

Neutral · Maintained

Price as of 9 Dec 2024	5.70
12M target price (Bt/shr)	6.00
Unchanged/Revised up(down)(%)	Unchanged
Upside/downside (%)	5.3

Key messages

เราปรับลดประมาณการกำไรปี 2567F ลง 59% เหลือ 2.8 พันล้านบาท เนื่องจากต้นทุนถ่านหินแพงขึ้น โดยเราปรับเพิ่มต้นทุนถ่านหินโดยรวมในปีนี้ขึ้นอีก 4% เป็น US\$70/ton จากผลกระทบของปัญหาทางเทคนิคในระยะสั้นที่เหมือนในอดีตนี้เช่นกันในช่วงต้นปีนี้ และความท้าทายของภาวะทางธรณีวิทยาต่อการทำเหมืองที่ออสเตรเลียตลอดทั้งปี นอกจากนี้ เรายังขยับไปใช้ราคาเป้าหมายปี 2568F โดยยังคงราคาเป้าหมายเอาไว้เท่าเดิมที่ 6.00 บาท อิงจาก PB ที่ 0.45x (เทียบเท่า -1.50 S.D.) เรายังคงคำแนะนำถือ BANPU เนื่องจากนักลงทุนสถาบันที่เป็นกังวลกับผลกระทบของถ่านหินต่อภาวะโลกร้อนให้ความสนใจหุ้น BANPU ลดลง ทั้งนี้ ในงวด 9M67 กำไรกว่า 75% ของ EBITDA รวมมาจากเหมืองถ่านหินและธุรกิจโรงไฟฟ้าถ่านหิน

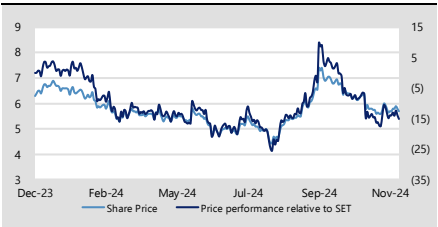
Trading data

Mkt cap (Btbn/US\$bn)	57.1/1.68		
Outstanding shares (mn)	10,019		
Foreign ownership (mn)	747		
3M avg. daily trading (mn)	102.5		
52-week trading range (Bt)	4.44 – 7.40		
Performance (%)	3M	6M	12M
Absolute	(3.4)	12.9	(13.6)
Relative	(4.7)	2.7	(18.0)

Quarterly EPS

Bt	1Q	2Q	3Q	4Q
2022	1.52	1.89	2.62	(0.03)
2023	0.59	(0.05)	0.25	(0.14)
2024	0.18	0.11	(0.10)	

Share price chart



Source: SET

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Banpu Pcl.
(BANPU.BK/BANPU TB)*



ต้นทุนถ่านหินที่เพิ่มขึ้นทำให้แนวโน้มกำไรเปลี่ยนไป

Event

ปรับประมาณการกำไรเต็มปี

Impact

คาดผลประกอบการจะพลิกฟื้น QoQ ใน 4Q67F เพราะกำไรจากอัตราแลกเปลี่ยน

เราคาดว่าผลประกอบการของ BANPU ใน 4Q67F จะดีดตัวขึ้น QoQ ดีขึ้นจากที่ขาดทุนสุทธิ 830 ล้านบาทใน 3Q67 เพราะกำไรจากอัตราแลกเปลี่ยนเพิ่มขึ้น โดยเราคาดว่าบริษัทจะบันทึกกำไรจากอัตราแลกเปลี่ยนก่อนใหญ่ ดีขึ้นจากที่ขาดทุนจากอัตราแลกเปลี่ยนถึง 8.6 พันล้านบาทใน 3Q67 เพราะค่าเงินบาทอ่อนค่าลงประมาณ 1.7 บาท/ดอลลาร์ฯ ในงวด 4QTD67 แต่หากไม่รวมกำไร/ขาดทุนจากอัตราแลกเปลี่ยน เราคาดว่ากำไรจากธุรกิจหลักใน 4Q67F จะลดลง QoQ เนื่องจาก i) ยอดผลิตถ่านหินลดลง, ii) ต้นทุนถ่านหินสูงขึ้น และ iii) มีการปิดโรงไฟฟ้าถ่านหินตามแผนหลายโรง เราคาดว่ายอดผลิตถ่านหินทั้งหมดของ BANPU จะลดลง 16% QoQ เหลือ 6.8 ล้านตัน เพราะผู้บริหารวางแผนผลิตลดลงทั้งที่อินโดนีเซียและออสเตรเลีย ส่งผลให้ต้นทุนถ่านหินโดยรวมเพิ่มขึ้น QoQ โดยเฉพาะในออสเตรเลียจากภาวะทางธรณีวิทยาที่ทำให้ขุดเหมืองได้ยาก นอกจากนี้ เรายังคาดว่ากำไรจากการดำเนินงานของธุรกิจโรงไฟฟ้าจะลดลง เพราะจะมีแผนปิดซ่อมบำรุงโรงไฟฟ้าที่ตั้งคือไปนี้ i) unit #2 ของโรงไฟฟ้า BLCP นาน 17 วัน, ii) unit #1 และ #2 ของโรงไฟฟ้าหงสา นาน 22 วัน, iii) โรงไฟฟ้า Temple I นาน 31 วัน, iv) โรงไฟฟ้า Temple II นาน 40 วัน ฯลฯ แต่อย่างไรก็ตาม เราคาดว่าราคาขายถ่านหินเฉลี่ย (ASP) ของ BANPU จะเพิ่มขึ้น QoQ หลังจากที่เราถ่านหินอ้างอิง NEX ใน 4QTD67 ขยับเพิ่มขึ้น 1% QoQ เป็น US\$143/ton จากอุปสงค์ในหน้าหนาว

ปรับลดประมาณการกำไรปีนี้ลง 59%

เราปรับลดประมาณการกำไรปี 2567F ลง 59% เหลือ 2.8 พันล้านบาท เนื่องจากต้นทุนถ่านหินแพงขึ้น โดยเราปรับเพิ่มต้นทุนถ่านหินโดยรวมในปีนี้ขึ้นอีก 4% เป็น US\$70/ton และในปี 2568F ขึ้นอีก 15% เป็น US\$67/ton จากผลกระทบของปัญหาทางเทคนิคในระยะสั้นที่เหมือนในอดีตนี้เช่นกันในช่วงต้นปีนี้ และความท้าทายของภาวะทางธรณีวิทยาต่อการทำเหมืองที่ออสเตรเลียตลอดทั้งปี แต่อย่างไรก็ตาม เราปรับเพิ่มสมมติฐานราคาถ่านหินอ้างอิง NEX ปี 2567F ขึ้นอีก 15% เป็น US\$138/ton และปี 2568F ขึ้นอีก 33% เป็น US\$120/ton หลังจากที่เราถ่านหินทรงตัวในระดับสูงที่ US\$137/ton ใน YTD67 ดังนั้นเราจึงปรับเพิ่มประมาณการกำไรปี 2568F ขึ้นอีก 3% เป็น 4.7 พันล้านบาท

Valuation & action

เราขยับไปใช้ราคาเป้าหมายปี 2568F โดยยังคงราคาเป้าหมายเอาไว้เท่าเดิมที่ 6.00 บาท อิงจาก PB ที่ 0.45x (เทียบเท่า -1.50 S.D.) เรายังคงคำแนะนำถือ BANPU เนื่องจากนักลงทุนสถาบันที่เป็นกังวลกับผลกระทบของถ่านหินต่อภาวะโลกร้อนให้ความสนใจหุ้น BANPU ลดลง ทั้งนี้ในงวด 9M67 กำไรกว่า 75% ของ EBITDA รวมมาจากเหมืองถ่านหินและธุรกิจโรงไฟฟ้าถ่านหิน

Risks

ความผันผวนของราคาถ่านหิน และการปิดโรงไฟฟ้านอกแผน

Key financials and valuations

	Dec-21A	Dec-22A	Dec-23A	Dec-24F	Dec-25F
Revenue (Bt mn)	133,190	272,270	179,619	177,119	172,872
Gross profit (Bt mn)	46,743	123,538	38,787	29,784	35,580
EBIT (Bt mn)	32,699	101,759	21,750	12,189	17,410
Net profit (Bt mn)	9,852	40,519	5,434	2,769	4,650
EPS (Bt)	1.46	4.79	0.54	0.28	0.46
DPS (Bt)	0.45	1.20	0.45	0.30	0.30
EPS growth (%)	N.A.	229.2	(88.7)	(49.0)	67.9
P/E (x)	7.3	2.9	12.5	20.6	12.3
P/B (x)	0.9	1.0	0.5	0.4	0.4
EV/EBITDA (x)	4.8	2.0	5.7	6.8	5.5
Net Debt to Equity (x)	1.6	0.9	1.0	1.0	0.9
Dividend Yield (%)	4.2	8.8	6.6	5.3	5.3
Return on Avg. Equity (%)	10.5	31.6	3.4	1.7	2.8

Source: Company data, KGI Securities Research

Figure 1: Changes in key assumptions for 2024F-2025F

Our assumptions	2024F			2025F		
	Previous	Revised	Change (%)	Previous	Revised	Change (%)
Coal benchmark						
Newcastle Export Index (US\$/ton)	120	138	15.0	90	120	33.3
Henry Hub gas price (US\$/Mcf)	2.8	2.2	(21.4)	3.0	3.0	0.0
Coal Sales Volume						
Total sales volume (mn ton)	30.0	29.5	(1.7)	30.5	30.0	(1.6)
- Indonesia (mn ton)	22.0	22.0	0.0	22.5	22.5	0.0
- Australia (mn ton)	8.0	7.5	(6.3)	8.0	7.5	(6.3)
Coal Selling Price						
ASP (US\$/ton)	102	101	(1.0)	85	97	14.1
- Indonesia (US\$/ton)	96	97	0.6	77	90	17.6
- Australia (AUD\$/ton)	165	172	4.2	152	167	10.0
Coal Cost (excluding royalty fee)						
Coal cost (US\$/ton)	67	70	4.4	58	67	15.1
- Indonesia (US\$/ton)	50	57	14.0	45	52	15.6
- Australia (AUD\$/ton)	160	165	3.1	130	155	19.2
Income statement						
Earnings (Bt mn)	6,663	2,769	(58.4)	4,502	4,650	3.3

Source: Company data, KGI Securities Research

Figure 2: Key assumptions for BANPU

	2022	2023	2024F	2025F	2026F
Benchmark					
Newcastle coal price (US\$/ton)	365	174	138	120	100
Henry Hub gas price (US\$/mmbtu)	6.4	2.5	2.2	3.0	3.0
Coal Sales Volume					
Total sales volume (mn ton)	27.5	27.9	29.5	30.0	30.5
- Indonesia (mn ton)	18.9	21.0	22.0	22.5	23.0
- Australia (mn ton)	8.6	7.0	7.5	7.5	7.5
Coal Selling Price					
ASP (US\$/ton)	179	114	101	97	89
- Indonesia (US\$/ton)	193	114	97	90	80
- Australia (AUD\$/ton)	213	174	172	167	163
Coal Cost (excluding royalty fee)					
Coal cost (US\$/ton)	73	75	70	67	61
- Indonesia (US\$/ton)	65	62	57	52	47
- Australia (AUD\$/ton)	132	172	165	155	145
Gas BU					
Sales volume (Bcf)	280	314	290	294	298
Overall Gross Margin					
Gross profit margin (%)	45.4	21.6	17.6	21.5	21.5

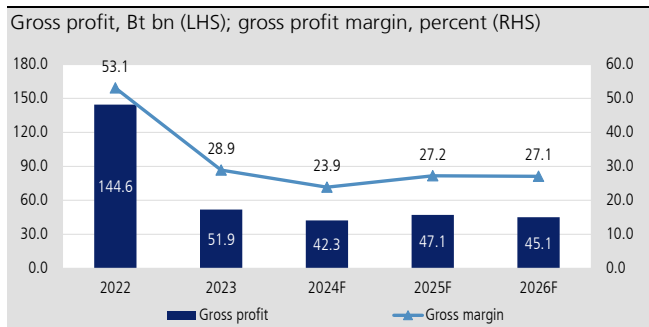
Source: Company data, KGI Securities Research

Figure 3: Company profile

Banpu Pcl (BANPU) has two main businesses; i) coal-mining business from its ventures in Indonesia, Australia, and China, and ii) power business, producing and distributing electricity and steam from its power plants in Thailand (Map Ta Phut, Rayong), and a venture in China. In 1H16, the company acquired a 29.4% stake in the Chaffee Corners operation as its first foray into the upstream unconventional gas business.

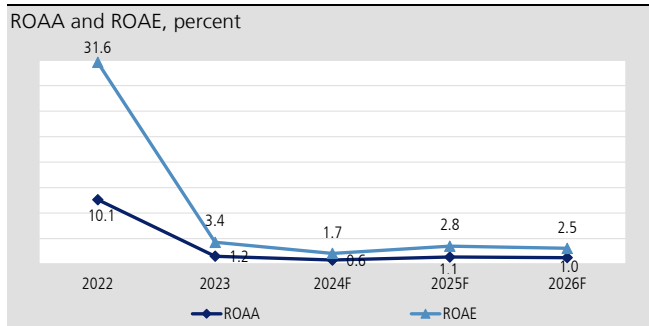
Source: Company data, KGI Securities Research

Figure 5: Gross profit



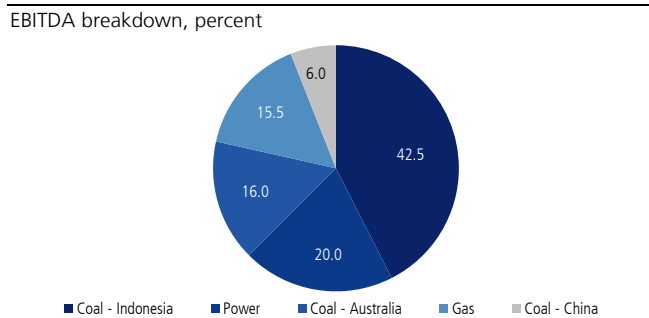
Source: Company data, KGI Securities Research

Figure 7: Company ROAA and ROAE



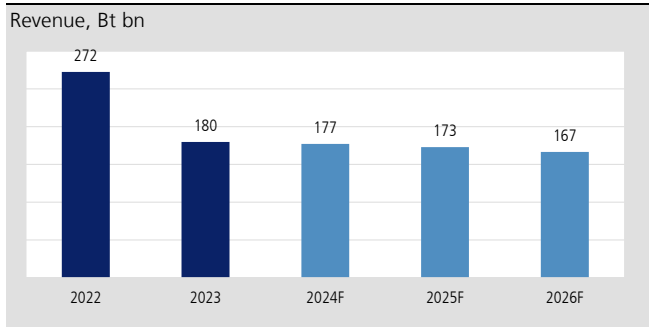
Source: Company data, KGI Securities Research

Figure 9: EBITDA breakdown in 9M24



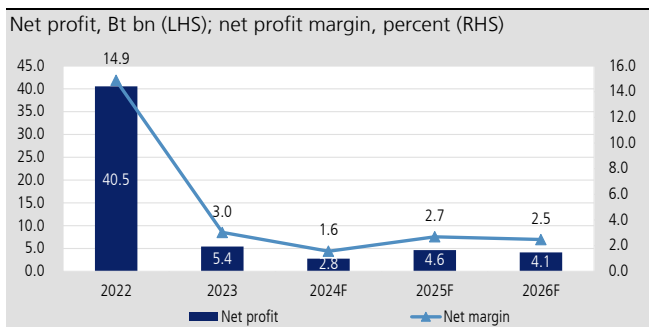
Source: Company data, KGI Securities Research

Figure 4: Revenue



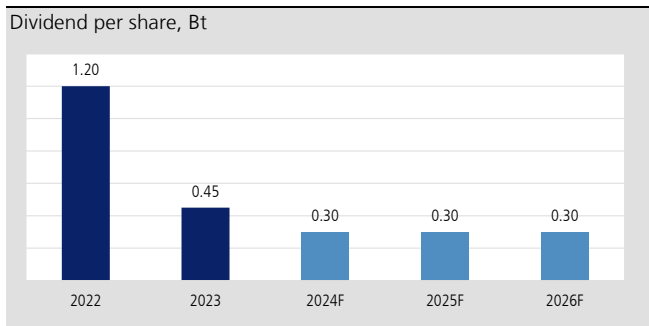
Source: Company data, KGI Securities Research

Figure 6: Net profit



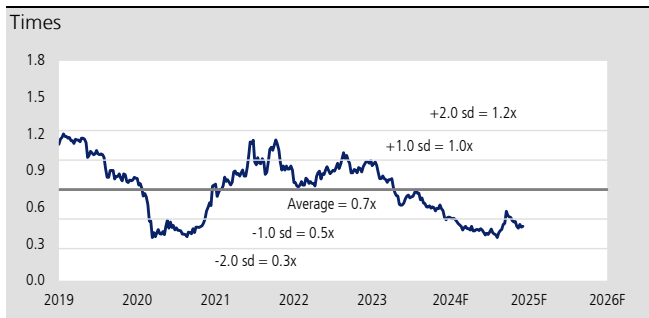
Source: Company data, KGI Securities Research

Figure 8: Dividend



Source: Company data, KGI Securities Research

Figure 10: Company trading PB



Source: KGI Securities Research

Quarterly Income Statement

(Bt mn)	Mar-22A	Jun-22A	Sep-22A	Dec-22A	Mar-23A	Jun-23A	Sep-23A	Dec-23A	Mar-24A	Jun-24A	Sep-24A
Income Statement (Bt mn)											
Revenue	41,509	60,986	87,274	82,500	42,453	39,923	52,663	44,581	40,422	48,003	46,597
Cost of Goods Sold	(24,823)	(33,471)	(42,660)	(47,779)	(33,882)	(32,890)	(37,901)	(36,159)	(34,315)	(39,027)	(37,990)
Gross Profit	16,687	27,515	44,615	34,722	8,570	7,032	14,762	8,422	6,107	8,976	8,607
Operating Expenses	(4,022)	(4,521)	(6,313)	(9,007)	(4,436)	(4,602)	(4,922)	(5,409)	(4,585)	(5,132)	(5,495)
Other incomes	888	579	333	283	832	536	384	581	590	527	537
Operating Profit	13,553	23,573	38,635	25,998	4,966	2,966	10,224	3,594	2,112	4,370	3,650
Depreciation of fixed assets	4,393	5,819	6,672	5,324	5,578	5,034	4,487	4,792	4,674	6,023	6,094
Operating EBITDA	17,945	29,391	45,306	31,323	10,543	8,001	14,711	8,386	6,786	10,393	9,744
Non-Operating Income	97	154	254	405	1,608	471	561	620	2,127	590	3,065
Interest Income	97	154	254	405	484	471	561	620	542	590	685
Other Non-op Income	0	0	0	0	1,124	0	0	0	1,586	0	2,379
Non-Operating Expenses	(6,589)	(11,996)	(11,874)	(7,203)	(2,997)	(4,324)	(7,088)	(5,883)	(3,689)	(4,203)	(3,220)
Interest Expenses	(1,701)	(1,924)	(2,739)	(3,003)	(2,997)	(3,052)	(3,558)	(3,780)	(3,689)	(4,101)	(3,220)
Other Non-op Expenses	(4,888)	(10,072)	(9,135)	(4,201)	0	(1,272)	(3,530)	(2,102)	0	(102)	0
Net Investment Income/(Loss)	2,059	2,800	3,346	3,776	2,840	2,844	1,847	1,765	1,090	2,140	2,413
Pre-tax Profit	9,119	14,530	30,361	22,976	6,417	1,958	5,544	97	1,640	2,897	5,907
Current Taxation	(2,483)	(5,691)	(9,408)	(798)	(882)	(3,359)	(2,860)	3,069	(2,393)	(1,643)	3,793
Minorities	2,639	3,490	6,096	4,067	2,722	1,717	1,709	1,180	810	970	1,903
Extraordinary items	6,267	7,440	2,886	(18,389)	2,175	2,673	1,108	(3,178)	3,114	653	(8,626)
Net Profit	10,264	12,789	17,744	(278)	4,988	(445)	2,084	(1,192)	1,552	937	(830)
EPS (Bt)	1.52	1.89	2.62	(0.03)	0.59	(0.05)	0.25	(0.14)	0.18	0.11	(0.10)
Margins											
Gross profit margin	40.2	45.1	51.1	42.1	20.2	17.6	28.0	18.9	15.1	18.7	18.5
Operating EBIT margin	32.6	38.7	44.3	31.5	11.7	7.4	19.4	8.1	5.2	9.1	7.8
Operating EBITDA margin	43.2	48.2	51.9	38.0	24.8	20.0	27.9	18.8	16.8	21.7	20.9
Net profit margin	24.7	21.0	20.3	(0.3)	11.7	(1.1)	4.0	(2.7)	3.8	2.0	(1.8)
Growth											
Revenue growth	86.5	143.3	128.3	73.2	2.3	(34.5)	(39.7)	(46.0)	(4.8)	20.2	(11.5)
Operating EBIT growth	372	519	260	70	(63)	(87)	(74)	(86)	(57)	47	(64)
Operating EBITDA growth	171.3	297.4	204.2	59.1	(41.2)	(72.8)	(67.5)	(73.2)	(35.6)	29.9	(33.8)
Net profit growth	568.6	864.9	406.2	(108.0)	(51.4)	(103.5)	(88.3)	328.4	(68.9)	(310.5)	(139.8)

Source: Company data, KGI Securities Research

Balance Sheet

As of 31 Dec (Bt mn)	2022	2023	2024F	2025F	2026F
Total Assets	436,794	444,913	427,770	415,501	406,239
Current Assets	127,405	105,252	93,903	89,575	88,457
Cash & ST Investments	74,852	54,702	44,452	40,952	40,641
Inventories	5,059	6,265	6,280	5,859	5,657
Accounts Receivable	23,102	18,096	16,984	16,577	15,971
Others	24,393	26,188	26,188	26,188	26,188
Non-current Assets	309,389	339,661	333,867	325,926	317,782
LT Investments	74,217	83,910	83,910	83,910	83,910
Net fixed Assets	144,829	157,487	151,693	143,752	135,608
Others	90,342	98,264	98,264	98,264	98,264
Total Liabilities	284,420	279,689	262,784	248,870	238,495
Current Liabilities	96,185	94,433	91,094	87,390	84,203
Accounts Payable	4,246	4,781	5,171	4,825	4,659
ST Borrowings	48,405	62,618	58,888	55,532	52,511
Others	43,533	27,034	27,034	27,034	27,034
Long-term Liabilities	188,236	185,256	171,690	161,480	154,291
Long-term Debts	161,303	161,283	147,716	137,506	130,317
Others	26,932	23,974	23,974	23,974	23,974
Shareholders' Equity	152,374	165,223	164,987	166,631	167,744
Common Stock	8,454	10,019	10,019	10,019	10,019
Capital Surplus	39,741	53,642	53,642	53,642	53,642
Retained Earnings	104,179	101,562	101,326	102,970	104,083
Preferred Stock	0	0	0	0	0

Source: KGI Securities Research

Key Ratios

Year to 31 Dec (Bt mn)	2022	2023	2024F	2025F	2026F
Forecast Drivers					
Growth (% YoY)					
Sales	104.4	(34.0)	(1.4)	(2.4)	(3.7)
OP	211.2	(78.6)	(44.0)	42.8	(11.0)
EBITDA	155.1	(66.4)	(22.5)	16.8	(4.5)
NP	311.3	(86.6)	(49.0)	67.9	(11.4)
EPS	229.2	(88.7)	(49.0)	67.9	(11.4)
Profitability (%)					
Gross Margin	45.4	21.6	16.8	20.6	20.6
Operating Margin	37.4	12.1	6.9	10.1	9.3
EBITDA Margin	45.5	23.2	18.2	21.8	21.6
Net Profit Margin	14.9	3.0	1.6	2.7	2.5
ROAA	10.1	1.2	0.6	1.1	1.0
ROAE	31.6	3.4	1.7	2.8	2.5
Stability					
Gross Debt/Equity (%)	137.6	135.5	125.2	115.8	109.0
Net Debt/Equity (%)	88.5	102.4	98.3	91.3	84.8
Interest Coverage (x)	7.3	1.7	1.4	1.6	1.6
Interest & ST Debt Coverage (x)	1.2	0.3	0.3	0.3	0.3
Cash Flow Interest Coverage (x)	6.6	0.3	1.7	1.9	2.0
Cash Flow/Interest & ST Debt (x)	1.1	0.1	0.3	0.4	0.4
Current Ratio (x)	1.3	1.1	1.0	1.0	1.1
Quick Ratio (x)	1.3	1.0	1.0	1.0	1.0
Net Debt (Bt mn)	134,857	169,198	162,152	152,085	142,187
Per Share Data (Bt)					
EPS	4.8	0.5	0.3	0.5	0.4
CFPS	7.3	0.4	2.4	2.5	2.5
BVPS	13.9	13.1	13.0	13.2	13.3
SPS	--	--	--	--	--
EBITDA/Share	14.7	4.2	3.2	3.8	3.6
DPS	1.2	0.5	0.3	0.3	0.3
Activity					
Asset Turnover (x)	0.7	0.4	0.4	0.4	0.4
Days Receivables	31.0	36.8	35.0	35.0	35.0
Days Inventory	12.4	16.2	15.6	15.6	15.6
Days Payable	2.9	3.4	3.5	3.5	3.5
Cash Cycle	40.5	49.6	47.0	47.1	47.1

Source: KGI Securities Research

Profit & Loss

Year to 31 Dec (Bt mn)	2022	2023	2024F	2025F	2026F
Revenue	272,270	179,619	177,119	172,872	166,558
Cost of Goods Sold	(148,732)	(140,832)	(147,335)	(137,292)	(132,294)
Gross Profit	123,538	38,787	29,784	35,580	34,264
Operating Expenses	(23,863)	(19,370)	(19,951)	(20,549)	(21,166)
Other incomes	2,084	2,333	2,356	2,380	2,403
Operating Profit	101,759	21,750	12,189	17,410	15,502
Depreciation of fixed assets	22,207	19,891	20,090	20,291	20,494
Operating EBITDA	123,966	41,641	32,280	37,701	35,996
Non-Operating Income	910	2,136	5,936	2,460	2,485
Interest Income	910	2,136	2,436	2,460	2,485
Other Non-op Income	0	0	3,500	0	0
Non-Operating Expenses	(37,663)	(19,167)	(14,358)	(13,408)	(12,693)
Interest Expenses	(9,367)	(13,387)	(14,358)	(13,408)	(12,693)
Other Non-op Expenses	(28,296)	(5,780)	0	0	0
Net Investment Income/(Loss)	11,980	9,297	7,413	6,683	6,335
Pre-tax Profit	76,986	14,016	11,181	13,145	11,628
Current Taxation	(18,379)	(4,032)	(3,214)	(3,799)	(3,341)
Minorities	16,293	7,328	5,197	4,696	4,169
Extraordinary items	(1,796)	2,779	0	0	0
Net Profit	40,519	5,434	2,769	4,650	4,119
EPS (Bt)	4.79	0.54	0.28	0.46	0.41

Source: KGI Securities Research

Cash Flow

Year to 31 Dec (Bt mn)	2022	2023	2024F	2025F	2026F
Operating Cash Flow	61,564	4,139	24,348	25,422	25,254
Net Profit	40,519	5,434	2,769	4,650	4,119
Depreciation & Amortization	22,207	19,891	20,090	20,291	20,494
Change in Working Capital	(7,497)	4,334	1,488	482	641
Others	6,336	(25,520)	0	0	0
Investment Cash Flow	(30,012)	(31,908)	(14,297)	(12,350)	(12,350)
Net CAPEX	(52,870)	(32,549)	(14,297)	(12,350)	(12,350)
Change in LT Investment	0	0	0	0	0
Change in Other Assets	22,858	641	0	0	0
Free Cash Flow	8,694	(28,410)	10,052	13,072	12,904
Financing Cash Flow	3,315	7,221	(20,302)	(16,572)	(13,216)
Change in Share Capital	1,688	1,565	0	0	0
Net Change in Debt	7,250	14,899	(17,296)	(13,567)	(10,210)
Change in Other LT Liab.	(5,623)	(9,242)	(3,006)	(3,006)	(3,006)
Net Cash Flow	34,867	(20,548)	(10,250)	(3,500)	(311)

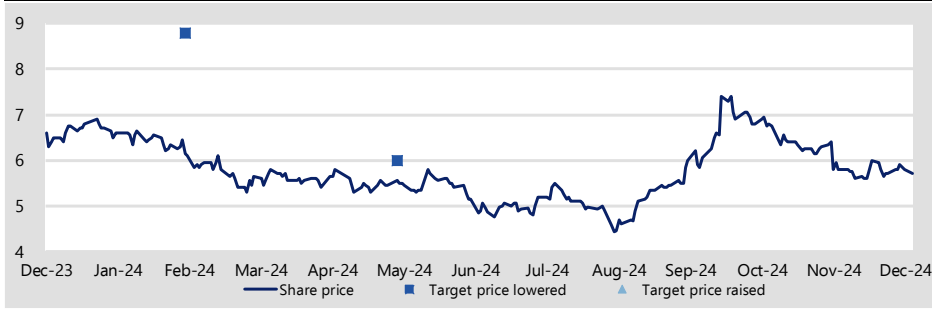
Source: KGI Securities Research

Rates of Return on Invested Capital

Year	1- Revenue	+ COGS Revenue	+ Depreciation Revenue	+ Operating Exp. Revenue	= Operating Margin	
2022	46.5%		8.2%	8.8%	36.6%	
2023	67.3%		11.1%	10.8%	10.8%	
2024F	71.8%		11.3%	11.3%	5.6%	
2025F	67.7%		11.7%	11.9%	8.7%	
2026F	67.1%		12.3%	12.7%	7.9%	
Year	1/ Revenue	+ Working Capital Revenue	+ Net PPE Revenue	+ Other Assets Revenue	= Capital Turnover	
2022	0.11		0.53	0.33	1.02	
2023	0.06		0.88	0.55	0.67	
2024F	0.02		0.86	0.55	0.70	
2025F	0.01		0.83	0.57	0.71	
2026F	0.03		0.81	0.59	0.70	
Year	Operating Margin	x	Capital Turnover	x	Cash Tax Rate	= After-tax Return on Inv. Capital
2022	36.6%		1.0		68.8	25.7
2023	10.8%		0.7		57.4	4.2
2024F	5.6%		0.7		46.3	1.8
2025F	8.7%		0.7		55.0	3.4
2026F	7.9%		0.7		55.2	3.0

Source: KGI Securities Research

Banpu Pcl - Recommendation & target price history



Source: KGI Securities Research

Company's ESG details

Environment

- BANPU requires all business units to conduct the water risk assessment which one of the criteria is to determine whether the operational sites are located in a water-stressed area under the database of Aqueduct Water Risk Atlas of the World Resources Institute. The water risk assessment report as well as a mitigation plan are presented to the Risk Management Committee on a quarterly basis. The company's water management covers the process of water withdrawal, water consumption, and water discharge. To achieve long-term target towards reduction of water footprint throughout product's life cycle, the company is expanding water management to the watershed level, starting from completing a water balance at each operational site.
- Since most of the emissions at thermal power plants is a point source, BANPU has placed emphasis on prevention at source by engineering control such as using a Circulating Fluidized Bed (CFB) boiler. In addition, the company has formulated a 5-year plan (2013-2018) to improve air pollution control systems at three Combined Heat and Power (CHP) plants in China with over US\$43mn investment through latest and efficient technology, such as Flue Gas Desulfurization (FGD), Selective Non-catalytic Reduction (SNCR) and Electrostatic Precipitators (ESP). Moreover, Continuous Emission Monitoring System (CEMS) is also installed at the stack and surrounding communities to real-time monitor the air quality so that any potential incident from the undesired emissions levels can be addressed immediately. The monitoring covers four key indicators; SO₂, NO_x, PM (Total Suspended Particles: TSP) and Mercury (Hg).

Social

- BANPU has established an occupational health and safety department, responsible for ensuring that safety protocols are rigorously followed across all business units, adherence to local laws and regulations in each country and the company's standards. Additionally, the company has integrated ISO 45001 into its OHS management system. Central to our approach is the cultivation of a robust safety culture that focuses on three key areas: strengthening safety management system, enhancing safety competency, and promoting safety awareness. This culture is foundational to the company's OHS Policy, which sets forth ambitious "3 Zeroes" targets - Zero Incident, Zero Repeat, and Zero Compromise.
- BANPU places an importance on employee health and well-being in every country where it operates, aiming to foster a positive and fulfilling work environment. Key initiatives & activities are i) Work anywhere and flexible time policy: empowering employees with control over their schedules and work styles, ii) Flexible benefits: offering a range of benefits to support employees' lifestyles, including expenses related to family, relaxation, and quality of life enhancements, iii) Maternity and paternity support: extending maternity leave up to 98 days and paternity leave to 5 days with full pay, plus additional support like cash gifts for childbirth and breast-feeding facilities, iv) Career path sessions: providing guidance on career development to align individual aspirations with organizational goals, v) Fitness program: providing fitness facilities and exercise classes, both online and on-site, for employees to strengthen their health, etc.
- In 2023, BANPU's embalut mine in Indonesia actively supported 14 community development projects. The focus of these initiatives is on agro-edu-tourism, aimed at enhancing the livelihood and well-being of the local population. The projects included the development of fruit gardens, cattle sheds, agricultural tourism attractions, fishing ponds, and fishing points.

Governance

- BANPU maintains annual "Excellent" CG scoring From Thai Institute of Directors Association (IOD).

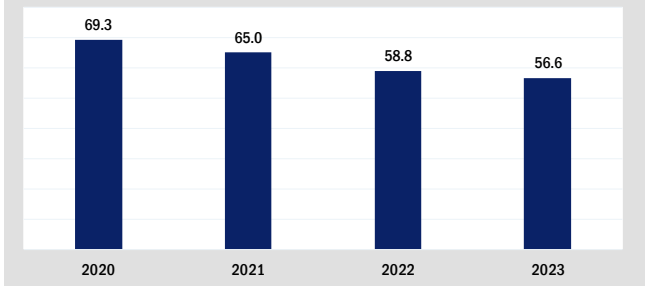
Climate Management (Subset of Environment)

- BANPU has set a long-term target and established a roadmap in alignment with the Paris Agreement to limit global temperature increases to below 1.5°C. In 2023, several decarbonization workshops were arranged across all business units under operational control. These workshops were designed to engage every business unit in a comprehensive discussion on decarbonization, fostering a collaborative approach to identifying effective mitigation strategies and evaluating the feasibility of carbon capture activities.
- BKV, which is BANPU's subsidiary in the US, announced final investment decision (FID) for its development in Carbon Capture, Utilization and Storage (CCUS) project in the US. The two projects consist of Barnett Zero Project with an average sequestration rate of up to approximately 210k tons CO₂ per year, expected total investment of around US\$29-34mn and Cotton Cove Project with an average sequestration rate of up to approximately 80k tons CO₂ per year, expected total investment of around US\$14-24mn.

Source: Company data, KGI Securities Research

Total GHG emissions

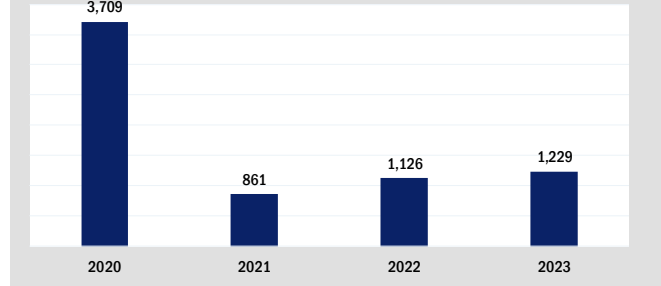
GHG emissions, mn tons of CO₂e



Source: Company data, SETSMART, KGI Securities Research

Total electricity consumption

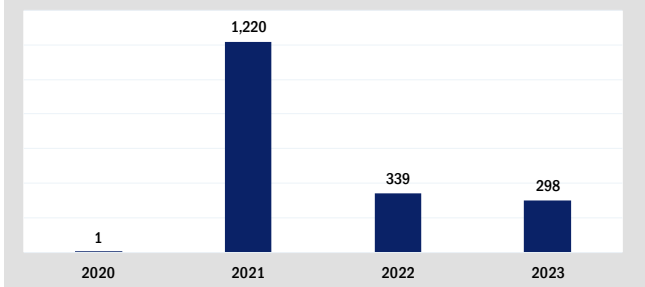
Electricity consumption, GWh



Source: Company data, SETSMART, KGI Securities Research

Total water consumption

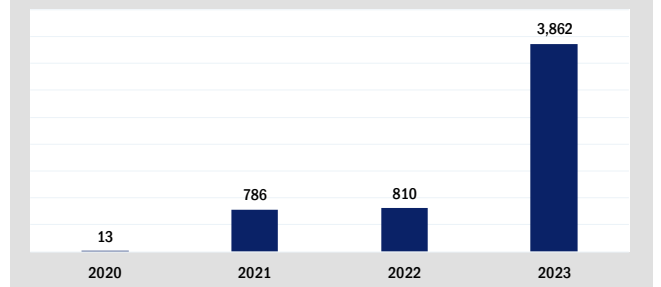
Water consumption, mn cubic meters



Source: Company data, SETSMART, KGI Securities Research

Total waste

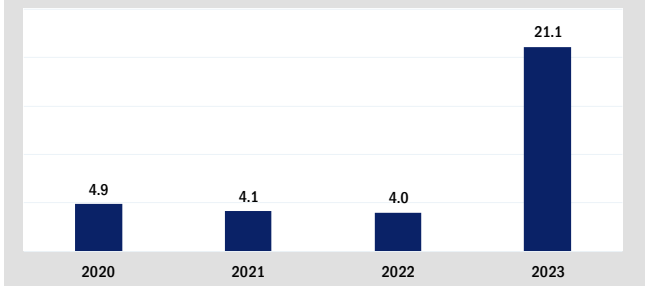
Waste generated, k tons



Source: Company data, SETSMART, KGI Securities Research

Employee turnover

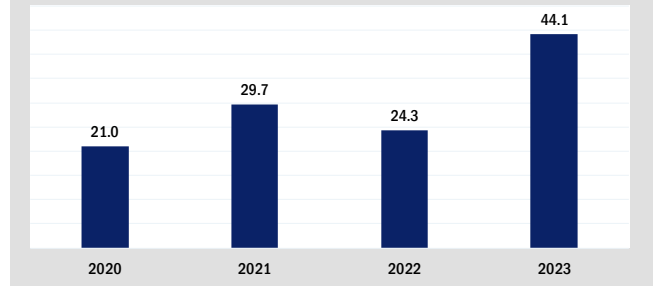
Employee turnover, percent



Source: Company data, SETSMART, KGI Securities Research

Average employee training hours

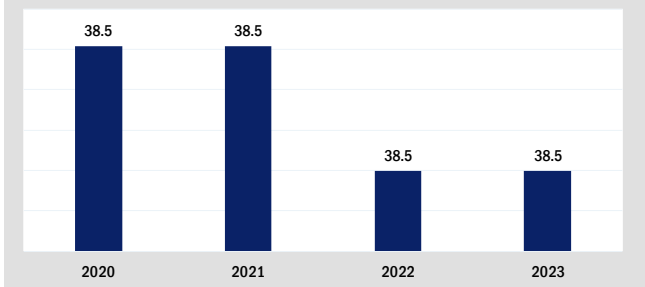
Average employee training hour, hours per person per year



Source: Company data, SETSMART, KGI Securities Research

Proportion of independent directors

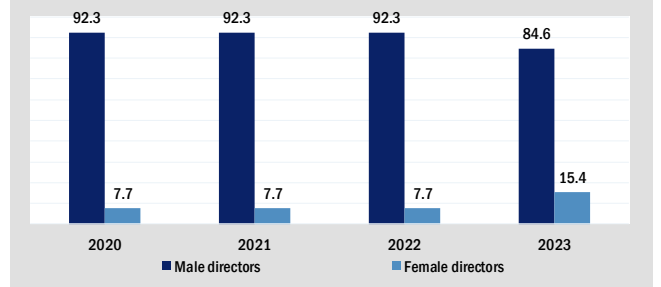
Independent directors, percent



Source: Company data, SETSMART, KGI Securities Research

Gender diversification of directors

Gender diversification, percent



Source: Company data, SETSMART, KGI Securities Research

SET ESG Ratings

Stock	Company name	SET ESG Ratings	Stock	Company name	SET ESG Ratings
ADVANC	ADVANCED INFO SERVICE	AAA	IVL	INDORAMA VENTURES	AA
AMATA	AMATA CORPORATION	AAA	KBANK	KASIKORN BANK	AAA
AOT	AIRPORTS OF THAILAND	A	KKP	KIATNAKIN PHATRA BANK	BBB
AP	AP (THAILAND)	AA	KTB	KRUNG THAI BANK	AAA
BAFS	BANGKOK AVIATION FUEL SERVICES PCL.	AA	KTC	KRUNGTHAI CARD	AAA
BAM	BANGKOK COMMERCIAL ASSET MANAGEMENT	AA	LH	LAND AND HOUSES	A
BANPU	BANPU	AAA	MAJOR	MAJOR CINEPLEX GROUP	AA
BBGI	BBGI	AA	MINT	MINOR INTERNATIONAL	AA
BBL	BANGKOK BANK	AA	MTC	MUANGTHAI CAPITAL	A
BCH	BANGKOK CHAIN HOSPITAL	AA	OR	PTT OIL AND RETAIL BUSINESS	AAA
BCPG	BCPG	AA	ORI	ORIGIN PROPERTY	AA
BDMS	BANGKOK DUSIT MEDICAL SERVICES	AA	OSP	OSOTSPA	AA
BEM	BANGKOK EXPRESSWAY AND METRO	AA	PLANB	PLAN B MEDIA	AA
BGRIM	B. GRIMM POWER	AAA	PSH	PRUKSA HOLDING	BBB
BPP	BANPU POWER	AAA	PTT	PTT	AAA
BTS	BTS GROUP HOLDINGS	AA	PTTEP	PTT EXPLORATION AND PRODUCTION	AAA
CBG	CARABAO GROUP	A	PTTGC	PTT GLOBAL CHEMICAL	AAA
CENDEL	CENTRAL PLAZA HOTEL	A	RATCH	RATCH GROUP	AA
CK	CH. KARNCHANG	A	RBF	R&B FOOD SUPPLY	BBB
CKP	CK POWER	AAA	SAK	SAKSIA M LEASING	A
COM7	COM7	A	SAPPE	SAPPE	BBB
CPALL	CP ALL	AAA	SAWAD	SRISAWAD CORPORATION	BBB
CPAXT	CP AXTRA	AAA	SCB	SCB X	AA
CPF	CHAROEN POKPHAND FOODS	AAA	SCGP	SCG PACKAGING	AAA
CPN	CENTRAL PATTANA	AA	SHR	S HOTELS AND RESORTS	A
CRC	CENTRAL RETAIL CORPORATION	AAA	SMPC	SAHAMITR PRESSURE CONTAINER	AA
EGCO	ELECTRICITY GENERATING	AA	SPALI	SUPALAI	AA
ERW	THE ERAWAN GROUP	A	STECON	STECON GROUP	A
GFPT	GFPT	BBB	SYNEX	SYNEX (THAILAND)	A
GLOBAL	SIAM GLOBAL HOUSE	AA	TCAP	THANACHART CAPITAL	A
GPSC	GLOBAL POWER SYNERGY	AA	TFG	THAIFOODS GROUP	A
GULF	GULF ENERGY DEVELOPMENT	AA	TISCO	TISCO FINANCIAL GROUP	AAA
HANA	HANA MICROELECTRONICS	AA	TOP	THAI OIL	AAA
HMPRO	HOME PRODUCT CENTER	AA	TTB	TMBTHANACHART BANK	AA
IRPC	IRPC	AA	WHA	WHA CORPORATION	AAA

Source: www.setsustainability.com

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

Corporate Governance Report of Thai Listed Companies



Companies with Excellent CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
AAV	ASIA AVIATION	CPF	CHAROEN POKPHAND FOODS	PLANB	PLAN B MEDIA
ADVANC	ADVANCED INFO SERVICE	CPN	CENTRAL PATTANA	PSH	PRUKSA HOLDING
AEONTS	AEON THANA SINSAP (THAILAND)	CRC	CENTRAL RETAIL CORPORATION	PTT	PTT
AMA	AMA MARINE	DELTA	DELTA ELECTRONICS (THAILAND)	PTTEP	PTT EXPLORATION AND PRODUCTION
AMATA	AMATA CORPORATION	DOHOM	DOHOME	PTTGC	PTT GLOBAL CHEMICAL
AOT	AIRPORTS OF THAILAND	EGCO	ELECTRICITY GENERATING	QH	QUALITY HOUSES
AP	AP (THAILAND)	ERW	THE ERAWAN GROUP	RATCH	RATCH GROUP
BAFS	BANGKOK AVIATION FUEL SERVICES PCL.	GFPT	GFPT	RBF	R&B FOOD SUPPLY
BAM	BANGKOK COMMERCIAL ASSET MANAGEMENT	GLOBAL	SIAM GLOBAL HOUSE	SAK	SAKSIAM LEASING
BANPU	BANPU	GPSC	GLOBAL POWER SYNERGY	SAPPE	SAPPE
BBGI	BBGI	GULF	GULF ENERGY DEVELOPMENT	SCB	SCB X
BBL	BANGKOK BANK	HANA	HANA MICROELECTRONICS	SCGP	SCG PACKAGING
BCH	BANGKOK CHAIN HOSPITAL	HMPRO	HOME PRODUCT CENTER	SHR	S HOTELS AND RESORTS
BCP	BANGCHAK CORPORATION	IRPC	IRPC	SMPC	SAHAMITR PRESSURE CONTAINER
BCPG	BCPG	ITC	I-TAIL CORPORATION	SPALI	SUPALAI
BDMS	BANGKOK DUSIT MEDICAL SERVICES	IVL	INDORAMA VENTURES	SPRC	STAR PETROLEUM REFINING
BEC	BEC WORLD	KBANK	KASIKORNBANK	SUN	SUNSWEEP
BEM	BANGKOK EXPRESSWAY AND METRO	KCE	KCE ELECTRONICS	SVI	SVI
BGRIM	B.GRIMM POWER	KKP	KIATNAKIN PHATRA BANK	SYNEX	SYNNEX (THAILAND)
BH	BUMRUNGRAD HOSPITAL	KTB	KRUNG THAI BANK	TCAP	THANACHART CAPITAL
BPP	BANPU POWER	KTC	KRUNGTHAI CARD	TFG	THAIFOODS GROUP
BTS	BTS GROUP HOLDINGS	LH	LAND AND HOUSES	TIDLOR	NGERN TID LOR
CBG	CARABAO GROUP	LPN	L.P.N. DEVELOPMENT	TISCO	TISCO FINANCIAL GROUP
CENTEL	CENTRAL PLAZA HOTEL	MAJOR	MAJOR CINEPLEX GROUP	TKN	TAOKAENOI FOOD & MARKETING
CK	CH. KARNCHANG	MINT	MINOR INTERNATIONAL	TOP	THAI OIL
CKP	CK POWER	MTC	MUANGTHAI CAPITAL	TRUE	TRUE CORPORATION
COM7	COM7	OR	PTT OIL AND RETAIL BUSINESS	TTB	TMBTHANACHART BANK
CPALL	CP ALL	ORI	ORIGIN PROPERTY	WHA	WHA CORPORATION
CPAXT	CP AXTRA	OSP	OSOTSPA		



Companies with Very Good CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
BSRC	BANGCHAK SRIRACHA	EKH	EKACHAI MEDICAL CARE	JMART	JAYMART GROUP HOLDINGS
BTG	BETAGRO	HUMAN	HUMANICA	TNP	THANAPIRIYA



Companies with Good CG Scoring

Stock	Company name	Stock	Company name	Stock	Company name
JMT	JMT NETWORK SERVICES	SAWAD	SRISAWAD CORPORATION	SPA	SIAM WELLNESS GROUP

Companies classified Not in the three highest score groups

Stock	Company name	Stock	Company name	Stock	Company name
AU	AFTER YOU	PTG	PTG ENERGY	TU	THAI UNION GROUP
CHG	CHULARAT HOSPITAL	SAV	SAMART AVIATION SOLUTIONS		
PLT	PILATUS MARINE	SISB	SISB		

Source: www.thai-iod.com

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

Anti-corruption Progress Indicator

Certified

Stock	Company name	Stock	Company name	Stock	Company name
ADVANC	ADVANCED INFO SERVICE	DOHOME	DOHOME	PTG	PTG ENERGY
AMA	AMA MARINE	EGCO	ELECTRICITY GENERATING	PTT	PTT
AMATA	AMATA CORPORATION	ERW	THE ERAWAN GROUP	PTTEP	PTT EXPLORATION AND PRODUCTION
AP	AP (THAILAND)	GFPT	GFPT	PTTGC	PTT GLOBAL CHEMICAL
BAFS	BANGKOK AVIATION FUEL SERVICES PCL.	GLOBAL	SIAM GLOBAL HOUSE	QH	QUALITY HOUSES
BAM	BANGKOK COMMERCIAL ASSET MANAGEMENT	GPSC	GLOBAL POWER SYNERGY	RATCH	RATCH GROUP
BANPU	BANPU	GULF	GULF ENERGY DEVELOPMENT	RBF	R&B FOOD SUPPLY
BBGI	BBGI	HANA	HANA MICROELECTRONICS	SAK	SAKSIAM LEASING
BBL	BANGKOK BANK	HMPRO	HOME PRODUCT CENTER	SAPPE	SAPPE
BCH	BANGKOK CHAIN HOSPITAL	IRPC	IRPC	SCB	SCB X
BCP	BANGCHAK CORPORATION	IVL	INDORAMA VENTURES	SCGP	SCG PACKAGING
BCPG	BCPG	KBANK	KASIKORN BANK	SMP	SAHAMITR PRESSURE CONTAINER
BEC	BEC WORLD	KCE	KCE ELECTRONICS	SPALI	SUPALAI
BGRIM	B.GRIMM POWER	KKP	KIATNAKIN PHATRA BANK	SPRC	STAR PETROLEUM REFINING
BPP	BANPU POWER	KTB	KRUNG THAI BANK	SVI	SVI
BTG	BETAGRO	KTC	KRUNGTHAI CARD	TCAP	THANACHART CAPITAL
BTS	BTS GROUP HOLDINGS	LH	LAND AND HOUSES	TFG	THAIFOODS GROUP
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CENEL	CENTRAL PLAZA HOTEL	MAJOR	MAJOR CINEPLEX GROUP	TISCO	TISCO FINANCIAL GROUP
COM7	COM7	MINT	MINOR INTERNATIONAL	TKN	TAOKAENOI FOOD & MARKETING
CPALL	CP ALL	MTC	MUANGTHAI CAPITAL	TNP	THANAPIRIYA
CPAXT	CP AXTRA	OR	PTT OIL AND RETAIL BUSINESS	TOP	THAI OIL
CPF	CHAROEN POKPHAND FOODS	ORI	ORIGIN PROPERTY	TRUE	TRUE CORPORATION
CPN	CENTRAL PATTANA	OSP	OSOTSPA	TTB	TMBTHANACHART BANK
CRC	CENTRAL RETAIL CORPORATION	PLANB	PLAN B MEDIA	TU	THAI UNION GROUP
DELTA	DELTA ELECTRONICS (THAILAND)	PSH	PRUKSA HOLDING	WHA	WHA CORPORATION

Declared

Stock	Company name	Stock	Company name	Stock	Company name
CHG	CHULARAT HOSPITAL	ITC	I-TAIL CORPORATION	SAWAD	SRIWAD CORPORATION
HUMAN	HUMANICA	JMART	JAYMART GROUP HOLDINGS	SHR	S HOTELS AND RESORTS

Non-participation

Stock	Company name	Stock	Company name	Stock	Company name
AAV	ASIA AVIATION	BSRC	BANGCHAK SRIRACHA	SISB	SISB
AEONTS	AEON THANA SINSAP (THAILAND)	CK	CH. KARNCHANG	SPA	SIAM WELLNESS GROUP
AOT	AIRPORTS OF THAILAND	CKP	CK POWER	STECON	STECON GROUP
AU	AFTER YOU	EKH	EKACHAI MEDICAL CARE	SUN	SUNSWEET
BDMS	BANGKOK DUSIT MEDICAL SERVICES	JMT	JMT NETWORK SERVICES	SYNEX	SYNNEX (THAILAND)
BEM	BANGKOK EXPRESSWAY AND METRO	PLT	PILATUS MARINE		
BH	BUMRUNGRAD HOSPITAL	SAV	SAMART AVIATION SOLUTIONS		

Source: www.cgthailand.org

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