q21</td><td>3Q21</td><td>4Q21</td></td<>	FY December 31	Unit	1Q20	2Q20	3Q20	4Q20	1Q21	2Q21	3Q21	4Q21
Total faces (Brnn) 333,373 394,392 355,297 359,474 359,448 358,129 359,309 956,87 Total assets (Brnn) 107,804 130,544 129,834 148,002 190,008 192,493 177,427 209,16 Total constem (Brnn) 166,057 39,201 53,780 59,041 68,911 73,277 101,041 147,002 Total long-term liabilities (Brnn) 158,700 176,278 172,133 200,389 45,088 45,089 58,129 202,112 202,112 202,112<	Total current assets	(Btmn)	89,374	103,054	98,951	129,911	188,244	222,986	221,154	207,24
Total assets (Btmn) 142,747 457,446 442,429 489,383 552,692 581,115 SB0,464 754,117 Total loans (Btmn) 107,804 120,584 148,002 190,008 192,493 177,427 209,16 Total loans (Btmn) 16,667 39,201 53,780 259,262 169,021 157,783 279,50 Total loapiter (Btmn) 146,667 39,201 53,780 259,228 269,002 259,024 259,024 259,024 265,08 45,088 <td< td=""><td>Total fixed assets</td><td>()</td><td>353,373</td><td></td><td>-</td><td></td><td></td><td></td><td></td><td>546,87</td></td<>	Total fixed assets	()	353,373		-					546,87
Total loans (Btmn) 107,804 130,544 129,834 148,002 190,008 192,493 177,427 209,16 Total current liabilities (Btmn) 142,033 137,077 118,374 141,447 144,047 187,626 157,803 229,363 227,950 101,041 147,007 Total liabilities (Btmn) 158,700 176,278 172,153 200,389 252,928 260,902 225,024 426,51 Paid-up capital (Btmn) 284,047 281,168 282,095 288,994 299,764 320,212 321,439 327,60 BVPS (Btmn) 242,0 3Q20 4Q20 1Q21 2Q21 3Q21 492,71 Cash Flow Statement FV December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 492,72 29,153 Deprecisition and amortization (Btmn) 4,915 5,017 5,079 5,281 5,458 5,589 5,837 5,85 Deprecisition	Total assets	(Btmn)	442,747	457,446	454,249	489,383	552,692	581,115	580,464	754,11
Total current liabilities (Btmn) 14,067 39,201 53,780 59,041 68,911 73,277 101,041 147,007 Total long-term liabilities (Btmn) 156,700 176,278 172,153 200,389 252,928 260,902 259,024 426,51 Paid-up capital (Btmn) 45,088<	Total loans	(Btmn)	107,804	130,544	129,834	148,002	190,008	192,493	177,427	209,16
Total loop-term labilities (Bmn) 112,633 137,077 118,374 114,137 184,077 187,626 157,983 279,50 Total liabilities (Bmn) 158,700 176,278 172,153 200,389 252,928 260,902 259,024 426,518 45,08 45,088 45,08 45,088 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08 45,08	Total current liabilities	. ,								147,00
Total liabilities (Bmn) 158,700 176,278 172,153 200,389 252,928 260,902 259,024 426,51 Paid-up capital (Btmn) 45,088 <td>Total long-term liabilities</td> <td>, ,</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Total long-term liabilities	, ,	-							
Pad-up capital (Bmm) 45,088	Total liabilities	. ,		,				,		
Total equity (Btm) 284,047 281,168 282,095 288,994 299,764 320,212 321,439 327,60 BVPS (Bt) 61.28 60.64 60.87 62.33 64.65 69.23 69.48 70.5 Cash Flow Statement FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21,429 4Q20 Core Profit (Btmn) 4,915 5,017 5,079 5,281 5,458 5,589 5,837 5,859 Operating cash flow (Btmn) 3/0 10,055 2,587 8,941 8,649 10,377 21,922 111,934 (114,733) Investing cash flow (Btmn) (2,635) (12,151) (1,027) (12,461) (41,755) (4,291) 11,934 (114,733) Investing cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,381 4,595 588 Key Financial Ratios FY FY Ocember 31		. ,	•	,	•	•	•	•	•	•
BVPS (Bt) 61.28 60.64 60.87 62.33 64.65 69.23 69.48 70.5 Cash Flow Statement FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q22 Core Profit (Btm) (4,915 5,107 5,179 5,121 5,458 5,589 5,837 5,585 5,683 5,585 5,837 5,891 8,649 10,377 21,922 29,151 Investing cash flow (Btm) (2,635) (12,151) (12,625) 19,160 3,784 (4,705) (29,262) 366,16 Net cash flow (Btm) (1,655) 13,544 (2,065) 15,640 4,736 1,381 4,595 588 Key Financial Ratios FY December 31 Unit 1020 2020 4020 1021 2021 3021 4022 Gross margin (%0 (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. 2.2 <td< td=""><td></td><td>. ,</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		. ,								
Cash Flow Statement Cash Flow Statement Cash Flow Statement Core Profit (Btmn) (7,778) 510 1,163 5,173 11,065 7,226 9,828 4,192 Core Profit (Btmn) 4,215 5,173 11,065 7,226 9,828 4,192 Operating cash flow (Btmn) 4,235 1,10,27 1,221 3,221 4,22 9,828 4,11,932 2,22,22 2,821 5,837 5,859 5,837 5,859 5,837 5,859 5,837 5,859 5,837 5,859 5,837 5,859 5,837 6,828 4,114,733 (11,733 (11,733 (11,733 1,33,14 1,33,14 1,3							-			
FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Core Profit (Btmn) (7,778) 510 1,163 5,173 11,065 7,226 9,828 4,19 Depreciation and amortization (Btmn) 4,915 5,017 5,079 5,281 5,458 5,589 5,837 5,859 Depreciation and amortization (Btmn) 300 10,055 2,587 8,941 8,649 10,377 21,922 29,15 Investing cash flow (Btmn) (2,635) (12,151) (10,27) (12,461) (4,705) (4,291) 11,934 (114,733) Financial Ratios (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,381 4,595 5.8 Key Financial Ratios (%) (9,9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (9,9) 1.4 19 6.7 10.9 10.8										
Core Profit (Btmn) (7,778) 510 1,163 5,173 11,065 7,226 9,828 4,19 Depreditation and amortization (Btmn) 4,915 5,017 5,079 5,281 5,458 5,589 5,837 5,858 Depreditig cash flow (Btmn) 10,055 2,587 8,941 8,649 10,377 21,922 29,15 Investing cash flow (Btmn) 650 15,609 (3,625) 19,160 37,842 (4,705) (29,262) 86,16 Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,31 4,595 58 Key Financial Ratios FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8 10.0 3.1 7 5.6 10.5 10.5 9.5 2. 7 16.2 <	FY December 31	Unit	1020	2020	3020	4020	1021	2021	3021	4Q21
Depreciation and amortization (Btmn) 4,915 5,017 5,079 5,281 5,458 5,589 5,837 5,857 Operating cash flow (Btmn) 370 10,055 2,837 8,941 8,649 10,377 21,922 29,151 Investing cash flow (Btmn) 12,635 (12,151) (1,027) (12,461) (41,755) (4,705) (29,262) 20,262 30,20 40,205 13,381 4,595 58 Key Financial Ratios FY December 31 Unit 1020 2020 3020 4020 1021 2021 3021 4022 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (9.7) 0.3 1.7 5.6 10.5 10.5 9.5 2. EBITDA margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. ROE (%) (1.01.8) 0	Cause Dura 6t			-	-	-	-	-	-	-
Operating cash flow (Btmn) 370 10,055 2,587 8,941 8,649 10,377 21,922 29,15 Investing cash flow (Btmn) (2,635) (12,151) (1,027) (12,461) (41,755) (4,291) 11,934 (114,733) Financing cash flow (Btmn) (4,615) 13,514 (2,065) 19,160 37,842 (4,705) (29,262) 86,16 Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,381 4,595 58 Key Financial Ratios Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q20 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Net profit margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 <td>Lore Profit</td> <td>(Bfmn)</td> <td>(7.778)</td> <td></td> <td></td> <td>0/1/0</td> <td></td> <td>-</td> <td>57020</td> <td>-</td>	Lore Profit	(Bfmn)	(7.778)			0/1/0		-	57020	-
Investing cash flow (Bmn) (2,635) (12,151) (1,027) (12,461) (41,755) (4,291) 11,934 (114,731) Financia cash flow (Btmn) 650 15,609 (3,625) 19,160 37,842 (4,705) (29,262) 86,16 Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 37,842 (4,735) (29,262) 86,16 Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 37,842 (4,735) (4,291) (114,731) Key Financial Ratios Unit 1020 2020 3020 4020 1021 2021 3021 4022 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 14.39 8.8 Operating margin (%) (9.1) 8.6 8.5 12.7 16.2 15.8 15.2 7.7 RDH profit margin (%) (9.1) 0.4 4.1.2 7.2 9.3 12.3					5.079	5,281	5.458	5,589	5.837	
Financing cash flow (Btmn) 650 15,609 (3,625) 19,160 37,842 (4,705) (29,262) 86,16 Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,381 4,595 58 Key Financial Ratios FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q22 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (4.1) 8.6 8.5 12.7 16.2 15.8 15.2 7. EBITDA margin (%) (9.4) 2.4 1.2 7.2 9.4 2.2.2 6.2 2.2 ROE (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2.2 6.2 2.2 6.2 2.2 6.2 2.2 6.2 2.2 6.2 2.2 6.2 2.2 6.2 <td>Depreciation and amortization</td> <td>(Btmn)</td> <td>4,915</td> <td>5,017</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Depreciation and amortization	(Btmn)	4,915	5,017						
Net cash flow (Btmn) (1,615) 13,514 (2,065) 15,640 4,736 1,381 4,595 58 Key Financial Ratios Key Financial Ratios Vint 1020 2020 3020 4020 1021 2021 3021 4292 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8 Operating margin (%) (9.7) 0.3 1.7 5.6 10.5 10.5 9.5 2.5 BIT margin (%) (9.4) 2.4 1.2 7.2 15.0 9.3 12.3 5.5 ROE (%) (1.0.8) 0.7 1.7 7.2 15.0 9.3 12.3 5.5 ROA (%) (1.0.3) 0.4 0.4 0.4 0.5 0.1 0.4 0.5 0.1 0.4 RDE margin (%) (1.0.8) 0.7 1.7 7.2 15.0 9.3 12.3 5.5 1.0	Depreciation and amortization Operating cash flow	(Btmn) (Btmn)	4,915 370	5,017 10,055	2,587	8,941	8,649	10,377	21,922	29,159
FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (9.7) 0.3 1.7 5.6 10.5 10.5 9.5 2. EBIT DA margin (%) (4.1) 8.6 8.5 12.7 16.2 15.8 15.2 7. EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. ROE (%) (10.8) 0.7 1.7 7.2 9.4 22.2 6.2 2. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) (1.4) 2.5 0.9 <t< td=""><td>Depreciation and amortization Operating cash flow Investing cash flow</td><td>(Btmn) (Btmn) (Btmn)</td><td>4,915 370 (2,635)</td><td>5,017 10,055 (12,151)</td><td>2,587 (1,027)</td><td>8,941 (12,461)</td><td>8,649 (41,755)</td><td>10,377 (4,291)</td><td>21,922 11,934</td><td>29,159 (114,731</td></t<>	Depreciation and amortization Operating cash flow Investing cash flow	(Btmn) (Btmn) (Btmn)	4,915 370 (2,635)	5,017 10,055 (12,151)	2,587 (1,027)	8,941 (12,461)	8,649 (41,755)	10,377 (4,291)	21,922 11,934	29,159 (114,731
Gross margin (%) (5.9) 5.0 6.2 10.7 14.4 14.4 13.9 8. Operating margin (%) (9.7) 0.3 1.7 5.6 10.5 10.5 9.5 2. EBITD Amargin (%) (4.1) 8.6 8.5 12.7 16.2 15.8 15.2 7. EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Ret profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4	Depreciation and amortization Operating cash flow	(Btmn) (Btmn) (Btmn) (Btmn)	4,915 370 (2,635) 650	5,017 10,055 (12,151) 15,609	2,587 (1,027) (3,625)	8,941 (12,461) 19,160	8,649 (41,755) 37,842	10,377 (4,291) (4,705)	21,922 11,934 (29,262)	29,159 (114,731) 86,161 589
Operating margin (%) (9.7) 0.3 1.7 5.6 10.5 10.5 9.5 2. EBITDA margin (%) (4.1) 8.6 8.5 12.7 16.2 15.8 15.2 7. EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Net profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. 2. R.2 R.2 R.2 R.2 6.2 2. R.2 R	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn)	4,915 370 (2,635) 650	5,017 10,055 (12,151) 15,609	2,587 (1,027) (3,625)	8,941 (12,461) 19,160	8,649 (41,755) 37,842	10,377 (4,291) (4,705)	21,922 11,934 (29,262)	29,159 (114,731) 86,161 589
EBITDA margin (%) (4.1) 8.6 8.5 12.7 16.2 15.8 15.2 7. EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Net profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 0.5 0.4 0.4 <td>Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios</td> <td>(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit</td> <td>4,915 370 (2,635) 650 (1,615) 1Q20</td> <td>5,017 10,055 (12,151) 15,609 13,514 2Q20</td> <td>2,587 (1,027) (3,625) (2,065)</td> <td>8,941 (12,461) 19,160 15,640 4Q20</td> <td>8,649 (41,755) 37,842 4,736</td> <td>10,377 (4,291) (4,705) 1,381 2Q21</td> <td>21,922 11,934 (29,262) 4,595 3Q21</td> <td>29,159 (114,731) 86,161</td>	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit	4,915 370 (2,635) 650 (1,615) 1Q20	5,017 10,055 (12,151) 15,609 13,514 2Q20	2,587 (1,027) (3,625) (2,065)	8,941 (12,461) 19,160 15,640 4Q20	8,649 (41,755) 37,842 4,736	10,377 (4,291) (4,705) 1,381 2Q21	21,922 11,934 (29,262) 4,595 3Q21	29,159 (114,731) 86,161
EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Net profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.1 Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 93.0 91.0 97.0	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit	4,915 370 (2,635) 650 (1,615) 1Q20	5,017 10,055 (12,151) 15,609 13,514 2Q20	2,587 (1,027) (3,625) (2,065) 3Q20	8,941 (12,461) 19,160 15,640 4Q20	8,649 (41,755) 37,842 4,736	10,377 (4,291) (4,705) 1,381 2Q21	21,922 11,934 (29,262) 4,595 3Q21	29,15 (114,731 86,16 58 4Q2
EBIT margin (%) (9.3) 1.4 1.9 6.7 10.9 10.8 10.0 3. Net profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.1 Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 93.0 91.0 97.0	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7	8,941 (12,461) 19,160 15,640 4Q20 10.7 5.6	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5	29,15 (114,731 86,16 58 4Q2: 8.3 2.9
Net profit margin (%) (9.4) 2.4 1.2 7.2 9.4 22.2 6.2 2. ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.5 Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics FY December 31 Unit 1020 2020 3020 4020 1021 2021 3021 402 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 193.0 91.0 92.0 98.0 98.0 102.0 100.0 97.0 Utilization rate - Olefins (%) 97.0 99.0 91.0 98.0	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7	8,941 (12,461) 19,160 15,640 4Q20 10.7 5.6	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5	29,15 (114,731 86,16 58 4Q2: 8.3 2.9
ROE (%) (10.8) 0.7 1.7 7.2 15.0 9.3 12.3 5. ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.5 Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0.5 Key Statistics FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q20 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 104.0 93.0 91.0 96.0 98.0 102.0 100.0 97.0 97.0 97.0 98.0 98.0 102.0 100.0 97.0 101.0 97.0 101.0 97.0 101.0 97.0 101.0 97.0 103.0 </td <td>Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin</td> <td>(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%) (%)</td> <td>4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1)</td> <td>5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6</td> <td>2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5</td> <td>8,941 (12,461) 19,160 15,640 4Q20 10.7 5.6 12.7</td> <td>8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2</td> <td>10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8</td> <td>21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2</td> <td>29,15 (114,731 86,16 58 4Q2 8,1 2,2 7,2</td>	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5	8,941 (12,461) 19,160 15,640 4Q20 10.7 5.6 12.7	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2	29,15 (114,731 86,16 58 4Q2 8,1 2,2 7,2
ROA (%) (7.0) 0.5 1.0 4.4 8.5 5.1 6.8 2. Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.5 Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q2 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 104.0 93.0 91.0 80. Utilization rate - Aromatics (%) 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 10	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBIT margin	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%) (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0	29,15 (114,731 86,16 58 9 4Q2 : 8. 2. 7. 3.
Net D/E (x) 0.3 0.4 0.4 0.4 0.5 0.4 0.4 0.4 Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics Mit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q22 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 104.0 93.0 91.0 80. Utilization rate - Aromatics (%) 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 101.0 97.0 99.0 91.0 98.0 98.0 102.0 101.0 97.0 101.0 102.0 101.0 97.0 101.0 102.0 101.0 102.0 101.0 102.0 101.0 	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBIT margin Net profit margin	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) Unit (%) (%) (%) (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2,4	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2	29,159 (114,731 86,16) 589 4Q2 8.4 2.9 7. 3.1 2.1
Interest coverage (x) (4.8) 7.0 7.2 11.9 14.1 11.6 10.1 6. Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0. Key Statistics <	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBIT margin Net profit margin ROE	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2	8,649 (41,755) 37,842 4,736 1Q21 14,4 10,5 16,2 10,9 9,4 15,0	10,377 (4,291) (4,705) 1,381 2Q21 14,4 10,5 15,8 10,8 22,2 9,3	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3	29,15 (114,731 86,16 58 4Q2 8. 8. 2. 7. 7. 3. 2. 5.
Debt service coverage (x) (1.4) 2.5 0.9 1.7 2.4 2.3 1.5 0.9 Key Statistics FY December 31 Unit 1Q20 2Q20 3Q20 4Q20 1Q21 2Q21 3Q21 4Q22 Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 104.0 93.0 91.0 80. Utilization rate - Aromatics (%) 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 97.0 98.0 98.0 102.0 101.0 77.0 101.0 HDPE-naphtha spread (US\$/t) 398 486 522 592 588 585 462 5	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBIT margin Net profit margin ROE ROA	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%)	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0	8,941 (12,461) 19,160 15,640 4Q20 10.7 5.6 12.7 6.7 7.2 7.2 7.2 4.4	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5	10,377 (4,291) (4,705) 1,381 2Q21 14,4 10,5 15,8 10,8 22,2 9,3 5,1	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8	29,15 (114,731 86,16 58 4Q2 8. 3. 2. 3. 3. 2. 5. 2.
Fy December 31Unit1Q202Q203Q204Q201Q212Q213Q214Q2Utilization rate - Olefins(%)81.0100.0103.0104.0104.093.091.080.Utilization rate - Aromatics(%)97.099.091.098.098.0102.0100.097.Utilization rate - Oil Refinery(%)103.0102.094.091.0102.0101.077.0101.HDPE-naphtha spread(US\$/t)398486522592588585462500PX-condensate spread(US\$/t)26227118819124028330421	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 7.2 4.4 0.4	8,649 (41,755) 37,842 4,736 10,21 14,4 10,5 16,2 10,9 9,4 15,0 8,5 0,5	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4	29,159 (114,731 86,16) 589 4Q2 8.4 2.9 7.4 3.1 2.1 5.1 5.1 2.1 0.1
Fy December 31Unit1Q202Q203Q204Q201Q212Q213Q214Q2Utilization rate - Olefins(%)81.0100.0103.0104.0104.093.091.080.Utilization rate - Aromatics(%)97.099.091.098.098.0102.0100.097.Utilization rate - Oil Refinery(%)103.0102.094.091.0102.0101.077.0101.HDPE-naphtha spread(US\$/t)398486522592588585462500PX-condensate spread(US\$/t)26227118819124028330421	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.5 0.4 7.0	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9	8,649 (41,755) 37,842 4,736 1021 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1	29,159 (114,731 86,16) 589 4Q2 8.4 2.5 7.4 3.4 2.5 5.5 2.4 0.4 6.4
Utilization rate - Olefins (%) 81.0 100.0 103.0 104.0 104.0 93.0 91.0 80. Utilization rate - Aromatics (%) 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 97.0 99.0 91.0 98.0 102.0 100.0 97.0 97.0 101.0 97.0 101.0 97.0 101.0 102.0 101.0 77.0 101.0 HDIPE-naphtha spread (US\$/t) 398 486 522 592 588 585 462 500 PX-condensate spread (US\$/t) 262 271 188 191 240 283 304 21	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITD margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.5 0.4 7.0	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9	8,649 (41,755) 37,842 4,736 1021 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1	29,159 (114,731 86,16) 589 4Q2 8.4 2.5 7.4 3.4 2.5 5.5 2.4 0.4 6.4
Utilization rate - Aromatics (%) 97.0 99.0 91.0 98.0 98.0 102.0 100.0 97.0 Utilization rate - Oil Refinery (%) 103.0 102.0 94.0 91.0 102.0 101.0 77.0 101.0 HDPE-naphtha spread (US\$/t) 398 486 522 592 588 585 462 50 PX-condensate spread (US\$/t) 262 271 188 191 240 283 304 21	Depreciation and amortization Operating cash flow Investing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Key Statistics	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8) (1.4)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9 1.7	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6 2.3	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5	29,15 (114,731 86,16 58 4 Q2 8.3 2.4 7. 3. 2. 5. 5. 2. 2. 0. 0. 6. 0.
Utilization rate - Oil Refinery (%) 103.0 102.0 94.0 91.0 102.0 101.0 77.0 101. HDPE-naphtha spread (US\$/t) 398 486 522 592 588 585 462 50 PX-condensate spread (US\$/t) 262 271 188 191 240 283 304 21	Depreciation and amortization Operating cash flow Investing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE report margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Key Statistics FY December 31	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8) (1.4) (1.4)	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9 	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9 1.7 4 Q20	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4 14.1 2.4	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6 2.3 2Q21	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21	29,159 (114,731 86,16) 589 4Q22 8.4 2.5 7.4 3.1 2.1 5.1 2.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0
HDPE-naphtha spread (US\$/t) 398 486 522 592 588 585 462 50 PX-condensate spread (US\$/t) 262 271 188 191 240 283 304 21	Depreciation and amortization Operating cash flow Investing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE report margin ROE ROA Net D/E Interest coverage Debt service coverage Key Statistics FY December 31 Utilization rate - Olefins	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8) (1.4) 1Q20 1Q20 81.0	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9 1.7 4 Q20 1.7	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4 	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6 2.3 2Q21 2Q21 93.0	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21 3Q21	29,159 (114,731 86,16) 589 4Q22 84 2.5 7.4 3.1 2.5 3.1 2.5 4 0.9 6.4 0.9 6.4 0.9 6.4 0.9 80.1
PX-condensate spread (US\$/t) 262 271 188 191 240 283 304 21	Depreciation and amortization Operating cash flow Financing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin Net profit margin ROE ROA Net D/E Interest coverage Debt service coverage Met Statistics FY December 31 Utilization rate - Olefins Utilization rate - Aromatics	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8) (1.4) 1Q20 1Q20 81.0 97.0	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 4.4 0.4 11.9 1.7 .7 4.4 0.4 11.9 1.7 4 Q20 104.0 98.0	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6 2.3 2Q21 2Q21 93.0 102.0	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21 3Q21 91.0	29,15 (114,731 86,16 58 4Q2 8. 2. 7. 3. 2. 5. 2. 0. 0. 6. 0. 0. 4Q2 80. 97.
	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage EBIT service coverage SEX Statistics FY December 31 Utilization rate - Olefins Utilization rate - Aromatics Utilization rate - Oil Refinery	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5.9) (9.7) (4.1) (9.3) (9.4) (10.8) (7.0) 0.3 (4.8) (1.4) 1Q20 81.0 97.0 103.0	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 7.2 4.4 0.4 11.9 1.7 1.7 4.4 0.4 11.9 1.7 1.7 9.0 1.0 4 Q20	8,649 (41,755) 37,842 4,736 1Q21 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4	10,377 (4,291) (4,705) 1,381 2Q21 14.4 10.5 15.8 10.8 22.2 9.3 5.1 0.4 11.6 2.3 2Q21 9.3 0.4 11.6 2.3 2Q21 9.3 0.4 11.6 2.3	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21 91.0 100.0 77.0	29,159 (114,731 86,163 589 4Q21 8.8 2.9 7.4 3.2 5.2 2.9 6.8 0.9 6.8 0.9 7.4 101.0
Market GRM (US\$/bbl) 3.49 2.31 1.22 1.78 3.17 2.03 3.20 6.3	Depreciation and amortization Operating cash flow Investing cash flow Financing cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Key Statistics FY December 31 Utilization rate - Olefins Utilization rate - Aromatics Utilization rate - Oil Refinery HDPE-naphtha spread	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5,9) (9,7) (4,1) (9,3) (9,4) (10.8) (7,0) 0,3 (4,8) (1,4) 1Q20 1Q20 81.0 97.0 103.0 398	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9 0.9 0.9 0.9 103.0 91.0 94.0 522	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 7.2 4.4 0.4 11.9 1.7 1.7 4Q20 104.0 98.0 91.0 592	8,649 (41,755) 37,842 4,736 1021 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4 104.0 98.0 102.0 588	10,377 (4,291) (4,705) 1,381 2Q21 14,4 10,5 15,8 10,8 22,2 9,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21 91.0 100.0 77.0	29,15 (114,731 86,16 58 4Q2: 8. 3. 2. 7. 7. 3. 2. 5. 2. 0. 0. 6. 6. 6. 6. 9. 0. 9. 10. 50
	Depreciation and amortization Operating cash flow Investing cash flow Net cash flow Net cash flow Key Financial Ratios FY December 31 Gross margin Operating margin EBITDA margin EBITDA margin ROE ROA Net D/E Interest coverage Debt service coverage Key Statistics FY December 31 Utilization rate - Olefins Utilization rate - Oil Refinery HDPE-naphtha spread PX-condensate spread	(Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (Btmn) (%) (%) (%) (%) (%) (%) (%) (%) (%) (%	4,915 370 (2,635) 650 (1,615) 1Q20 (5,9) (9,7) (4,1) (9,3) (9,4) (10.8) (7,0) 0,3 (4,8) (1,4) 1Q20 1Q20 81.0 97.0 103.0 398 262	5,017 10,055 (12,151) 15,609 13,514 2Q20 5.0 0.3 8.6 1.4 2.4 0.7 0.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 2.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.4 7.0 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5 0	2,587 (1,027) (3,625) (2,065) 3Q20 6.2 1.7 8.5 1.9 1.2 1.7 1.0 0.4 7.2 0.9 9	8,941 (12,461) 19,160 15,640 4 Q20 10.7 5.6 12.7 6.7 7.2 7.2 7.2 4.4 0.4 11.9 1.7 1.7 4 Q20 104.0 98.0 91.0 592 191	8,649 (41,755) 37,842 4,736 1021 14.4 10.5 16.2 10.9 9.4 15.0 8.5 0.5 14.1 2.4 104.0 98.0 102.0 588 240	10,377 (4,291) (4,705) 1,381 2Q21 14,4 10,5 15,8 10,8 22,2 9,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 2,3 5,1 0,4 11,6 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 8 1,5 1,5 1,5 8 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5 1,5	21,922 11,934 (29,262) 4,595 3Q21 13.9 9.5 15.2 10.0 6.2 12.3 6.8 0.4 10.1 1.5 3Q21 91.0 100.0 77.0 462 304	29,159 (114,731 86,16) 589 4Q2: 8,3 2,5 3,2 2,5 3,2 2,5 4Q2 80,0 97,0 101,1 50 21

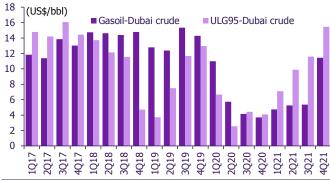


Figure 1: PTTGC – 4Q21 earnings review

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	4Q20	3Q21	4Q21	ΥοΥ%	QoQ%	12M20	12M21	ΥοΥ%
P&L (Bt, mn)								
Total revenue	88,362	113,189	140,461	59.0	24.1	329,291	468,953	42.4
Gross profit	9,473	15,768	12,428	31.2	(21.2)	12,198	59,170	385.1
EBITDA	11,181	17,175	10,358	(7.4)	(39.7)	19,891	61,952	211.5
Core profit	5,173	9,828	4,195	(18.9)	(57.3)	(932)	32,313	n.a.
Net Profit	6,405	7,005	3,248	(49.3)	(53.6)	200	44,982	22,435.5
EPS (Bt)	1.42	1.55	0.72	(49.3)	(53.6)	0.04	9.98	22,435.5
B/S (Bt, mn)								
Total assets	489,383	580,464	754,115	54.1	29.9	489,383	754,115	54.1
Total liabilities	200,389	259,024	426,512	112.8	64.7	200,389	426,512	112.8
Total equity	288,994	321,439	327,603	13.4	1.9	288,994	327,603	13.4
BVPS (Bt)	62.33	69.48	70.58	13.2	1.6	62.33	70.58	13.2
Financial ratio								
Gross margin (%)	10.7	13.9	8.8	(1.9)	(5.1)	3.7	12.6	8.9
EBITDA margin (%)	12.7	15.2	7.4	(5.3)	(7.8)	6.0	13.2	7.2
Net profit margin (%)	7.2	6.2	2.3	(4.9)	(3.9)	0.1	9.6	9.5
ROA (%)	4.4	6.8	2.5	(1.9)	(4.3)	0.0	7.2	7.2
ROE (%)	7.2	12.3	5.2	(2.1)	(7.1)	0.1	14.6	14.5
D/E (X)	0.7	0.8	1.3	8.0	9.0	0.7	1.3	60.9
SOURCE DITCO SCRS INVAS	tmont Pocoarch							

Source: PTTGC, SCBS Investment Research

Figure 2: Crack spread – gasoline vs. gasoil (diesel)



Source: Industry data, PTTGC, SCBS Investment Research

Figure 4: Product price - olefins

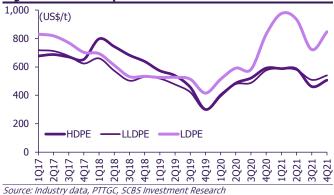
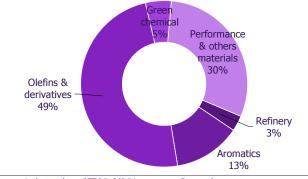
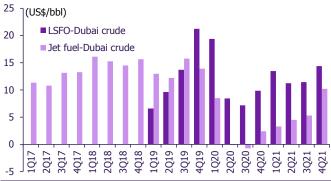


Figure 6: Adjusted EBITDA breakdown (2021)



Source: Industry data, PTTGC, SCBS Investment Research

Figure 3: Crack spread – Jet fuel vs. LSFO



Source: Industry data, PTTGC, SCBS Investment Research

Figure 5: Product spread – aromatics

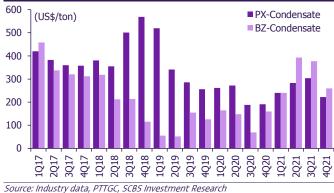
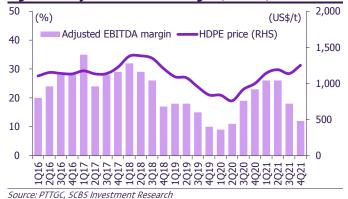
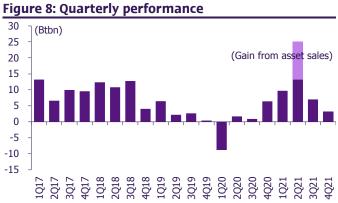


Figure 7: Adjusted EBITDA margin (olefins)

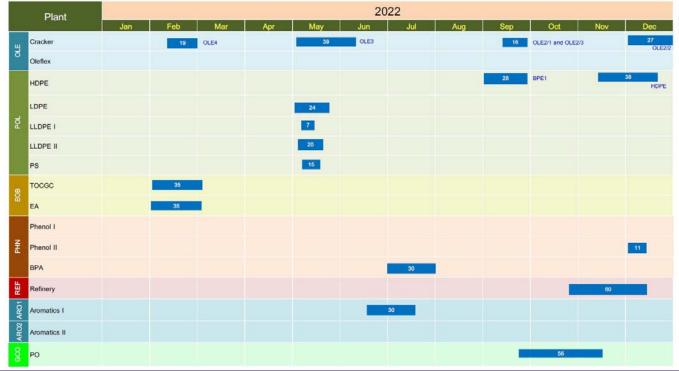


PTT Global Chemical PLC



Source: PTTGC, SCBS Investment Research





0.6

0.4

0.2

Jan-16 -Jul-16 -

Source: PTTGC, SCBS Investment Research

Figure 11: Valuation summary (price as of Feb 14, 2022)

| Rating | Price | Target | ETR | P/E (x) | | EPS growth (%) | | | P/BV (x) | | | ROE (%)
 |
 |
 | Div. Y
 | (ield (
 | (%) | EV/EBITDA (x)
 | | | |
|------------|-----------------------|------------------------------------|--|---|---|--|--|---|--|---|---
--

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---	---
	(Bt/Sh)
 | 21A
 | 22F
 | 23F
 | 21A
 | 22F | 23F
 | 21A | 22F | 23F |
| Neutral | 13.40 | 12.4 | (4.2) | 17.9 | 18.7 | 15.2 | 39 | (5) | 23 | 1.4 | 1.3 | 1.3
 | 8
 | 7
 | 9
 | 2.6
 | 2.7 | 3.3
 | 8.3 | 8.9 | 6.8 |
| Outperform | 50.75 | 55.0 | 13.1 | 244.0 | 9.7 | 7.1 | (78) | 2,406 | 37 | 2.2 | 1.9 | 1.6
 | 1
 | 21
 | 25
 | 1.4
 | 3.2 | 4.7
 | 16.5 | 6.6 | 4.8 |
| Neutral | 57.25 | 80.0 | 43.9 | n.m. | 8.0 | 12.0 | n.m. | n.m. | (33) | 0.9 | 0.8 | 0.8
 | (0)
 | 10
 | 6
 | 1.7
 | 1.7 | 4.2
 | 17.4 | 6.3 | 7.6 |
| | | | | 130.9 | 12.1 | 11.4 | (19) | 1,201 | 9 | 1.5 | 1.4 | 1.2
 | 3
 | 13
 | 13
 | 1.9
 | 2.5 | 4.1
 | 14.1 | 7.3 | 6.4 |
| | Neutral
Outperform | (Bt/Sh)Neutral13.40Outperform50.75 | (Bt/Sh) (Bt/Sh)
Neutral 13.40 12.4
Outperform 50.75 55.0 | (Bt/Sh) (Bt/Sh) (%) Neutral 13.40 12.4 (4.2) Outperform 50.75 55.0 13.1 | (Bt/Sh) (Bt/Sh) (%) 21A Neutral 13.40 12.4 (4.2) 17.9 Outperform 50.75 55.0 13.1 244.0 Neutral 57.25 80.0 43.9 n.m. | (Bt/Sh) (Bt/Sh) (%) 21A 22F Neutral 13.40 12.4 (4.2) 17.9 18.7 Outperform 50.75 55.0 13.1 244.0 9.7 Neutral 57.25 80.0 43.9 n.m. 8.0 | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F Neutral 13.40 12.4 (4.2) 17.9 18.7 15.2 Outperform 50.75 55.0 13.1 244.0 9.7 7.1 | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A Neutral 13.40 12.4 (4.2) 17.9 18.7 15.2 39 Outperform 50.75 55.0 13.1 244.0 9.7 7.1 (78) Neutral 57.25 80.0 43.9 n.m. 8.0 12.0 n.m. | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F Neutral 13.40 12.4 (4.2) 17.9 18.7 15.2 39 (5) Outperform 50.75 55.0 13.1 244.0 9.7 7.1 (78) 2,406 Neutral 57.25 80.0 43.9 n.m. 8.0 12.0 n.m. n.m. | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F Neutral 13.40 12.4 (4.2) 17.9 18.7 15.2 39 (5) 23 Outperform 50.75 55.0 13.1 244.0 9.7 7.1 (78) 2,406 37 Neutral 57.25 80.0 43.9 n.m. 8.0 12.0 n.m. n.m. (33) | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F 21A Neutral 13.40 12.4 (4.2) 17.9 18.7 15.2 39 (5) 23 1.4 Outperform 50.75 55.0 13.1 244.0 9.7 7.1 (78) 2,406 37 2.2 Neutral 57.25 80.0 43.9 n.m. 8.0 12.0 n.m. n.m. (33) 0.9 | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F 21A 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F 21A 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F 21A 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F 21A 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 23F 23F 21A 23F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 21A 22F 23F 21A 24F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 22F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F 24A 25F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 21A 24F 23F 24A 25F 23F <th< td=""><td>(Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<></td></th<> | (Bt/Sh) (Bt/Sh) (%) 21A 22F 23F 21A 24F 23F <th< td=""></th<> |

Source: SCBS Investment Research

Figure 9: PTTGC – PBV PBV (x) +2SD = 1.6x1.6 1.4 +1SD = 1.4x1.2 Avg. = 1.1x 1.0 -1SD = 0.9x0.8 -2SD = 0.6x

> Jan-20 Jul-20 Jan-21



Jan-17 -Jul-17 -Jan-18 -Jul-18 -Jan-19 -Jul-19 -

Source: Bloomberg Finance LP, SCBS Investment Research



Jan-22 Jul-22

Jul-21

PTT Global Chemical PLC



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Companies with Excellent CG Scoring

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Companies with Good CG Scoring

A, AI, AIE, AJ, AMC, APP, AQ, ARIN, AS, AU, B52, BEAUTY, BGT, BH, BIG, BLAND, BM, BROCK, BSBM, BSM, BYD*, CCP, CITY, CMO, CPT, CSR, EKH, EP, FMT, GLOCON*, GSC, HTECH, IHL, INGRS, JAK, JTS, KASET, KK, KWG, LEE, BTNC, CA2, CGD, CMAN, CMR, CRANE, D, EMC, F&D, GIFT, GREEN, GTB, HUMAN, IIG, INOX, JR, JUBILE, KCM, KKC, KYE, LPH, MATI, M-CHAI, MCS, MDX, MJD, MORE, MUD, NC, NDR, NFC, NNCL, NOVA, NPK, NUSA, OCEAN, PAF, PF, PK, PLE, PPM, PRAKIT, PRAPAT, PRECHA, PTL, RCI², RJH, RP, RPH, RSP, SABUY, SF, SGP, SICT, SIMAT, SISB, SK, SMART, SOLAR, SPACK, SPG, SQ, SSP, STARK, STC, SUPER, SVOA, TC, TCCC, THMUI, TNH, TNR, TOPP, TPCH, TPIPL, TPIPP, TPLAS, TPOLY, TQR, TTI, TYCN, UKEM, UMS, UNIQ, UPA, UREKA, VIBHA, W, WIN, WORK, WPH, YGG, ZIGA

Corporate Governance Report

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TIP was voluntarily delisted from the Stock Exchange of Thailand effectively on July 24, 2021

² RCI was voluntarily delisted from the Stock Exchange of Thailand, effectively on July 16, 2021

* บริษัทหรือกรรมการหรือผู้บริหารของบริษัททมีีข่าวด้านการกากับดูแลกิจการ เช่น การกระทาผิดเกี่ยวกับหลักทรัพย์ การทุจริต คอร์รัปขัน เป็นต้น ซึ่งการใช้ข้อมูล CGR ควรดระหนักถึงข่าวดังกล่าว ประกอบด้วย

Anti-corruption Progress Indicator

Certified (ได้รับการรับรอง)

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Declared (ประกาศเจตนารมณ์)

TUP, ABICO, AJ, ALT, APCO, AS, BEC, BKD, CHG, CPL, CPR, CPW, CRC, DDD, DHOUSE, DOHOME, ECF, EKH, ETC, EVER, GULF, III, INOX, J, JMART, JMT, JR, KEX, KUMWEL, LDC, MAJOR, MATCH, MILL, NCL, NOVA, NRF, NUSA, PIMO, PR9, RS, SAK, SCGP, SCM, SIS, SSS, STECH, STGT, SUPER, TQM, TSI, VCOM, VIBHA, WIN, YUASA, ZIGA N/A

N/A 3K-BAT, A, A5, AAV, ABM, ACAP, ACC, ACE, ACG, ADB, ADD, AEONTS, AFC, AGE, AH, AHC, AIT, AJA, AKR, ALL, ALLA, ALUCON, AMARIN, AMC, AMR, ANAN, AOT, APEX, APP, APURE, AQ, ARIN, ARIP, ASAP, ASEFA, ASIA, ASIMAR, ASN, ASW, ATP30, AU, AUCT, B52, BA, BBIK, BC, BCT, BDMS, BE8, BEAUTY, BEM, BFIT, BGT, BH, BIG, BIZ, BJC, BLAND, BLISS, BM, BOL, BR, BRI, BROCK, BSM, BTNC, BTW, BUI, BYD, CAZ, CBG, CCET, CCP, CGD, CHARAN, CHAYO, CHO, CI, CITY, CIVIL, CK, CKP, CMAN, CMO, CMR, CNT, COLOR, COMAN, CPANEL, CPH, CPT, CRANE, CRD, CSP, CSR, CSS, CTW, CV, CWT, D, DCON, DITTO, DMT, DOD, DPAINT, DTCI, DV8, EASON, EE, EFORL, EMC, ESSO, F&D, FANCY, FLOYD, FMT, FN, FORTH, FVC, GENCO, GIFT, GL, GLAND, GLOBAL, GLOCON, GLORY, GRAMMY, GRAND, GREEN, GSC, GTB, GYT, HENG, HFT, HL, HPT, HTECH, HUMAN, HYDRO, ICN, IHL, IIG, ILM, IMH, IND, INGRS, INSET, IP, IRCP, IT, ITD, JAK, JAS, JCK, JCKH, JCT, JP, JSP, JTS, JUBILE, JUTHA, JWD, KAMART, KC, KCM, KDH, KITA, KISS, KK, HYDRO, ICN, HIL, IIG, ILM, IMH, IND, INGRS, INSET, IP, IRCP, IT, ITD, JAK, JAS, JCK, JCKH, JCT, JP, JSP, JTS, JUBILE, JUTHA, JWD, KAMART, KC, KCM, KDH, KIAT, KISS, KK, KKC, KOOL, KTIS, KUN, KWM, KYE, LALIN, LEE, LEO, LIT, LOXLEY, LPH, LST, MACO, MANRIN, MATI, MAX, M-CHAI, MCS, MDX, MEGA, MENA, METCO, MGT, MICRO, MIDA, MITSIB, MJD, MK, ML, MODERN, MORE, MPIC, MUD, MVP, NC, NCAP, NCH, NDR, NER, NETBAY, NEW, NEWS, NEX, NFC, NPK, NSL, NTV, NV, NVD, NTT, OHTL, OISHI, ONEE, OR, OSP, OTO, PACE, PACO, PAE, PAF, PEACE, PERM, PF, PICO, PIN, PJW, PLE, PMTA, POLAR, POMPUI, PORT, POST, PPM, PRAKIT, PRAPAT, PRECHA, PRIME, PRIN, PRO, PROUD, PSG, PTC, PTL, RAM, RBF, RCL, RICHY, RJH, ROCK, ROH, ROJNA, RP, RPC, RPH, RSP, RT, S, S11, SA, SABUY, SAFARI, SALEE, SAM, SAMART, SAMCO, SAMTEL, SANKO, SAUCE, SAWAD, SAWANG, SCI, SCP, SDC, SE, SEAFCO, SECURE, SF, SFLEX, SFP, SFT, SGF, SHANG, SHR, SIAM, SICT, SIMAT, SISB, SK, SKE, SKN, SKY, SLM, SLP, SMAT, SMD, SMT, SNNP, SO, SOLAR, SONIC, SPA, SPCG, SPG, SPUI, SQ, SR, SSC, STANLY, STARK, STC, STEC, STHAI, STI, STPJ, SUC, SUN, SUTHA, SVH, SVOA, SVT, SWC, SYNEX, TACC, TAPAC, TC, TCC, TCC, TCAT, TCAM, TEAM, TEAMG, TFM, TGPRO, TH, THAI, THANA, THE, THG, THL, THMUI, TIGER, TIPH, TITLE, TK, TKC, TKN, TM, TMC, TMI, TMW, TNDT, TNH, TNPC, TOA, TPAC, TPBI, TPCH, TPCS, TPIPL, TPIPP, TPLAS, TPOLY, TPS, TQR, TR, TRC, TRITN, TRT, TRUBB, TRV, TSE, TSR, TTI, TTT, TTW, TVT, TWP, TWZ, TYCN, UAC, UMI, UMS, UNIQ, UP, UPA, UPOIC, UREKA, UT, UTP, UVAN, VARO, VL, VNG, VPO, VRANDA, W, WAVE, WFX, WGE, WINNED, WINNER, WORK WORD D, WRD YRG, YGG. WORK, WORLD, WP, WPH, XPG, YGG

Explanations

Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of October 24, 2021) are categorised into: companies that have declared their intention to join CAC, and companies certified by CAC