

BANPU BANPU TB

THAILAND / MATERIALS

BUY

UNCHANGED

Coal shines as substitute energy

- We expect Banpu to post a strong 2Q22 NP of THB11.4b, up 11% q-q and 7.6x y-y, with core NP to jump to THB15.9b.
- We estimate that in 3Q22 onward, Banpu will add roughly USD0.1b in EBITDA from XTO's shale assets.
- Maintain BUY at TP of THB18.80.

| | |
|-----------------|-----------|
| TARGET PRICE | THB18.80 |
| CLOSE | THB13.00 |
| UP/DOWNSIDE | +44.6% |
| PRIOR TP | THB18.80 |
| CHANGE IN TP | UNCHANGED |
| TP vs CONSENSUS | +20.6% |

KEY STOCK DATA

| YE Dec (THB m) | 2021 | 2022E | 2023E | 2024E |
|----------------------|---------|---------|---------|---------|
| Revenue | 133,190 | 176,495 | 159,632 | 154,929 |
| Net profit | 9,852 | 28,728 | 29,682 | 30,388 |
| EPS (THB) | 1.46 | 4.00 | 3.34 | 2.57 |
| vs Consensus (%) | - | (0.9) | 25.5 | 24.6 |
| EBITDA | 61,472 | 78,054 | 78,249 | 79,292 |
| Core net profit | 23,793 | 28,728 | 29,682 | 30,388 |
| Core EPS (THB) | 3.52 | 4.00 | 3.34 | 2.57 |
| Chg. In EPS est. (%) | - | - | - | - |
| EPS growth (%) | nm | 13.6 | (16.4) | (23.2) |
| Core P/E (x) | 3.7 | 3.3 | 3.9 | 5.1 |
| Dividend yield (%) | 3.5 | 17.2 | 13.7 | 10.4 |
| EV/EBITDA (x) | 4.4 | 3.6 | 3.9 | 4.3 |
| Price/book (x) | 1.1 | 0.9 | 0.8 | 0.9 |
| Net debt/Equity (%) | 154.9 | 95.2 | 64.7 | 43.7 |
| ROE (%) | 33.6 | 30.4 | 24.0 | 19.6 |

Solid 2Q22E net profit is just the beginning

We expect Banpu to post a strong 2Q22 net profit of THB11.4b, up 11% q-q and 7.6x y-y. Excluding hedging and FX losses, we project core net profit to jump to THB15.9b, up 69% q-q and 447% y-y. Key drivers are higher average selling prices (ASPs), a lower hedging loss, and rising coal sales volumes, alongside improving net profits from its power business, mainly from the Hongsa power plant (HPC). With the y-y higher prices and rising sales volumes of coal and gas, we think Banpu's quarterly core net profits will grow markedly in 2Q22-4Q22.

Higher-for-longer prices for coal and gas

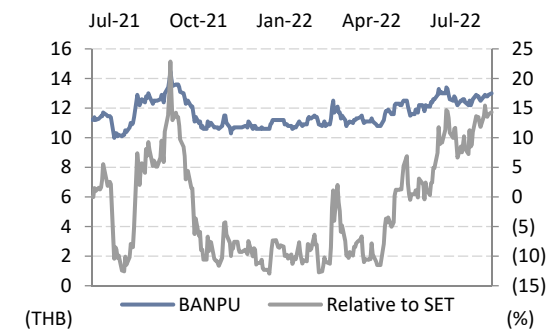
With the tighter supply of gas and oil due to the ongoing Russia-Ukraine war, we expect the coal price to remain higher for longer in 2H22 and into 2023, as demand for coal as a substitute for gas and oil in the coming winter in the Northern Hemisphere is likely to support the coal price above USD300/t for the Newcastle coal price index, in our view. While hedging losses, particularly for gas, will continue to erode its operating net profit, Banpu's reported quarterly net profit should surge both q-q and y-y as we project the hedging losses to shrink as a result of Banpu's adaptive hedging policy to reduce its hedging position.

M&A to strengthen shale gas earnings in 2H22 onward

On 30 Jun-22, Banpu completed its acquisition of XTO's natural gas and mid-stream assets in the Barnett Shale area with a transaction valued at USD750m (THB26.5b), with Banpu starting to consolidate XTO's shale assets on 1 Jul-22 onward. After the XTO acquisition, Banpu will increase its shale gas equity capacity from around 700mmscfd to 900mmscfd and its 1P reserve from 4.4tcf to over 5.8tcf. We estimate that in 3Q22 onward, Banpu will add around USD0.1b in EBITDA from XTO's shale assets, bringing its quarterly EBITDA from shale gas to as high as USD0.4b in 2H22-2023, based on our estimates.

Strong earnings to overcome hedging loss concerns

YTD, Banpu's share price has greatly lagged behind ITMG's share price performance due to investors' concerns over its large hedging losses. However, strong quarterly net profits in 2Q22-2023 backed by higher ASPs and sales volumes of its coal and gas, M&A for shale, and lower hedging losses, should overcome investors' concerns, in our view.



| Share price performance | 1 Month | 3 Month | 12 Month |
|--------------------------------|---------------------------|---------|----------|
| Absolute (%) | 6.6 | 12.1 | 15.1 |
| Relative to country (%) | 7.1 | 20.3 | 14.0 |
| Mkt cap (USD m) | 2,403 | | |
| 3m avg. daily turnover (USD m) | 49.1 | | |
| Free float (%) | 88 | | |
| Major shareholder | Vongkusolkit Family (13%) | | |
| 12m high/low (THB) | 14.90/9.65 | | |
| Issued shares (m) | 6,766.00 | | |

Sources: Bloomberg consensus; FSSIA estimates



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Investment thesis

We believe Banpu's earnings growth outlook will improve in 2022, driven by its coal, gas, and power businesses due to the improving margin outlook based on stronger demand and tighter supply.

We think that rising Newcastle index coal prices should lead to higher coal earnings in 2022. 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 2022. 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 projected USD100-130/tonne index coal prices. Finally, we see more upsides for its power earnings due to higher projected net profit contributions from Hongsa.

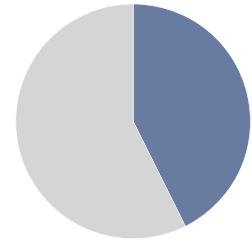
Company profile

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, 2021)

■ Coal - 42.6 % ■ Others - 57.4 %

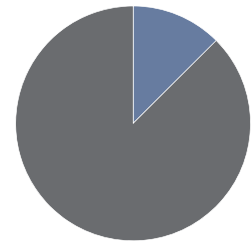


Source: Banpu

Major shareholders

■ Vongkusolkit Family - 12.5 %

■ Others - 87.5 %



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 |
|----------|---------------------------|
| Aug 2022 | 2Q22 results announcement |

Key assumptions

| | 2022E | 2023E | 2024E |
|--------------------------------|-------|-------|-------|
| Coal sales volume (mtpa) | 34.8 | 34.7 | 33.7 |
| Newcastle coal price (USD/t) | 200.0 | 150.0 | 150.0 |
| ASP for coal (USD/t) | 162.3 | 139.8 | 139.6 |
| Total cost - Indonesia (USD/t) | 85.1 | 69.2 | 66.2 |
| Total cost - Australia (USD/t) | 88.0 | 87.0 | 87.0 |

Source: FSSIA estimates

Earnings sensitivity

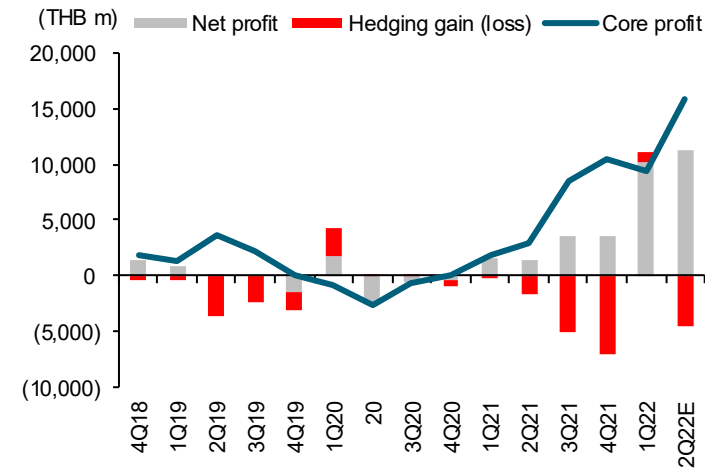
- Ceteris paribus, for every 1% rise in average coal price, we project 2022 EPS to rise by 2.6%, and vice versa.
- Ceteris paribus, for every 1% rise in coal sales volume, we estimate 2022 EPS to rise by 1.2%, and vice versa.
- Stability in crude oil price, rising coal prices and high utilisation rates of power plants are key to earnings growth.

Source: FSSIA estimates

Higher-for-longer coal prices

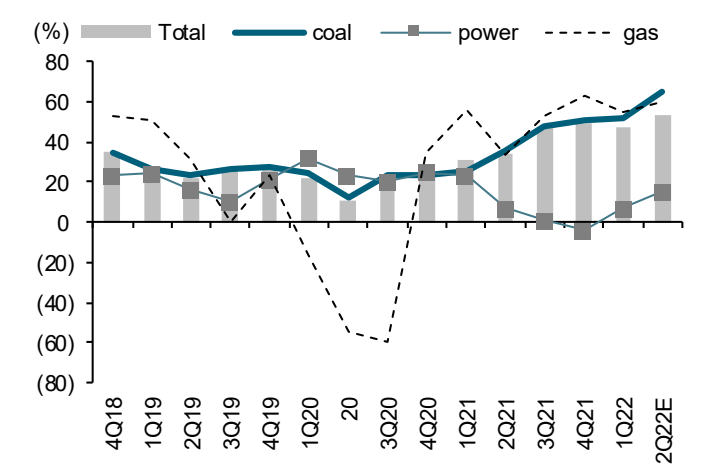
With the y-y higher prices of coal and gas and improving sales volumes of coal, we think Banpu's quarterly core net profits will continue to grow markedly q-q, rising to over THB10b a quarter. While hedging losses, particularly for gas, will continue to erode its operating net profits, Banpu's reported quarterly net profit should surge both q-q and y-y as we project its hedging losses to shrink as a result of its adaptive hedging policy aimed at better capturing the global coal and gas price uptrends.

Exhibit 1: Strong net profits to continue in 2Q22 onward



Sources: Banpu; FSSIA estimates

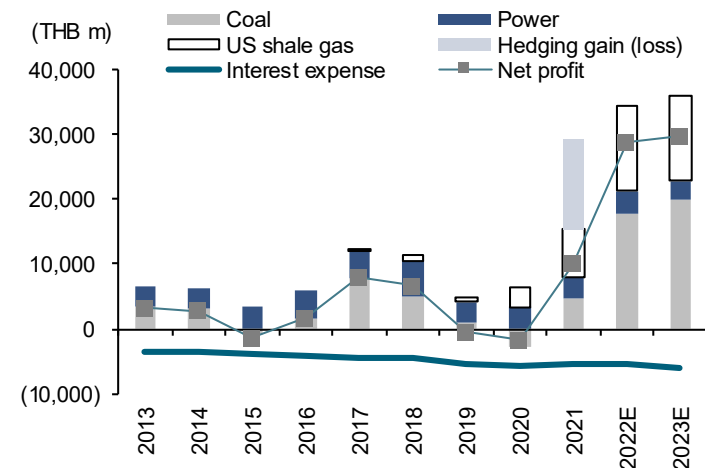
Exhibit 2: Gross margins to improve markedly



Sources: Banpu; FSSIA estimates

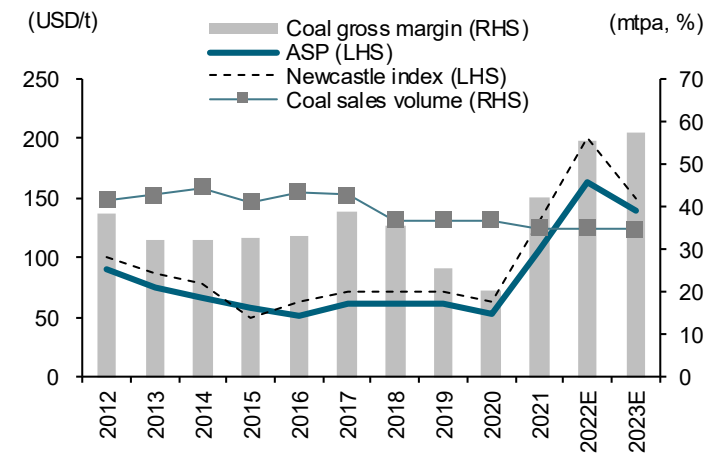
On an annual basis, we project Banpu's net profits in 2022-23 to jump to THB29b in 2022 and THB30b in 2023, driven mainly by higher coal prices, while we expect the gross margin for coal to hit 55% in 2022 and 58% in 2023.

Exhibit 3: Net profit growth from coal and shale gas



Sources: Banpu; FSSIA estimates

Exhibit 4: Coal gross margin to surge on higher ASP



Sources: Banpu; FSSIA estimates

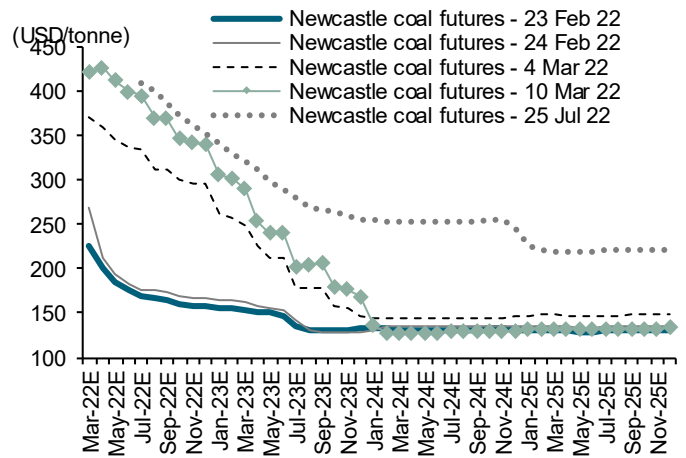
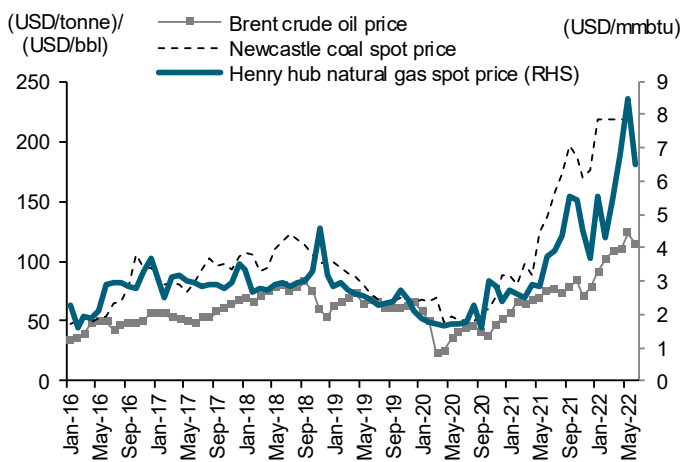
Higher-for-longer prices for coal and gas in 2022-25

Since 1Q21, the prices of energy, including oil, gas, and coal, have surged due to rising demand post the reopening of the global economy and tighter supplies as a result of the Russia-Ukraine war that broke out on 24 Feb-22. Of the three major energy commodities, the coal price has jumped the most due to its use as a substitute for gas and oil.

A USD250/t floor price for Newcastle index is now expected in 2024-25. The impact of the Russia-Ukraine war on the global coal price has been manifest in the much higher Newcastle coal price (NCT) futures, which have jumped by over USD70-100/t for both near-term and long-term futures. Currently, the market expects NCT futures to stay above USD200/t at least until 2025 – far higher than the previous expectation of USD150/t reflected in the NCT futures for 2024-25 seen on 23 Feb-22 (before the Russia-Ukraine war began on 24 Feb-22), and on 4 and 10 Mar-22 as the war dragged on.

Exhibit 5: Brent crude, Newcastle coal, Henry Hub gas price

Exhibit 6: Newcastle coal futures



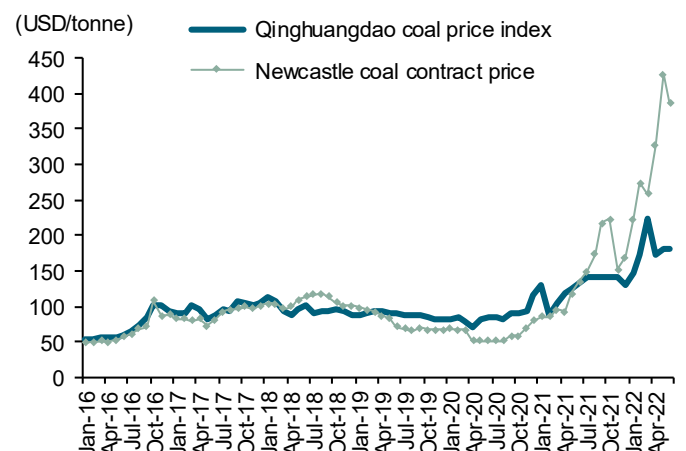
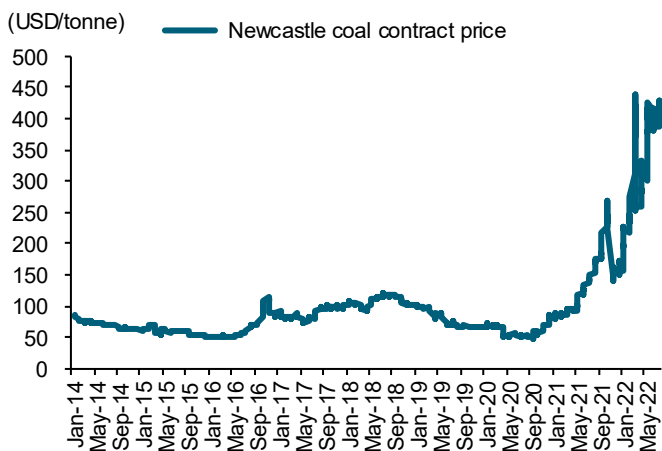
Source: Bloomberg

Source: Bloomberg

Meanwhile, NCT has now strayed far higher than China's Qinghuangdao (QHD) coal price index, widening from a small discount in 1Q21 to the current USD220/t in Jun-22 as a result of China's price curb policy for the domestic market aimed at controlling the cost of power generation.

Exhibit 7: Newcastle coal contract price spike

Exhibit 8: Benchmark coal prices (QHD vs NCT)

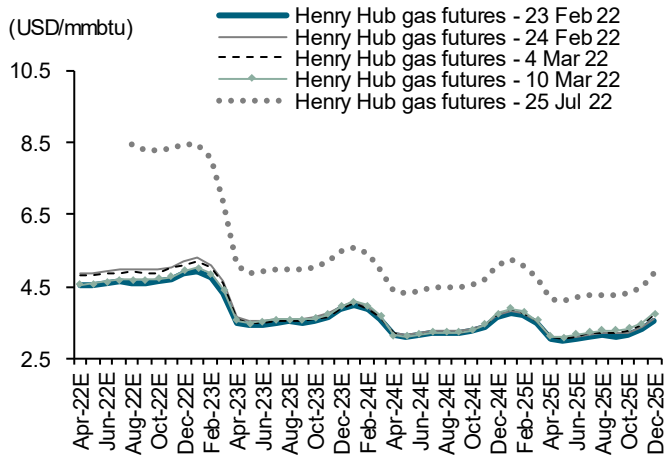


Source: Bloomberg

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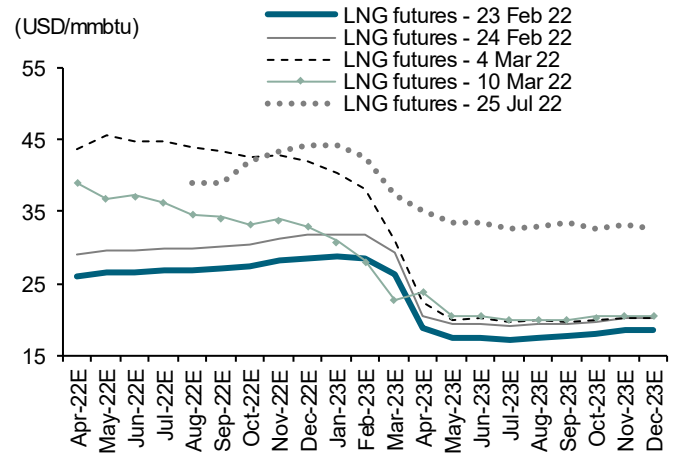
The Henry Hub gas price has similarly risen recently, jumping out of the USD4.5-4.7/mmbtu band during Feb-Jun 2022 to USD8.5/mmbtu for the near-term futures in 2022-1Q23 before declining to USD4.5/mmbtu post 2023. The rise in LNG futures to USD36-45/mmbtu based on the LNG futures on 25 Jul-22 clearly indicates that the global LNG market is expected to remain tight at least until 2Q23 when new LNG supply should meaningfully come on stream.

Exhibit 9: Henry Hub gas futures



Source: Bloomberg

Exhibit 10: LNG futures



Source: Bloomberg

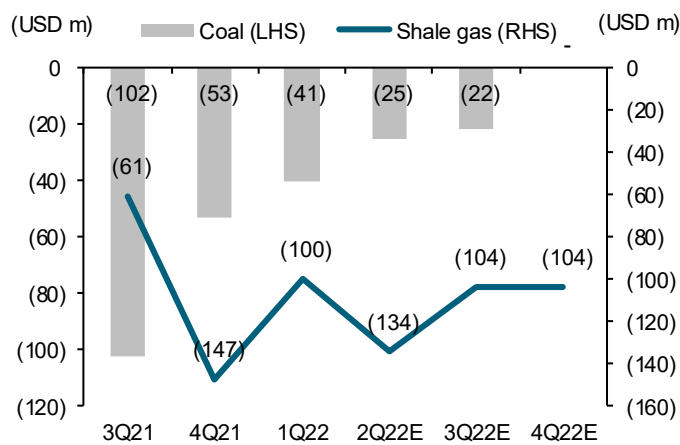
Higher-for-longer quarterly net profits for coal and gas in 2022-23

We expect Banpu to enjoy strong earnings growth momentum in 2Q22-2023, thanks to its higher ASP for coal and gas, rising sales volumes, and a meaningful decline in its hedging losses.

In the past four quarters since 3Q21, Banpu has continued to improve its hedging policy, effectively reducing the hedging volumes and prices for both its coal and gas businesses.

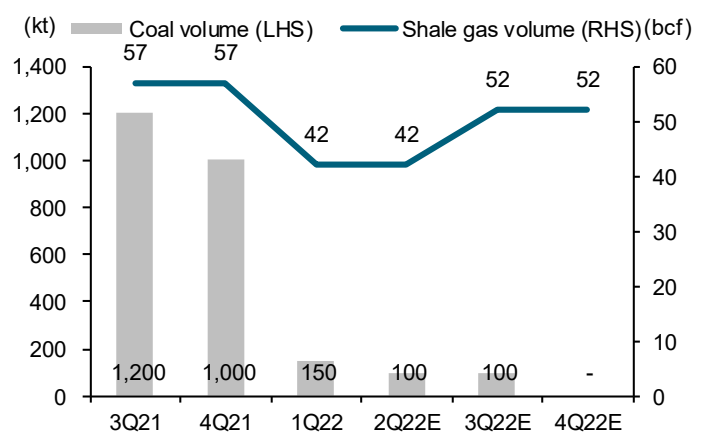
As a result, despite the higher global coal and gas prices, Banpu has seen smaller combined hedging losses since 3Q21, particularly for its coal business, as Banpu cut its coal hedging volumes by 4-5x from 0.5mt a quarter in 2H22 to 0.1mt a quarter in 2022, based on management’s guidance.

Exhibit 11: Quarterly hedging loss projections for coal and shale gas



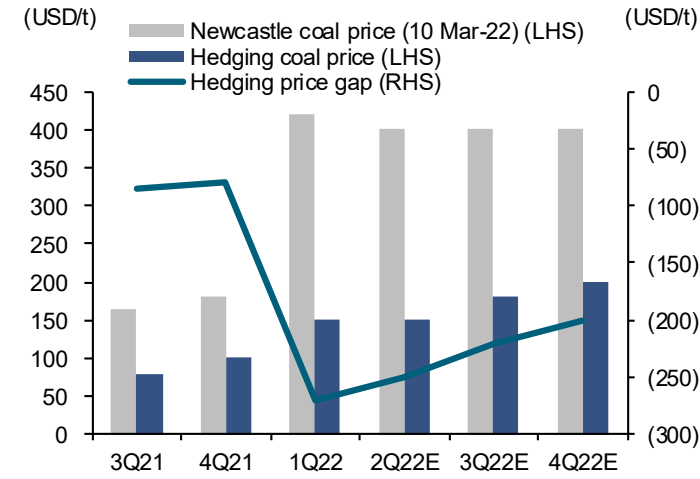
Sources: Banpu; FSSIA estimates

Exhibit 12: Banpu’s coal sales volume and shale gas sales volume



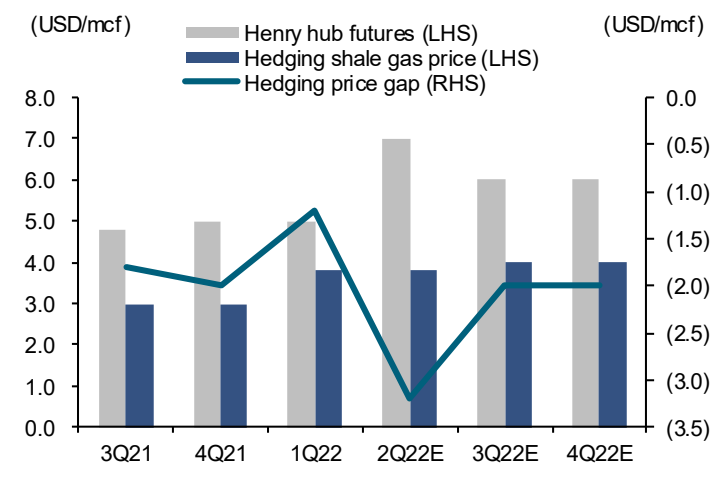
Sources: Banpu; FSSIA estimates

Exhibit 13: Banpu's hedging coal price vs Newcastle coal price index



Sources: Banpu; Bloomberg, FSSIA estimates

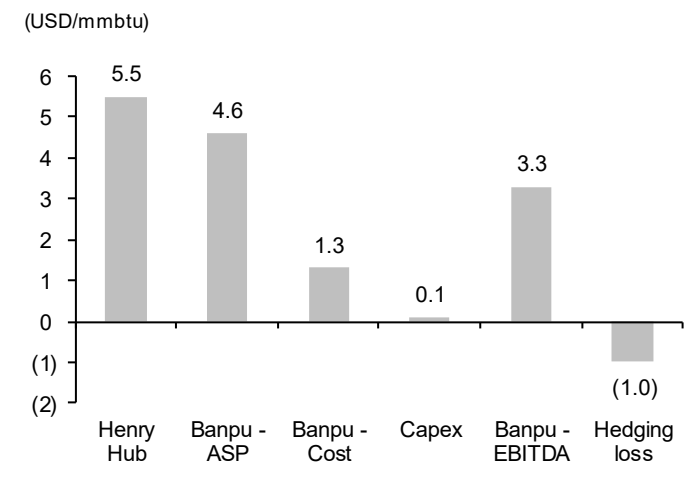
Exhibit 14: Banpu's shale gas selling price vs Henry Hub gas price index futures



Sources: Banpu; Bloomberg, FSSIA estimates

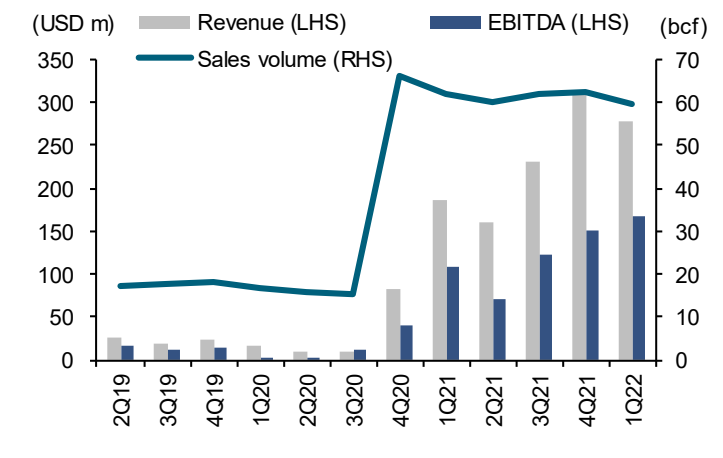
Expect EBITDA growth for both coal and gas in 2022. Thanks to Banpu's low production costs for coal and gas, the higher ASPs for coal and gas have resulted in stronger EBITDA growth from quarter to quarter. We project EBITDA from coal to jump from USD0.4b in 1Q22 to USD0.6b in 2Q22 and EBITDA for gas to rise from USD0.2b in 1Q22 to USD0.3b in 2Q22.

Exhibit 15: Financial analysis of Banpu's shale gas



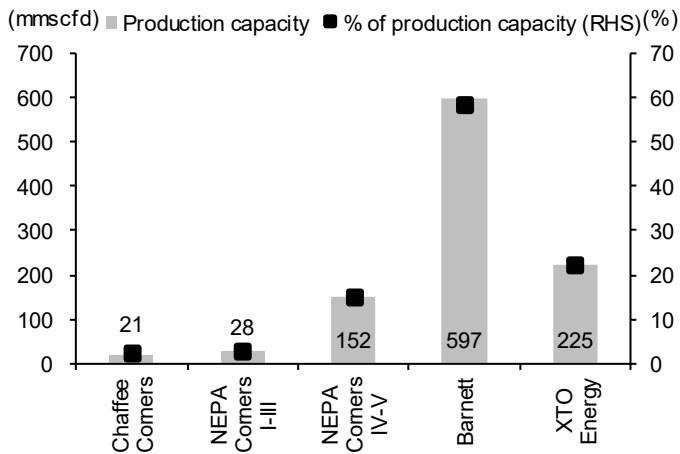
Sources: Banpu; FSSIA estimates

Exhibit 16: Shale gas quarterly revenue, EBITDA, and sales volume



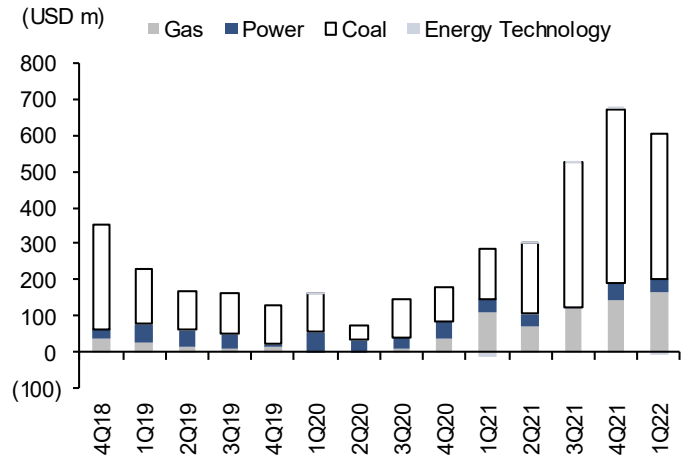
Source: Banpu

Exhibit 17: Shale gas production capacity by asset



Sources: Banpu; FSSIA estimates

Exhibit 18: EBITDA breakdown by business



Sources: Banpu; FSSIA estimates

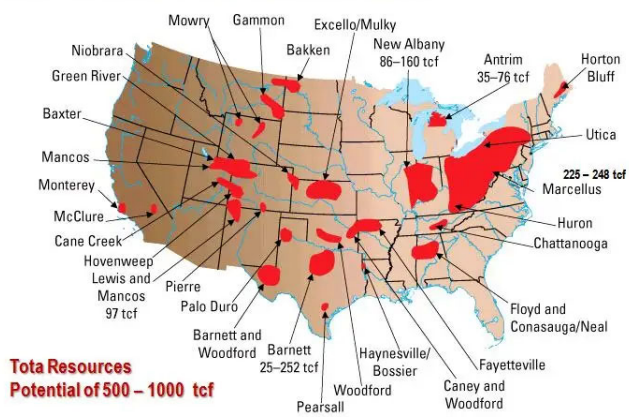
Core gas business strengthened by a recent acquisition. On 30 Jun-22, Banpu, via its 96.12%-owned subsidiary BKV Corporation (BKV), completed its acquisition of the natural gas and mid-stream assets in the Barnett Shale area of XTO Energy and Barnett Gathering LLC (XTO), subsidiaries of Exxon Mobil Corporation. The transaction is valued at USD750m (THB26.5b) with contingent payments up to USD50m. Banpu will start to consolidate XTO’s shale assets on 1 Jul-22 onward.

After the XTO acquisition, Banpu will have increased its shale gas equity capacity from around 700mmscfd to 900mmscfd and its 1P reserve from 4.4tcf to over 5.8tcf, becoming the largest gas producer in the Barnett area.

We estimate that in 3Q22 onward, Banpu will add around USD0.1b in EBITDA from XTO’s shale assets, bringing its quarterly EBITDA from shale gas to as high as USD0.4b in 2H22-2023, based on our estimates.

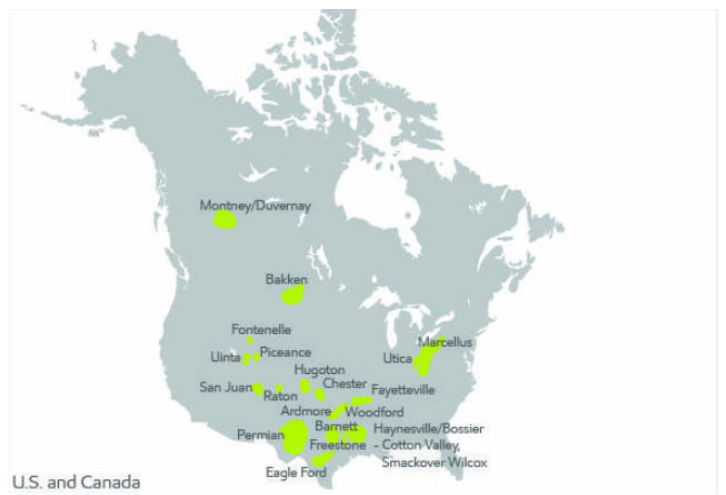
Exhibit 19: Shale gas basins in the US

Shale Gas Basins In The United States



Source: Business Insider

Exhibit 20: XTO’s shale formations

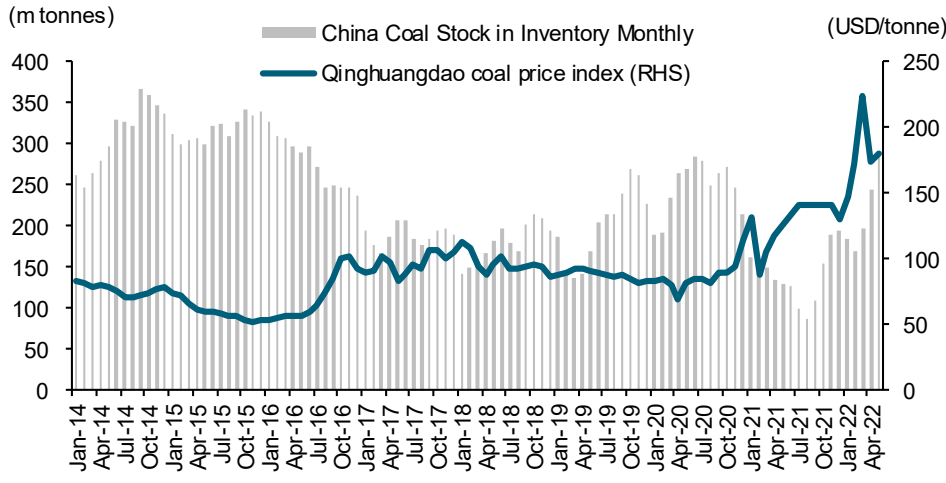


Source: XTO Energy

Coal price uptrend to continue in 2022-24

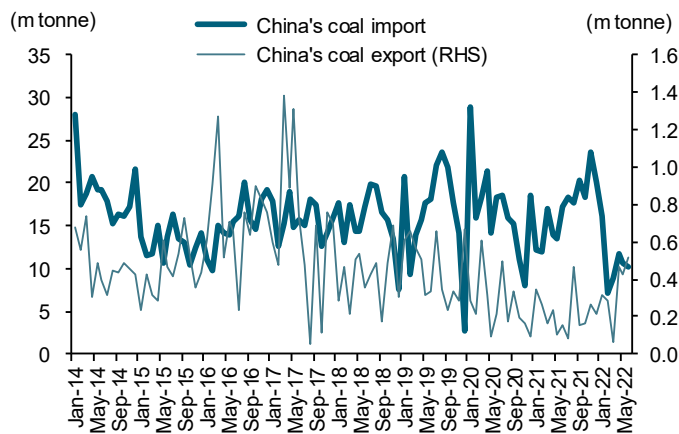
After the power blackouts in 4Q21, China has continued to raise its coal inventory, curb its coal price in the domestic market, and reduce its coal imports. However, the global coal price as represented by NCT has continued to rise to over USD400/t currently, widening the coal price gap between QHD and NCT to over USD250/t in Jul-22.

Exhibit 21: China's coal inventory vs QHD coal price index



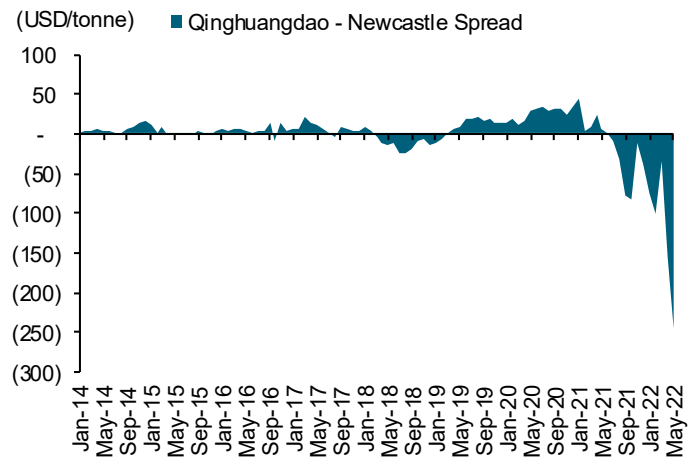
Source: Bloomberg

Exhibit 22: China's coal imports and exports



Source: Bloomberg

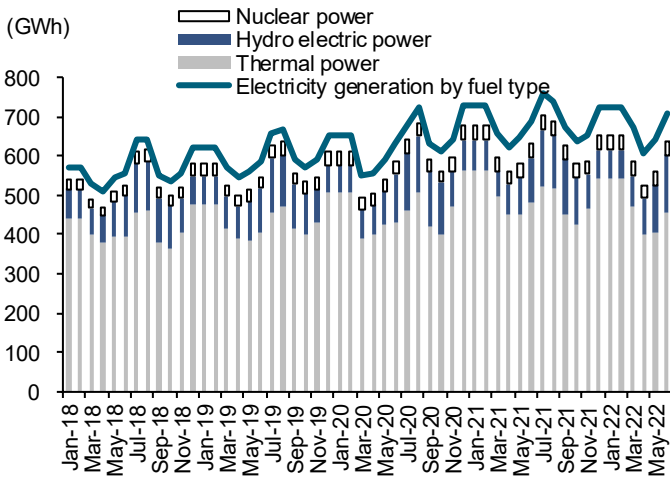
Exhibit 23: Coal price gap between QHD and NCT



Source: Bloomberg

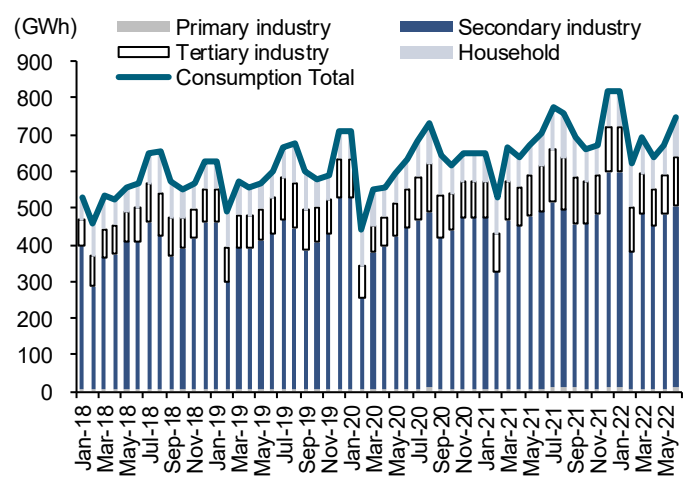
Demand for power in China has grown in 2022. Even with multiple lockdowns, China's power consumption remained strong in 1H22, particularly for the industrial segment. This has led to higher demand for power from coal, which currently accounts for over 50% of China's total power generation capacity.

Exhibit 24: Thermal power (mostly coal-fired) remains China's main power generation capacity



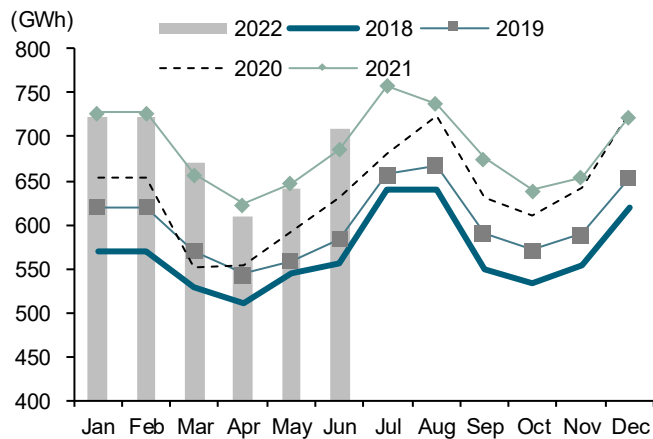
Source: Bloomberg

Exhibit 25: China's electricity demand has sharply rebounded above pre-Covid-19 levels



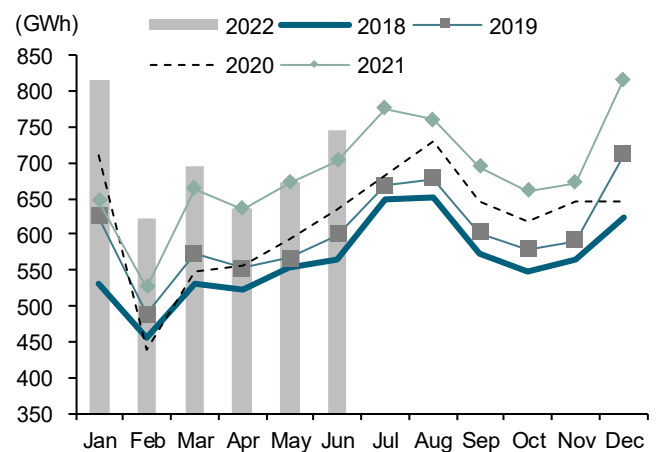
Source: Bloomberg

Exhibit 26: China's electricity supply



Source: Bloomberg

Exhibit 27: China's electricity consumption



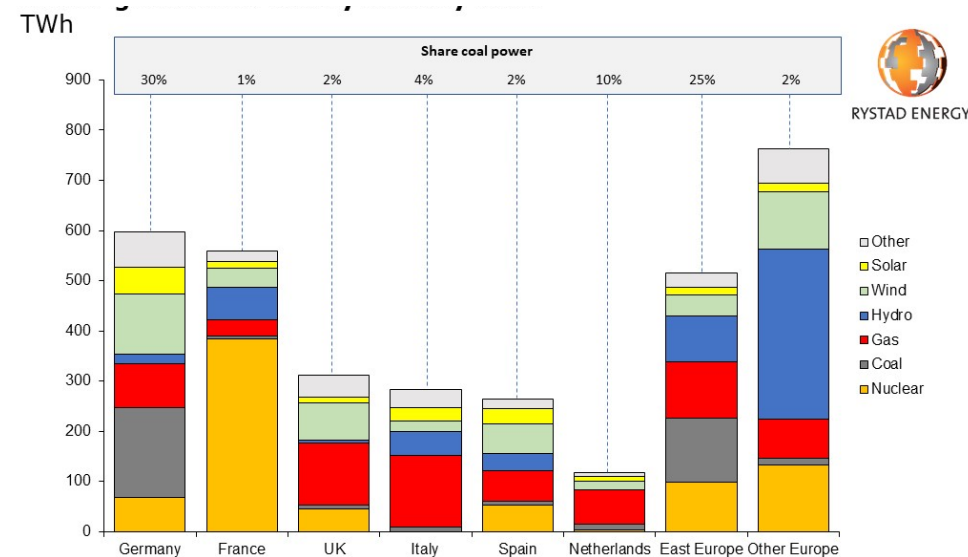
Source: Bloomberg

Is the EU abandoning Russian coal? On top of China’s continued strong demand for coal, we think it is less likely now that the EU will completely abandon its reliance on Russian coal to replace the already severe reduction in oil and gas purchases amid the intensifying sanctions.

What price will the EU have to pay for a Russian coal ban? Similar to oil and gas, the EU’s ban on Russian coal means European consumers will have to brace for higher power prices in 2022 as supply shortages in countries that rely on coal-fired electricity generation will spread across the continent via its well-connected power grids.

Eastern Europe and Germany will be particularly hard hit as they generated a significant share of their electricity with Russian thermal coal. The latest sanctions will send countries scrambling for alternative sources of supply in a market where prices have already quadrupled in the past 12 months.

Exhibit 28: EU power generation mix by country (2021)



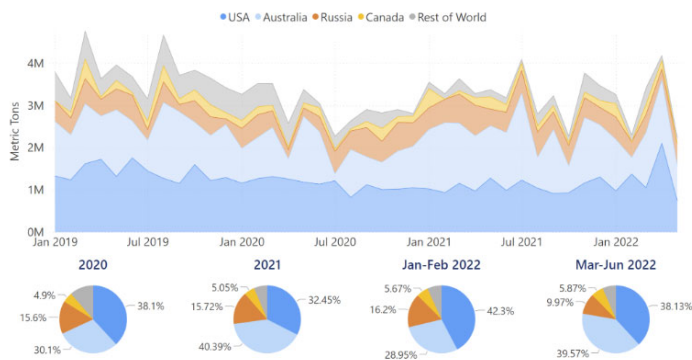
Source: [Rystad Energy](https://www.rystadenergy.com)

No light at the end of the Russian coal ban tunnel for the EU. Based on [AXSData](https://www.axsdata.com), in 1H22, coal purchases by EU member countries still accounted for 37.5% of Russia’s total coal sales in 1Q22, down from 55.1% in 2021 and 61.6% in 2020. While the proportion of the EU’s coal purchases from Russia has continued to decline, we think it is a grave dilemma for the EU whether to shun Russian gas or coal amid globally tight supplies for coal and gas.

The EU-27 and the UK combined have imported 3mt of steam coal per month from Russia since Oct-21. On the surface, while this seems to indicate a 30% y-y increase in the EU’s monthly coal imports from Russia, our analysis shows a different picture – even as the EU’s demand for coal has grown markedly since Mar-22, the EU has increasingly sourced their steam coal imports from other countries.

During Mar-May 2022, the EU and the UK imported more coal from Colombia (+114% y-y), the US (+164% y-y), and South Africa (+20x y-y). Increased coal imports from non-Russian sources have reduced Russia’s share of the EU market from over 50% in the pre-sanction period from Jan-Feb 2022 down to 37.5% in Mar-May 2022.

Exhibit 29: Europe seaborne coking coal flows by origin



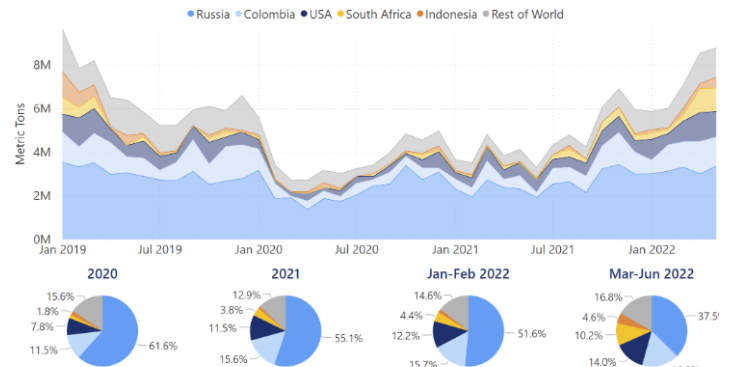
Source: [AXSData](#)

Russian coking coal trade with the EU could be severed in 2022. As for coking coal, Russia is not the largest supplier to the EU. Since early March, nearly 5mt of coking coal has been imported from the US (+14.6% y-y), along with 5mt from Australia in the same period, leaving coking coal imports from Russia to the EU at only 1.3mt, down 33.6% y-y.

Russia remained unscathed by the EU's coal ban in 1H22. While Russian coal exports to the EU have declined, Russia has ramped up its steam coal exports elsewhere, mainly to China at over 10mt in Mar-Jun 2022, up by 31% y-y compared to Jan-Feb 2022 levels, but this still represented a 25% y-y decline as China has reduced its coal imports due to its self-sufficiency policy. Turkey also boosted its coal imports from Russia by 54% y-y since Mar-22.

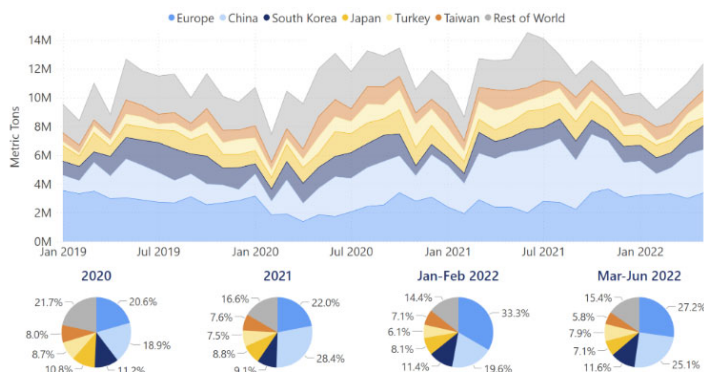
The EU and its allies remained dependent on Russian steam coal post sanctions. South Korea, who along with Japan has allied with the US and the EU bloc against the Russia and China bloc, has surprisingly increased its steam coal imports from Russia since Mar-22, importing over 5mt (+5% y-y). While Japan has curbed its imports of Russian steam coal by 14% y-y since March, the EU's imports of steam coal from Russia still accounted for 1/3 of Russia's steam coal shipments in Jan-Feb which declined only marginally to 27% in Mar-Jun 2022.

Exhibit 30: Europe steam coal flows



Source: [AXSData](#)

Exhibit 31: Russia's seaborne steam coal by destination

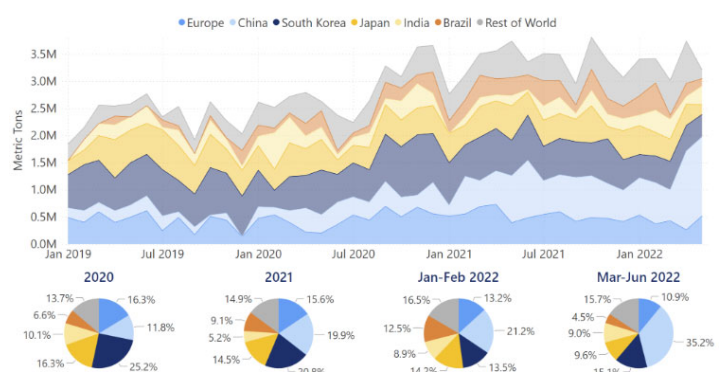


Source: [AXSData](#)

For coking coal, Russia's rising exports to China and India have compensated for the drop in exports to the EU, Japan, and South Korea, with China's imports of coking coal from Russia surging by 77% y-y post Mar-22, leaving Russian coking coal exports down by 7.7% y-y since Mar-Jun 2022 vs a 15.9% rise in Jan-Feb 2022 before Russia invaded Ukraine.

With ongoing sanctions and a potential halt in the EU's imports of Russian coal altogether by August, we think Russian coal exports could decline further and that could further tighten the global coal market, particularly for the steam (thermal) coal market in which Banpu is a major trader in the Asia-Pacific market.

Exhibit 32: Russia's seaborne coking coal by destination



Source: [AXSData](#)

Solid 2Q22 core earnings of THB15.9b expected

We project Banpu to post a strong net profit of THB11.4b in 2Q22, up 11% q-q and 7.6x y-y. Excluding hedging and FX losses, we project core net profit to jump to THB15.9b, up 69% q-q and 447% y-y. Key drivers and expectations are:

- A higher ASP for coal to USD280/t for ITMG in Indonesia, up 85% q-q on the back of the higher NCT price for Banpu's larger coal sales volumes with floating ASPs to over two-thirds of its total sales volume. ITMG sold coal for domestic market obligation at USD75/t (25% of total sales volume in 2Q22), 30% as low-calorific value coal at the Indonesian ICI index-linked price of around USD140-150/t, and the remaining 45% at a 25% discount to NCT.
- A higher ASP for coal to AUD185/t for Centennial (CEY), up 36% q-q, due to the higher proportion of market price-linked export coal sales volumes at 45% vs only 40% on average for CEY. In addition, CEY is scheduled to reprice 3mt of its coal sales volume in 2H22 (50% of total domestic coal sales volume), which we think could provide a hefty ASP upside in 2H22.
- Rising coal sales volumes for ITMG to 5mt, up 17% q-q, and CEY's to 2.8mt, up 88% q-q, thanks to CEY's no longwall movement policy which allowed CEY to maximise its coal production in 2Q22.
- Higher gross margins for ITMG and CEY on higher ASPs and declining production costs, particularly for CEY as its high fixed cost will be lower per unit on higher sales volume.
- Equity income of USD50m, up from USD48m in 1Q22, from China coal as China's government has capped the coal selling price.
- Solid net profit estimated at THB1.8b from its power business, mainly from the high running rate of HPC.

Exhibit 33: 2Q22E operations preview

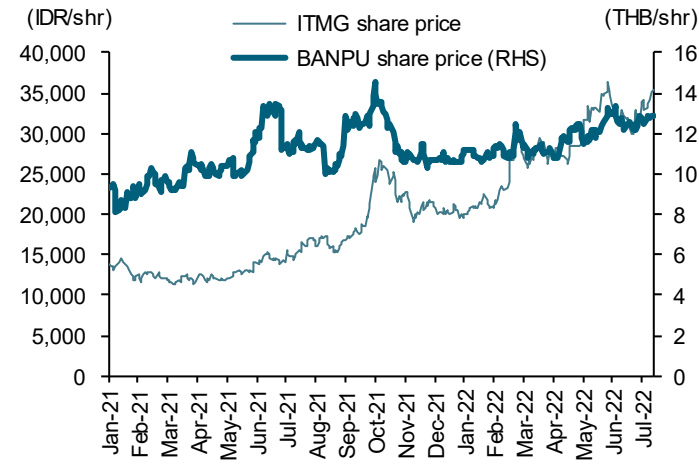
| | 2Q21 | 1Q22 | 2Q22E | | 2022E | |
|--------------------------|---------------|---------------|---------------|-------------|--------------|----------------|
| | (THB m) | (THB m) | (THB m) | (q-q%) | (y-y%) | (THB m) |
| Revenue | 25,063 | 41,509 | 49,635 | 19.6 | 98.0 | 176,495 |
| Operating costs | (15,393) | (21,816) | (16,381) | (24.9) | 6.4 | (98,441) |
| EBITDA | 9,670 | 19,693 | 33,254 | 68.9 | 243.9 | 78,054 |
| <i>EBITDA margin (%)</i> | 39 | 47 | 67 | <i>nm</i> | <i>nm</i> | 44 |
| Depn & amort. | (3,589) | (4,393) | (4,425) | 0.7 | 23.3 | (19,482) |
| EBIT | 6,081 | 15,300 | 28,829 | 88.4 | 374.1 | 58,571 |
| Interest expense | (1,349) | (1,701) | (1,832) | 7.7 | 35.8 | (6,457) |
| Interest & invt inc | 365 | 951 | 963 | 1.3 | 164.0 | 280 |
| Associates' contrib | 2,002 | 2,093 | 2,186 | 4.4 | 9.2 | 8,705 |
| Exceptionals | (3,643) | (1,257) | (12,583) | <i>nm</i> | <i>nm</i> | (3,782) |
| Pretax profit | 3,456 | 15,386 | 17,563 | 14.1 | 408.2 | 57,318 |
| Tax | (1,018) | (2,483) | (2,963) | 19.4 | 191.0 | (9,723) |
| <i>Tax rate (%)</i> | 29 | 16 | 17 | <i>nm</i> | <i>nm</i> | 17 |
| Minority interests | (1,112) | (2,639) | (3,247) | 23.0 | 191.9 | (18,867) |
| Net profit | 1,325 | 10,264 | 11,353 | 10.6 | 756.5 | 28,728 |
| Non-recurring | (1,575) | 859 | (4,510) | <i>nm</i> | 186.4 | - |
| Core net profit | 2,900 | 9,405 | 15,863 | 68.7 | 446.9 | 28,728 |
| EPS (THB) | 0.26 | 1.99 | 2.20 | 10.6 | 756.5 | 4.00 |
| Core EPS (THB) | 0.56 | 1.82 | 3.07 | 68.7 | 446.9 | 4.00 |

Sources: BANPU; FSSIA estimates

The laggard era is soon to end

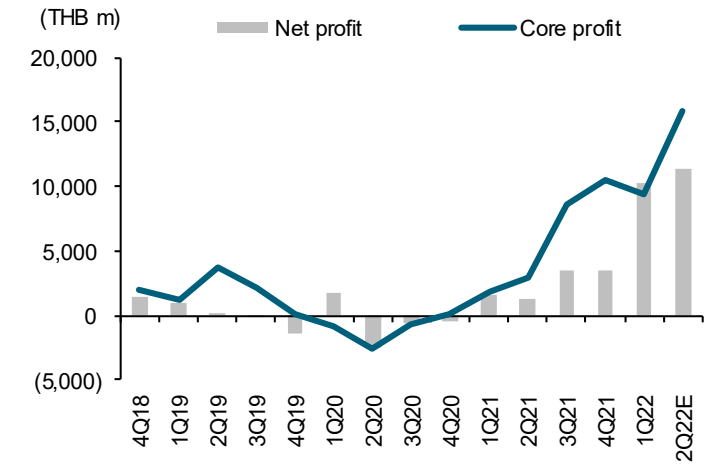
YTD, Banpu's share price has significantly lagged behind the share price performance of ITMG due to investors' concerns over its large hedging losses and high free float, in our view. However, we think a series of strong quarterly net profits in 2Q22-4Q22, which will likely continue into 2023, backed by higher coal and gas ASPs, rising sales volumes of shale gas from acquisitions, and lower hedging losses, should overcome investors' concerns and eventually drive up Banpu's share price toward our SoTP-based target price of THB18.8.

Exhibit 34: Share price of ITMG vs Banpu



Source: Bloomberg

Exhibit 35: Net profit and core net profit



Sources: Banpu; FSSIA estimates

Exhibit 36: SoTP-based target price

| Banpu's valuation breakdown | | (THB/share) | |
|--------------------------------------|-------------|---|--|
| ITMG (65%) (A) | 12.5 | DCF 13% WACC, terminal growth is zero for mines | |
| China coal | 2.4 | DCF 15% WACC, terminal growth is zero for mines | |
| Australian coal (Centennial) | 10.1 | DCF 15% WACC, terminal growth is zero for mines | |
| Net value of non-ITMG coal (B) | 25.1 | | |
| 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) | 3.5 | DCF 7.1% WACC, terminal growth is zero at the end of PPA | |
| Banpu's net debt | (20.3) | at end FY22E | |
| Net value of Banpu (A+B+C+D) | 18.8 | Target price | |

Sources: BANPU; FSSIA estimates

Financial Statements

Banpu

| Profit and Loss (THB m) Year Ending Dec | 2020 | 2021 | 2022E | 2023E | 2024E |
|---|----------------|---------------|---------------|---------------|---------------|
| Revenue | 71,332 | 133,190 | 176,495 | 159,632 | 154,929 |
| Cost of goods sold | (51,406) | (56,425) | (77,190) | (64,162) | (58,934) |
| Gross profit | 19,926 | 76,765 | 99,305 | 95,470 | 95,996 |
| Other operating income | - | - | - | - | - |
| Operating costs | (11,419) | (15,293) | (21,251) | (17,221) | (16,704) |
| Operating EBITDA | 8,506 | 61,472 | 78,054 | 78,249 | 79,292 |
| Depreciation | (13,543) | (15,895) | (19,106) | (19,106) | (19,106) |
| Goodwill amortisation | (31) | (186) | (376) | (376) | (376) |
| Operating EBIT | (5,068) | 45,391 | 58,571 | 58,766 | 59,809 |
| Net financing costs | (2,778) | (3,273) | (6,177) | (6,195) | (6,272) |
| Associates | 4,239 | 7,290 | 8,705 | 7,622 | 7,565 |
| Recurring non-operating income | 5,264 | (5,833) | 4,923 | 3,840 | 3,783 |
| Non-recurring items | 2,282 | (13,941) | 0 | 0 | 0 |
| Profit before tax | (300) | 22,344 | 57,318 | 56,411 | 57,320 |
| Tax | (269) | (6,372) | (9,723) | (9,758) | (9,951) |
| Profit after tax | (569) | 15,973 | 47,595 | 46,653 | 47,369 |
| Minority interests | (1,217) | (6,121) | (18,867) | (16,971) | (16,981) |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | - | - | - | - | - |
| Reported net profit | (1,786) | 9,852 | 28,728 | 29,682 | 30,388 |
| Non-recurring items & goodwill (net) | (2,282) | 13,941 | 0 | 0 | 0 |
| Recurring net profit | (4,068) | 23,793 | 28,728 | 29,682 | 30,388 |
| Per share (THB) | | | | | |
| Recurring EPS * | (0.80) | 3.52 | 4.00 | 3.34 | 2.57 |
| Reported EPS | (0.35) | 1.46 | 4.00 | 3.34 | 2.57 |
| DPS | 0.50 | 0.45 | 2.23 | 1.78 | 1.36 |
| Diluted shares (used to calculate per share data) | 5,075 | 6,766 | 7,189 | 8,881 | 11,841 |
| Growth | | | | | |
| Revenue (%) | (16.8) | 86.7 | 32.5 | (9.6) | (2.9) |
| Operating EBITDA (%) | (56.3) | 622.7 | 27.0 | 0.2 | 1.3 |
| Operating EBIT (%) | nm | nm | 29.0 | 0.3 | 1.8 |
| Recurring EPS (%) | nm | nm | 13.6 | (16.4) | (23.2) |
| Reported EPS (%) | nm | nm | 174.5 | (16.4) | (23.2) |
| Operating performance | | | | | |
| Gross margin inc. depreciation (%) | 8.9 | 45.7 | 45.4 | 47.8 | 49.6 |
| Gross margin of key business (%) | 20.1 | 42.3 | 55.2 | 57.5 | 59.3 |
| Operating EBITDA margin (%) | 11.9 | 46.2 | 44.2 | 49.0 | 51.2 |
| Operating EBIT margin (%) | (7.1) | 34.1 | 33.2 | 36.8 | 38.6 |
| Net margin (%) | (5.7) | 17.9 | 16.3 | 18.6 | 19.6 |
| Effective tax rate (%) | 20.0 | 20.0 | 20.0 | 20.0 | 20.0 |
| Dividend payout on recurring profit (%) | (62.4) | 12.8 | 55.9 | 53.2 | 52.8 |
| Interest cover (X) | 0.1 | 12.1 | 10.3 | 10.2 | 10.2 |
| Inventory days | 24.2 | 22.5 | 22.2 | 29.6 | 30.2 |
| Debtor days | 38.1 | 31.9 | 37.7 | 45.0 | 43.4 |
| Creditor days | 13.6 | 17.2 | 20.3 | 28.7 | 29.3 |
| Operating ROIC (%) | (12.6) | 31.2 | 39.5 | 40.6 | 44.6 |
| ROIC (%) | 0.2 | 10.7 | 17.3 | 15.4 | 14.4 |
| ROE (%) | (6.0) | 33.6 | 30.4 | 24.0 | 19.6 |
| ROA (%) | 0.9 | 10.0 | 13.5 | 11.8 | 10.7 |
| * Pre-exceptional, pre-goodwill and fully diluted | | | | | |
| Revenue by Division (THB m) | | | | | |
| Coal | 55,080 | 56,801 | 78,540 | 78,540 | 78,540 |
| Others | 16,252 | 76,389 | 97,955 | 81,092 | 76,389 |

Sources: Banpu; FSSIA estimates

Financial Statements

Banpu

| Cash Flow (THB m) Year Ending Dec | 2020 | 2021 | 2022E | 2023E | 2024E |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Recurring net profit | (4,068) | 23,793 | 28,728 | 29,682 | 30,388 |
| Depreciation | 13,543 | 15,895 | 19,106 | 19,106 | 19,106 |
| Associates & minorities | (4,239) | (7,290) | (8,705) | (7,622) | (7,565) |
| Other non-cash items | 1,302 | 10,734 | 13,641 | 13,660 | 13,737 |
| Change in working capital | 1,403 | (4,978) | (4,400) | 1,989 | 555 |
| Cash flow from operations | 7,941 | 38,154 | 48,370 | 56,815 | 56,221 |
| Capex - maintenance | - | - | - | - | - |
| Capex - new investment | (22,372) | (12,104) | (16,040) | (14,507) | (14,080) |
| Net acquisitions & disposals | 2,828 | (15,822) | (15,822) | (15,822) | (15,822) |
| Other investments (net) | (2,160) | (5,898) | (5,698) | (5,698) | (5,698) |
| Cash flow from investing | (21,704) | (33,824) | (37,559) | (36,027) | (35,600) |
| Dividends paid | (2,864) | (2,749) | (8,463) | (15,943) | (15,901) |
| Equity finance | 0 | 0 | 0 | 0 | 0 |
| Debt finance | 28,455 | 23,861 | (1,300) | 2,500 | 2,500 |
| Other financing cash flows | (6,277) | (7,802) | 12,690 | 12,638 | 14,313 |
| Cash flow from financing | 19,315 | 13,310 | 2,927 | (805) | 912 |
| Non-recurring cash flows | - | - | - | - | - |
| Other adjustments | 0 | 0 | 0 | 0 | 0 |
| Net other adjustments | 0 | 0 | 0 | 0 | 0 |
| Movement in cash | 5,552 | 17,640 | 13,738 | 19,983 | 21,533 |
| Free cash flow to firm (FCFF) | (8,143.91) | 10,212.57 | 17,267.54 | 27,263.32 | 27,173.38 |
| Free cash flow to equity (FCFE) | 8,415.54 | 20,388.72 | 22,201.03 | 35,926.32 | 37,434.37 |

Per share (THB)

| | | | | | |
|-------------------------------|--------|------|------|------|------|
| FCFF per share | (1.20) | 1.51 | 2.55 | 4.03 | 4.02 |
| FCFE per share | 1.24 | 3.01 | 3.28 | 5.31 | 5.53 |
| Recurring cash flow per share | 1.29 | 6.37 | 7.34 | 6.17 | 4.70 |

| Balance Sheet (THB m) Year Ending Dec | 2020 | 2021 | 2022E | 2023E | 2024E |
|---|----------------|----------------|----------------|----------------|----------------|
| Tangible fixed assets (gross) | 112,066 | 148,710 | 164,749 | 179,256 | 193,336 |
| Less: Accumulated depreciation | (34,543) | (34,543) | (53,649) | (74,618) | (97,329) |
| Tangible fixed assets (net) | 77,523 | 114,167 | 111,100 | 104,639 | 96,008 |
| Intangible fixed assets (net) | 192 | 20 | 20 | 20 | 20 |
| Long-term financial assets | - | - | - | - | - |
| Invest. in associates & subsidiaries | 50,761 | 54,991 | 61,874 | 67,674 | 73,417 |
| Cash & equivalents | 21,941 | 39,581 | 53,320 | 73,303 | 94,836 |
| A/C receivable | 7,482 | 15,806 | 20,650 | 18,677 | 18,127 |
| Inventories | 3,045 | 3,905 | 5,471 | 4,949 | 4,803 |
| Other current assets | 14,833 | 26,145 | 26,145 | 26,145 | 26,145 |
| Current assets | 47,301 | 85,437 | 105,586 | 123,073 | 143,911 |
| Other assets | 105,870 | 111,186 | 137,001 | 167,046 | 203,011 |
| Total assets | 281,648 | 365,799 | 415,581 | 462,452 | 516,366 |
| Common equity | 62,344 | 79,277 | 109,691 | 137,809 | 172,594 |
| Minorities etc. | 22,211 | 24,420 | 43,287 | 60,258 | 77,239 |
| Total shareholders' equity | 84,555 | 103,697 | 152,978 | 198,066 | 249,833 |
| Long term debt | 112,559 | 139,747 | 178,957 | 181,457 | 183,957 |
| Other long-term liabilities | 18,129 | 25,164 | 24,954 | 24,743 | 24,533 |
| Long-term liabilities | 130,687 | 164,911 | 203,910 | 206,200 | 208,489 |
| A/C payable | 2,025 | 3,293 | 5,304 | 4,797 | 4,656 |
| Short term debt | 49,140 | 60,510 | 20,000 | 20,000 | 20,000 |
| Other current liabilities | 15,240 | 33,388 | 33,388 | 33,388 | 33,388 |
| Current liabilities | 66,405 | 97,191 | 58,692 | 58,186 | 58,044 |
| Total liabilities and shareholders' equity | 281,648 | 365,799 | 415,581 | 462,452 | 516,366 |
| Net working capital | 8,096 | 9,174 | 13,574 | 11,585 | 11,031 |
| Invested capital | 242,442 | 289,537 | 323,569 | 350,963 | 383,486 |

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

Per share (THB)

| | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|
| Book value per share | 12.29 | 11.72 | 15.26 | 15.52 | 14.58 |
| Tangible book value per share | 12.25 | 11.71 | 15.26 | 15.52 | 14.57 |

Financial strength

| | | | | | |
|---------------------------|-------|-------|------|------|------|
| Net debt/equity (%) | 165.3 | 154.9 | 95.2 | 64.7 | 43.7 |
| Net debt/total assets (%) | 49.6 | 43.9 | 35.0 | 27.7 | 21.1 |
| Current ratio (x) | 0.7 | 0.9 | 1.8 | 2.1 | 2.5 |
| CF interest cover (x) | 12.1 | 10.9 | 7.2 | 9.1 | 9.2 |

| Valuation | 2020 | 2021 | 2022E | 2023E | 2024E |
|---|---------------|------------|------------|------------|------------|
| Recurring P/E (x) * | (16.2) | 3.7 | 3.3 | 3.9 | 5.1 |
| Recurring P/E @ target price (x) * | (23.5) | 5.3 | 4.7 | 5.6 | 7.3 |
| Reported P/E (x) | (36.9) | 8.9 | 3.3 | 3.9 | 5.1 |
| Dividend yield (%) | 3.8 | 3.5 | 17.2 | 13.7 | 10.4 |
| Price/book (x) | 1.1 | 1.1 | 0.9 | 0.8 | 0.9 |
| Price/tangible book (x) | 1.1 | 1.1 | 0.9 | 0.8 | 0.9 |
| EV/EBITDA (x) ** | 26.8 | 4.4 | 3.6 | 3.9 | 4.3 |
| EV/EBITDA @ target price (x) ** | 30.3 | 5.1 | 4.2 | 4.5 | 5.2 |
| 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 2021

| EXCELLENT LEVEL – Score range 90-100 | | | | | | | | | | |
|--------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| AAV | BCPG | CPALL | GCAP | K | MSC | PLANET | SAMART | SPI | THRE | TVD |
| ADVANC | BDMS | CPF | GFPT | KBANK | MST | PLAT | SAMTEL | SPRC | THREL | TVI |
| AF | BEM | CPI | GGC | KCE | MTC | PORT | SAT | SPVI | TIPCO | TVO |
| AH | BGC | CPN | GLAND | KKP | MVP | PPS | SC | SSSC | TISCO | TWPC |
| AIRA | BGRIM | CRC | GLOBAL | KSL | NCL | PR9 | SCB | SST | TK | U |
| AKP | BIZ | CSS | GPI | KTB | NEP | PREB | SCC | STA | TKT | UAC |
| AKR | BKI | DDD | GPSC | KTC | NER | PRG | SCCC | STEC | TMT | UBIS |
| ALT | BOL | DELTA | GRAMMY | LALIN | NKI | PRM | SCG | STI | TNDT | UV |
| AMA | BPP | DEMCO | GULF | LANNA | NOBLE | PROUD | SCGP | SUN | TNITY | VGI |
| AMATA | BRR | DRT | GUNKUL | LH | NSI | DRSH | SCM | SUSCO | TOA | VIH |
| AMATAV | BTS | DTAC | HANA | LHFG | NVD | PSL | SDC | SUTHA | TOP | WACOAL |
| ANAN | BTW | DUSIT | HARN | LIT | NWR | PTG | SEAFCO | SVI | TPBI | WAVE |
| AOT | BWG | EA | HMPRO | LPN | NYT | PTT | SEAOIL | SYMC | TQM | WHA |
| AP | CENTEL | EASTW | ICC | MACO | OISHI | PTTEP | SE-ED | SYNTEC | TRC | WHAUP |
| ARIP | CFRESH | ECF | ICHI | MAJOR | OR | PTTGC | SELIC | TACC | TRU | WICE |
| ARROW | CHEWA | ECL | III | MAKRO | ORI | PYLON | SENA | TASCO | TRUE | WINNER |
| ASP | CHO | EE | ILINK | MALEE | OSP | Q-CON | SHR | TCAP | TSC | ZEN |
| AUCT | CIMBT | EGCO | ILM | MBK | OTO | QH | SIRI | TEAMG | TSR | |
| AWC | CK | EPG | INTUCH | MC | PAP | QTC | SIS | TFMAMA | TSTE | |
| AYUD | CKP | ETC | IP | MCOT | PCSGH | RATCH | SITHAI | TGH | TSTH | |
| BAFS | CM | FPI | IRPC | METCO | PDG | RS | SMK | THANA | TTA | |
| BANPU | CNT | FPT | ITEL | MFEC | PDJ | S | SMPC | THANI | TTB | |
| BAY | COM7 | FSMART | IVL | MINT | PG | S & J | SNC | THCOM | TTCL | |
| BBL | COMAN | GBX | JSP | MONO | PHOL | SAAM | SONIC | THG | TTW | |
| BCP | COTTO | GC | JWD | MOONG | PLANB | SABINA | SPALI | THIP | TU | |
| VERY GOOD LEVEL – Score range 80-89 | | | | | | | | | | |
| 2S | ASIMAR | CHOW | FLOYD | IT | LOXLEY | OCC | RPC | SKY | TCC | TVT |
| 7UP | ASK | CI | FN | ITD | LRH | OGC | RT | SLP | TCMC | TWP |
| ABICO | ASN | CIG | FNS | J | LST | PATO | RWI | SMIT | TEAM | UEC |
| ABM | ATP30 | CMC | FORTH | JAS | M | PB | S11 | SMT | TFG | UMI |
| ACE | B | COLOR | FSS | JCK | MATCH | PICO | SA | SNP | TFI | UOBKH |
| ACG | BA | CPL | FTE | JCKH | MBAX | PIMO | SAK | SO | TIGER | UP |
| ADB | BAM | CPW | FVC | JMART | MEGA | PJW | SALEE | SORKON | TITLE | UPF |
| AEONTS | BC | CRD | GEL | JMT | META | PL | SAMCO | SPA | TKN | UPOIC |
| AGE | BCH | CSC | GENCO | KBS | MFC | PM | SANKO | SPC | TKS | UTP |
| AHC | BEC | CSP | GJS | KCAR | MGT | PMTA | SAPPE | SPCG | TM | VCOM |
| AIT | BEYOND | CWT | GYT | KEX | MICRO | PPP | SAWAD | SR | TMC | VL |
| ALL | BFIT | DCC | HEMP | KGI | MILL | PPPM | SCI | SRICHA | TMD | VPO |
| ALLA | BJC | DCON | HPT | KIAT | MTSIB | PRIME | SCN | SSC | TMI | VRANDA |
| ALUCON | BJCHI | DHOUSE | HTC | KISS | MK | PRIN | SCP | SSF | TMILL | WGE |
| AMANAH | BLA | DOD | HYDRO | KOOL | MODERN | PRINC | SE | STANLY | TNL | WIK |
| AMARIN | BR | DOHOME | ICN | KTIS | MTI | PSG | SFLEX | STGT | TNP | WP |
| APCO | BROOK | DV8 | IFS | KUMWEL | NBC | PSTC | SFP | STOWER | TOG | XO |
| APCS | CBG | EASON | IMH | KUN | NCAP | PT | SFT | STPI | TPA | XPG |
| APURE | CEN | EFORL | IND | KWC | NCH | QLT | SGF | SUC | TPAC | YUASA |
| AQUA | CGH | ERW | INET | KWM | NETBAY | RBF | SIAM | SWC | TPCS | |
| ASAP | CHARAN | ESSO | INSET | L&E | NEX | RCL | SINGER | SYNEX | TPS | |
| ASEFA | CHAYO | ESTAR | INSURE | LDC | NINE | RICHY | SKE | TAE | TRITN | |
| ASIA | CHG | ETE | IRC | LEO | NRF | RML | SKN | TAKUNI | TRT | |
| ASIAN | CHOTI | FE | IRCP | LHK | NTV | ROJNA | SKR | TBSP | TSE | |
| GOOD LEVEL – Score range 70-79 | | | | | | | | | | |
| A | BGT | CITY | GIFT | JTS | MDX | PK | SGP | SUPER | TQR | YGG |
| AI | BH | CMAN | GLOCON | JUBILE | MJD | PLE | SICT | SVOA | TTI | ZIGA |
| AIE | BIG | CMO | GREEN | KASET | MORE | PPM | SIMAT | TC | TYCN | |
| AJ | BLAND | CMR | GSC | KCM | MUD | PRAKIT | SISB | TCCC | UKEM | |
| ALPHAX | BM | CPT | GTB | KK | NC | PRAPAT | SK | THMUI | UMS | |
| AMC | BROCK | CRANE | HTECH | KKC | NDR | PRECHA | SMART | TNH | UNIQ | |
| APP | BSBM | CSR | HUMAN | KWI | NFC | PTL | SOLAR | TNR | UPA | |
| AQ | BSM | D | IHL | KYE | NNCL | RJH | SPACK | TOPP | UREKA | |
| ARIN | BTNC | EKH | IIG | LEE | NOVA | RP | SPG | TPCH | VIBHA | |
| AS | BYD | EMC | INGRS | LPH | NPK | RPH | SQ | TPIPL | W | |
| AU | CAZ | EP | INOX | MATI | NUSA | RSP | SSP | TIPIP | WIN | |
| B52 | CCP | F&D | JAK | M-CHAI | PAF | SABUY | STARK | TPLAS | WORK | |
| BEAUTY | CGD | FMT | JR | MCS | PF | SF | STC | TPOLY | WPH | |

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

Sources: Thai Institute of Directors Association (IOD); FSSIA's compilation; data as of 26 October 2021

Anti-corruption Progress Indicator

| CERTIFIED | | | | | | | | | | |
|-----------|--------|--------|--------|--------|-------|--------|--------|--------|--------|--------|
| 2S | BCH | CPALL | GC | K | MFC | PE | QLT | SNP | THCOM | TU |
| 7UP | BCP | CPF | GCAP | KASET | MFEC | PG | QTC | SORKON | THIP | TVD |
| ADVANC | BCPG | CPI | GEL | KBANK | MILL | PHOL | RATCH | SPACK | THRE | TVI |
| AF | BE8 | CPN | GFPT | KBS | MINT | PK | RML | SPALI | THREL | TVO |
| AI | BEYOND | CSC | GGC | KCAR | MONO | PL | RWI | SPC | TIDLOR | TWPC |
| AIE | BGC | DCC | GJS | KCE | MOONG | PLANB | S & J | SPI | TIPCO | U |
| AIRA | BGRIM | DELTA | GPI | KGI | MSC | PLANET | SAAM | SPRC | TISCO | UBE |
| AKP | BJCHI | DEMCO | GPSC | KKP | MST | PLAT | SABINA | SRICHA | TKS | UBIS |
| ALPHAX | BKI | DIMET | GSTEEL | KSL | MTC | PM | SAPPE | SSF | TKT | UEC |
| AMA | BLA | DRT | GUNKUL | KTB | MTI | PPP | SAT | SSP | TMD | UKEM |
| AMANAHA | BPP | DTAC | HANA | KTC | NBC | PPPM | SC | SSSC | TMILL | UOBKH |
| AMATA | BROOK | DUSIT | HARN | KWC | NEP | PPS | SCB | SST | TMT | UPF |
| AMATAV | BRR | EA | HEMP | KWI | NINE | PR9 | SCC | STA | TNITY | UV |
| AP | BSBM | EASTW | HENG | L&E | NKI | PREB | SCCC | STOWER | TNL | VGI |
| APCS | BTS | ECL | HMPRO | LANNA | NMG | PRG | SCG | SUSCO | TNP | VIH |
| AQUA | BWG | EGCO | HTC | LH | NNCL | PRINC | SCN | SVI | TNR | WACOAL |
| ARROW | CEN | EP | ICC | LHFG | NOBLE | PRM | SEAOIL | SYMC | TOG | WHA |
| AS | CENTEL | EPG | ICHI | LHK | NOK | PROS | SE-ED | SYNTEC | TOP | WHAUP |
| ASIAN | CFRESH | ERW | IFEC | LPN | NSI | PSH | SELIC | TAE | TOPP | WICE |
| ASK | CGH | ESTAR | IFS | LRH | NWR | PSL | SENA | TAKUNI | TPA | WIJK |
| ASP | CHEWA | ETE | ILINK | M | OCC | PSTC | SGP | TASCO | TPP | XO |
| AWC | CHOTI | FE | INET | MAKRO | OGC | PT | SINGER | TBSP | TRU | ZEN |
| AYUD | CHOW | FNS | INSURE | MALEE | ORI | PTG | SIRI | TCAP | TRUE | |
| B | CIG | FPI | INTUCH | MATCH | PAP | PTT | SITHAI | TCMC | TSC | |
| BAFS | CIMBT | FPT | IRC | MBAX | PATO | PTTEP | SKR | TFG | TSTE | |
| BAM | CM | FSMART | IRPC | MBK | PB | PTTGC | SMIT | TFI | TSTH | |
| BANPU | CMC | FSS | ITEL | MC | PCSGH | PYLON | SMK | TFMAMA | TTA | |
| BAY | COM7 | FTE | IVL | MCOT | PDG | Q-CON | SMPC | TGH | TTB | |
| BBL | COTTO | GBX | JKN | META | PDJ | QH | SNC | THANI | TTCL | |
| DECLARED | | | | | | | | | | |
| AJ | CHG | DDD | ETC | JR | MAJOR | NUSA | RS | SSS | TQM | YUASA |
| ALT | CPL | DHOUSE | FLOYD | JTS | NCAP | NYT | SAK | STECH | TSI | ZIGA |
| APCO | CPR | DOHOME | GULF | KEX | NCL | OR | SCGP | STGT | VARO | |
| B52 | CPW | ECF | III | KUMWEL | NOVA | PIMO | SCM | TKN | VCOM | |
| BEC | CRC | EKH | INOX | LDC | NRF | PLE | SIS | TMI | VIBHA | |

| 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:

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

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of 26 October 2021) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

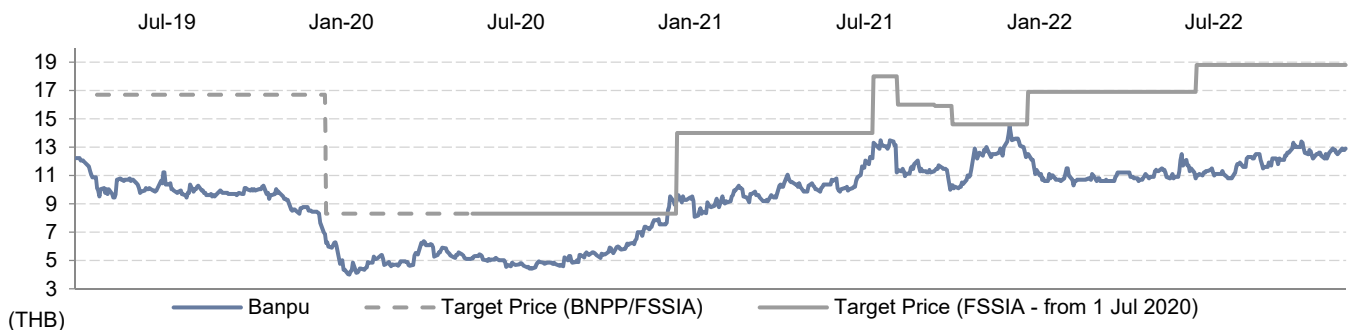
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History of change in investment rating and/or target price

Banpu (BANPU TB)



| Date | Rating | Target price | Date | Rating | Target price | Date | Rating | Target price |
|-------------|--------|--------------|-------------|--------|--------------|-------------|--------|--------------|
| 13-Aug-2019 | BUY | 16.70 | 10-Jun-2021 | BUY | 18.00 | 21-Oct-2021 | BUY | 16.90 |
| 26-Feb-2020 | HOLD | 8.30 | 01-Jul-2021 | HOLD | 16.00 | 15-Mar-2022 | BUY | 18.80 |
| 09-Oct-2020 | BUY | 8.30 | 02-Aug-2021 | BUY | 15.90 | | | |
| 23-Dec-2020 | BUY | 14.00 | 17-Aug-2021 | BUY | 14.60 | | | |

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 26-Feb-2020

Price and TP are in local currency

Source: FSSIA estimates

| Company | Ticker | Price | Rating | Valuation & Risks |
|---------|----------|-----------|--------|---|
| Banpu | BANPU TB | THB 13.00 | 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 25-Jul-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as $(\text{target price}^* - \text{current price}) / \text{current price}$.

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.