EQUITY RESEARCH - COMPANY REPORT

23 DECEMBER 2020 THAILAND / MATERIALS BANPU BANPU TB



 TARGET PRICE
 THB14.00

 CLOSE
 THB10.60

 UP/DOWNSIDE
 +32.1%

 PRIOR TP
 THB8.30

 CHANGE IN TP
 +68.7%

 TP vs CONSENSUS
 +75.6%

Dual turnarounds and growth engines

From gas strength to coal strength

UNCHANGED

เราเชื่อว่ากำไรสุทธิของ BANPU จะเติบโตต่อเนื่อง เริ่มตั้งแต่ช่วง 4Q20 และต่อเนื่องไปในปี 2021-22 โดยได้แรงผลักดันจาก 1) ราคาขายเฉลี่ยถ่านหินที่ดีเกินคาดเนื่องจากจีนนำเข้าถ่าย หินเพิ่มขึ้นในขณะที่อุปทานดึงตัว; 2) EBITDA ที่เพิ่มขึ้นจากก๊าซใต้ชั้นหินดินดาน (ก๊าซฯ) หลัง ราคาขายก๊าซฯ ในสหรัฐฯ เพิ่มขึ้นในระดับสูง; และ 3) การเติบโตของกำไรสุทธิจากธุรกิจ โรงไฟฟ้า โดยได้แรงหนุนจากอัตราการใช้กำลังการผลิตที่สูงขึ้นของโรงไฟฟ้าหงสา (HPC) และ กำหนดดำเนินงานเชิงพาณิชย์ของโรงไฟฟ้าพลังถ่านหิน Shan Xi Lu Guang (SLG) ในจีนที่ กำลังจะมาถึงในช่วง 1Q21

แนวโน้มราคาขาขึ้นเปลี่ยนจากก๊าซเป็นถ่านหินในปี 2021-22

นักวิเคราะห์ของเราเห็นว่าวัฏจักรขาขึ้นและลง 2 รอบล่าสุดของทั้งราคาถ่านหินและก๊าซมีความ คล้ายคลึงกันจนเราคิดว่าข้อมูลดังกล่าวอาจหมายถึงแนวโน้มขาขึ้นสำหรับทั้งราคาถ่านหิน (>USD67/t) และก๊าซ (>USD2.5/mmbtu) ในปี 2021-22 เราคาดว่ากำไรสุทธิของ BANPU จากธุรกิจถ่านหินจะเพิ่มอย่างเห็นได้ชัดในปี 2021-22 โดยได้แรงสนับสนุนจากราคาขายถ่าน หินเฉลี่ยที่อยู่ในระดับสูงที่เหนือ USD55/ตัน ในปี 2021-22 หลังวัฏจักรขาลงสำหรับราคาถ่าน หินเฉลี่ยที่อยู่ในระดับสูงที่เหนือ USD55/ตัน ในปี 2021-22 หลังวัฏจักรขาลงสำหรับราคาถ่าน หิน NCT ที่ยาวนานตั้งแต่ พ.ค. 19 ถึง ต.ค. 20 โดยราคาถ่านหินส่วนมากอยู่ในระดับต่ำกว่า USD60/ตัน เราคาดว่าราคาถ่านหิน NCT จะเพิ่มเป็น USD68-70/ตันในปี 2021-22 แม้ว่า ความต้องการถ่านหินตามฤดูกาลที่อยู่ในระดับสูงในฤดูหนาว (พ.ย. 20 ถึง เม.ย. 21) จะเบาลง เราเชื่อว่าดัชนีราคาถ่านหิน NCT และ QHD มีแนวโน้มอยู่ในระดับสูงเหนือ USD67/ตันจาก อุปทานตึงตัวและความต้องการที่อยู่ในระดับสูงต่อเนื่อง

EBITDA ของธุรกิจก๊าซจะเริ่มปรับตัวสู่ระดับสูงใน 4Q20

เราเชื่อว่า EBITDA ของธุรกิจก๊าซฯ ของ BANPU ได้ตกต่ำสุดไปแล้วในช่วง 2Q20 และปัจจุบัน มีแนวโน้มฟื้นตัวอย่างมีนัยสำคัญในปี 2021 เราคาดว่าราคาก๊าซ Henry Hub (HH) จะยังคงอยู่ ในระดับสูงเหนือ USD2.5/mmbtu ในปี 2021-22 EBITDA ของธุรกิจก๊าซฯ เพิ่มจาก USD1.6 ล้านใน 2Q20 เป็น USD12.6m ใน 3Q20 และเราคาดว่ากำไรดังกล่าวจะพุ่งสูงขึ้นเป็น USD120-200ล้านต่อไตรมาสในช่วง 4Q20

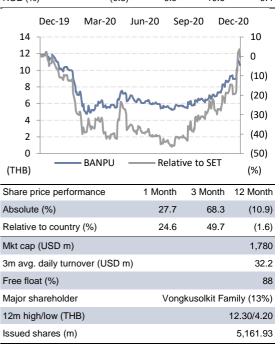
้ปัจจัยหนุนการเติบโตคู่แฝดจากทั้งก๊าซและถ่านหิน; เพิ่มราคาเป้าหมายเป็น 14 บาท

เราคงคำแนะนำซื้อหลังปรับราคาเป้าหมายของเราขึ้นจาก 8.3 บาทเป็น 14 บาท (SOTP) เพื่อ สะท้อนการปรับประมาณการกำไรต่อหุ้นของเราและการปรับการประเมินมูลค่าไปในปี 2021 เราเห็นว่าราคาหุ้นยังไม่ได้สะท้อนผลประกอบการที่คาดว่าจะดีในปี 2021-22 จากราคาก๊าซ และถ่านหินที่กำลังปรับตัวขึ้น เรามองว่า BANPU เป็นหุ้น Turnaround ที่แท้จริง บริษัทฯ มี ตระกร้าสินทรัพย์ที่กระจายความเสี่ยงได้ดี ประกอบด้วยธุรกิจถ่านหิน ก๊าซ และสาธารณูปโภค รวมถึงบริษัทฯ พร้อมโตไปกับการเพิ่มของราคาถ่านหินและก๊าซที่กำลังจะมาถึง



Suwat Sinsadok suwat.sin@fssia.com +66 2611 3558 Siriluck Pinthusoonthorn siriluck.pin@fssia.com +66 2611 3562 KEY STOCK DATA

YE Dec (THB m)	2019	2020E	2021E	2022E
Revenue	85,718	65,372	66,639	66,549
Net profit	(553)	274	7,398	6,992
EPS (THB)	(0.11)	0.05	1.43	1.35
vs Consensus (%)	-	nm	163.4	61.9
EBITDA	11,652	12,017	18,620	18,868
Core net profit	(358)	640	7,764	7,358
Core EPS (THB)	(0.07)	0.12	1.50	1.43
Chg. In EPS est. (%)	nm	(88.4)	31.2	27.2
EPS growth (%)	nm	nm	1,113.1	(5.2)
Core P/E (x)	(152.9)	85.5	7.0	7.4
Dividend yield (%)	5.7	0.9	5.4	5.0
EV/EBITDA (x)	16.3	16.8	11.2	11.4
Price/book (x)	0.8	0.8	0.7	0.7
Net debt/Equity (%)	129.7	141.0	133.7	130.7
ROE (%)	(0.5)	0.9	10.6	9.4



Sources: Bloomberg consensus; FSSIA estimates

PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

บทวิเคราะห์ฉบับนี้แปลมาจากบทวิเคราะห์ของ FSSIA ฉบับวันที่ 23 ธันวาคม 2020

Investment thesis

We believe BANPU's earnings growth outlook will improve in 2021-22, driven by its coal, gas, and power businesses due to the improving margin outlooks on the stronger demand and tighter supply.

We think that rising Newcastle index coal prices in the range of USD68-70/tonne should lead to higher coal earnings in 2021-22. Power earnings should gradually improve in 2020 with the resumption of full operations at Hongsa power plant, as well as from new solar farms in Japan and China and wind farms in Vietnam.

We see three factors that we think will drive up BANPU's earnings in 2020-22. First, BANPU's gas earnings are in an upcycle due to the tighter supply in the US. Second, we expect coal earnings of upward of THB1-2b, including interest expenses, for 2020-22 on the back of USD63-70/tonne index coal prices. Finally, we see more upsides from power earnings due to higher projected net profit contributions from Hongsa.

Company profile

BANPU is a leading coal-based energy company in Asia-Pacific with operations in Indonesia and China. It also operates power plants in Thailand, China.

www.banpu.com

Catalyst

A higher coal price, rising coal production volumes and reserves, and improving net profit growth from its power business would all be key positive catalysts.

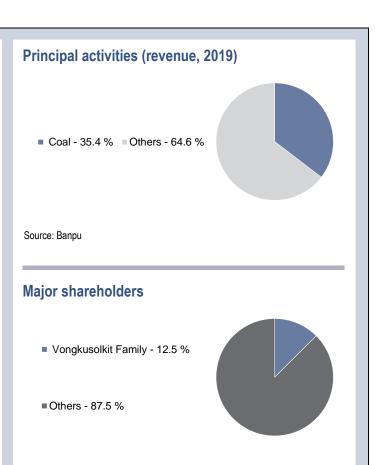
Risk to our call

We see downside risks to our SoTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants.

Event calendar

 Date
 Event

 Feb 2021
 4Q20/2020 results announcement



Source: Banpu

Key assumptions

	2020E	2021E	2022E
Coal sales volume (mtpa)	33.5	33.5	34.0
Newcastle coal price (USD/tonne)	63.0	70.0	68.0
ASP for coal (USD/tonne)	52.9	56.9	55.3
Total cost - Indonesia (USD/tonne)	50.9	50.4	49.2
Total cost - Australia (USD/tonne)	49.3	49.3	49.3

Source: FSSIA estimates

Earnings sensitivity

- Ceteris paribus, for every 1% rise in average coal price, we project 2021 EPS to rise by 2.6%, and vice versa.
- Ceteris paribus, for every 1% rise in coal sales volume, we estimate 2021 EPS to rise by 1.2%, and vice versa.
- Stability in crude oil price, rising coal prices and high utilisation rates of power plants are key to earnings growth.

Source: FSSIA estimates

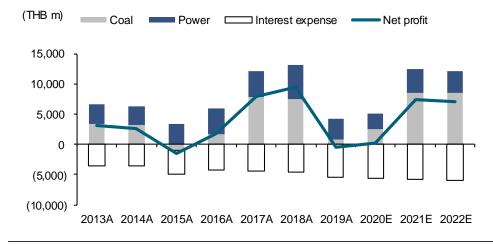


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From gas turnaround to coal growth driver

We believe BANPU's net profit will grow from strength to strength starting in 4Q20 and continuing into 2021-22, driven by 1) a stronger-than-expected ASP for coal due to China's rising coal imports and a tighter supply; 2) rising EBITDA from shale gas due to the sharp rise in shale gas prices in the US; and 3) net profit growth from its power business, backed by a higher utilisation rate from HPC and the upcoming COD of the coal-fired power plant, SLG, in China in 1Q21.

Exhibit 1: Net profit forecast breakdown



Sources: BANPU; FSSIA estimates

We project that BANPU will post a positive core net profit of THB2.2b in 4Q20 following a series of core net losses during 4Q19-3Q20 due to the depressed coal and gas prices and the planned and unplanned shutdowns of HPC.

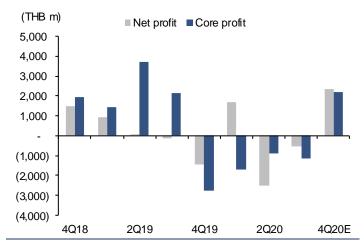
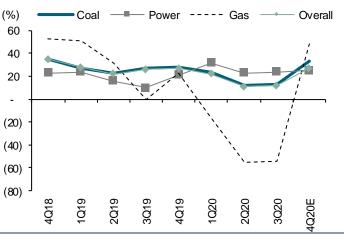


Exhibit 2: Quarterly net profit and core net profit (loss)



Sources: BANPU; FSSIA estimates

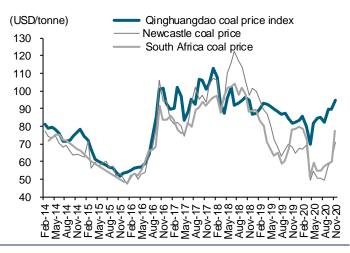
Exhibit 3: Gross margins by segment

Sources: BANPU; FSSIA estimates

The cold winter has led to rising coal prices

Since Aug-20, the Newcastle coal price index (NCT) has continued to rise from its bottom at USD50/tonne during Feb-Jul 2020 to the current USD78/tonne, thanks to China's rising coal imports to serve the projected higher coal demand for power generation this winter.

Exhibit 4: Benchmark coal prices (QHD vs Newcastle)



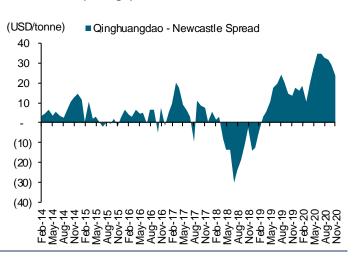


Exhibit 5: Coal price gap between QHD and Newcastle

Source: Bloomberg

Source: Bloomberg

Prior to the sharp jump in the NCT, the coal price gap between the Chinese benchmark Qinghuangdao (QHD) and the NCT was narrow, within USD10/tonne. However, this started to widen since Feb-19, given the restricted coal import quota mandated by the Chinese government in order to reduce the domestic coal oversupply.

The coal price gap between the domestic QHD (5,500kcal/kg heat rate) and the NCT (6,800kcal/kg) peaked at over USD50/tonne in Oct-20 before declining to the current USD20/t in Dec-20, thanks to the rising NCT coal price to catch up with the QHD coal price.

Exhibit 6: China's coal imports and exports

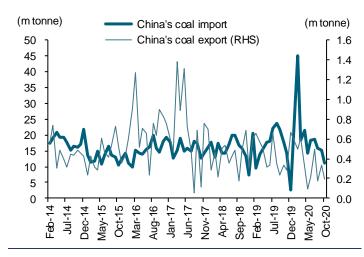
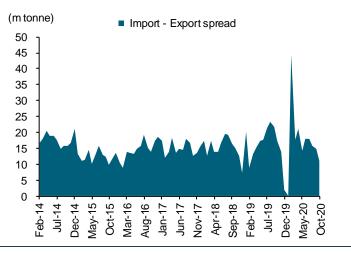


Exhibit 7: China's net coal imports



Source: Bloomberg

Source: Bloomberg

Despite the lower coal imports for China in 4Q20 QTD, its net coal imports (importexport) have remained high at over 10m tonnes per month, driving up the regional and global coal price indexes higher, including the NCT and Richard Bay coal price index at the South African terminal.

We project the price gap between the QHD-NCT to remain high at over USD20/tonne in the winter (4Q20-1Q21), given the cold temperatures and lower coal inventories of Chinese power producers. Most of the coal consumption for power generation in the winter comes from the household segment (secondary industry) for heating purposes. Hence, we think the high coal price environment could persist for at least the next 3-5 months.

Exhibit 8: Thermal power (mostly coal-fired) remains China's main power generation capacity

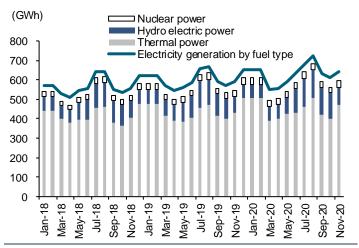
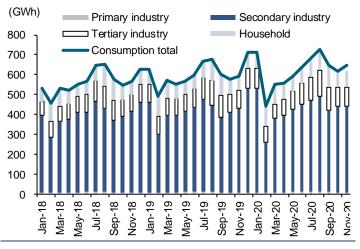


Exhibit 9: China's electricity demand has sharply rebounded above pre-COVID-19 levels



Source: Bloomberg

Source: Bloomberg

Coal remains a key fuel for power generation in China. Despite the ongoing effort of the Chinese government to curb the production of coal-fired power plants in order to reduce the environmental impact, we believe China will continue to rely on coal-fired power sources over the next five years. This is based on the unreliable nature of renewable sources, including hydro, wind, and solar power plants, as well as the relatively small size of the country's nuclear power generating capacity. In particular, China still requires its coal-fired power capacity as an essential source of heating and power during the winter, indicating that the coal demand in China should continue to remain high for at least for the next five years.

In 2020, except during the Feb-Mar 2020 lockdown period, China's electricity generation and consumption have risen sharply y-y. We expect that its electricity consumption will rise even higher y-y in Dec-20 into 1Q21 during the winter season, potentially leading to an increase in coal consumption for power generation.

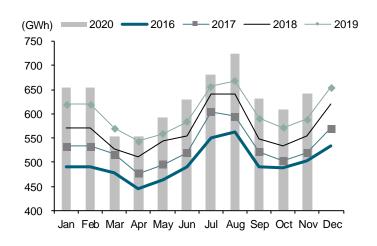
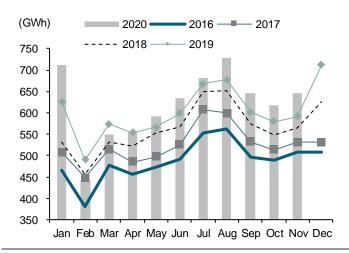


Exhibit 10: China's electricity generation

Exhibit 11: China's electricity consumption



Source: Bloomberg

Source: Bloomberg



Upcycle duration

Upcycle duration

(months)

(months)

14

31

27

34

Similarities between coal and gas price cycle. Our analysis suggests that the past two up and downcycles for both the coal and gas prices share enough similarities that we think the data could imply a price forecast for coal and gas in 2021-22.

We have defined the upcycle and downcycle periods when the gas price is higher (upcycle) or lower (downcycle) than USD2.5/mmbtu, the industry cash cost average, based on our estimate. For the coal industry, we mark any period with the NCT coal price below USD67/tonne as a downcycle, and above USD67/tonne as an upcycle period. We have found that the long downcycle periods of depressed coal and gas prices are typically followed by long upcycle periods.

Gas market: Gas price spike after a loss-making period for US gas producers

The gas price, represented by the HH benchmark price, has been up and down during the past two cycles, ranging from 9-18 months for the downcycle and 27-34 months for the upcycle.

During the downcycle (Apr-19 to Sep-20) when the HH price dropped below USD2.5/mmbtu, most US gas producers incurred net losses and shutdown their gas rigs, leading to an eventual gas price increase due to a supply shortage.

Since Nov-20, the HH price has risen from its USD1.7/mmbtu bottom in mid-2020 to USD3.2/mmbtu, and is now hovering in the range of USD2.6-3.0/mmbtu. This is in line with our projection as detailed in our BANPU report, "Gas is a game changer," dated 9 Oct-20.

Coal market: A prolonged high coal price at above USD67/tonne

The coal price, represented by the NCT, was in a downcycle from Feb-15 to Jul-16, with the coal price ranging between USD47-70/tonne, resulting in net losses for most coal producers in China, particularly in three provinces in northeastern China, including Shanxi, Shaanxi, and Inner Mongolia.

In response to the prolonged depressed coal prices, the Chinese government raised its coal imports in an attempt to raise the coal price and improve the financial health of Chinese coal producers, resulting in the NCT coal price spiking to USD120/tonne in 2018.

We believe the NCT and QHD coal price indexes are likely to stay high at above USD67/tonne, even after the seasonally high demand for coal in the winter (Nov-20 to Apr-21) subsides, thanks to the stricter supply and the continued high demand.

Oct-15 to Jun-16

Downcycle price Downcycle period Downcycle duration Upcycle price Upcvcle period (USD/tonne) (USD/tonne) (months) Coal (NCT) 48-67 May-19 to Oct-20 18 68-85 Nov-20 to Dec-21E 47-70 Feb-15 to Jul-16 18 70-113 Aug-16 to Apr-19 Downcycle price Downcycle duration Upcycle price Upcycle period Downcycle period (USD/mmbtu) (USD/mmbtu) (months) Gas (HH) 1.7-2.5 18 2.5-3.6 Oct-20 to Dec-22E Apr-19 to Sep-20

Exhibit 12: Analysis of price cycles (coal vs gas)

Sources: Energy Information Administration (EIA); FSSIA estimates

1.6-2.5

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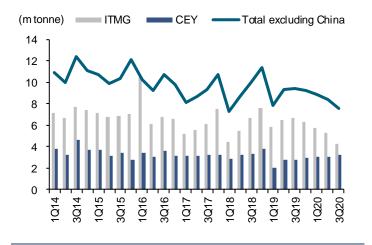
2.5-4.6

Jul-16 to Apr-19

Coal net profit could change BANPU from a turnaround to a growth company. In our report, "Gas is a game changer," dated 9 Oct-20, we argued that BANPU's net profit could turn around in 4Q20 onward, driven by its rising EBITDA and net profits from its US shale gas business. However, we now expect BANPU's net profits to not only turn around but also grow at a healthy rate, based on the rising coal prices that we estimate will drive its coal net profits in 4Q20-2022.

We project BANPU's coal net profits to rise substantially in 2021-22, supported by a high ASP for coal at above USD55/tonne in 2021-22. After a long NCT coal price downcycle since May-19 to Oct-20, with coal mostly staying below USD60/tonne, we project the NCT coal price to rise to USD68-70/tonne in 2021-22.

Exhibit 13: BANPU's quarterly coal production volume



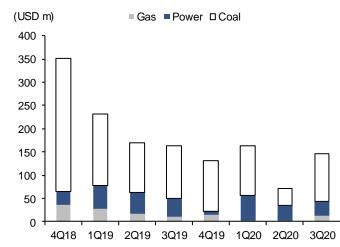


Exhibit 14: Quarterly EBITDA breakdown by segment

Source: BANPU

Source: BANPU

We think the EBITDA generated from BANPU's core coal unit will be in the range of USD120-250m per quarter, up from USD103m in 3Q20 and only USD37m in 2Q20. The rising ASP for coal and higher coal sales volumes would be the key drivers for the higher EBITDA from its coal unit.

We project BANPU's Indonesian coal producers, Indo Tambangraya Megah Tbk PT (ITMG ID) and Centennial (CEY) in Australia, to see much higher y-y impacts to their net profits from both rising coal sales volumes and ASPs, as we think the coal industry is unlikely to return to oversupply soon, and we expect the NCT coal price to average USD68-70/tonne in 2021-22.

Exhibit 15: ITMG's coal cost, ASP, and gross margin

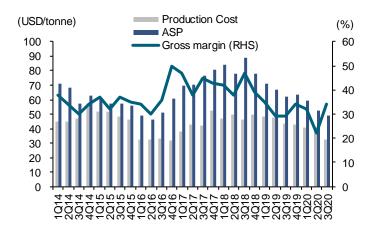
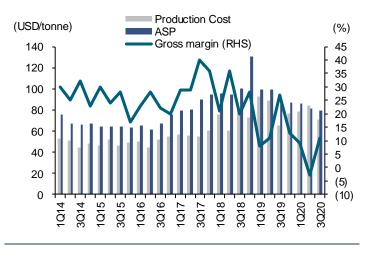


Exhibit 16: CEY's quarterly coal production volume



Source: BANPU



Gas price uptrend to continue in 2021-22

After the complete acquisition of the Barnett shale gas field in the US on 5 Aug 2020, BANPU is now operating large shale gas assets with a total capacity of 798mmscfd in two major gas fields, Marcellus and Barnett, in the US. In 4Q20, BANPU will, for the first time, fully consolidate the financial impact from its Barnett asset, which is the largest shale gas area and accounts for three-quarters of BANPU's shale gas capacity.

Exhibit 17: BANPU's shale gas acquisitions in the US

Company	Investment	Investment date	Shale gas area	Stake	Production capacity	Accumulated sales volume	EBITDA	Reserve	Equity Reserve
	USD m			(%)	(mmscfd)	(bcf)	(USD m)	(tcf)	(tcf)
Chaffee Corners	112	2016	Marcellus	100	21	6	20	0.3	0.3
NEPA corners I-III	95	1H17	Marcellus	100	28	8	15	0.2	0.2
NEPA corners IV-V	315	2H17	Marcellus	100	152	13	30	0.6	0.6
Barnett	570	Oct-20	Barnett	89	597	50	67	3.5	3.1
Total	1,092				798	77	132	4.6	4.2

Sources: BANPU; FSSIA estimates

Exhibit 18: BANPU's shale gas equity (attributable) capacity, units sold, and EBITDA per unit estimates

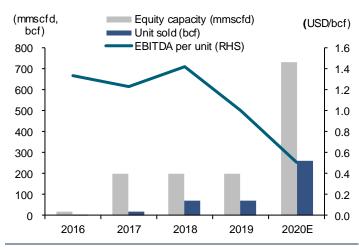
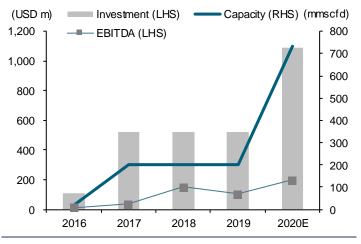


Exhibit 19: BANPU's shale gas investment, capacity, and EBITDA



Sources: BANPU; FSSIA estimates

Sources: BANPU; FSSIA estimates

We believe the EBITDA generated from BANPU's shale-gas business has already bottomed in 2Q20, and is now poised for a significant rebound in 2021. EBITDA from shale gas came in at USD1.6m in 2Q20, rising to USD12.6m in 3Q20, and we expect it to reach USD120-200m per guarter starting in 4Q20.



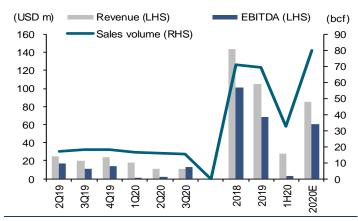
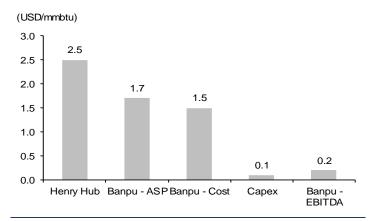


Exhibit 21: BANPU's shale gas ASP, cost structure, and projected EBITDA vs HH gas price as of 2Q20



Sources: BANPU; FSSIA estimates

Sources: BANPU; FSSIA estimates

According to the Energy Information Administration (EIA), while the US gas market balance is projected to remain in oversupply in 2020-21, the average HH gas price is forecast to rise from USD2.25/mmbtu in 2020 to USD3.31/mmbtu in 2021.

Exhibit 22: US gas production, supply, and balance

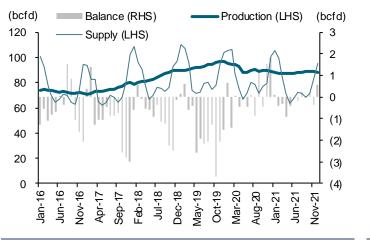
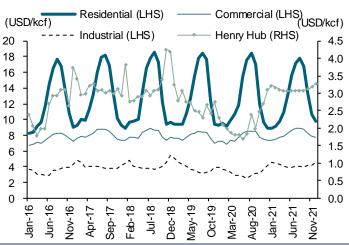


Exhibit 23: US gas prices by segment



Source: EIA

Source: EIA

According to the EIA's projections, the US gas inventory could rise markedly and remain high above its historical average. Normally, the US gas inventory would start rising in October for restocking ahead of the seasonally high demand for both domestic consumption, heating in the winter, and LPG/LNG exports. The inventory typically starts to decline by April every year after the demand for heating gas slows.

However, starting in 2Q21, the EIA projects that, while the US gas inventory could increase substantially ahead of the seasonally high winter demand, it is unlikely to drop to its normal average in 2Q-3Q21 due to the weak demand and continued high gas production level, mainly for shale gas.

Exhibit 24: US gas demand, supply, and inventory

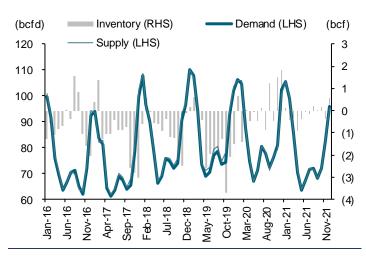
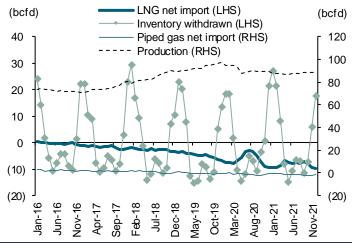


Exhibit 25: US gas supply, including net LNG imports, net imports of piped gas, production, and inventory withdrawn



Source: EIA

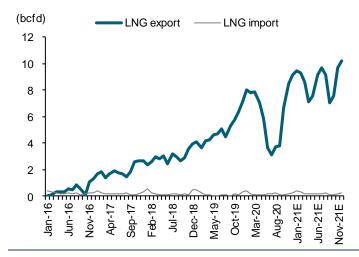
Source: EIA

We expect the HH price to stay above USD2.5/mmbtu in 2021-22. The EIA estimates that, in response to the lower demand and the particularly prolonged

distressed HH price at lower than USD2/mmbtu (equivalent to USD2/kcf), US shale gas producers started cutting their gas production in 2Q20, as most of those producers have a cash cost above USD2/mmbtu. In addition, the EIA expects US LNG exports to rise starting in 4Q20, to help balance out the oversupplied US gas market.

As a result, the EIA expects the HH price to rise from its bottom of USD1.7/mmbtu in Apr-20 to USD3.31/mmbtu by end-2021, driven by 1) lower gas production; and 2) higher gas exports for both LNG and pipeline gas after demand recovers post COVID-19. This should bode well for BANPU's EBITDA from its shale gas business, in our view.

Exhibit 26: US LNG exports and imports



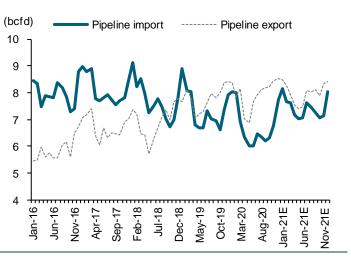


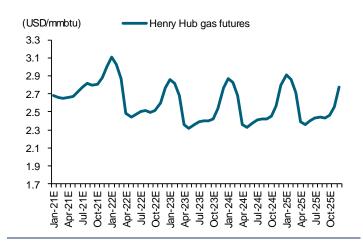
Exhibit 27: US LNG pipeline exports and imports

Source: EIA

Source: EIA

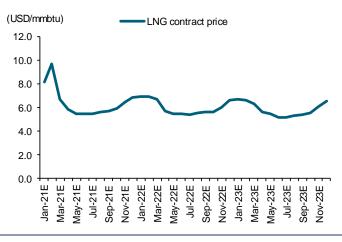
The HH gas price has already risen to USD3.2/mmbtu in Nov-20 and is now staying in the range of USD2.6-3.0/mmbtu. We project that the HH price will remain high at above USD2.5/mmbtu in 2021-22. Our HH price projection is in line with the current HH futures that project the HH price to spike to USD3.1 by end-2021, but is more bullish than the futures' projection for the HH price to decline to USD2.4/mmbtu in 2Q22.

Exhibit 28: HH futures



Source: Bloomberg

Exhibit 29: LNG futures price (US to Asia)



Source: Bloomberg

Maintain BUY; TP raised to THB14

We have revised our EPS forecasts for 2020-22 by -88.4%/+31.2%/+27.2% to reflect 1) the lower-than-expected shale gas price and FX losses in 2020; and 2) our 9.7-12.9% higher ASP for coal assumptions in 2021-22 to reflect our higher NCT coal price assumptions.

Exhibit 30: Changes in key assumptions and EPS forecasts

		Current		Previous					Change (%)			
(THB b)	2020E	2021E	2022E		2020E	2021E	2022E		2020E	2021E	2022E	
Revenue	65,372	66,639	66,549		61,023	59,055	59,823.4		7.1	12.8	11.2	
Gross profit	24,495	31,370	31,599		25,058	24,444	25,348.8		(2.2)	28.3	24.7	
Operating profit	353	7,587	6,935		1,815	2,288	2,236.4		(80.6)	231.6	210.1	
Net profit	274	7,398	6,992		2,363	5,639	5,496.7		(88.4)	31.2	27.2	
EPS	0.1	1.4	1.4		0.5	1.1	1.1		(88.4)	31.2	27.2	
Key assumptions												
Coal sales volume (mtpa)	33.5	33.5	34.0		33.5	33.5	34.0		-	-	-	
Newcastle coal price (USD/t)	63.0	70.0	68.0		62.0	62.0	62.0		1.6	12.9	9.7	
ASP for coal (USD/t)	52.9	56.9	55.3		52.0	50.4	50.4		1.6	12.9	9.7	
Total cost - Indonesia (USD/t)	50.9	50.4	49.2		50.8	49.6	48.6		0.2	1.7	1.3	
Total cost - Australia (USD/t)	49.3	49.3	49.3		49.3	49.3	49.3		-	-	-	

Sources: BANPU; FSSIA estimates

We maintain BUY and raise our SOTP-based TP from THB8.3 to THB14 to reflect our EPS forecast revisions and our valuation rollover to 2021. We think BANPU's share price has still not priced in its strong 2021-22E performance due to the rising coal and gas prices, driven by rising net profits across its three divisions: coal (improving coal price and sales volumes), gas (rising gas price and sales volumes from the Barnett acquisition), and power (from HPC's higher utilisation rates).

Exhibit 31: SOTP valuation

BANPU's valuation breakdown	(THB/share)	Consolidated	
ITMG (65%) (A)	9.4	Yes	DCF 9% WACC, terminal growth is zero for mines
Value of non-ITMG coal business (B)	(11.9)		
China coal	3.7	No	DCF 9% WACC, terminal growth is zero for mines
Australia coal (Centennial)	7.1	Yes	DCF 9% WACC, terminal growth is zero for mines
BANPU's net debt	(22.7)		at end FY21E
Net value of ITMG and non-ITMG coal (A+B)	(2.5)		
Value of power business			
BLCP	3.0	No	DCF 6.5% WACC, terminal growth is zero at the end of PPA
China power	2.9	Yes	DCF 6.5% WACC, terminal growth is zero at the end of PPA
Hongsa	6.1	No	DCF 6.5% WACC, terminal growth is zero at the end of PPA
SLG	1.6	No	DCF 6.5% WACC, terminal growth is zero at the end of PPA
Solar farms (Japan, Thailand, China)	2.9	Yes	DCF 6.5% WACC, terminal growth is zero at the end of PPA
Net value of power (C)	16.5		
	BANPU (A+B+C)		
Net value of BANPU (A+B+C)	14.0		Target price

Sources: BANPU; FSSIA estimates

Financial Statements

Banpu

Profit and Loss (THB m) Year Ending Dec	2018	2019	2020E	2021E	20228
Revenue	112,771	85,718	65,372	66,639	66,549
Cost of goods sold	(71,776)	(60,256)	(40,877)	(35,269)	(34,949
Gross profit	40,994	25,462	24,495	31,370	31,599
Other operating income	-	-	-	-	
Operating costs	(13,559)	(13,810)	(12,478)	(12,750)	(12,732
Operating EBITDA	27,435	11,652	12,017	18,620	18,868
Depreciation	(10,544)	(10,761)	(11,299)	(10,667)	(11,566
Goodwill amortisation	(70)	(195)	(366)	(366)	(366
Operating EBIT	16,821	697	353	7,587	6,935
Net financing costs	(6,014)	(8,393)	(5,756)	(5,807)	(6,007
Associates	8,500	6,444	3,992	5,764	5,718
Recurring non operating income	8,253	11,416	7,222	8,835	8,898
Non recurring items	0	0	0	0	0,000
Profit before tax	19,060	3,720	1,819	10,615	9,826
Tax	(6,110)	(2,368)	0	(970)	(822
Profit after tax			1,819	(970) 9,645	9,005
	12,950	1,352		-	-
Minority interests	(3,542)	(1,905)	(1,545)	(2,247)	(2,013
Preferred dividends	0	0	0	0	(
Other items	-	-	-	-	
Reported net profit	9,408	(553)	274	7,398	6,992
Non recurring items & goodwill (net)	0	0	0	0	(
Recurring net profit	9,478	(358)	640	7,764	7,358
Per share (THB)					
Recurring EPS *	1.84	(0.07)	0.12	1.50	1.43
Reported EPS	1.82	(0.11)	0.05	1.43	1.3
DPS	0.65	0.60	0.10	0.58	0.53
Diluted shares (used to calculate per share data)	5,162	5,162	5,162	5,162	5,162
Growth					
Revenue (%)	15.9	(24.0)	(23.7)	1.9	(0.1
Operating EBITDA (%)	21.3	(57.5)	3.1	54.9	1.:
Operating EBIT (%)	7.4	(95.9)	(49.4)	2,050.9	(8.6
Recurring EPS (%)	20.0	nm	nm	1,113.1	(5.2
Reported EPS (%)	19.1	nm	nm	2,599.0	(5.5
Operating performance				_,	(0.0
Gross margin inc depreciation (%)	27.0	17.2	20.2	31.1	30.1
Gross margin of key business (%)	35.3	25.6	29.3	40.2	30. 39.2
Operating EBITDA margin (%)	24.3	13.6	18.4	27.9	28.4
			0.5		28.4 10.4
Operating EBIT margin (%)	14.9	0.8		11.4	
Net margin (%)	8.4	(0.4)	1.0	11.7	11.1
Effective tax rate (%)	20.0	20.0	20.0	20.0	20.0
Dividend payout on recurring profit (%)	35.4	(865.3)	79.6	38.3	37.4
nterest cover (X)	4.2	1.5	1.4	2.9	2.1
nventory days	23.1	26.1	26.3	22.1	21.
Debtor days	37.7	43.1	42.5	42.9	42.9
Creditor days	18.9	16.8	16.8	20.5	20.9
Operating ROIC (%)	18.9	0.5	1.1	11.4	11.
ROIC (%)	7.5	2.0	3.5	6.4	5.9
ROE (%)	11.3	(0.5)	0.9	10.6	9.4
ROA (%)	6.3	1.7	3.1	5.7	5.4
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue By Division (THB m)	2018	2019	2020E	2021E	20228
Coal	38,027	30,346	31,090	31,090	31,090

Sources: Banpu; FSSIA estimates

Financial Statements Banpu

Cash Flow (THB m) Year Ending Dec	2018	2019	2020E	2021E	20228
ecurring net profit	9,478	(358)	640	7,764	7,358
epreciation	10,544	10,761	11,299	10,667	11,566
ssociates & minorities	(8,500)	(6,444)	(3,992)	(5,764)	(5,718
ther non-cash items	7,241	(544)	(3,181)	(3,130)	(2,930
hange in working capital	(3,544)	5,207	1,404	(22)	144
ash flow from operations	15,219	8,621	6,170	9,514	10,420
apex - maintenance	-	-	-	-	
apex - new investment	(15,800)	(11,578)	(8,830)	(9,001)	(8,989
et acquisitions & disposals	78	(3,133)	(3,133)	(3,133)	(3,133
Other investments (net)	896	3,894	3,898	3,898	3,89
ash flow from investing	(14,825)	(10,817)	(8,066)	(8,237)	(8,225
ividends paid	(3,355)	(3,097)	(2,019)	(1,536)	(2,880
quity finance	0	0	0	0	
Pebt finance	6,153	8,531	2,800	6,900	(1,100
Other financing cash flows	(6,073)	(6,814)	(6,021)	(4,003)	(4,360
ash flow from Financing	(3,275)	(1,380)	(5,240)	1,361	(8,340
on-recurring cash flows	-	-	-	-	
ther adjustments	0	0	0	0	
et other adjustments	0	0	0	0	
lovement in cash	(2,881)	(3,576)	(7,135)	2,639	(6,145
ree cash flow to firm (FCFF)	6,060.07	3,629.64	4,061.12	7,441.75	8,481.5
ree cash flow to equity (FCFE)	474.05	(478.90)	(5,116.18)	4,174.69	(3,265.00
er share (THB)					
CFF per share	1.17	0.70	0.79	1.44	1.64
CFE per share	0.09	(0.09)	(0.99)	0.81	(0.63
ecurring cash flow per share	3.63	0.66	0.92	1.85	1.99
alance Sheet (THB m) Year Ending Dec	2018	2019	2020E	2021E	20226
angible fixed asset (gross)	94,880 (34,543)	93,339 (34,543)	102,169	111,170	120,15
ess: Accumulated depreciation	(34,543)	(34,543) 58 796	(44,319) 57 851	(54,986) 56 185	(66,552
angible fixed assets (Net)	60,337 822	58,796	57,851	56,185	53,60
ntangible fixed assets (Net)	822	460	460	460	46
ong-term financial assets	-	-	-	-	50 F 1
vest. In associates & subsidiaries	49,962	49,104	51,419	55,506	59,54
cash & equivalents	19,964	16,388	9,254	11,892	5,74
/C receivable	12,809	7,415	7,799	7,863	7,78
iventories	4,856	3,759	2,136	2,132	2,06
Other current assets	7,618	13,533	13,533	13,533	13,53
current assets	45,247	41,095	32,722	35,422	29,13
Other assets	117,950	108,134	117,856	127,491	137,13
otal assets	274,317	257,589	260,308	275,064	279,87
Common equity	83,060	72,195	70,450	76,313	80,424
linorities etc.	19,952	18,286	19,831	22,078	24,09
otal Shareholders' equity	103,013	90,481	90,281	98,390	104,51
ong term debt	99,036	103,749	116,593	123,415	122,31
Other long-term liabilities	16,810	16,285	16,158	15,943	15,733
ong-term liabilities	115,845	120,034	132,750	139,359	138,048
/C payable	3,758	1,798	1,965	2,003	2,000
hort term debt	31,456	29,964	20,000	20,000	20,000
ther current liabilities	20,246	15,312	15,312	15,312	15,31
urrent liabilities	55,459	47,074	37,277	37,315	37,312
otal liabilities and shareholders' equity	274,317	257,589	260,308	275,064	279,87
et working capital	1,279	7,597	6,192	6,214	6,07
vested capital	230,350	224,090	233,778	245,857	256,81
ncludes convertibles and preferred stock which is beir	ng treated as debt				
er share (THB)					
ook value per share	16.09	13.99	13.65	14.78	15.5
angible book value per share	15.93	13.90	13.56	14.69	15.4
inancial strength					
let debt/Equity (%)	107.3	129.7	141.0	133.7	130.
et debt/total assets (%)	40.3	45.5	48.9	47.8	48.
urrent ratio (x)	0.8	0.9	0.9	0.9	0.
F interest cover (x)	3.7	2.3	1.6	3.3	2.
aluation	2018	2019	2020E	2021E	2022
ecurring P/E (x) *	5.8	(152.9)	85.5	7.0	7.
ecurring P/E @ target price (x) *	7.6	(201.9)	112.9	9.3	9.
eported P/E (x)	5.8	(99.0)	199.6	7.4	3. 7.
ividend yield (%)	6.1	(99.0) 5.7	0.9	5.4	5.
rice/book (x)	0.7	0.8	0.9	0.7	0.
rice/tangible book (x)	0.7	0.8	0.8	0.7	0. 0.'
V/EBITDA (x) **	6.8	0.8 16.3	0.8 16.8	0.7 11.2	0. 11.4
V/EBITDA @ target price (x) **	7.4	17.8	18.3	12.1	12.3
V/invested capital (x)	0.8	0.8	0.9	0.8	0.8

Sources: Banpu; FSSIA estimates



Corporate Governance report of Thai listed companies 2019

EXCELLE	NT LEVEL									
AAV	ADVANC	AIRA	AKP	AKR	AMA	AMATA	AMATAV	ANAN	AOT	AP
ARROW	BAFS	BANPU	BAY	BCP	BCPG	BOL	BRR	BTS	BTW	BWG
CFRESH	CHEWA	СНО	СК	CKP	CM	CNT	COL	COMAN	CPALL	CPF
CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC	EA	EASTW	ECF
EGCO	GBX	GC	GCAP	GEL	GFPT	GGC	GOLD	GPSC	GRAMMY	GUNKUL
HANA	HARN	HMPRO	ICC	ICHI	111	ILINK	INTUCH	IRPC	IVL	JKN
JSP	К	KBANK	KCE	KKP	KSL	КТВ	KTC	KTIS	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	MFEC	MINT	MONO*
MTC	NCH	NCL	NKI	NSI	NVD	NYT	OISHI	ОТО	PAP	PCSGH
PDJ	PG	PHOL	PJW	PLANB	PLANET	PORT	PPS	PR9	PREB	PRG
PRM	PSH	PSL	PTG	PTT	PTTEP	PTTGC	PYLON	Q-CON	QH	QTC
RATCH	ROBINS**	RS	S	S & J	SABINA	SAMART	SAMTEL	SAT	SC	SCB
SCC	SCCC	SCN	SDC	SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIS	SITHAI
SNC	SORKON	SPALI	SPI	SPRC	SSSC	STA	STEC	SVI	SYNTEC	TASCO
TCAP	THAI	THANA	THANI	THCOM	THIP	THREL	TIP	TISCO	TK	TKT
ТМВ	TMILL	TNDT	TOA	TOP	TRC	TRU	TRUE	TSC	TSR	TSTH
TTA	TTCL	TTW	TU	TVD	TVO	U	UAC	UV	VGI	VIH
WACOAL	WAVE	WHA	WHAUP	WICE	WINNER					
	OD LEVEL									
2S	ABM	ADB	AF	AGE	AH	AHC	AIT	ALLA	ALT	AMANAH
AMARIN	APCO	APCS	AQUA	ARIP	ASAP	ASIA	ASIAN	ASIMAR	ASK	ASN
ASP	ATP30	AUCT	AYUD	В	BA	BBL	BDMS	BEC	BEM	BFIT
BGC	BGRIM	BIZ	BJC	BJCHI	BLA	BPP	BROOK	CBG	CEN	CENTEL
CGH	CHG	CHOTI	CHOW	CI	CIMBT	CNS	COLOR	COM7	COTTO	CRD
CSC	CSP	DCC	DCON	DDD	DOD	EASON	ECL	EE	EPG	ERW
ESTAR	ETE	FLOYD	FN	FNS	FORTH	FPI	FPT	FSMART	FSS	FVC
GENCO	GJS	GL	GLOBAL	GLOW**	GULF	HPT	HTC	HYDRO	ICN	IFS
INET	INSURE	IRC	IRCP	IT	ITD***	ITEL	J	JAS*	JCK	JCKH
JMART	JMT	JWD	KBS	KCAR	KGI	KIAT	KOOL	KWC	KWM	L&E
LALIN	LANNA	LDC	LHK	LOXLEY	LRH	LST	М	MACO	MAJOR	MBAX
MEGA	METCO	MFC	MK	MODERN	MOONG	MPG	MSC	MTI	NEP	NETBAY
NEX	NINE	NOBLE	NOK	NTV	NWR	OCC	OGC	ORI	OSP	PATO
PB	PDG	PDI	PL	PLAT	PM	PPP	PRECHA	PRIN	PRINC	PSTC
PT	QLT	RCL	RICHY	RML	RWI	S11	SAAM	SALEE	SAMCO	SANKO
SAPPE	SAWAD	SCG	SCI	SCP	SE	SFP	SIAM	SINGER	SIRI	SKE
SKR	SKY	SMIT	SMK	SMPC	SMT	SNP	SONIC	SPA	SPC	SPCG
SPVI	SR	SRICHA	SSC	SSF	SST	STANLY	STPI	SUC	SUN	SUSCO
SUTHA	SWC	SYMC	SYNEX	T	TACC	TAE		TBSP	TCC	TCMC
TEAM	TEAMG	TFG	TFMAMA	THG	THRE	TIPCO	TITLE	TIW	TKN	TKS
TM TPAC	TMC TPBI	TMD TPCORP	TMI TPOLY	TMT TRITN	TNITY TRT	TNL TSE	TNP TSTE	TNR TVI	TOG TVT	TPA TWP
TWPC	UBIS	UEC	UMI	UOBKH	UP	UPF	UPOIC	UT	UWC	VNT
WIK	XO	YUASA	ZEN	ZMICO	UF	UFF	UFUIC	01	000	VINI
GOOD LE		TUASA	ZEN	ZIVIICO						
A GOOD LE	ABICO	ACAP***	AEC	AEONTS	AJ	ALUCON	AMC	APURE	AS	ASEFA
A AU	B52	BCH	BEAUTY	BGT	AJ BH	BIG	BLAND	BM	BR	BROCK
BSBM	BSM	BTNC	CCET	CCP	CGD	CHARAN	CHAYO	CITY	CMAN	CMC
CMO	CMR	CPL	CPT	CSR	CTW	CWT	D	DIMET	EKH	EMC
EPCO	ESSO	FE	FTE	GIFT	GLAND	GLOCON	GPI	GREEN	GTB	GYT
HTECH	HUMAN	IHL	INGRS	INOX	JTS	JUBILE	KASET	KCM	KKC	KWG
KYE	LEE	LPH	MATCH	MATI	M-CHAI	MCS	MDX	META	MGT	MJD
MM	MVP	NC	NDR	NER	NNCL	NPK	NUSA	OCEAN	PAF	PF
PICO	PIMO	PK	PLE	PMTA	POST	PPM	PROUD	PTL	RCI	RJH
ROJNA	RPC	RPH	SF	SGF	SGP	SKN	SLP	SMART	SOLAR	SPG
SQ	SSP	STI	SUPER	SVOA	TCCC	THE	THMUI	TIC	TIGER	TNH
TOPP	TPCH	TPIPP	TPLAS	TQM	TTI	TYCN	UTP	VCOM	VIBHA	VPO
WIN	WORK	WP	WPH	ZIGA						
	Score F	Range			Number of Lo	ono			Description	
	90-1	•				•			Excellent	
	80-8								Very Good	
	80-6 70-7									
								Good		
60-69 50-59										
	Less th				No logo given -					
	Less เก	an 30			IND IDGO GIVE				-	

Disclaimer:

The disclosure of the survey results 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 evaluation 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 results may be changed after that date.

* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive; ** delisted

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation



Anti-corruption Progress Indicator

CERTIFIED										
ADVANC	AIE	AKP	AMANAH	AP	APCS	AQUA	ARROW	ASK	ASP	AYUD
BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG	BGRIM	BJCHI	BKI	BLA
BROOK	BRR	BSBM	BTS	BWG	CEN	CENTEL	CFRESH	CGH	CHEWA	CIG
CIMBT	СМ	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FSS	GBX	GC
GCAP	GEL	GFPT	GGC	GJS	GOLD	GPSC	GSTEEL	GUNKUL	HANA	HARN
HMPRO	HTC	ICC	IFS	INET	INSURE	INTUCH	IRPC	IVL	К	KASET
KBANK	KBS	KCAR	KCE	KGI	KKP	KSL	KTB	KTC	KWC	L&E
LANNA	LHK	LPN	LRH	М	MAKRO	MALEE	MBAX	MBK	MBKET	MC
мсот	MFC	MINT	MONO	MOONG	MSC	MTI	NBC	NINE	NKI	NMG
NNCL	NSI	OCC	OCEAN	OGC	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPS
PREB	PRG	PRINC	PSH	PSTC	PT	PTG	PTT	PTTEP	PTTGC	PYLON
Q-CON	QH	QLT	QTC	RATCH	RML	S & J	SABINA	SAT	SC	SCB
SCC	SCCC	SCG	SCN	SE-ED	SELIC	SENA	SGP	SIRI	SIS	SITHAI
SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK	SPC	SPI	SPRC	SRICHA
SSF	SSI	SSSC	SST	STA	SUSCO	SVI	SYNTEC	TASCO	TCAP	TFG
TFI	TFMAMA	THANI	THCOM	THIP	THRE	THREL	TIP	TIPCO	TISCO	ТКТ
TMB	TMD	TMILL	TMT	TNITY	TNL	TNP	TNR	TOG	TOP	TPA
TPCORP	TRU	TRUE	TSC	TSTH	TTCL	TU	TVD	TVI	TWPC	U
UBIS	UEC	UKEM	UOBKH	VGI	VIH	VNT	WACOAL	WHA	WICE	WIIK
DECLARED										
2S	ABICO	AF	AI	AIRA	ALT	AMA	AMARIN	AMATA	ANAN	В
BM	BPP	BUI	CHG	CHO	CHOTI	CHOW	CI	CMC	COL	DDD
DELTA	EFORL	EPCO	ESTAR	ETE	FPI	FTE	ICHI	INOX	IRC	ITEL
JAS	JSP	JTS	KWG	LDC	LIT	META	MFEC	MPG	NEP	NOK
NWR	ORI	PRM	PSL	ROJNA	RWI	SAAM	SAPPE	SCI	SEAOIL	SHANG
SKR	SPALI	STANLY	SYNEX	TAE	TAKUNI	TMC	TOPP	TPP	TRITN	TVO
UV	UWC	WHAUP	XO	YUASA	ZEN					

Level

Certified This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.

Declared This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

Disclaimer:

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Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Source: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

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Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

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History of change in investment rating and/or target price



BUY Suwat Sinsadok Started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

13-Aug-2019

Company	Ticker	Price	Rating	Valuation & Risks
Banpu	BANPU TB	THB 10.60	BUY	We see downside risks to our SOTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants.

HOLD

8.30

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finansia Syrus Securities Public Company Limited

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All share prices are as at market close on 22-Dec-2020 unless otherwise stated.

16.70

26-Feb-2020

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months. **Neutral.** The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months. **Underweight.** The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.