

11 NOVEMBER 2021

THAILAND / MATERIALS

BANPU BANPU TB

BUY

UNCHANGED

| | |
|-----------------|-----------|
| TARGET PRICE | THB16.90 |
| CLOSE | THB10.80 |
| UP/DOWNSIDE | +56.5% |
| PRIOR TP | THB16.90 |
| CHANGE IN TP | UNCHANGED |
| TP vs CONSENSUS | +18.1% |

Not a falling knife but a rising spear

ค่า 2021E P/E ที่ 5.3x และ ค่า 2022E P/E ที่ 4.1x ช่วยเห็นย้ำความน่าสนใจ

ในกรณีฐานที่เราตั้งสมมติฐานให้ราคาถ่านหิน Newcastle index (NCT) อยู่ที่ USD/130t, ราคาขายเฉลี่ย (ASP) สำหรับถ่านหินอยู่ที่ USD105.8/t, และราคาก๊าซอยู่ที่ USD3.2/mmbtu ในขณะที่ตัวแปรอื่นคงที่ ก๊าซธรรมชาติปี 2021 ของ Banpu จะอยู่ที่ 11.1 พัน ลบ. พร้อมคาดว่า ก๊าซธรรมชาติรายไตรมาสจะเพิ่มจาก 6.1 พัน ลบ. ใน 4Q21 เป็น 10.3 พัน ลบ. ใน 1Q22 ประมาณการกำไรสุทธิของเราที่ 11.1 พัน ลบ. ในปี 2021 และ 18.4 พัน ลบ. ในปี 2022 คิดเป็นค่า 2021E P/E และ 2022E P/E ที่น่าสนใจที่ 5.3x และ 4.1x ตามลำดับ แม้ในกรณีเลวร้ายที่สุดที่เราตั้งสมมติฐานให้ราคา NCT อยู่ที่ USD120/t, ASP สำหรับถ่านหินอยู่ที่ USD98/t, และราคา ก๊าซอยู่ที่ USD3.2/mmbtu ในขณะที่ตัวแปรอื่นคงที่ ก๊าซธรรมชาติของ Banpu ในปี 2021 จะอยู่ที่ 7.6 พัน ลบ. ในปี 2021 และ 11.6 พัน ลบ. ในปี 2022 คิดเป็นเพียง 7.7x ของค่า 2021E P/E

ราคา Newcastle index ที่มีผลต่อกำไรในปัจจุบันอยู่ที่ USD120-150/t

เราเชื่อว่าราคา NCT ที่กว่า USD170/t ไม่มีผลต่อกำไรของธุรกิจถ่านหินของ Banpu เนื่องจาก 1) ASP ของถ่านหินในปัจจุบันจะมีผลในอีก 3-6 เดือนข้างหน้า; 2) Banpu ได้ตกลงราคาขายสำหรับ 30-40% ของปริมาณขายถ่านหินของบริษัทฯ ไว้ล่วงหน้าแล้ว; และ 3) ส่วนลดราคา ระหว่างถ่านหินของ Banpu ที่ให้ค่าความร้อน 6,000kcal/kg และ NCT ที่ให้ค่าความร้อน 6,800kcal/kg กว้างขึ้น

ความต้องการในฤดูหนาวจะช่วยกระตุ้นราคาถ่านหินให้สูงขึ้นอีกครั้ง

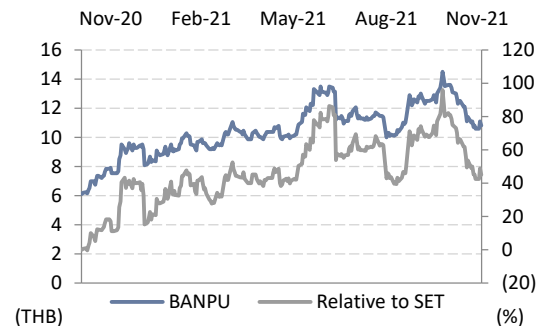
ในขณะที่ราคา NCT ที่ลดลงอย่างรุนแรงไปเมื่อไม่นานมานี้สู่ระดับต่ำสุดที่ USD139/t สอดคล้องกับคาดการณ์ของเรา เราคิดว่าราคา NCT ที่ USD120-150/t มีความยั่งยืนสูงในช่วงฤดูหนาวที่กำลังจะมาถึงในช่วง 4Q21-1H22 จากการคำนวณของเรา ราคาถ่านหินเป็นระดับที่เราคิดว่าสูงพอที่จะกระตุ้นกำไรสุทธิรายไตรมาสของ Banpu ให้เพิ่มเป็น 4-7 พัน ลบ. แม้ว่าปริมาณถ่านหินคงคลังของ The State Grid Corporation of China ซึ่งจ่ายไฟฟ้าให้แก่ประชาชนประมาณ 1.1 พันล้านคนจะดีดกลับสู่ระดับ 20 วันในอาทิตย์ที่แล้ว บริษัทฯ ได้เตือนถึงดุลยภาพที่ตึงตัวระหว่างอุปทานไฟฟ้าและความต้องการในช่วงฤดูหนาว

การเติบโตดีขึ้นจากราคาถ่านหินรวมที่ USD150/t

เราคาดว่าแนวโน้มที่ราคาเป้าหมายที่ 16.9 บาท (SOTP) เราเชื่อว่าตลาดยังประเมินความเป็นไปได้เกี่ยวกับการเติบโตของกำไรของ Banpu ในปี 2022-23 ไว้ต่ำเกินไป ดังจะเห็นได้จากราคาหุ้นที่ปรับตัวลดลงอย่างรุนแรงถึง 29% จากจุดสูงสุดเมื่อไม่นานมานี้ ก๊าซธรรมชาติจะได้แรงผลักดันจากปัจจัยหนุนการเติบโตสำคัญประกอบด้วยราคาถ่านหินและก๊าซที่อยู่ในระดับสูงและยั่งยืนไปจนถึงปี 2022 และกำไรที่ดีของธุรกิจโรงไฟฟ้า ในขณะที่ประมาณการกำไรต่อหุ้นปัจจุบันของเราสำหรับปี 2021-23 ใกล้เคียงกับประมาณการของตลาด เราเชื่อว่า Banpu มีแนวโน้มที่จะรายงานกำไรสุทธิสูงเกินคาดในช่วง 4Q21-2023 โดยได้ปัจจัยหนุนจาก ASP ของถ่านหินที่อยู่ในระดับสูงและผลขาดทุนจากสัญญาป้องกันความเสี่ยงที่จะลดลงเป็นจำนวนมากในช่วง 4Q21-2022E

KEY STOCK DATA

| YE Dec (THB m) | 2020 | 2021E | 2022E | 2023E |
|----------------------|---------|---------|---------|--------|
| Revenue | 71,332 | 122,721 | 107,504 | 96,271 |
| Net profit | (1,786) | 11,090 | 12,771 | 9,984 |
| EPS (THB) | (0.35) | 2.02 | 1.78 | 1.12 |
| vs Consensus (%) | - | (0.7) | 9.5 | (3.9) |
| EBITDA | 9,287 | 54,686 | 49,651 | 43,889 |
| Core net profit | (3,288) | 11,090 | 12,771 | 9,984 |
| Core EPS (THB) | (0.65) | 2.02 | 1.78 | 1.12 |
| Chg. In EPS est. (%) | nm | - | - | - |
| EPS growth (%) | nm | nm | (11.9) | (36.7) |
| Core P/E (x) | (16.7) | 5.4 | 6.1 | 9.6 |
| Dividend yield (%) | 4.6 | 12.6 | 8.5 | 4.8 |
| EV/EBITDA (x) | 23.3 | 4.1 | 5.1 | 6.3 |
| Price/book (x) | 0.9 | 0.8 | 0.8 | 0.8 |
| Net debt/Equity (%) | 165.3 | 119.6 | 103.9 | 89.7 |
| ROE (%) | (4.9) | 15.7 | 14.7 | 9.6 |



| Share price performance | 1 Month | 3 Month | 12 Month |
|--------------------------------|---------------------------|---------|----------|
| Absolute (%) | (20.0) | (5.8) | 81.8 |
| Relative to country (%) | (19.6) | (10.8) | 49.6 |
| Mkt cap (USD m) | 2,230 | | |
| 3m avg. daily turnover (USD m) | 59.9 | | |
| Free float (%) | 88 | | |
| Major shareholder | Vongkusolkit Family (13%) | | |
| 12m high/low (THB) | 14.90/5.77 | | |
| Issued shares (m) | 6,766.00 | | |

Sources: Bloomberg consensus; FSSIA estimates



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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 11 พฤศจิกายน 2021

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 with the resumption of full operations at the Hongsa power plant, as well as from its new solar farms in Japan and China and wind farms in Vietnam.

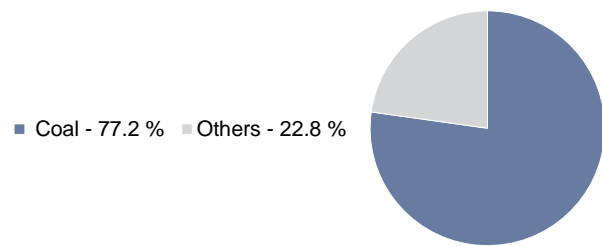
We see three factors that we think will drive up Banpu's earnings in 2021-22. First, its gas earnings are in an upcycle due to the tighter supply in the US. Second, we expect higher coal earnings on the back of USD100-130/tonne index coal prices. Finally, we see more upsides for its power earnings due 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 and China.

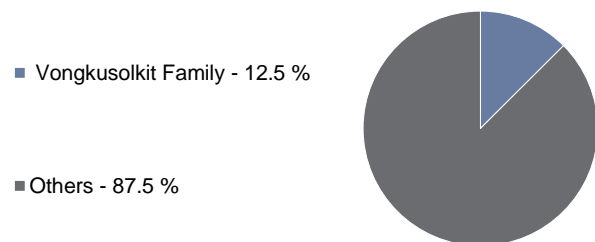
www.banpu.com

Principal activities (revenue, 2020)



Source: Banpu

Major shareholders



Source: Banpu

Catalysts

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.

Risks 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 |
|----------|---------------------------|
| Nov 2021 | 3Q21 results announcement |

Key assumptions

| | 2021E | 2022E | 2023E |
|--------------------------------|-------|-------|-------|
| Coal sales volume (mtpa) | 33.5 | 34.0 | 34.0 |
| Newcastle coal price (USD/t) | 130.0 | 100.0 | 70.0 |
| ASP for coal (USD/t) | 105.8 | 81.3 | 65.0 |
| Total cost - Indonesia (USD/t) | 58.7 | 54.6 | 51.5 |
| Total cost - Australia (USD/t) | 72.0 | 72.0 | 72.0 |

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

Disappointing 3Q21 net profit eroded by a large hedging loss

BANPU's 3Q21 core net profit (NP) was THB8.6b, up 196% q-q and from a net loss (NL) of THB642m in 3Q20, driven by the higher ASPs for coal and gas. Including a THB5.8b non-recurring expense, 3Q21 reported NP was THB3.5b, up 164% q-q and up from an NL of THB516m in 3Q20; 13% below our estimate and 5% below Bloomberg consensus.

EBITDA rose to USD530m, or THB17.4b (+282% y-y, +80% q-q) due to the higher EBITDA from coal at USD399m (+105% q-q) and shale gas at USD122.4m (+74% q-q) but lower power at USD2.6m (-93% q-q), and energy technology at USD5.4m (-18% q-q).

The larger-than-expected USD177m hedging loss from financial derivatives led to the disappointing 3Q21 results.

While EBITDA from Banpu's core businesses of coal and shale gas were much stronger in 3Q21 as expected, the reported net profit of THB3.5b was below our forecast and Bloomberg's consensus estimate due to the larger-than-expected after-tax hedging loss of THB5.1b (USD177m before tax), which consisted of a USD178m realised loss and a USD1m unrealised loss.

The USD177m hedging loss included:

- 1) USD102m loss from coal swap contracts;
- 2) USD61m loss from gas swap contracts;
- 3) USD5m loss from interest swap contracts;
- 4) USD10m loss from FX forward contracts;
- 5) USD1m loss from cross currency and interest rate swap contracts;
- 6) USD1m realised gain on fuel swap contracts;
- 7) USD1m unrealised loss on the fair value of financial derivatives.

Exhibit 1: Summary of 3Q21/9M21 operations

| | 3Q20 | 2Q21 | 3Q21 | | | 9M20 | 9M21 | Change | 2021E |
|--------------------------|---------------|---------------|---------------|--------------|----------------|----------------|---------------|----------------|----------------|
| | (THB m) | (THB m) | (THB m) | (q-q %) | (y-y %) | (THB m) | (THB m) | (y-y %) | (THB m) |
| Revenue | 14,739 | 25,063 | 38,234 | 52.6 | 159.4 | 51,073 | 85,559 | 67.5 | 122,721 |
| Operating costs | (10,172) | (15,393) | (20,800) | 35.1 | 104.5 | (38,927) | (49,859) | 28.1 | (68,035) |
| EBITDA | 4,567 | 9,670 | 17,433 | 80.3 | 281.7 | 12,146 | 35,700 | 193.9 | 54,686 |
| <i>EBITDA margin (%)</i> | 31 | 39 | 46 | <i>nm</i> | <i>nm</i> | 23.8 | 41.7 | <i>nm</i> | 45 |
| Depreciation & amort | (3,425) | (3,589) | (4,173) | 16.3 | 21.8 | (10,004) | (11,507) | 15.0 | (17,681) |
| EBIT | 1,142 | 6,081 | 13,260 | 118.1 | 1,060.7 | 2,142 | 24,193 | 1,029.4 | 37,005 |
| Interest expense | (1,345) | (1,349) | (1,521) | 12.7 | 13.1 | (4,273) | (4,225) | (1.1) | (6,195) |
| Interest & invt inc | 402 | 365 | 335 | (8.2) | (16.6) | 607 | 953 | 57.0 | 280 |
| Associates' contrib | 1,000 | 2,002 | 2,229 | 11.3 | 123.0 | 3,486 | 5,609 | 60.9 | 6,394 |
| Exceptionals | (1,072) | (3,643) | (7,269) | <i>nm</i> | <i>nm</i> | (1,251) | (12,330) | 885.8 | (10,787) |
| Pretax profit | 127 | 3,456 | 7,035 | 103.6 | 5,426.5 | 711 | 14,200 | 1,896.7 | 26,697 |
| Tax | (353) | (1,018) | (1,996) | 96.0 | 465.0 | (1,169) | (4,415) | 277.7 | (5,685) |
| <i>Tax rate (%)</i> | 277 | 29 | 28 | <i>nm</i> | <i>nm</i> | 164 | 31 | <i>nm</i> | 21 |
| Minority interests | (291) | (1,112) | (1,534) | 37.9 | 428.1 | (860) | (3,419) | 297.4 | (9,923) |
| Net profit | (516) | 1,325 | 3,505 | 164.4 | nm | (1,318) | 6,366 | nm | 11,090 |
| Non-recurring | 126 | (1,575) | (5,083) | 222.8 | <i>nm</i> | 571 | (6,944) | <i>nm</i> | - |
| Core profit | (642) | 2,900 | 8,588 | 196.1 | nm | (1,889) | 13,309 | nm | 11,090 |
| EPS (THB) | (0.10) | 0.26 | 0.68 | 164.4 | <i>nm</i> | (0.26) | 1.23 | <i>nm</i> | 2.02 |
| Core EPS (THB) | (0.12) | 0.56 | 1.66 | 196.1 | <i>nm</i> | (0.37) | 2.58 | <i>nm</i> | 2.02 |

Sources: BANPU; FSSIA estimates

Coal EBITDA of USD399m (+105% q-q). Coal operations improved markedly, driven by a higher ASP and a rising sales volume. 3Q21 coal NP from China was at USD50m on a higher gross margin and production, while the China power unit posted a USD1m NL due to the higher coal cost.

The coal sales volume rose to 8.7mt in 3Q21, up 10% y-y and 12% q-q. Sales volumes from Centennial Coal (CEY) remained flat at 2.49mt (-23% y-y, +0.1% q-q) due to the complex geology of the Springvale mine. Coal sales volumes in Indonesia rose to 5.8mt (+35% y-y, +19% q-q), despite the heavy rainfall.

The 3Q21 coal ASP rose to USD99.6/t (+96% y-y, +33% q-q) due to the 39% q-q higher ASP for PT Indo Tambangraya Megah Tbk (ITMG) to USD112.7/t vs the 10.4% q-q rise in coal cost in Indonesia to USD45.9/t on the higher diesel cost. CEY's ASP increased to AUD102.8/t (+30% y-y, +15% q-q), while the coal cost in Australia shot up to AUD88.1/t, up 8% q-q due to higher mining costs.

The average coal gross profit margin (GPM) was 47% in 3Q21 due to the higher GPM for CEY (14% in 3Q21 from 9% in 2Q21), ITMG's improving GPM (59% from 49%), and China traded coal (5% from 12%).

Shale gas EBITDA rose to USD530m (+74% q-q). The sales volume for shale gas inched up to 62bcf in 3Q21, up 3% q-q and 309% y-y, due to the incorporation of the Barnett shale area's sales volume of 50bcf and the strong demand in the US after the economic reopening.

The ASP for gas jumped 43% q-q to USD3.68/mcf vs the USD0.98/mcf cost, with a slightly higher cost of gathering, processing, and transportation, resulting in a higher GPM at 53% in 3Q21, up from 34% in 2Q21 and from -60% in 3Q20.

Exhibit 2: 3Q21 key quarterly performance

| | 3Q20 | 2Q21 | 3Q21 | ----- Change ----- | |
|---|--------------|--------------|--------------|--------------------|---------------|
| | | | | (q-q %) | (y-y %) |
| Total coal sales volume (m tonnes) | 7.95 | 7.84 | 8.74 | 11.5 | 9.9 |
| - Indonesia coal sales volume | 4.31 | 4.88 | 5.82 | 19.3 | 35.0 |
| - Australia coal sales volume | 3.24 | 2.49 | 2.49 | - | (23.1) |
| ASP for coal (USD/tonne) | 50.80 | 74.84 | 99.57 | 33.0 | 96.0 |
| - ASP for coal - Indonesia (USD/tonne) | 49.10 | 81.05 | 112.66 | 39.0 | 129.5 |
| - ASP for coal - Australia (AUD/tonne) | 78.97 | 89.77 | 102.83 | 14.5 | 30.2 |
| Coal cost - overall (USD/tonne) | 38.84 | 48.05 | 51.89 | 8.0 | 33.6 |
| - Coal cost - Indonesia (USD/tonne) | 32.28 | 41.62 | 45.94 | 10.4 | 42.3 |
| - Coal cost - Australia (AUD/tonne) | 70.95 | 81.72 | 88.07 | 7.8 | 24.1 |
| Sales volume - Gas (bcf) | 15.15 | 60.23 | 61.96 | 2.9 | 309.0 |
| ASP for gas (USD/mcf) | 0.55 | 2.57 | 3.68 | 43.2 | 569.1 |
| Cost for gas (USD/mcf) | 1.11 | 0.91 | 0.98 | 7.7 | (11.7) |
| Average GPM (%)* | | | | (ppt) | (ppt) |
| Average GPM - Indonesia coal | 34 | 49 | 59 | 10.0 | 25.0 |
| Average GPM - Australia coal | 11 | 9 | 14 | 5.0 | 3.0 |
| Average GPM - China (traded coal) | 2 | 12 | 5 | (7.0) | 3.0 |
| Average GPM - coal | 23 | 36 | 48 | 12.0 | 25.0 |
| Average GPM - power | 20 | 7 | 1 | (6.0) | (19.0) |
| Average GPM - gas | (60) | 34 | 53 | 19.0 | 113.0 |
| Average GPM | 20 | 34 | 47 | 13.0 | 27.0 |

*Note: Change in margin % is represented in ppt change

Sources: BANPU; FSSIA estimates

Power EBITDA plunged to USD2.6m (-93% q-q). The power business witnessed poor earnings of THB597m in 3Q21. Key points are:

Lower net profits from the Hongsa power plant to USD21.7m (-38% q-q) due to the planned shutdown of unit 1 and unit 3, resulting in a lower effective availability factor of 75%, down from 92% in 2Q21.

The BCLP power plants contributed a net loss of USD1.7m due to deferred tax expenses and an unrealised FX loss.

China's three small power producers (CHP) posted a net loss of USD1m, caused by the mismatch of the electricity tariff and the coal cost that was partly offset by the heat subsidy for Zhengding power plant.

Shan Xi Lu Guang (SLG) power plant experienced a net loss of USD7.1m due to the high coal cost.

Nakoso power plant in Japan, acquired in Apr-21, recorded a share of profits of USD3.1m.

Energy technology (Banpu NEXT), which includes solar and wind farms in China and Japan, had a net loss of USD2m.

Not a falling knife but a rising spear

We believe the market still underestimates the 2022-23 earnings growth potential of Banpu, driven by its key growth engines – high and sustainable prices of coal and gas into 2022 and solid power earnings – reflected in its share price collapsing by 29% from its recent peak of THB14.9 to THB10.6 as of 8 Nov-21.

The main triggering factors that led to Banpu's share price collapse could also include the sharp and fast drop in the coal price from over USD270/t for the NCT price down to USD150-155/t as of 8 Nov-21.

We believe the NCT price at over USD170/t is irrelevant to Banpu's coal earnings given 1) the lagging impact of the coal ASP by 3-6 months from the spot price; 2) the price for 30-40% of Banpu's coal sales volume is already secured in advance; and 3) the wider price discount between Banpu's 6,000kcal/kg quality coal and NCT (6,800kcal/kg heat rate).

Dwindling impact from hedging loss should allow Banpu's quarterly net profits to rise markedly in 1Q21-1H22. While Banpu's coal gross margins, particularly for its coal sales volume of 23mtpa in Indonesia, have enjoyed a significant rise in ASPs since 2Q21, the gross margin for its coal sales have increased at a much lower degree than the increase in the NCT price due mainly to the large hedging loss that has offset the margin gain from the coal price rise.

Our analysis indicates that Banpu incurred a hedging loss of USD45m in 2Q21, based on 1.1mt of unwound hedging coal volume, and USD102m in 3Q21 (2.1mt), largely offsetting the net profit of USD256m in 3Q21. However, given our sustained high NCT coal price projection at above USD150/t in 4Q21 and over USD100/t at least until 2Q22, we expect Banpu's coal earnings to significantly jump in 4Q21-2Q22 to over THB5b per quarter. We estimate the hedging loss to significantly shrink to USD40m in 4Q21 (0.7mt) and decline to less than USD30m in subsequent quarters in 1Q-2Q22 as the outstanding hedging coal volume should decline from over 1mt per quarter in 2Q-3Q21 to below 0.5mt per quarter in 1H22.

Three coal and gas price scenarios & their impact on Banpu's 2021-23E profit

To see how large and sensitive Banpu's earnings upsides – both on a quarterly and annual forecast basis – could be to the changes in the prices of coal (NCT) and gas (Henry Hub), we have established three scenarios – our base case, worst case, and best case – with a set of different assumptions for the prices of coal (NCT and Banpu's ASP) and gas.

We have found that under our base case scenario – USD/130t NCT, USD105.8/t ASP for coal, and a USD3.2/mmbtu gas price – ceteris paribus, Banpu's 2021 net profit would be THB11.1b, with projected quarterly net profits rising from THB6.1b in 4Q21 to THB10.3b in 1Q22, including a divestment gain, then declining to THB3.5b in 2Q22 and THB2.1b in 4Q22. Our net profit forecasts of THB11.1b in 2021 and THB18.4b in 2022 imply an attractive 5.3x 2021E P/E and 4.1x 2022E P/E. Even under our worst-case scenario – USD120/t NCT, a USD98/t ASP for coal, and a USD3.2/mmbtu gas price – ceteris paribus, Banpu's net profit in 2021 would be THB7.6b in 2021 and THB11.6b in 2022, implying only 7.7x 2021E P/E and 6.6x 2022E P/E.

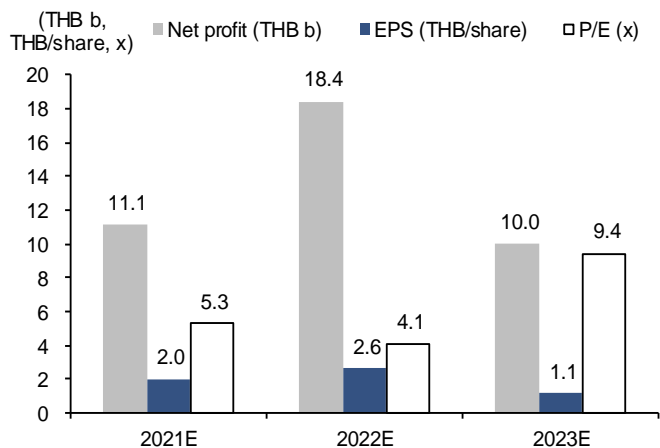
Hence, we believe Banpu's share price at THB10.6 as of 8 Nov-21 is highly attractive based on our 2022 net profit forecasts, trading at only 4.1x P/E (base case), 6.6x P/E (worst case), and 2.8x P/E (best case). We believe our 2022 NCT assumptions of USD100/t under the base case and USD120/t under the best case are highly achievable based on our projected high NCT prices of over USD130/t in 1Q22, USD100/t in 2Q22, and USD82.5/t in 2H22, based on the current NCT futures and incorporating the scenario where China would have a sufficient coal supply for the winter (Nov-21 to Mar-22). Note that we think that it is likely that the coming winter in the Northern Hemisphere could be colder than a normal year, based on China's National Meteorological Centre forecasts.

Exhibit 3: FSSIA's base, worst, and best-case scenarios for the coal and gas price impact on Banpu's earnings

| Share price as of 8 Nov-21 | 10.6 THB/share | | | | | | | | |
|---|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2021E | 2022E | 2023E | 3Q21E | 4Q21E | 1Q22E | 2Q22E | 3Q22E | 4Q22E |
| Base case | | | | | | | | | |
| Net profit (THB b) | 11.1 | 18.4 | 10.0 | 5.0 | 6.1 | 10.3 | 3.5 | 2.6 | 2.1 |
| Gain from divestment of SunSeap (THB b) | - | 5.6 | - | - | - | 5.6 | - | - | - |
| EPS (THB/share) | 2.0 | 2.6 | 1.1 | 0.5 | 0.6 | 1.0 | 0.4 | 0.3 | 0.2 |
| P/E (x) | 5.3 | 4.1 | 9.4 | | | | | | |
| Assumptions | | | | | | | | | |
| Newcastle coal price index (USD/t) | 130.0 | 100.0 | 70.0 | 150.0 | 160.0 | 130.0 | 100.0 | 90.0 | 75.0 |
| ASP - coal (USD/t) | 105.8 | 81.3 | 65.0 | 115.0 | 125.0 | 115.0 | 80.0 | 73.0 | 64.0 |
| ASP - gas (USD/mmbtu) | 3.2 | 3.5 | 3.0 | 3.2 | 3.2 | 3.4 | 3.6 | 3.5 | 3.5 |
| Worst case | | | | | | | | | |
| Net profit (THB b) | 7.6 | 11.6 | 6.4 | 5.0 | 4.0 | 7.0 | 2.0 | 1.6 | 1.3 |
| Gain from divestment of SunSeap (THB b) | - | 5.6 | - | - | - | 5.6 | - | - | - |
| EPS (THB/share) | 1.4 | 1.6 | 0.7 | 0.5 | 0.4 | 0.7 | 0.2 | 0.2 | 0.1 |
| P/E (x) | 7.7 | 6.6 | 14.7 | | | | | | |
| Assumptions | | | | | | | | | |
| Newcastle coal price index (USD/t) | 120.0 | 80.0 | 60.0 | 150.0 | 160.0 | 100.0 | 80.0 | 75.0 | 70.0 |
| ASP - coal (USD/t) | 98.0 | 65.0 | 53.0 | 115.0 | 125.0 | 80.0 | 63.0 | 62.0 | 60.0 |
| ASP - gas (USD/mmbtu) | 3.2 | 2.3 | 2.0 | 3.2 | 3.2 | 3.0 | 2.3 | 2.0 | 2.0 |
| Best case | | | | | | | | | |
| Net profit (THB b) | 13.2 | 27.0 | 11.0 | 5.0 | 7.5 | 13.0 | 5.5 | 4.8 | 3.7 |
| Gain from divestment of SunSeap (THB b) | - | 5.6 | - | - | - | 5.6 | - | - | - |
| EPS (THB/share) | 2.4 | 3.8 | 1.2 | 0.5 | 0.8 | 1.3 | 0.6 | 0.5 | 0.4 |
| P/E (x) | 4.4 | 2.8 | 8.6 | | | | | | |
| Assumptions | | | | | | | | | |
| Newcastle coal price index (USD/t) | 135.0 | 120.0 | 100.0 | 150.0 | 160.0 | 140.0 | 130.0 | 115.0 | 100.0 |
| ASP - coal (USD/t) | 108.0 | 102.8 | 80.0 | 115.0 | 125.0 | 120.0 | 110.0 | 98.0 | 83.0 |
| ASP - gas (USD/mmbtu) | 3.2 | 4.0 | 3.5 | 3.2 | 3.2 | 4.0 | 4.5 | 4.0 | 4.0 |

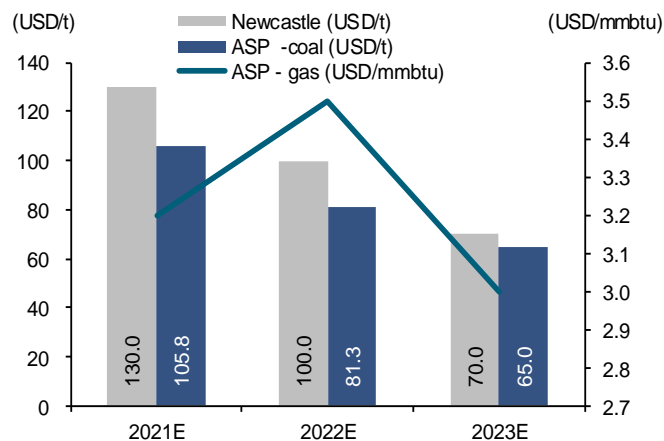
Sources: BANPU; FSSIA estimates

Exhibit 4: Base case annual net profit, EPS, and P/E



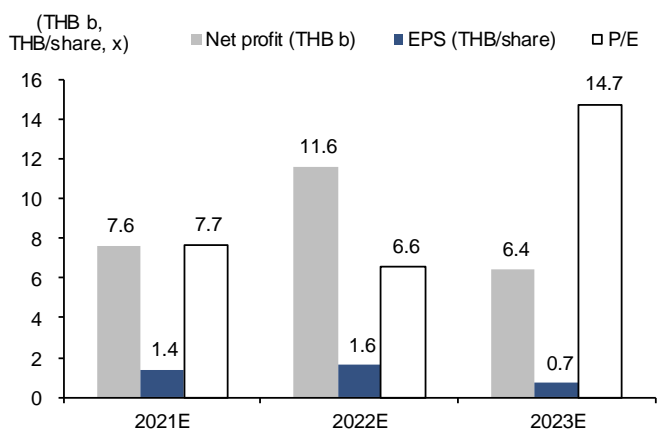
Sources: BANPU; FSSIA estimates

Exhibit 5: Base case assumptions for NCT and ASP for coal and gas



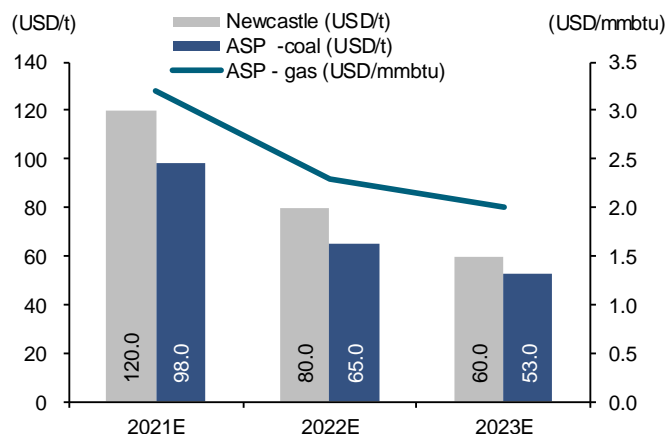
Sources: BANPU; FSSIA estimates

Exhibit 6: Worst case annual net profit, EPS, and P/E



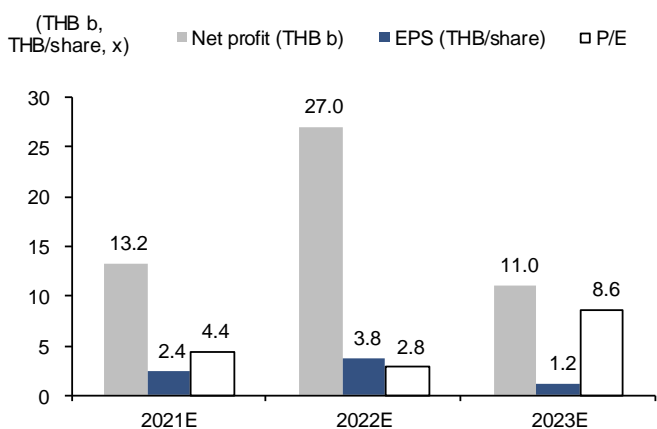
Sources: BANPU; FSSIA estimates

Exhibit 7: Worst case assumptions for NCT and ASP for coal and gas



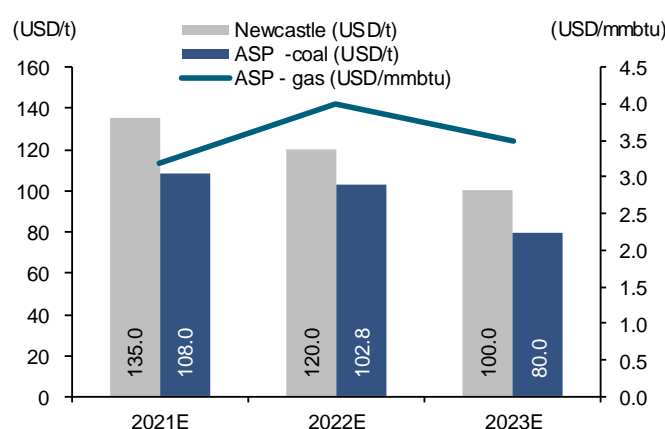
Sources: BANPU; FSSIA estimates

Exhibit 8: Best case annual net profit, EPS, and P/E



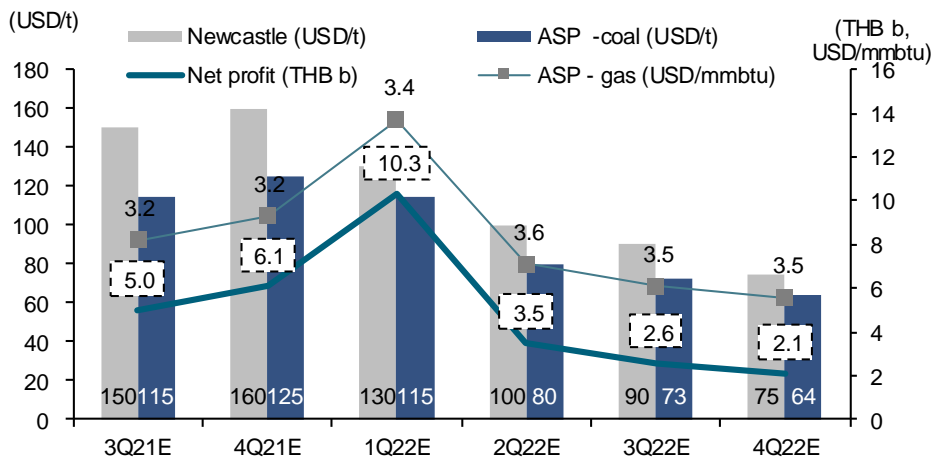
Sources: BANPU; FSSIA estimates

Exhibit 9: Best case assumptions for NCT and ASP for coal and gas



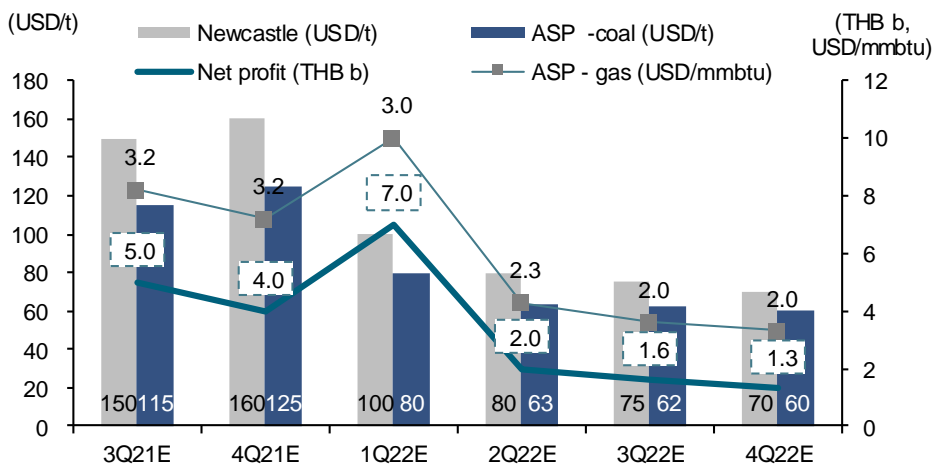
Sources: BANPU; FSSIA estimates

Exhibit 10: Quarterly net profit forecasts vs base case assumptions for NCT and Banpu's ASP for coal and gas



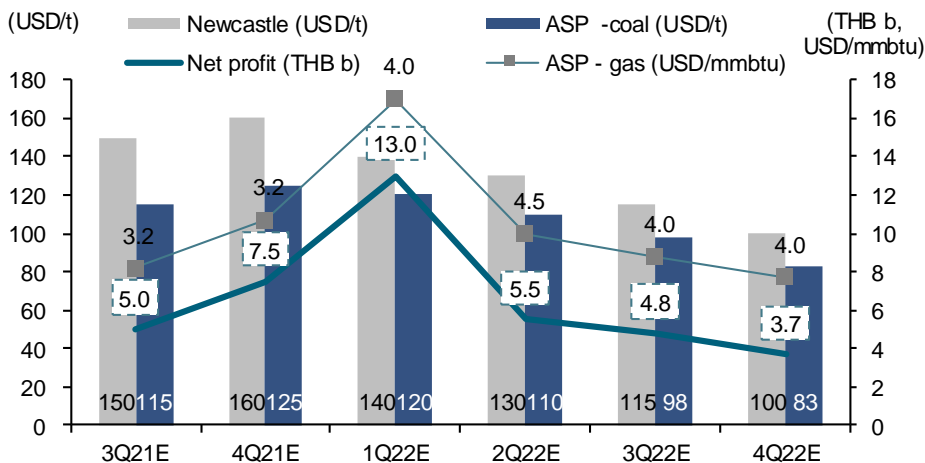
Sources: BANPU; FSSIA estimates

Exhibit 11: Quarterly net profit forecasts vs worst case assumptions for NCT and Banpu's ASP for coal and gas



Sources: BANPU; FSSIA estimates

Exhibit 12: Quarterly net profit forecasts vs best case assumptions for NCT and Banpu's ASP for coal and gas

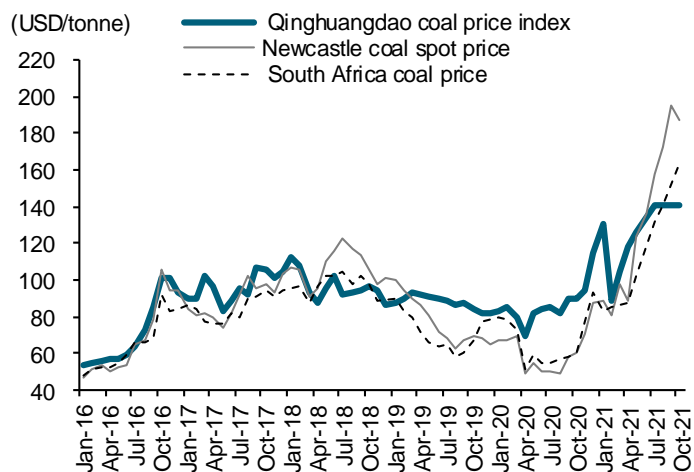


Sources: BANPU; FSSIA estimates

China's policies led to the global coal price dive

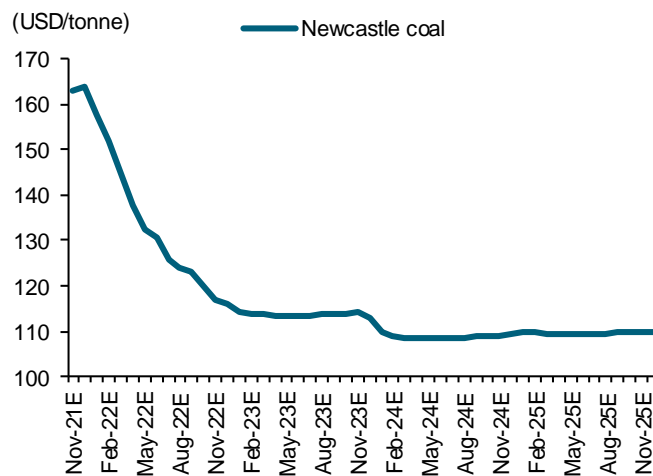
After a sharp spike in the NCT price by USD100/t within only two weeks from USD170/t in mid-Sep to its USD270/t peak on 5 Oct-21 due to fears over an electricity supply shortage in China as a result of the historically low one-day coal inventory at China's power plants and the power rations mandated by China's government in Sep-Oct, the NCT has since collapsed by over USD120/t within one month to its USD139/t bottom on 3 Nov-21.

Exhibit 13: Benchmark coal prices (QHD vs NCT)



Source: Bloomberg

Exhibit 14: Newcastle coal futures



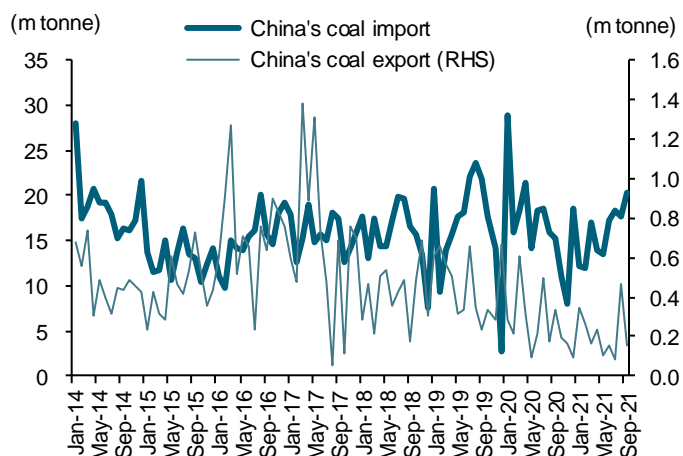
Prices as of 9 November 2021
Source: Bloomberg

The series of events that triggered the coal price collapse began with the Chinese government ordering coal miners, both in operation and already shut-in, to raise their coal production at "all cost" within 30 days.

Rising coal production. China has successfully increased its total coal production from below 11m tonnes per day (mtpd) to 11.93mtpd as of 5 Nov-21, a multi-year high level, according to China's National Development and Reform Commission (NDRC).

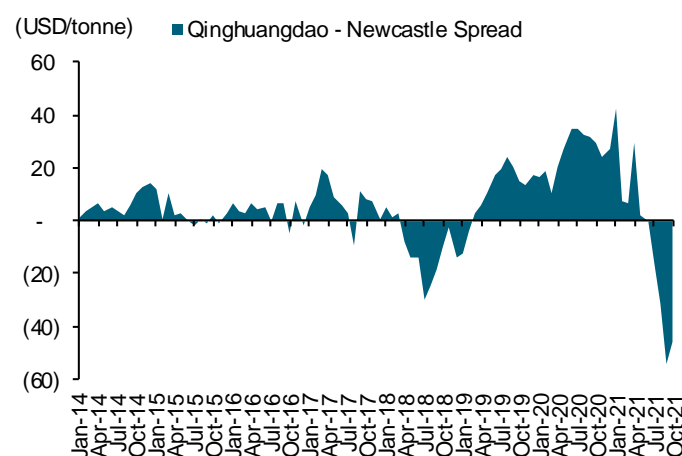
In addition, China increased its monthly coal imports from below 20mt to 20-25mt, mainly from Russia, the US, and Indonesia, to replenish the coal inventories at power plants with a direct connection to the state railway network. Their coal inventories have jumped from a mere 5.1 days in Oct-21 to 19.1 days by end-Oct.

Exhibit 15: China's coal imports and exports



Source: Bloomberg

Exhibit 16: Coal price gap between QHD and NCT

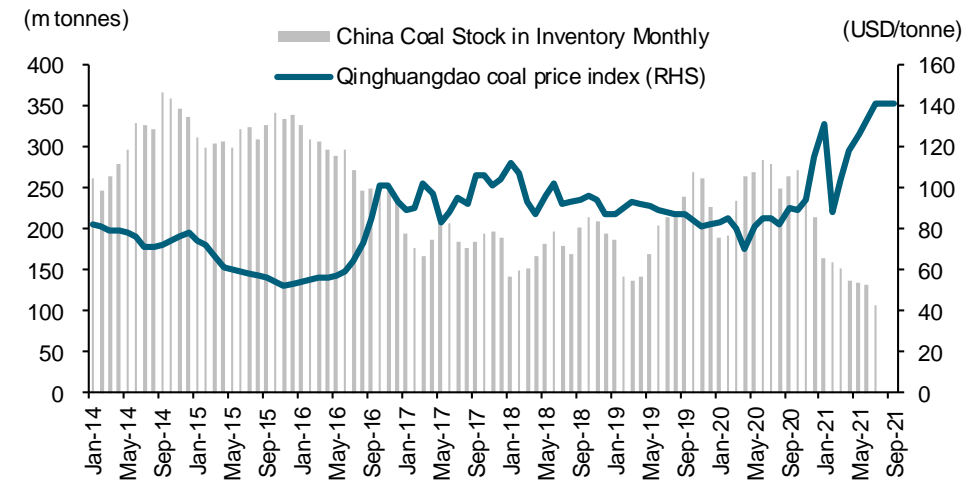


Source: Bloomberg

China increased its coal imports in Sep-Oct. China imported 26.9mt of coal in Oct-21, up 96% y-y but down 18% q-q, despite there already being signs of its power shortage easing, according to China's customs data. As of now, all 18 provinces that faced power shortages at the beginning of Oct, all have sufficient power, and demand has already returned to normalcy since end-Oct.

Coal price cap impact is now less relevant. The final event that triggered the most significant impact on the global coal price was from China's sudden coal price cap. On 28 Oct-21, the NDRC set the near-term coal price of its most-popular 5,500-NAR grade coal at RMB440/t and a price ceiling at RMB528/t, in its effort to curb electricity costs and raise electricity generation.

Exhibit 17: China's coal inventory vs QHD coal price index



Source: Bloomberg

Why we think USD120-150/t NCT price is sustainable in 4Q21-1H22

While the recent collapse in the NCT price to its USD139/t bottom is in line with our expectation, we think an NCT price at USD120-150/t is highly sustainable during the upcoming winter period in 4Q21-1H22 – the level that we think would be high enough to boost Banpu's quarterly net profits to THB4b-7b, based on our estimate.

Current NCT price of USD150/t (6,800kcal/kg heat rate) is already below China's targeted ceiling price of USD176/t (5,500kcal/kg). Most Chinese coal producers in China's three coal-centric provinces of Shanxi, Shaanxi, and Inner Mongolia, are now committed to retain the 5,500kcal thermal coal price at RMB1,200/t (USD176/t), according to the NDRC.

Higher coal supply comes with higher risks. Desperate to meet its electricity needs, China is opening up new coal production of up to 220mt (0.6mtpd), up nearly 6% y-y, at a tremendous cost, to "guarantee the coal supply" to generate sufficient electricity not only for its own people but also for the hundreds of global companies in China. Over 150 mines were ordered to expand their coal production since Sep-21.

However, the extra coal production comes at a high cost, with heightening risks for China's 2.6m coal miners, according to China's National Mine Safety Administration, which reported that 18 workers have died in the past four weeks, mostly in coal mines.

China has closed 5,500 coal mines, most being private-owned, older, smaller, and more polluting and dangerous mines, representing around 50% of the country's total mines, since 2016. The shuttered coal mines' production was partly offset by the rising production from state-owned enterprises, but the net coal production has remained in a downtrend over the past five years. The closure of small mines and a national safety campaign have resulted in much less dangerous outcomes, from 1,973 miners dying in 2011 down to only 228 in 2020.

China is the world's largest producer and consumer of coal, producing 3.2b tonnes per annum and consuming over 3.5b tonnes per annum, with annual coal imports of over 200mt. This 200mt-plus import volume alone accounts for one-third of the entire coal trading volume in Asia Pacific, which includes mostly supplies from Indonesia and Australia. Hence, the axiom, "when China sneezes, the coal price spikes", could not be truer in the current coal price environment.

Colder winter in China could raise coal demand further. China's National Meteorological Centre is predicting snowfall in northern China and cold winds in the next two weeks. China is still facing the risk of a coal and power shortage in the coming winter, according to the Commonwealth Bank of Australia.

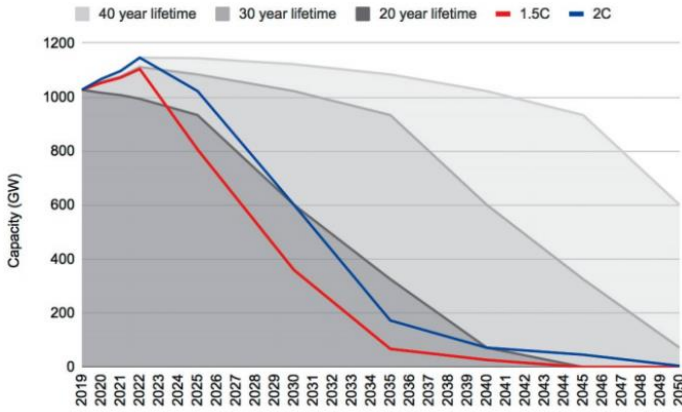
Even though the coal inventory of the State Grid Corporation of China, which supplies power to about 1.1b people, rebounded to 20 days last week, on 7 Nov-21 the company warned of a tight balance between the power supply and winter demand, estimating it to be in the range of 5-10mt of potentially higher coal demand per month, even after the energy crunch eased last week.

Demand for heating is expected to rise as China encounters a cold snap that could see temperatures drop by eight to 10 degrees Celsius, according to the nation's weather office. Heavy snow has already disrupted flights and rail services, with blizzards forecast for northern China including Inner Mongolia, a key coal region. Central and eastern regions are expected to be colder in Jan and Feb than one year ago as a result of the La Nina phenomenon.

China plans to reduce its reliance on coal-fired power plants in the long term

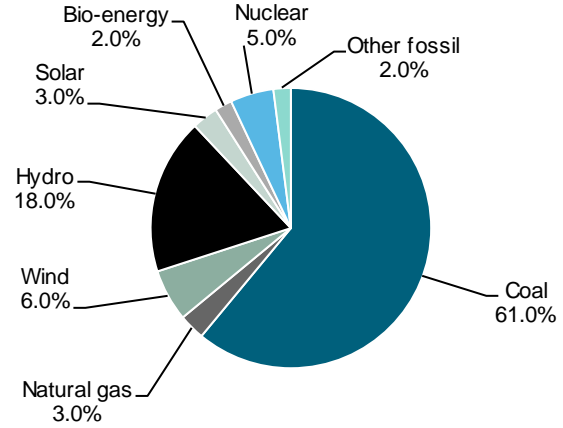
In the short term, in 4Q21-2023, we expect China’s reliance on coal and coal-fired power plants to remain high with coal consumption of over 3b tonnes per annum to feed its over 1,000GW coal-fired power capacity nationwide, representing over 60% of the country’s total power generating capacity in 2020.

Exhibit 18: China still plans to boost its coal-fired power plants despite its pledge to cut emissions



Source: Mining.com

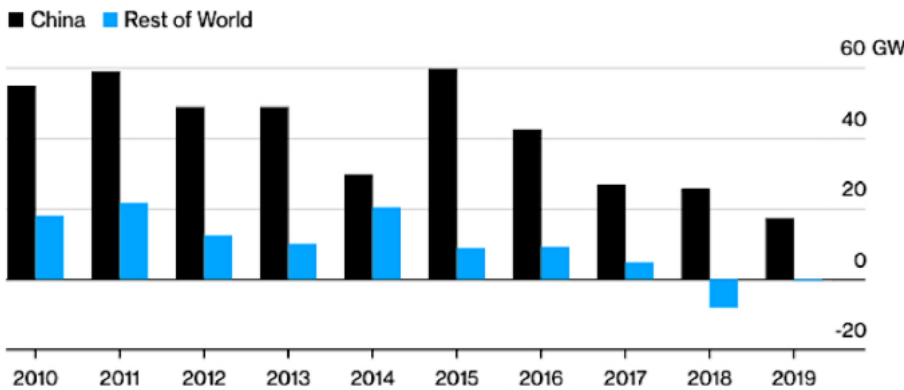
Exhibit 19: China’s total electricity generation by fuel type (total capacity of 2,200GW in 2020)



Source: EIA

Over 150GW of coal-fired capacity is either being built or is about to begin construction in 2021-25, according to the NDRC, implying an average 30GW capacity of coal-fired power plants to be added annually. While the 30GW addition is lower than China’s 10-year average addition of coal-fired capacity at 36GW per annum, China is still adding a significant amount of coal-fired power plants to serve the country’s over 2,000GW power generating demand.

Exhibit 20: China has added much more coal-fired power capacity than the rest of the world combined since 2010

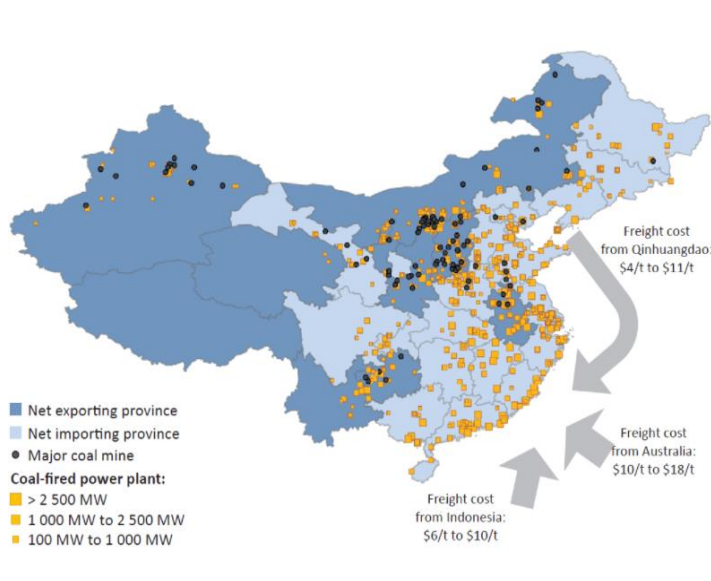


Note: 2019 figures are for Jan-Jun 2019
Sources: Global Energy Monitor

While coal producing mines are concentrated in only the three northeastern provinces of Shanxi, Shaanxi, and Inner Mongolia, China's power plants are located mostly along the coastal, central, and southwestern areas where the populations are denser than in the three coal producing provinces, resulting in high freight costs within the country and leading to coal imports at major ports on the coastal area.

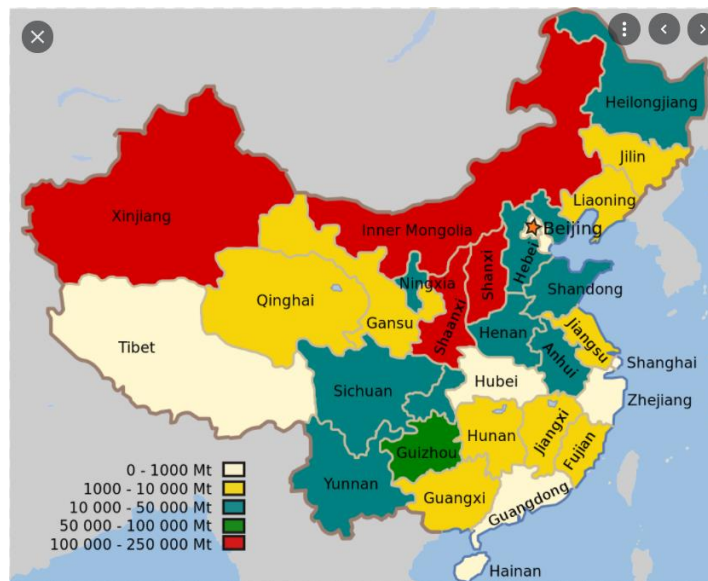
The location mismatch between coal production and consumption has resulted in China importing coal of around 200-300mt annually. Despite the global decarbonisation effort, total thermal coal trading is projected to rise by 5% y-y in Asia Pacific to 0.7b tonnes, and global coal trading could rise to 1.21b tonnes in 2021, with that volume likely increasing in 2022 following the global economic reopening, based on estimates by the Energy Information Administration (EIA). Hence, we believe that coal is likely to remain China's least-loved but most-consumed energy source for years to come.

Exhibit 21: Major coal mines and coal-fired power plants in China (2020)



Source: EIA

Exhibit 22: China's coal mine reserves by province



Source: [Wikimedia](#)

Not a falling knife but a rising spear

While our current EPS forecasts for 2021-23 are on par with Bloomberg's consensus estimates, we believe Banpu is likely to post stronger-than-expected net profits in 4Q21-2023, backed by high ASPs for coal as a result of the tight demand-supply balance of coal that should sustain the NCT price at above USD100/t in 4Q21-2022 vs our assumptions of the NCT price at USD100/t in 2022 and USD70/t in 2023.

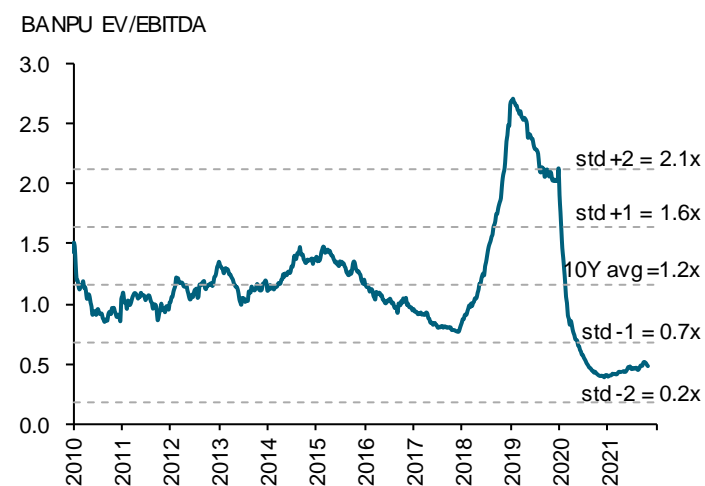
We maintain BUY and our SOTP-based target price of THB16.9. We believe the market still underestimates Banpu's coal earnings power and the sustainably high coal price environment that we think should persist at least until mid-2022. Potential catalysts would be stronger-than-expected 4Q21 and 2022 net profits and a longer-than-expected high coal price into 2H22.

Exhibit 23: SoTP valuation

| Banpu's valuation breakdown | THB/share | |
|---------------------------------------|-------------|---|
| ITMG (65%) (A) | 10.4 | DCF 9% WACC, terminal growth is zero for mines |
| China coal | 2.2 | DCF 9% WACC, terminal growth is zero for mines |
| Australian coal (Centennial) | 10.0 | DCF 9% WACC, terminal growth is zero for mines |
| Net value of non-ITMG coal (B) | 22.6 | |
| Value of power business | | |
| BLCP | 0.2 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| China power | 2.5 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| Hongsa | 4.3 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| SLG | 1.2 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| NIGGC | 1.2 | DCF 4% WACC, terminal growth is zero at the end of PPA |
| Solar farms (Japan, Thailand, China) | 1.0 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| Net value of power (C) | 10.5 | |
| Net value of shale gas (D) | 3.0 | DCF 7.1% WACC, terminal growth is zero at the end of PPA |
| Banpu's net debt | (19.2) | at end-2022E |
| Net value of Banpu (A+B+C+D) | 16.9 | Target price |

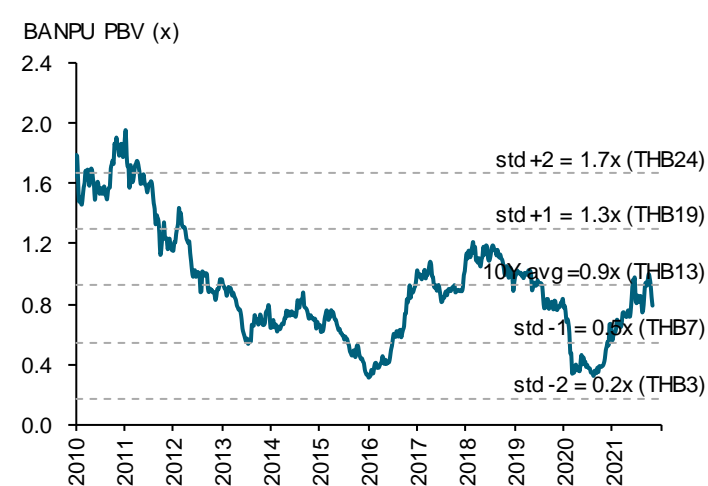
Sources: BANPU; FSSIA estimates

Exhibit 24: EV/EBITDA band



Sources: FSSIA estimates; Bloomberg

Exhibit 25: One-year forward rolling P/BV band



Sources: FSSIA estimates; Bloomberg

Exhibit 26: Peer comparisons

| Company | BBG code | Rec | Share Price | Target price | Up side | Market Cap | 3Y EPS CAGR | ---- PE ---- | | ----- ROE ---- | | ---- PBV ---- | | EV / EBITDA | |
|----------------------------|----------|-----|-------------|--------------|---------|----------------|--------------|--------------|-------------|----------------|--------------|---------------|------------|-------------|-------------|
| | | | | | | | | 21E | 22E | 21E | 22E | 21E | 22E | 21E | 22E |
| | | | (LCY) | (LCY) | (%) | (USD m) | (%) | (x) | (x) | (%) | (%) | (x) | (x) | (x) | (x) |
| THAILAND | | | | | | | | | | | | | | | |
| Banpu | BANPU TB | BUY | 10.80 | 16.90 | 56 | 2,230 | nm | 5.4 | 6.1 | 15.7 | 14.7 | 0.8 | 0.8 | 4.1 | 5.1 |
| Thailand avg | | | | | | 2,230 | nm | 5.4 | 6.1 | 15.7 | 14.7 | 0.8 | 0.8 | 4.1 | 5.1 |
| INDONESIA | | | | | | | | | | | | | | | |
| Adaro Energy | ADRO IJ | n/a | 1,690.00 | n/a | n/a | 3,744 | 19.7 | 7.3 | 7.8 | 14.1 | 12.8 | 0.9 | 0.9 | 3.1 | 3.3 |
| Bukit Asam t | PTBA IJ | n/a | 2,680.00 | n/a | n/a | 2,156 | 24.2 | 5.3 | 5.5 | 29.0 | 25.2 | 1.4 | 1.3 | 3.1 | 3.2 |
| Harum Energy | HRUM IJ | n/a | 8,100.00 | n/a | n/a | 1,506 | 114.6 | 19.9 | 16.4 | 16.6 | 21.0 | 3.3 | 3.2 | 12.7 | 9.7 |
| Indo Tambangraya Megah | ITMG IJ | n/a | 22,275.00 | n/a | n/a | 1,722 | 56.4 | 5.2 | 5.6 | 32.0 | 27.3 | 1.6 | 1.6 | 2.8 | 3.1 |
| Indonesia avg | | | | | | 9,129 | 53.4 | 8.5 | 8.3 | 21.4 | 19.8 | 1.6 | 1.5 | 4.6 | 4.3 |
| CHINA | | | | | | | | | | | | | | | |
| China Shenhua Energy | 1088 HK | n/a | 16.18 | n/a | n/a | 56,225 | 11.0 | 4.9 | 5.4 | 14.4 | 12.6 | 0.7 | 0.7 | 3.4 | 3.6 |
| China Coal Energy | 1898 HK | n/a | 4.45 | n/a | n/a | 11,311 | 35.4 | 3.1 | 3.5 | 11.8 | 10.0 | 0.4 | 0.4 | 3.5 | 3.6 |
| Yanzhou Coal Mining | 1171 HK | n/a | 11.82 | n/a | n/a | 13,512 | 27.6 | 3.3 | 3.5 | 21.1 | 18.0 | 0.7 | 0.6 | 6.6 | 6.5 |
| China avg | | | | | | 81,048 | 14.7 | 39.3 | 43.1 | 134.4 | 116.7 | 5.9 | 5.6 | 35.1 | 36.5 |
| AUSTRALIA | | | | | | | | | | | | | | | |
| New Hope | NHC AU | n/a | 2.00 | n/a | n/a | 1,237 | 62.6 | 10.9 | 2.5 | 9.1 | 35.9 | 0.9 | 0.7 | 5.0 | 1.8 |
| Whitehaven Coal | WHC AU | n/a | 2.48 | n/a | n/a | 1,855 | 219.6 | nm | 2.5 | (2.3) | 31.0 | 0.8 | 0.7 | 16.5 | 2.0 |
| Australia avg | | | | | | 3,091 | 113.8 | 1.5 | 0.9 | 0.8 | 11.2 | 0.3 | 0.2 | 4.0 | 0.7 |
| INDIA | | | | | | | | | | | | | | | |
| Coal India | COAL IN | n/a | 166.70 | n/a | n/a | 13,829 | (2.7) | 8.6 | 6.8 | 35.0 | 38.5 | 2.9 | 2.5 | 5.3 | 4.2 |
| India avg | | | | | | 13,829 | (2.7) | 13.0 | 10.3 | 53.0 | 58.4 | 4.3 | 3.8 | 8.1 | 6.3 |
| Coal under coverage | | | | | | 2,230 | nm | 5.4 | 6.1 | 15.7 | 14.7 | 0.8 | 0.8 | 4.1 | 5.1 |
| Average (all) | | | | | | 109,328 | 14.1 | 31.6 | 34.1 | 108.5 | 96.2 | 5.0 | 4.8 | 27.6 | 28.4 |

Share prices as of 10 November 2021

Sources: Bloomberg, FSSIA estimates

Financial Statements

Banpu

| Profit and Loss (THB m) Year Ending Dec | 2019 | 2020 | 2021E | 2022E | 2023E |
|---|----------------|----------------|---------------|---------------|---------------|
| Revenue | 85,718 | 71,332 | 122,721 | 107,504 | 96,271 |
| Cost of goods sold | (63,952) | (50,626) | (44,107) | (36,948) | (33,706) |
| Gross profit | 21,766 | 20,706 | 78,615 | 70,555 | 62,565 |
| Other operating income | - | - | - | - | - |
| Operating costs | (13,810) | (11,419) | (23,929) | (20,904) | (18,676) |
| Operating EBITDA | 7,955 | 9,287 | 54,686 | 49,651 | 43,889 |
| Depreciation | (10,761) | (13,543) | (17,315) | (22,076) | (22,076) |
| Goodwill amortisation | (195) | (31) | (366) | (366) | (366) |
| Operating EBIT | (3,000) | (4,287) | 37,005 | 27,209 | 21,447 |
| Net financing costs | (8,393) | (2,778) | (5,992) | (5,984) | (6,006) |
| Associates | 6,444 | 4,239 | 6,394 | 6,295 | 5,109 |
| Recurring non-operating income | 11,416 | 5,264 | (4,315) | 2,295 | 1,109 |
| Non-recurring items | 3,697 | 1,502 | 0 | 0 | 0 |
| Profit before tax | 3,720 | (300) | 26,697 | 23,521 | 16,550 |
| Tax | (2,368) | (269) | (5,685) | (4,823) | (3,203) |
| Profit after tax | 1,352 | (569) | 21,012 | 18,698 | 13,347 |
| Minority interests | (1,905) | (1,217) | (9,923) | (5,926) | (3,363) |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | - | - | - | - | - |
| Reported net profit | (553) | (1,786) | 11,090 | 12,771 | 9,984 |
| Non-recurring items & goodwill (net) | (3,697) | (1,502) | 0 | 0 | 0 |
| Recurring net profit | (4,249) | (3,288) | 11,090 | 12,771 | 9,984 |
| Per share (THB) | | | | | |
| Recurring EPS * | (0.82) | (0.65) | 2.02 | 1.78 | 1.12 |
| Reported EPS | (0.11) | (0.35) | 2.02 | 1.78 | 1.12 |
| DPS | 0.60 | 0.50 | 1.36 | 0.92 | 0.52 |
| Diluted shares (used to calculate per share data) | 5,162 | 5,075 | 5,497 | 7,189 | 8,881 |
| Growth | | | | | |
| Revenue (%) | (24.0) | (16.8) | 72.0 | (12.4) | (10.4) |
| Operating EBITDA (%) | (71.0) | 16.7 | 488.9 | (9.2) | (11.6) |
| Operating EBIT (%) | nm | nm | nm | (26.5) | (21.2) |
| Recurring EPS (%) | nm | nm | nm | (11.9) | (36.7) |
| Reported EPS (%) | nm | nm | nm | (11.9) | (36.7) |
| Operating performance | | | | | |
| Gross margin inc. depreciation (%) | 12.8 | 10.0 | 50.0 | 45.1 | 42.1 |
| Gross margin of key business (%) | 25.6 | 20.1 | 59.5 | 54.6 | 51.5 |
| Operating EBITDA margin (%) | 9.3 | 13.0 | 44.6 | 46.2 | 45.6 |
| Operating EBIT margin (%) | (3.5) | (6.0) | 30.2 | 25.3 | 22.3 |
| Net margin (%) | (5.0) | (4.6) | 9.0 | 11.9 | 10.4 |
| Effective tax rate (%) | 20.0 | 20.0 | 28.0 | 28.0 | 28.0 |
| Dividend payout on recurring profit (%) | (72.9) | (77.2) | 67.4 | 51.6 | 46.4 |
| Interest cover (X) | 1.0 | 0.4 | 5.5 | 5.0 | 3.8 |
| Inventory days | 24.6 | 24.5 | 28.9 | 35.9 | 34.2 |
| Debtor days | 43.1 | 38.1 | 32.7 | 45.9 | 45.2 |
| Creditor days | 15.9 | 13.8 | 23.6 | 34.2 | 33.2 |
| Operating ROIC (%) | (1.6) | (10.6) | 29.6 | 18.6 | 14.2 |
| ROIC (%) | 1.4 | 0.8 | 10.3 | 8.6 | 6.2 |
| ROE (%) | (5.5) | (4.9) | 15.7 | 14.7 | 9.6 |
| ROA (%) | 0.3 | 1.2 | 9.0 | 7.8 | 5.6 |
| * Pre-exceptional, pre-goodwill and fully diluted | | | | | |
| Revenue by Division (THB m) | | | | | |
| Coal | 30,346 | 55,080 | 56,801 | 55,080 | 53,359 |
| Others | 55,372 | 16,252 | 65,920 | 52,424 | 42,912 |

Sources: Banpu; FSSIA estimates

Financial Statements

Banpu

| Cash Flow (THB m) Year Ending Dec | 2019 | 2020 | 2021E | 2022E | 2023E |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Recurring net profit | (4,249) | (3,288) | 11,090 | 12,771 | 9,984 |
| Depreciation | 10,761 | 13,543 | 17,315 | 22,076 | 22,076 |
| Associates & minorities | (6,444) | (4,239) | (6,394) | (6,295) | (5,109) |
| Other non-cash items | (544) | 1,302 | 4,517 | 4,508 | 4,530 |
| Change in working capital | 5,207 | 1,403 | (6,218) | 2,040 | 1,325 |
| Cash flow from operations | 4,730 | 8,722 | 20,310 | 35,100 | 32,806 |
| Capex - maintenance | - | - | - | - | - |
| Capex - new investment | (11,578) | (22,372) | (38,490) | (33,717) | (30,194) |
| Net acquisitions & disposals | (3,133) | 2,828 | 2,828 | 2,828 | 2,828 |
| Other investments (net) | 3,894 | (2,160) | (2,160) | (2,160) | (2,160) |
| Cash flow from investing | (10,817) | (21,704) | (37,822) | (33,049) | (29,526) |
| Dividends paid | (3,097) | (2,864) | (4,595) | (7,105) | (5,773) |
| Equity finance | 0 | 0 | 0 | 0 | 0 |
| Debt finance | 8,531 | 28,455 | 6,700 | (1,200) | 2,500 |
| Other financing cash flows | (2,923) | (7,056) | 4,008 | (133) | 1,493 |
| Cash flow from financing | 2,511 | 18,536 | 6,113 | (8,438) | (1,780) |
| Non-recurring cash flows | - | - | - | - | - |
| Other adjustments | 0 | 0 | 0 | 0 | 0 |
| Net other adjustments | 0 | 0 | 0 | 0 | 0 |
| Movement in cash | (3,576) | 5,553 | (11,399) | (6,387) | 1,500 |
| Free cash flow to firm (FCFF) | (261.79) | (7,363.73) | (11,317.23) | 8,389.99 | 9,643.06 |
| Free cash flow to equity (FCFE) | (479.32) | 8,416.72 | (6,804.29) | 718.09 | 7,272.49 |

Per share (THB)

| | | | | | |
|-------------------------------|--------|--------|--------|------|------|
| FCFF per share | (0.04) | (1.09) | (1.67) | 1.24 | 1.43 |
| FCFE per share | (0.07) | 1.24 | (1.01) | 0.11 | 1.07 |
| Recurring cash flow per share | (0.09) | 1.44 | 4.83 | 4.60 | 3.54 |

| Balance Sheet (THB m) Year Ending Dec | 2019 | 2020 | 2021E | 2022E | 2023E |
|---|----------------|----------------|----------------|----------------|----------------|
| Tangible fixed assets (gross) | 93,339 | 112,066 | 150,556 | 184,273 | 214,467 |
| Less: Accumulated depreciation | (34,543) | (34,543) | (51,858) | (73,935) | (100,224) |
| Tangible fixed assets (net) | 58,796 | 77,523 | 98,697 | 110,338 | 114,242 |
| Intangible fixed assets (net) | 460 | 94 | 94 | 94 | 94 |
| Long-term financial assets | - | - | - | - | - |
| Invest. in associates & subsidiaries | 49,104 | 50,761 | 52,486 | 54,111 | 54,551 |
| Cash & equivalents | 16,388 | 21,941 | 10,541 | 4,155 | 5,655 |
| A/C receivable | 7,415 | 7,482 | 14,481 | 12,578 | 11,264 |
| Inventories | 3,759 | 3,045 | 3,927 | 3,333 | 2,984 |
| Other current assets | 13,533 | 14,833 | 14,833 | 14,833 | 14,833 |
| Current assets | 41,095 | 47,301 | 43,782 | 34,898 | 34,736 |
| Other assets | 108,134 | 105,969 | 96,321 | 111,737 | 131,382 |
| Total assets | 257,589 | 281,648 | 291,380 | 311,179 | 335,006 |
| Common equity | 72,195 | 62,344 | 78,988 | 94,804 | 113,393 |
| Minorities etc. | 18,286 | 22,211 | 32,134 | 38,060 | 41,423 |
| Total shareholders' equity | 90,481 | 84,555 | 111,122 | 132,864 | 154,816 |
| Long term debt | 103,749 | 112,559 | 123,415 | 122,140 | 124,563 |
| Other long-term liabilities | 16,285 | 18,129 | 17,915 | 17,704 | 17,494 |
| Long-term liabilities | 120,034 | 130,687 | 141,330 | 139,844 | 142,057 |
| A/C payable | 1,798 | 2,025 | 3,688 | 3,231 | 2,893 |
| Short term debt | 29,964 | 49,140 | 20,000 | 20,000 | 20,000 |
| Other current liabilities | 15,312 | 15,240 | 15,240 | 15,240 | 15,240 |
| Current liabilities | 47,074 | 66,405 | 38,928 | 38,470 | 38,133 |
| Total liabilities and shareholders' equity | 257,589 | 281,648 | 291,380 | 311,179 | 335,006 |
| Net working capital | 7,597 | 8,096 | 14,313 | 12,273 | 10,948 |
| Invested capital | 224,090 | 242,442 | 261,911 | 288,553 | 311,218 |

* Includes convertibles and preferred stock which is being treated as debt

Per share (THB)

| | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|
| Book value per share | 13.99 | 12.29 | 14.37 | 13.19 | 12.77 |
| Tangible book value per share | 13.90 | 12.27 | 14.35 | 13.17 | 12.76 |

Financial strength

| | | | | | |
|---------------------------|-------|-------|-------|-------|------|
| Net debt/equity (%) | 129.7 | 165.3 | 119.6 | 103.9 | 89.7 |
| Net debt/total assets (%) | 45.5 | 49.6 | 45.6 | 44.3 | 41.5 |
| Current ratio (x) | 0.9 | 0.7 | 1.1 | 0.9 | 0.9 |
| CF interest cover (x) | 2.3 | 12.1 | 6.3 | 6.8 | 7.2 |

| Valuation | 2019 | 2020 | 2021E | 2022E | 2023E |
|---|---------------|---------------|------------|------------|-------------|
| Recurring P/E (x) * | (13.1) | (16.7) | 5.4 | 6.1 | 9.6 |
| Recurring P/E @ target price (x) * | (20.5) | (26.1) | 8.4 | 9.5 | 15.0 |
| Reported P/E (x) | (100.8) | (30.7) | 5.4 | 6.1 | 9.6 |
| Dividend yield (%) | 5.6 | 4.6 | 12.6 | 8.5 | 4.8 |
| Price/book (x) | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| Price/tangible book (x) | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 |
| EV/EBITDA (x) ** | 24.1 | 23.3 | 4.1 | 5.1 | 6.3 |
| EV/EBITDA @ target price (x) ** | 28.0 | 26.7 | 4.7 | 6.0 | 7.5 |
| EV/invested capital (x) | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |

* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income

Sources: Banpu; FSSIA estimates

Corporate Governance report of Thai listed companies 2020

| EXCELLENT LEVEL | | | | | | | | | | |
|-----------------|--------|--------|-------|-------|-------|--------|--------|--------|--------|-------|
| AAV | ADVANC | AF | AIRA | AKP | AKR | ALT | AMA | AMATA | AMATAV | ANAN |
| AOT | AP | ARIP | ARROW | ASP | BAFS | BANPU | BAY | BCP | BCPG | BDMS |
| BEC | BEM | BGRIM | BIZ | BKI | BLA | BOL | BPP | BRR | BTS | BWG |
| CENTEL | CFRESH | CHEWA | CHO | CIMBT | CK | CKP | CM | CNT | COL | COMAN |
| COTTO | CPALL | CPF | CPI | CPN | CSS | DELTA | DEMCO | DRT | DTAC | DTC |
| DV8 | EA | EASTW | ECF | ECL | EGCO | EPG | ETE | FNS | FPI | FPT |
| FSMART | GBX | GC | GCAP | GEL | GFPT | GGC | GPSC | GRAMMY | GUNKUL | HANA |
| HARN | HMPRO | ICC | ICI | III | ILINK | INTUCH | IRPC | IVL | JKN | JSP |
| JWD | K | KBANK | KCE | KKP | KSL | KTB | KTC | LANNA | LH | LHFG |
| LIT | LPN | MAKRO | MALEE | MBK | MBKET | MC | MCOT | METCO | MFEC | MINT |
| MONO | MOONG | MSC | MTC | NCH | NCL | NEP | NKI | NOBLE | NSI | NVD |
| NYT | OISHI | ORI | OTO | PAP | PAP | PCSGH | PDJ | PG | PHOL | PLANB |
| PLAT | PORT | PPS | PR9 | PREB | PRG | PRM | PSH | PSL | PTG | PTT |
| PTTEP | PTTGC | PYLON | Q-CON | QH | QTC | RATCH | RS | S | S & J | SAAM |
| SABINA | SAMART | SAMTEL | SAT | SC | SCB | SCC | SCCC | SCG | SCN | SDC |
| SEAFCO | SEAOIL | SE-ED | SELIC | SENA | SIRI | SIS | SITHAI | SMK | SMPC | SNC |
| SONIC | SORKON | SPALI | SPI | SPRC | SPVI | SSSC | SST | STA | SUSCO | SUTHA |
| SVI | SYMC | SYNTEC | TACC | TASCO | TCAP | TFMAMA | THANA | THANI | THCOM | THG |
| THIP | THRE | THREL | TIP | TIPCO | TISCO | TK | TKT | TTB | TMILL | TNDT |
| TNL | TOA | TOP | TPBI | TQM | TRC | TSC | TSR | TSTE | TSTH | TTA |
| TTCL | TTW | TU | TVD | TVI | TVO | TWPC | U | UAC | UBIS | UV |
| VGI | VIH | WACOAL | WAVE | WHA | WHAUP | WICE | WINNER | TRUE | | |

| VERY GOOD LEVEL | | | | | | | | | | |
|-----------------|---------|--------|-------|--------|-------|--------|--------|--------|--------|-------|
| 2S | ABM | ACE | ACG | ADB | AEC | AEONTS | AGE | AH | AHC | AIT |
| ALLA | AMANAHA | AMARIN | APCO | APCS | APURE | AQUA | ASAP | ASEFA | ASIA | ASIAN |
| ASIMAR | ASK | ASN | ATP30 | AUCT | AWC | AYUD | B | BA | BAM | BBL |
| BFIT | BGC | BJC | BJCHI | BROOK | BTW | CBG | CEN | CGH | CHARAN | CHAYO |
| CHG | CHOTI | CHOW | CI | CIG | CMC | COLOR | COM7 | CPL | CRC | CRD |
| CSC | CSP | CWT | DCC | DCON | DDD | DOD | DOHOME | EASON | EE | ERW |
| ESTAR | FE | FLOYD | FN | FORTH | FSS | FTE | FVC | GENCO | GJS | GL |
| GLAND | GLOBAL | GLOCON | GPI | GULF | GYT | HPT | HTC | ICN | IFS | ILM |
| IMH | INET | INSURE | IRC | IRCP | IT | ITD | ITEL | J | JAS | JCK |
| JCKH | JMART | JMT | KBS | KCAR | KGI | KIAT | KOOL | KTIS | KWC | KWM |
| L&E | LALIN | LDC | LHK | LOXLEY | LPH | LRH | LST | M | MACO | MAJOR |
| MBAX | MEGA | META | MFC | MGT | MILL | MITSIB | MK | MODERN | MTI | MVP |
| NETBAY | NEX | NINE | NTV | NWR | OCC | OGC | OSP | PATO | PB | PDG |
| PDI | PICO | PIMO | PJW | PL | PM | PPP | PRIN | PRINC | PSTC | PT |
| QLT | RCL | RICHY | RML | RPC | RWI | S11 | SALEE | SAMCO | SANKO | SAPPE |
| SAWAD | SCI | SCP | SE | SEG | SFP | SGF | SHR | SIAM | SINGER | SKE |
| SKR | SKY | SMIT | SMT | SNP | SPA | SPC | SPCG | SR | SRICHA | SSC |
| SSF | STANLY | STI | STPI | SUC | SUN | SYNEX | T | TAE | TAKUNI | TBSP |
| TCC | TCMC | TEAM | TEAMG | TFG | TIGER | TITLE | TKN | TKS | TM | TMC |
| TMD | TMI | TMT | TNITY | TNP | TNR | TOG | TPA | TPAC | TPCORP | TPOLY |
| TPS | TRITN | TRT | TRU | TSE | TVT | TWP | UEC | UMI | UOBKH | UP |
| UPF | UPOIC | UT | UTP | UWC | VL | VNT | VPO | WIJK | WP | XO |
| YUASA | ZEN | ZIGA | ZMICO | | | | | | | |

| GOOD LEVEL | | | | | | | | | | |
|------------|------|--------|--------|-------|--------|-------|-------|--------|--------|-------|
| 7UP | A | ABICO | AJ | ALL | ALUCON | AMC | APP | ARIN | AS | AU |
| B52 | BC | BCH | BEAUTY | BGT | BH | BIG | BKD | BLAND | BM | BR |
| BROCK | BSBM | BSM | BTNC | CAZ | CCP | CGD | CITY | CMAN | CMO | CMR |
| CPT | CPW | CRANE | CSR | D | EKH | EP | ESSO | FMT | GIFT | GREEN |
| GSC | GTB | HTECH | HUMAN | IHL | INOX | INSET | IP | JTS | JUBILE | KASET |
| KCM | KKC | KUMWEL | KUN | KWG | KYE | LEE | MATCH | MATI | M-CHAI | MCS |
| MDX | MJD | MM | MORE | NC | NDR | NER | NFC | NNCL | NPK | NUSA |
| OCEAN | PAF | PF | PK | PLE | PMTA | POST | PPM | PRAKIT | PRECHA | PRIME |
| PROUD | PTL | RBF | RCI | RJH | ROJNA | RP | RPH | RSP | SF | SFLEX |
| SGP | SISB | SKN | SLP | SMART | SOLAR | SPG | SQ | SSP | STARK | STC |
| SUPER | SVOA | TC | TCCC | THMUI | TIW | TNH | TOPP | TPCH | TIPIP | TPLAS |
| TTI | TYCN | UKEM | UMS | VCOM | VRANDA | WIN | WORK | WPH | | |

Description

Score Range

Excellent

90-100

Very Good

80-89

Good

70-79

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. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.

* 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 2020

| CERTIFIED | | | | | | | | | | |
|-----------|--------|--------|--------|-------|--------|--------|---------|--------|--------|--------|
| 2S | ADVANC | AI | AIE | AIRA | AKP | AMA | AMANAHA | AP | AQUA | ARROW |
| ASK | ASP | AYUD | B | BAFS | BANPU | BAY | BBL | BCH | BCP | BCPG |
| BGC | BGRIM | BJCHI | BKI | BLA | BPP | BROOK | BRR | BSBM | BTS | BWG |
| CEN | CENTEL | CFRESH | CGH | CHEWA | CHOTI | CHOW | CIG | CIMBT | CM | CMC |
| COL | COM7 | CPALL | CPF | CPI | CPN | CSC | DCC | DELTA | DEMCO | DIMET |
| DRT | DTAC | DTC | EASTW | ECL | EGCO | FE | FNS | FPI | FPT | FSS |
| FTE | GBX | GC | GCAP | GEL | GFPT | GGC | GJS | GPSC | GSTEEL | GUNKUL |
| HANA | HARN | HMPRO | HTC | ICC | ICHI | IFS | INET | INSURE | INTUCH | IRPC |
| ITEL | IVL | K | KASET | KBANK | KBS | KCAR | KCE | KGI | KKP | KSL |
| KTB | KTC | KWC | L&E | LANNA | LHFG | LHK | LPN | LRH | M | MAKRO |
| MALEE | MBAX | MBK | MBKET | MC | MCOT | MFC | MFEC | MINT | MONO | MOONG |
| MPG | MSC | MTC | MTI | NBC | NEP | NINE | NKI | NMG | NNCL | NSI |
| NWR | OCC | OCEAN | OGC | ORI | PAP | PATO | PB | PCSGH | PDG | PDI |
| PDJ | PE | PG | PHOL | PL | PLANB | PLANET | PLAT | PM | PPP | PPPM |
| PPS | PREB | PRG | PRINC | PRM | PSH | PSL | PSTC | PT | PTG | PTT |
| PTTEP | PTTGC | PYLON | Q-CON | QH | QLT | QTC | RATCH | RML | RWI | S & J |
| SABINA | SAT | SC | SCB | SCC | SCCC | SCG | SCN | SEAOIL | SE-ED | SELIC |
| SENA | SGP | SIRI | SITHAI | SMIT | SMK | SMPC | SNC | SNP | SORKON | SPACK |
| SPC | SPI | SPRC | SRICHA | SSF | SSSC | SST | STA | SUSCO | SVI | SYNTEC |
| TAE | TAKUNI | TASCO | TBSP | TCAP | TCMC | TFG | TFI | TFMAMA | THANI | THCOM |
| THIP | THRE | THREL | TIP | TIPCO | TISCO | TKT | TTB | TMD | TMILL | TMT |
| TNITY | TNL | TNP | TNR | TOG | TOP | TPA | TPCORP | TPP | TRU | TSC |
| TSTH | TTCL | TU | TVD | TVI | TVO | TWPC | U | UBIS | UEC | UKEM |
| UOBKH | UWC | VGI | VIH | VNT | WACOAL | WHA | WHAUP | WICE | WIJK | XO |
| ZEN | TRUE | | | | | | | | | |

| DECLARED | | | | | | | | | | |
|----------|-------|-------|--------|--------|-------|--------|-------|-------|-------|--------|
| 7UP | ABICO | AF | ALT | AMARIN | AMATA | AMATAV | ANAN | APURE | B52 | BKD |
| BM | BROCK | BUI | CHO | CI | COTTO | DDD | EA | EFORL | EP | ERW |
| ESTAR | ETE | EVER | FSMART | GPI | ILINK | IRC | J | JKN | JMART | JMT |
| JSP | JTS | KWG | LDC | MAJOR | META | NCL | NOBLE | NOK | PK | PLE |
| ROJNA | SAAM | SAPPE | SCI | SE | SHANG | SINGER | SKR | SPALI | SSP | STANLY |
| SUPER | SYNEX | THAI | TKS | TOPP | TRITN | TTA | UPF | UV | WIN | ZIGA |

| 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) |

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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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

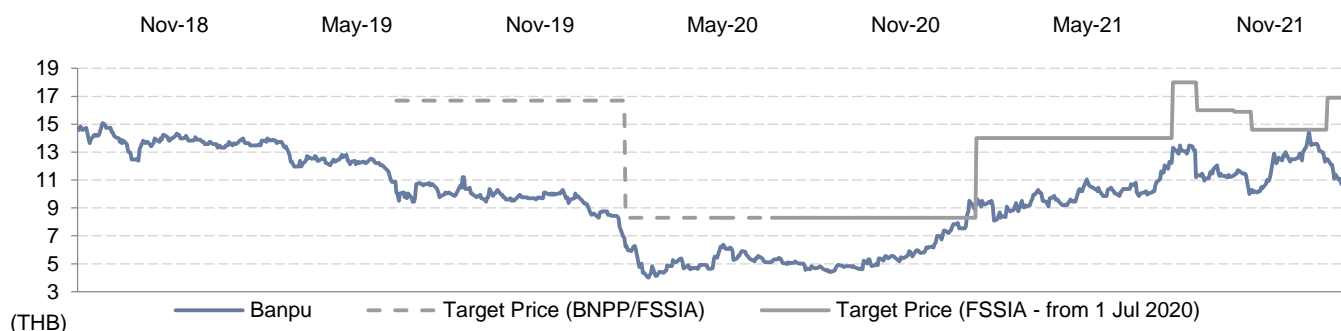
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History of change in investment rating and/or target price

Banpu (BANPU TB)



| Date | Rating | Target price | Date | Rating | Target price | Date | Rating | Target price |
|-------------|--------|--------------|-------------|--------|--------------|-------------|--------|--------------|
| 13-Aug-2019 | BUY | 16.70 | 14-Jan-2021 | BUY | 14.00 | 17-Aug-2021 | BUY | 14.60 |
| 26-Feb-2020 | HOLD | 8.30 | 24-Feb-2021 | BUY | 14.00 | 27-Aug-2021 | BUY | 14.60 |
| 26-Feb-2020 | HOLD | 8.30 | 10-Jun-2021 | BUY | 18.00 | 04-Oct-2021 | BUY | 14.60 |
| 09-Oct-2020 | BUY | 8.30 | 01-Jul-2021 | HOLD | 16.00 | 21-Oct-2021 | BUY | 16.90 |
| 23-Dec-2020 | BUY | 14.00 | 02-Aug-2021 | BUY | 15.90 | | | |

Suwat Sinsadok started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

| Company | Ticker | Price | Rating | Valuation & Risks |
|---------|----------|-----------|--------|---|
| Banpu | BANPU TB | THB 10.80 | 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. |

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 10-Nov-2021 unless otherwise stated.

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.