

## The Bangchak Petroleum Public Company Limited

**Company Rating:**

BBB+

**Rating Outlook:**

Stable

### Rating Rationale

TRIS Rating assigns the company rating to The Bangchak Petroleum PLC (BCP) at “BBB+”. The rating reflects the company’s satisfactory refinery operations, strengthened balance sheet, and greater integration and support from PTT PLC (PTT). The fluctuations in oil prices and gross refining margins, as well as declining demand for refined petroleum products are rating concerns.

BCP was established in 1985 and listed on the Stock Exchange of Thailand (SET) in 1993. The company owns and operates an oil refinery located in Bangkok with a capacity of 120 thousand barrels per day. The company also operates approximately 1,000 service stations under the “Bangchak” brand. After a capital increase in May 2006, PTT became the major shareholder of BCP. As of June 2008, PTT held 29.7% of BCP and the Ministry of Finance (MOF) held 11.2%, with the remaining 59.1% held by the public.

As a simple refinery, BCP produces a higher portion of fuel oil, which is a lower-value product, than a complex refinery. The average product mix during 2007-2008 was diesel (36%), fuel oil (37%), gasoline (14%) and other refined products (13%).

During 2006-2008, BCP’s operating performance has continuously improved. The refinery utilization rate increased from 48% in 2006 to 60% for the first half of 2008 as the company has been able to export premium-grade fuel oil to China and Japan. Due to the increased portion of cheaper domestic crude and the higher selling price obtained from premium-grade fuel oil, BCP’s total gross refining margin reached US\$13.00 per barrel for the first half of 2008. However, its marketing performance has continued to decline, reflecting an industry-wide slide, BCP recorded a negative marketing margin of Bt0.08 per liter (Bt-0.08) for the first half of 2008. With the refining and marketing combined, BCP’s total earnings before interest, tax, depreciation and amortization (EBITDA) improved to Bt4,324 million for the first half of 2008.

BCP’s capital structure remained healthy, with a debt to capitalization ratio of 36.7% as of June 2008. Due to plans for investments during 2008-2010, leverage is expected to increase slightly to 40%-45%.

Global financial turmoil has resulted in declining demand for refined petroleum products while future refining capacity in the Asia-Pacific region during 2008-2010 may lead to a regional over-supply situation.

### Rating Outlook

The “stable” outlook reflects the expectation that the new hydrocracking unit of BCP will be completed by the end of 2008. The new cracking unit is expected to alleviate the existing refinery limitations and yield more high-value refined products. Better refining margins from the new cracking unit should help BCP weather the down cycles of the refining business.

## Key Rating Considerations

### Strengths/Opportunities

- One of the leaders in renewable energy
- Strengthened market shares and margins from growing demand for bio-fuels
- Financial and commercial supports from PTT
- Improved financial flexibility after refinancing

### Weaknesses/Threats

- Fluctuations in oil prices and gross refining margins
- Constraints of existing plant configuration
- Government intervention to control retail oil price

## Corporate Overview

BCP was established in 1985 as a state-owned oil refining, marketing, and distribution company. BCP was then transformed into a state-owned public company and listed on the SET in 1993. After a capital increase in May 2006, PTT became the major shareholder in BCP. As of June 2008, PTT held 29.7% of BCP and the MOF held 11.2%, with the remaining 59.1% held by the public. BCP owns and operates an oil refinery located in Bangkok with a capacity of 120,000 barrels per day, accounting for 11% of Thailand's refining capacity. As of June 2008, the company operated 1,062 service stations under the "Bangchak" brand, representing 6% of service stations throughout the kingdom.

BCP's refinery, which is categorized as a simple refining technology using hydro-skimming, is the sixth largest refinery in terms of capacity among the seven refiners in Thailand. In 2007 and the first half of 2008, the average product mix for the refinery was diesel (36%), fuel oil (37%), gasoline (14%), and others (13%).

During 2005-2007, the refining business (excluding refined product values transferred to the marketing business) accounted for approximately 32% of BCP's total sales. However, it accounted for more than 90% of BCP's total EBITDA.

During 2005-2007, BCP's retail business represented around 63% of total sales volume, (44% directly through service stations), while the wholesaling business, which distributes products mainly through PTT, represented around 12%. Approximately 14% of the company's sales volume came from sales to other refineries and

the petrochemical companies, with the remaining 11% generated from exports.

**Table 1: BCP's Revenue and EBITDA Breakdown by Business**

	Unit	2005	2006	2007	Jan-Jun 2008
Sales	Bt mil	85,035	93,539	94,134	68,931
Refining	%	36	31	29	33
Marketing	%	64	69	71	67
Total	%	100	100	100	100
EBITDA	Bt mil	4,573	1,613	3,977	4,324
Refining	%	107	71	95	111
Marketing	%	(7)	29	5	(11)
Total	%	100	100	100	100

Source: BCP

## Recent Developments

### Refinery improvement project nearly starts up

BCP is currently building a hydrocracking unit to increase flexibility in crude selection and increase higher-value product yields. The total investment is approximately Bt14,000 million (US\$378 million). As of September 2008, construction was 97% complete, slightly behind schedule. The hydrocracking unit is expected to commence operations in December 2008 without further shut down as the unit was tied-in with the existing plant during the turnaround period in the beginning of 2008.

### Construction contract and loan agreement signed for bio-diesel project

In March 2008, BCP set up a new company, Bangchak Biofuel Co., Ltd. (BBF), to produce and distribute bio-diesel. The company is a joint venture between BCP (70% ownership) and Universal Adsorbent and Chemical Co., Ltd., a chemical trading company (30%). BBF's plant will be located adjacent to BCP's distribution center in Bang Pa-in district, Ayudhya province, and will have a production capacity of 300,000 liters per day. TRC Construction PLC was awarded the contract for engineering, procurement and construction (EPC). The total project cost is approximately Bt1,000 million, with a debt to equity ratio of 2.5:1. BBF signed a loan agreement with Krung Thai Bank PLC to provide total loans of Bt950 million, of which 75% is a long-term loan. Construction will take 15 months and the production is planned to commence by the second half of 2009.

### Refinanced existing loans

In July 2008, BCP entered into a new loan agreement with six financial institutions to provide Bt23,734 million in loans. The new

financing package comprises Bt16,500 million as a long-term loan and Bt7,234 million in working capital. Funds will be used to prepay outstanding debt, to complete the refinery improvement project, and to finance part of the investment in Euro IV project.

▪ **Invested in potash mining**

In August 2008, BCP acquired 6.56% shareholding in ASEAN Potash Mining PLC from Thai Military Bank PLC, with a purchase value of Bt80 million. The project is a co-operative effort among ASEAN countries to produce 1.1 million tonnes per year of potash, which is used for fertilizer production. This investment is to follow the company's strategy to diversify into upstream projects.

**INDUSTRY ANALYSIS**

Over the past 15 years, oil consumption in Thailand fluctuated along with the country's economic condition. Annual growth averaged 2.6%. Oil demand increased by 7.4% per year during 2002-2004 amid strong economic growth. In 2005-2007, higher energy prices lowered energy consumption in Thailand. Demand declined by around 2.2% per year.

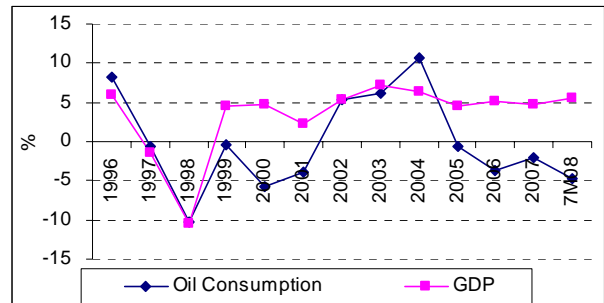
▪ **Increased demand for renewable fuels**

Thailand's energy consumption has been largely driven by manufacturing and transportation sectors, each accounting for over 35% of total energy consumption of the country. Classified by fuel type, diesel accounts for the largest portion (54%) as it is used mainly for transportation, followed by jet fuel and kerosene (14%), gasoline (12%), fuel oil (11%), and gasohol (9%). Since 2006, soaring global oil prices and cuts in government subsidies have discouraged oil consumption in Thailand. During the first seven months of 2008, aggregate oil consumption declined to 19.7 billion liters, a drop of 4.8% year-on-year. Along with government incentives to encourage the consumption of alternative energy, demand for renewable fuels increased significantly in 2008. During the first seven months of 2008, sales of gasohol reached 1.7 billion liters, nearly double from the same period of 2007, and sales of bio-diesel B5 topped 1.7 billion liters, increasing by 646% year-on-year.

When considering replacing oil with a renewable fuel, consumers generally consider price, technical reliability, and availability. Global oil prices are forecast to rise further,

perhaps to US\$185 per barrel in 2030 according to the Energy International Administration (EIA). Oil consumption over the medium term will thus grow moderately as renewable sources provide an increasing share.

**Chart 1: GDP Growth and Oil Consumption Growth in Thailand**

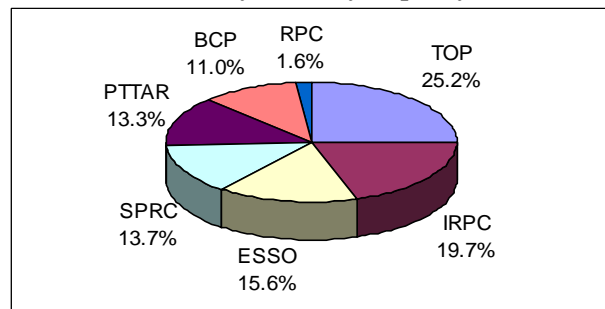


Sources: The National Economic and Social Development Board (NESDB) and EPPO

**Refining Business:**

In Thailand, there are seven oil refining companies, with total capacity of 1,092 thousand barrels per day (KBD). The biggest refining company in terms of capacity is Thai Oil PLC (TOP), with capacity of 275 KBD. Next are IRPC PLC (which was renamed from Thai Petrochemical Industry PLC (TPI)) and Esso (Thailand) PLC (ESSO). Industry capacity has increased in December 2007 for the first time since 2001. TOP added an additional 50 KBD in a refinery expansion.

**Chart 2: Refinery Share by Capacity (2007)**



Source: The Petroleum Institute of Thailand (PTIT)  
Note: SPRC stands for Star Petroleum Refining Co., Ltd. PTTAR stands for PTT Aromatics and Refining PLC (which was formerly known as Rayong Refinery PLC (RRC)). RPC stands for Rayong Purifier PLC.

Refinery technology can be split into simple or complex technology. While BCP and RPC use the hydro-skimming (or simple) refining process, the five biggest companies use a more complex refinery process that utilizes additional process

units to crack the long residue fuel oil into more valuable products. By the end of 2008, BCP will change to a complex refinery process after completing a refinery improvement project. Prices and the proportion of refined products, as well as costs in acquiring feedstock and distributing products, are major competitive factors among refining companies.

▪ **Refinery utilization rate at 90% in 2007**

Thai refined oil products are mostly consumed in the domestic market. Due to the high demand for refined oil and refinery capacity holding constant at 1,042 KBD since 2001, the refinery capacity utilization rate (CUR) reached 89.3% in 2006 and 88.0% in 2007, up from 73% in 2001. Even with the rise in capacity at the end of 2007, the refinery CUR in the first half of 2008 remained high at 89.1%. This is close to the full capacity utilization level of the industry as refineries normally have to shut down for maintenance. Some refineries have already been operating above their nameplate capacity. If oil consumption rises faster at an average annual rate of 5%, new industry capacity should be added soon or Thailand will need to import more oil from abroad.

The major feedstock of refining companies is crude oil, 91% of which is imported. The ex-refinery price of refined oil products in Thailand is based on product prices in Singapore, which is the international oil trading center in this region. Performance in the refining business can be evaluated by the gross refining margin (GRM), which is the difference between aggregate product revenue and crude costs. It is apparent that Thailand's average GRM tends to follow the overall oil price trend. Thailand's average GRM improved continuously from US\$6.70 per barrel in 2006 to US\$7.60 per barrel in 2007 and to US\$11.33 per barrel in the first half of 2008.

**Retailing Business:**

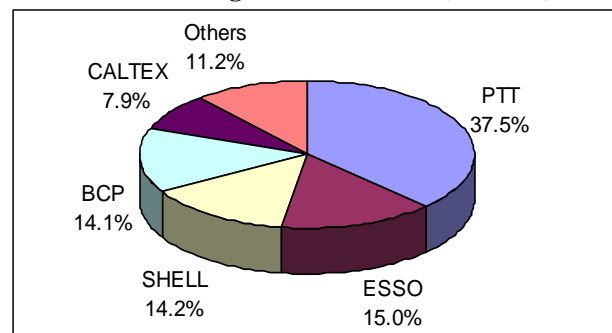
Service stations are the downstream business of the oil industry. As of June 2008, there were 18,144 petrol stations nationwide, seven stations more than in December 2007. However, in the first half of 2008, a squeeze in marketing margin (the spread between the wholesale price and the retail price) caused some unprofitable stations to close. There are currently 13 petrol station brands operating in Thailand, six of which purchase refined oil from related companies. As of June 2008, PTT operated the largest number of service stations (1,181), followed by

BCP with 1,062 and ESSO, The Shell Company of Thailand Ltd. (SHELL) and Chevron (Thailand) Co., Ltd. (owners of the CALTEX brand) with 555, 554, and 436, respectively.

▪ **Intense competition in service stations**

Competition in the retail business remains intense as major players fight to retain market share. Competition takes various forms, such as price cutting, promotional campaigns, advertising, appearance of service stations, and quality of services offered. Moreover, major operators combine their service stations with convenience stores, coffee shops, fast food outlets, car care centers or perhaps bank branches to attract consumers and earn non-fuel income to complement squeezed margins. During the first half of 2008, the boom in use of alternative fuels, such as gasohol (E10 and E20) and bio-diesel (B2 and B5), led to an increase in sales volume of service stations selling these alternative fuels. In terms of average monthly sales volume through service station, PTT dominated the market in the first half of 2008 with a 37.5% share, followed by ESSO (15.0%), SHELL (14.2%), BCP (14.1%) and CALTEX (7.9%). Compared with 2007, PTT's market share increased by 4.9% and BCP's market share grew by 1.4%. On the other hand, ESSO, SHELL and CALTEX saw their market shares decline by 2.3%, 1.8% and 0.5%, respectively, over that same period.

**Chart 3: Market Share by Average Monthly Sales Volume through Service Station (1H/2008)**



Source: BCP

▪ **Marketing margins declined in 2007**

Retail prices and marketing margins of gasoline and diesel fluctuate according to market mechanisms. In 2007, global and regional oil prices continued to climb. Consequently, service stations in Thailand suffered from poor marketing margins. Unlike the ex-refinery prices in Thailand, which reflect the daily Singapore spot market prices, there is a lag between the rise in

the ex-refinery price and the price at service stations. The rigid adjustment of retail prices occasionally causes negative marketing margins. In 2007, the total marketing margin of Thailand decreased slightly, falling by Bt0.098 per liter from 2006 levels to rest at Bt0.9253 per liter for 2007.

▪ **Regulatory controls**

The oil industry in Thailand is strictly regulated by the government. There are many laws and regulations that govern the industry. Two important laws that regulate oil refining companies and oil trading activities are the Fuel Trade Act, B.E. 2543, and the Act on Oil Control, B.E. 2542. The National Energy Policy Council was established in 1992 to look after national energy policies, such as energy prices, tax rates, and subsidies. The government used the Oil Fund to stabilize domestic oil prices by subsidizing refinery companies for the difference between regulated prices and market prices. At present, domestic prices of almost all petroleum products are allowed to move along with the international market. Only liquefied petroleum gas (LPG) and bio-diesel B5 are currently being subsidized. As oil prices have continued to rise, the government has encouraged people to consume alternative fuels, such as bio-diesel, gasohol, and natural gas for vehicles (NGV), in order to reduce the reliance on oil.

In addition, to protect the environment, government regulations require refineries to produce low sulfur oils. To improve the quality of refined oil in Thailand, refineries must meet strict product specifications. Currently, diesel quality in Thailand is set at the Euro III standard of 0.035% sulfur. In 2012, the proportion of sulfur by mass in diesel fuel will be reduced to 0.005%, to be in line with the Euro IV standard. The refineries which can produce Euro IV diesel and gasoline before January 2012 will receive a subsidy of Bt0.24 for every liter sold in the domestic market. Furthermore, to prevent fuel shortages, refining companies and oil retailers are required to maintain a minimum reserve of 5% of total annual volume. To alleviate the impact of high fuel costs and provide an incentive to consume gasohol, the government recently reduced the excise tax of gasohol and diesel by around Bt3 and Bt2 per liter, respectively, for six months starting from 25 July 2008.

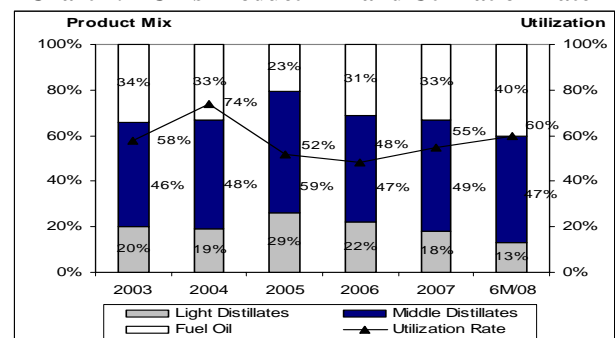
**BUSINESS ANALYSIS**

BCP's business profile is based on improved operating performance despite the limitations of its existing refinery configuration, and the support it receives from its major shareholder, PTT. With higher domestic crude sourcing and the ability to export fuel oil at good prices, refinery utilization and gross refining margins have continuously improved. The hike in oil prices and the high degree of competition among service stations caused an industry-wide decline in the performance of oil retailing. However, larger market share and higher marketing margins from bio-fuels alleviated unfavorable marketing pressure.

▪ **Improved capacity utilization rate due to higher fuel oil export**

As a simple refinery, BCP produces a higher portion of fuel oil, which is a lower-value product, than a complex refinery. Due to the shrinking domestic demand for fuel oil, BCP had to reduce the refinery utilization rate to 50% during 2005-2006 to optimize the GRM and EBITDA. As BCP has been able to export 100-145 million liters per month of very low sulphur fuel oil to China and Japan, the capacity utilization rate in 2007 and the first half of 2008 improved to 55%-60%. This level is expected to hold for the remainder of 2008.

**Chart 4: BCP's Product Mix and Utilization Rate**



Source: BCP

▪ **GRM improved due to higher crack spread, increased domestic crude sourcing, and subsidy in Euro IV diesel sales**

The increase in demand for refined products and an unstable geopolitical situation resulted in favorable refining margins during 2007 and the first half of 2008. A complex refinery is more profitable than a simple refinery, since it can produce a greater portion of high-value products. During 2007 and the first half of 2008, BCP increased the cheaper domestic crude portion

to produce and export fuel oil at a premium price. In addition, the company received a subsidy from diesel sales under Euro IV standard. As a result, GRM increased from US\$3.05 per barrel in 2006 to US\$3.19 per barrel in 2007 and US\$7.00 per barrel in the first half of 2008. However, the drop in oil prices in the third quarter of 2008 will lower average GRM for the whole year.

**Table 2: Gross Refining Margin**

Unit: US\$/barrel

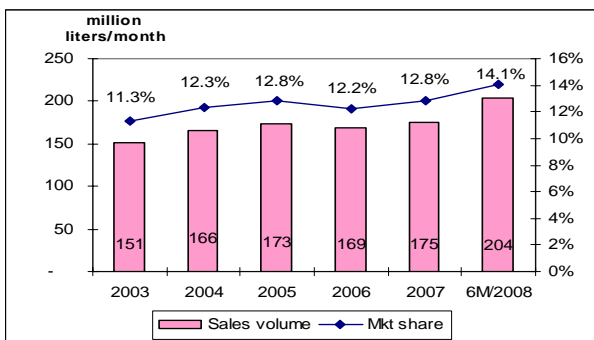
	2004	2005	2006	2007	Jan-Jun 2008
BCP	1.75	3.59	3.05	3.19	7.00
BCP (including inventory effect)	3.41	5.85	2.29	5.10	13.00
Thailand	5.16	6.97	7.24	9.63	11.33

Sources: BCP and EPPO

▪ **Retail market share increased due to higher bio-fuel sales**

BCP ranked fourth in retailing during 2004-2006 with an average sales volume of 169 million liters per month, accounting for 12.4% market share.

**Chart 5: BCP's Sales Volume Through Service Stations and Market Share**



Source: BCP

The continued rise in oil prices and a government policy to support the use of bio-fuels by enlarging retail price gap between bio-fuels and normal-grade fuels boosted gasohol and bio-diesel consumptions. As a result, BCP's sales volume continuously increased from 169 million liters per month in 2006 to 204 million liters per month in the first half of 2008, and market share rose to 14.1%.

▪ **Marketing margin squeezed**

Generally, integration of refining operations with a retail marketing network can help diversify a refiner's earnings and cash flow because refining margins usually move in the opposite direction from marketing margins. When wholesale prices continuously increased, the

government has intervened, from time to time, in the retail market to reduce the economic effect of high energy prices. Fuel retailers were not able to adjust the retail prices fast enough to match rising wholesale prices. Across the industry, marketing margins slumped. Though bio-fuels offer higher margins, BCP's retail marketing margin continued to decrease from Bt0.33 per liter in 2006 to Bt0.24 per liter in 2007. BCP registered a negative margin of Bt0.28 per liter (Bt-0.28/liter) in the first quarter of 2008.

**Table 3: BCP's Marketing Margin**

Unit: Bt/liter

	2004	2005	2006	2007	Jan-Jun 2008
BCP's retail marketing margin	0.43	0.02	0.33	0.24	(0.28)
BCP's total marketing margin	0.37	0.16	0.39	0.30	(0.08)

Sources: BCP

In addition to fuel sales at service stations, non-fuel services, such as convenience stores, food and beverage sales, or automotive services, will enhance retail marketing profits and are a competitive tool used by service stations to attract customers.

▪ **New cracker will enhance operating performance**

As of September 2008, construction of BCP's new cracking unit was 97% complete. Commercial operation will commence by December 2008. Operating performance is expected to improve to match other complex refineries. Refinery capacity utilization is expected to increase from the current level of 50%-60% to a minimum of 80% from 2009 onwards. The refinery will be able to process more varieties of crude, especially heavy and sour crude. The proportion of gasoline and middle distillates is expected to increase from the existing level of 64% to 86%.

PTT, BCP's major shareholder, is the exclusive crude supplier and an offtaker to purchase at least 30% of BCP's refined products. In addition, PTT has invested in a cogeneration power plant. Construction of the power plant was 30% complete as of August 2008, slightly behind the original schedule. The plant is expected to start supplying electricity and steam to BCP by the second quarter of 2009. Another ongoing investment is the construction of natural gas pipeline from a terminal in Samutprakan province to the BCP refinery. The new pipeline will allow BCP to use natural gas in the production process

instead of fuel oil. The project is expected to be completed by March 2009. These investments will reduce BCP's production costs and improve operating reliability.

▪ ***Expands to bio-diesel production***

BCP has expanded through BBF, a subsidiary, into bio-diesel production (B100) using crude palm oil as the raw material. The plant is expected to commence operations by the third quarter of 2009. Production capacity will be 300,000 liters per day. Currently, B100 product will be blended with normal grade diesel to produce various grades of bio-diesel, such as B2 and B5.

To secure the production, the project entered into crude palm oil supply agreements with several suppliers. The arrangements cover the supply at least 60% of the total feedstock requirement of 9,000 tonnes per month. At the same time, BCP signed a bio-diesel offtake agreement with BBF to purchase at least 60% of the B100 production. This bio-diesel project supports BCP's strategy to be the leading company in renewable energy.

**FINANCIAL ANALYSIS**

BCP's moderate financial position is the result of the current favorable market situation and a successful refinancing. Capital expenditures to complete the new hydrocracking unit, the bio-diesel project, and the investment in the Euro IV project will raise leverage during the next 1-2 years. However, the company has a conservative policy to maintain the debt-to-capitalization ratio of less than 50%.

▪ ***Profit margin improves***

BCP's total revenue in 2007 was Bt94,979 million, nearly the same as 2006. However, the operating profit margin before depreciation and amortization significantly improved, rising from 0.71% in 2006 to 4.64% in 2007. This was mainly due to the increased GRM and the inventory gain from a rise in crude value. As oil prices continued to rise, BCP's profit margin further improved in the first half of 2008, pushing GRM to an unusually high level of US\$13 per barrel. In contrast, the marketing business recorded an operating loss in the first half of 2008 as adjustment in retail oil prices lagged rises in costs. When these two lines of business were combined, the company's operating profit

margin before depreciation and amortization increased to 6.81% in the first half of 2008.

▪ ***More financial flexibility after refinancing***

In July 2008, BCP signed a new loan agreement with six financial institutions to refinance existing debts and to secure financing for the refinery improvement and the Euro IV project. The terms and conditions of the refinancing agreement are less stringent than the previous project financing agreement. The longer tenor with the gradual increase of repayment profile provides more liquidity. The reference interest rate (Thai Baht Interest Rate Fixing, or THBFIX) enables the company to have more flexibility to mitigate foreign exchange and interest rate risks.

▪ ***Leverage to rise next year***

BCP's total debt to capitalization ratio increased slightly from 34.2% in 2007 to 36.7% in June 2008, due to the debt incurred from the construction of the new hydrocracking unit. Looking forward, BCP will drawdown Bt4,800 million in additional debt to complete the new hydrocracking project. Construction of the bio-diesel and the Euro IV project will incur Bt2,500 million in new debt. The small portion of repayments during the beginning stages of the repayment schedule will cause the company's leverage to remain high. The debt to capitalization ratio is expected to increase to 40%-45% during 2008-2010.

▪ ***Cash flow continues to improve***

BCP's funds from operations (FFO) continuously improved from Bt1,035 million in 2006 to Bt3,280 million in the first half of 2008. The FFO to total debt ratio also increased, rising from 8.1% in 2006 to 26.0% in 2007. Though the company's total debt rose from Bt11,041 million in 2007 to Bt13,580 million as of June 2008, cash flow protection remained strong. The FFO to total debt ratio for the first six months of 2008 was 24.1% (non-annualized), almost the same level for the whole 2007.

### Financial Statistics and Key Financial Ratios\*

Unit: Bt million

	Jan-Jun 2008	2007	2006	2005	2004
Sales	69,406	94,979	94,270	85,870	79,848
Gross interest expense	344	681	745	650	787
Net income from operations	2,876	1,797	258	2,918	2,465
Funds from operations (FFO)	3,280	2,872	1,036	3,751	3,077
Capital expenditures	5,507	2,308	2,296	734	347
Total assets	52,951	44,987	37,586	34,263	34,370
Total debt	13,580	11,041	12,728	13,480	14,921
Shareholders' equity	23,437	21,225	18,649	12,870	9,781
Operating income before depreciation and amortization as % of sales	6.81	4.64	0.71	4.69	4.80
Pretax return on permanent capital (%)	12.35 **	10.55	3.10	15.05	13.79
Earnings before interest, tax, depreciation and amortization (EBITDA) interest coverage (times)	13.63	6.16	2.36	7.14	5.08
FFO/total debt (%)	24.15 **	26.01	8.13	27.83	20.62
Total debt/capitalization (%)	36.69	34.22	40.56	51.16	60.40

\* Consolidated financial statements

\*\* Non-annualized

#### Rating Symbols and Definitions

TRIS Rating uses eight letter rating symbols for announcing medium- and long-term credit ratings. The ratings range from AAA, the highest rating, to D, the lowest rating. The medium- and long-term debt instrument covers the period of time from one year up. The definitions are:

- AAA** The highest rating, indicating a company or a debt instrument with smallest degree of credit risk. The company has extremely strong capacity to pay interest and repay principal on time, and is unlikely to be affected by adverse changes in business, economic or other external conditions.
- AA** The rating indicates a company or a debt instrument with a very low degree of credit risk. The company has very strong capacity to pay interest and repay principal on time, but is somewhat more susceptible to the adverse changes in business, economic, or other external conditions than AAA rating.
- A** The rating indicates a company or a debt instrument with a low credit risk. The company has strong capacity to pay interest and repay principal on time, but is more susceptible to adverse changes in business, economic or other external conditions than debt in higher-rated categories.
- BBB** The rating indicates a company or a debt instrument with moderate credit risk. The company has adequate capacity to pay interest and repay principal on time, but is more vulnerable to adverse changes in business, economic or other external conditions and is more likely to have a weakened capacity to pay interest and repay principal than debt in higher-rated categories.
- BB** The rating indicates a company or a debt instrument with a high credit risk. The company has less than moderate capacity to pay interest and repay principal on time, and can be significantly affected by adverse changes in business, economic or other external conditions, leading to inadequate capacity to pay interest and repay principal.
- B** The rating indicates a company or a debt instrument with a very high credit risk. The company has low capacity to pay interest and repay principal on time. Adverse changes in business, economic or other external conditions could lead to inability or unwillingness to pay interest and repay principal.
- C** The rating indicates a company or a debt instrument with the highest risk of default. The company has a significant inability to pay interest and repay principal on time, and is dependent upon favourable business, economic or other external conditions to meet its obligations.
- D** The rating for a company or a debt instrument for which payment is in default.

The ratings from AA to C may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within a rating category.

TRIS Rating's short-term ratings focus entirely on the likelihood of default and do not focus on recovery in the event of default. Each of TRIS Rating's short-term debt instrument covers the period of not more than one year. The symbols and definitions for short-term ratings are as follows:

- T1** Issuer has strong market position, wide margin of financial protection, appropriate liquidity and other measures of superior investor protection. Issuer designated with a "+" has a higher degree of these protections.
- T2** Issuer has secure market position, sound financial fundamentals and satisfactory ability to repay short-term obligations.
- T3** Issuer has acceptable capacity for meeting its short-term obligations.
- T4** Issuer has weak capacity for meeting its short-term obligations.
- D** The rating for an issuer for which payment is in default.

All ratings assigned by TRIS Rating are local currency ratings; they reflect the Thai issuers' ability to service their debt obligations, excluding the risk of convertibility of the Thai baht payments into foreign currencies.

TRIS Rating also assigns a "Rating Outlook" that reflects the potential direction of a credit rating over the medium to long term. In formulating the outlook, TRIS Rating will consider the prospects for the rated company's industry, as well as business conditions that might have an impact on its fundamental creditworthiness. The rating outlook will be announced in conjunction with the credit rating. In all cases, the outlook assigned to a company will apply to all debt obligations issued by the company. The categories for "Rating Outlook" are as follows:

- Positive** The rating may be raised.
- Stable** The rating is not likely to change.
- Negative** The rating may be lowered.
- Developing** The rating may be raised, lowered or remain unchanged.

For subscription information, contact

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