

# Binh Son Refinery (BSR)

Better performance thanks to high season

May 25, 2023

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1Q revenue and NPAT dropped 2.1% YoY and 29.9% YoY respectively

The crack spread should improve during the peak season between late 2Q and 3Q

BSR's postponing the plant maintenance may help revenue and NPAT to surge vs forecasts

BUY recommendation with the target price of VND21,400/share

In 1Q23, Binh Son Refining and Petrochemical (BSR) recorded revenue of VND34,065 billion (-2.1 % YoY) and NPAT of VND1,620 billion (-29.9% YoY). 1Q oil consumption volume of BSR inched up 1.6% YoY to 1,680 thousand tons. The average price of BSR products dropped 7.2% mainly due to the decrease in Brent price (down 17.1% YoY to USD73.43 per barrel). During this period, Diesel and Jet A1 products are the main drivers of BSR's revenue and NPAT growth.

The crack spread in 1Q and early 2Q23 was quite unfavorable for BSR's business results. However, we believe that the world crack spread at the end of 2Q and 3Q would be improved when the Chinese and US markets begin to enter the peak season of fuel consumption. For BSR alone, we expect the crack spread of Diesel oil to remain high due to its versatility. However, we have a cautious view when considering the risks from the US economy's outlook.

BSR's 2023F revenue and NPAT may gain VND19,000 billion and VND1,900 billion compared to the current forecast if the plant maintenance plan is successful. We think rescheduling the maintenance to 2024 would help BSR take advantage of large crack spread which is expected to last until the end of this year.

Based on DCF valuation, business outlook and possible risks, we recommend BUY for BSR stock. The target price is VND21,400/share, 28.1% higher than the price on

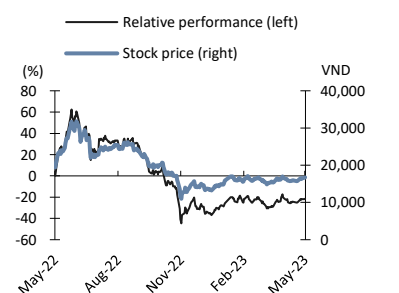
## Buy maintain

Target price	VND21,400
Upside (%)	30.4
Current price (May 22, 2023)	VND16,700
Consensus target price	VND19,355
Market cap (VNDbn)	51,778

Trading data	
Free float (%)	10.0
3M avg trading value (VNDbn)	101.49
Foreign ownership (%)	0.0
Major shareholder	PetroVietnam (PVN, 92.1%)

Share price performance				
(%)	1M	3M	6M	12M
Absolute	2.5	2.4	52.3	-13.8
Relative	1.1	0.7	13.0	-9.0

Forecast earnings & valuation				
FY-end	2021A	2022A	2023F	2024F
Net revenue (VNDbn)	101,080	167,124	114,770	116,997
EBIT (VNDbn)	6,511	14,673	7,036	7,169
NPAT of the parent company (VNDbn)	6,716	14,726	6,322	6,944
EPS (VND)	2,073	4,750	2,039	2,240
EPS growth (%)	-328.1	129.1	-57.0	10.0
P/E (x)	11.0	4.5	10.5	9.6
EV/EBITDA (x)	7.4	3.1	4.8	3.4
P/B (x)	1.9	1.3	1.1	1.0
ROE (%)	17.8	28.7	10.8	10.5
Dividend yield (%)	0.7	2.0	2.3	2.3



Source: Bloomberg, KB Securities Vietnam

## Business performance updates

Table 1. BSR – 1Q23 business results

	1Q22	1Q23	+/- % YoY	KBSV's notes
Revenue (VNDbn)	34,783	34,066	-2.1%	The decrease in revenue was mainly due to the sharp drop in crude oil prices from the high base of the same period (-25% YoY).
Diesel	11,838	13,088	10.6%	Output increased by 13.6% YoY, and average output price decreased by only 5.6% YoY.
Jet A1	1,462	2,812	92.3%	Sales volume gained 76% YoY and average output price grew 6.3% YoY due to the sudden increase in demand for tourism and air freight transport over the same period last year.
Gasoline A95	10,845	9,124	-15.9%	The average selling price of petroleum products was negatively affected by crude oil price movements and oversupply pressure on the market. Production output of the plant was slowed down due to bad weather in Dung Quat area, affecting crude oil imports.
Gasoline A92 & E5	5,988	4,996	-16.6%	
Fuel Oil (FO)	656	362	-44.8%	
LPG	2,779	2,150	-22.6%	
Others	1,214	1,534	26.3%	BSR recorded revenue from new fuel products for national defense (RON 83, DO L-62, and JET A1-K).
Gross profit (VNDbn)	2,612	2,072	-20.7%	
Gross profit margin (%)	7.51%	6.08%		Crack spread of products except for Jet A1 all decreased over the same period but remained high compared to the pre-Covid levels.
SG&A expenses (VNDbn)	-336	-414	23.0%	
SG&A/revenue ratio (%)	-0.97%	-1.21%		
Operating income (VNDbn)	2,275	1,658	-27.1%	
Net financial income (VNDbn)	167	172	3.0%	
Profit before taxes (VNDbn)	2,463	1,843	-25.2%	
Profit after taxes (VNDbn)	2,312	1,621	-29.9%	
Net profit margin (%)	6.65%	4.76%		
Production output (million tons)	1,667	1,754	5.2%	
Consumption (million tons)	1,653	1,680	1.6%	
Diesel	596	677	13.6%	
Jet A1	70	124	76.0%	
Gasoline A95	461	426	-7.6%	
Gasoline A92 & E5	252	232	-7.7%	
Fuel Oil (FO)	42	27	-34.9%	
LPG	135	115	-15.1%	
Others	98	80	-18.6%	
Average input price (USD/barrel)				
World Brent	98	73	-25.0%	
Input crude oil of BSR	101	96	-4.4%	
Average output price (USD/barrel)				
Diesel	118.9	112.3	-5.6%	
Jet A1	116.8	124.1	6.3%	
Gasoline A95	122.5	108.6	-11.3%	
A92 gasoline	119.8	102.4	-14.5%	
Fuel Oil (FO)	179.8	140.8	-21.7%	
LPG (USD/ton)	902.0	801.7	-11.1%	

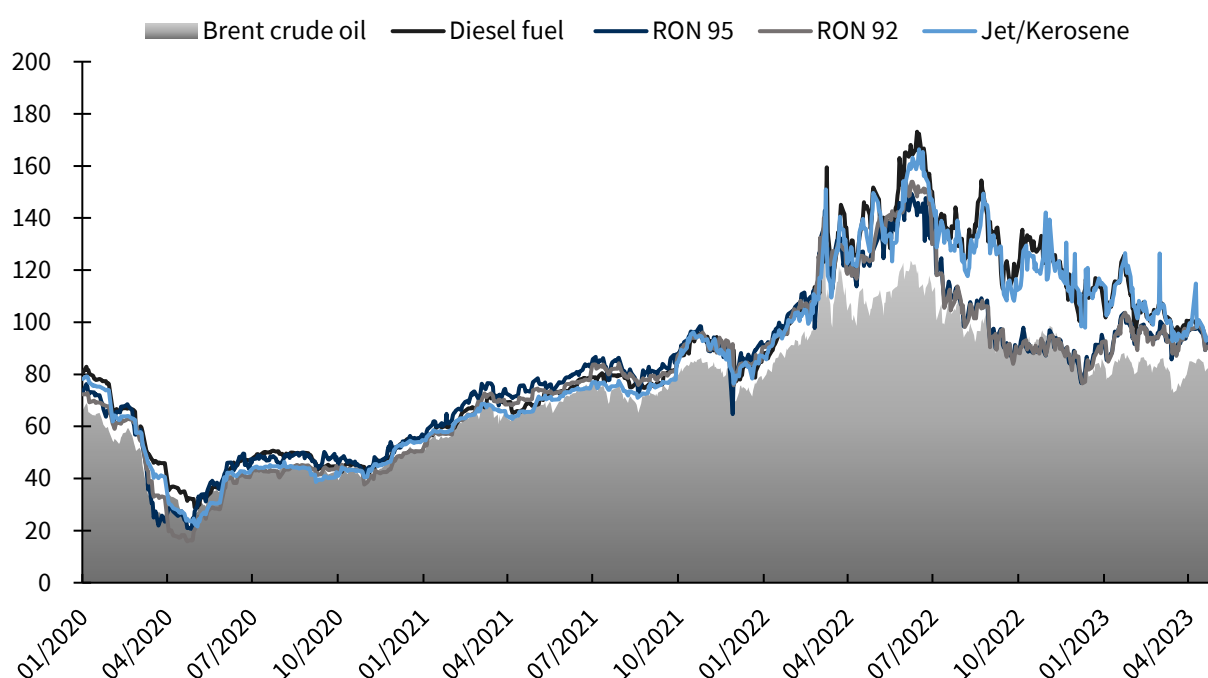
Source: Binh Son Refining &amp; Petrochemical, KB Securities Vietnam

Crack spread should recover during the peak consumption season, but there are still concerns about potential risks coming from the US economy

In 1Q23, the prices of crude oil and refined products both tended to decline compared to the peak reached in 2022. Crack spread of Diesel and Jet (two key products of BSR) also narrowed but was still large thanks to high tourism and transportation demand after the Chinese market reopened. In 2Q, crack spread narrowed significantly from USD16-20/barrel to USD8-12/barrel due to temporary oversupply resulted from refinery operations in the US and China. We forecast that BSR's business results in 2Q will be adversely affected by this development.

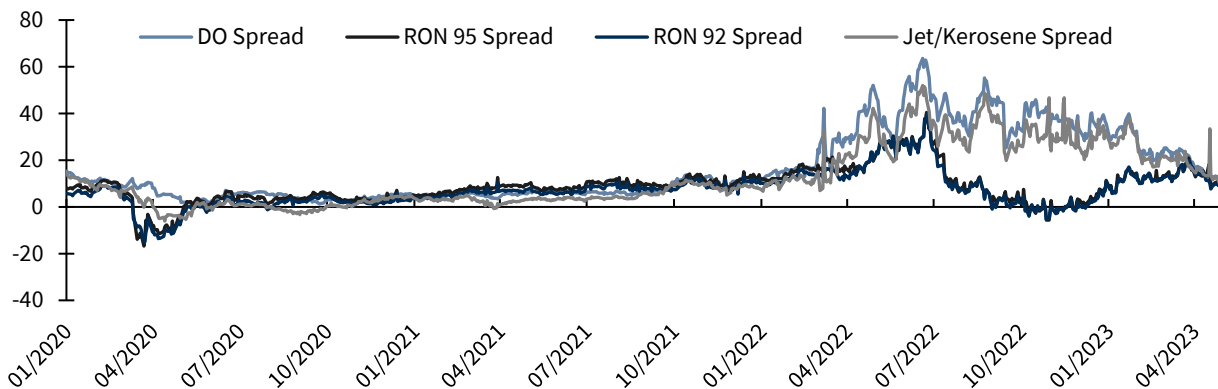
On the one hand, we expect the crack spread at the end of 2Q and 3Q to improve thanks to (1) the Chinese Government's action to cut export quotas for refined petroleum products to serve spiking domestic demand in the coming high season and (2) the US market's upcoming summer driving season. For BSR, we expect the crack spread of Diesel oil to remain large thanks to its application as a fuel for power generators while the capacity of hydroelectric and thermal power plants decreased due to the lack of water and coal. However, it should be noted that crack spreads could be hit by signs showing that the US economy is slowing down (the American Trucking Association's – ATA Tonnage index indicated that the number of trucks transporting goods reached its lowest level since August 2021). Therefore, we keep a cautious view on the prospect of crack spread in the coming period.

Fig 1. Global - Crude oil and refined products' prices (USD/barrel)



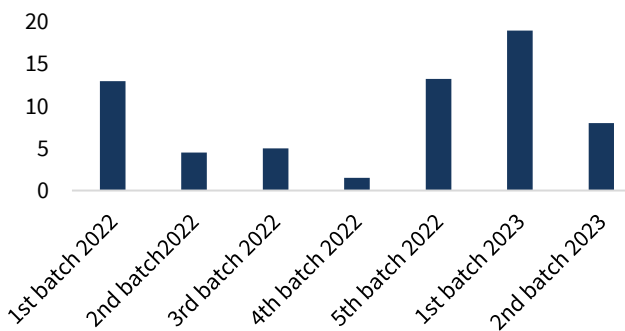
Source: Bloomberg, KB Securities Vietnam

Fig 2. Global – Crack spread in 2020-2023 (USD/barrel)



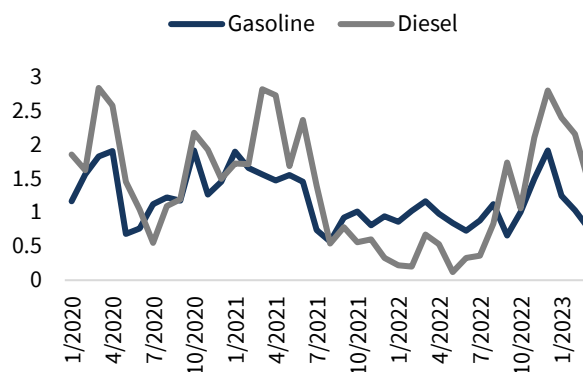
Source: Binh Son Refining & Petrochemical, KB Securities Vietnam

Fig 3. China – Oil products export quotas in second batch for 2023 (million tons)



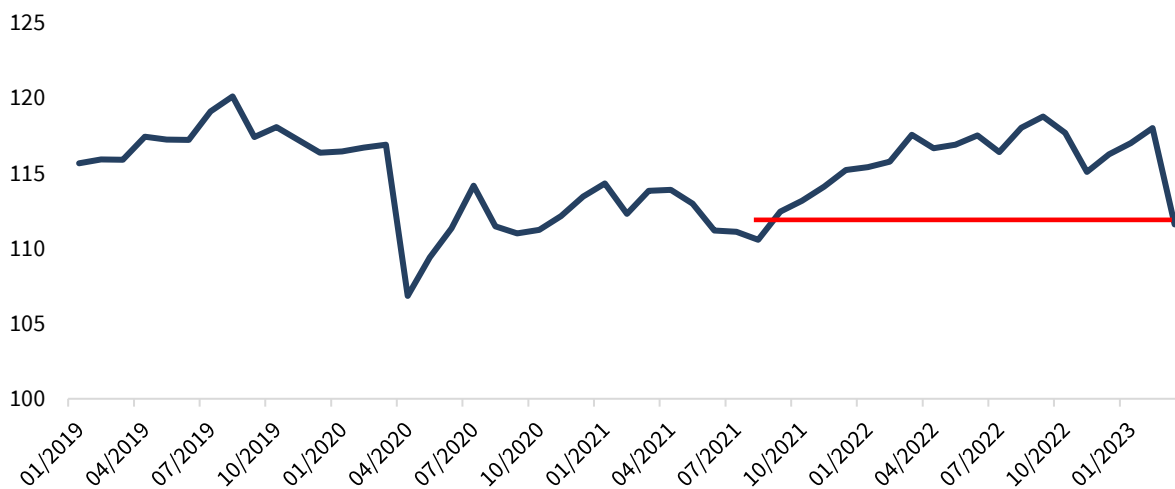
Source: Reuters, KB Securities Vietnam

Fig 4. China – The decrease in oil refined products ahead of the high season in 2023 (million tons)



Source: Bloomberg, KB Securities Vietnam

Fig 5. US - ATA's Tonnage Index reaching lows since August 2021



Source: American Trucking Association, Bloomberg, KB Securities Vietnam

The plant upgrade and expansion project is expected to benefit BSR

According to the newly adjusted investment policy, BSR's plant upgrade and expansion project will have a total investment capital of USD1,257 billion or VND31,235 billion. After deducting the refunded VAT and expenses, the total capital needed to balance the source is VND27,299 billion. The equity/loan capital ratio is 40/60, implying that BSR has to arrange VND16,379 billion in loan capital and VND10,920 billion in equity for the project. The project will be implemented according to a 37-month EPC, and the plant should start operating by 1Q28. Once completed, the processing capacity of the plant will increase by 15.5% to 171,000 barrels of crude oil per day, equivalent to 7.5 million tons of crude oil a year. Moreover, the project will help BSR's products meet EURO V standards, which is also in line with the Government's requirements on emission reduction. The post-upgrade plant should be capable of processing heavy and sour crude oil, ensuring a long-term supply of crude oil and significantly reducing input costs for BSR. We believe the project will be a key driver for BSR to improve operational efficiency and maintain competitiveness in the region in the long term.

The plan to extend the plant maintenance cycle can help increase NPAT in 2023

BSR plans to delay the overall maintenance (TA5) from 3Q23 to 1Q24, thereby extending the plant maintenance cycle from three years to three years and a half. If this plan is successful, we estimate BSR's 2023F revenue and NPAT will increase by VND19 trillion and VND1,900 billion respectively compared to forecasts, assuming crude oil price is at USD80/barrel. We think rescheduling the maintenance to 2024 would help BSR take advantage of the large crack spread which is expected to last until the end of this year. However, the TA5 rescheduling will need approval from many parties, so we have not included this factor in our forecast. We will update more information when the company has a clearer announcement.

Table 2. BSR – Adjusted forecasts when BSR successfully delays the plant maintenance

	2023F	2023F delay TA5	% Change
Revenue (VNDbn)	114,770	133,932	17%
Gross profit (VNDbn)	8,014	10,140	27%
Profit before taxes (VNDbn)	6,803	8,937	31%
Profit after taxes (VNDbn)	6,123	8,043	31%
Brent crude price assumption (USD/barrel)	80	80	
TA cycle (per year)	3	3.5	
Utilization	92.5%	107.9%	
Production output (million tons)	6,018	7,014	17%
Consumption (million tons)	6,018	7,023	17%

Source: Binh Son Refining & Petrochemical, KB Securities Vietnam

## Forecast & Valuation

Table 3. BSR – 2023-2024F performance

	2022	2023F	2024F	KBSV's notes
Revenue (VNDbn)	167,124	114,770	116,997	2023 revenue may decrease due to (1) a decrease of 20.7% YoY in crude oil prices, dragging down the prices of refined products and (2) lower capacity during the plant overhaul (five times of overhaul, lasting 52 days). Estimated actual efficiency is 92.5%, assuming the plant operates at 108% capacity in the remaining days of the year.
Diesel	66,717	44,694	44,949	
Gasoline A95	47,523	33,020	33,787	
Gasoline A92 & E5	24,759	16,958	16,838	
Jet A1	11,372	7,720	8,064	
Fuel Oil (FO)	2,419	1,694	1,734	
LPG	9,293	6,749	7,060	
Others	5,041	3,936	4,565	
Gross profit (VNDbn)	16,097	8,014	8,166	Crack spread in 2023 should narrow but remain large at USD12-17/barrel. The periodic maintenance cost is assumed at VND700 billion each period.
Gross profit margin (%)	9.63%	6.98%	6.98%	
SG&A expenses (VNDbn)	(1,424)	(978)	(997)	
SG&A/revenue ratio (%)	14,673	7,036	7,169	
Operating income (VNDbn)	1,750	1,314	1,836	
Net financial income (VNDbn)	(923)	(1,633)	(1,384)	
Profit before taxes (VNDbn)	15,586	6,803	7,707	
Profit after taxes (VNDbn)	14,669	6,123	6,936	From 2023, BSR will be subject to the tax rate of 10%, higher than the preferential rate of 5%.
Net profit margin (%)	8.78%	5.34%	5.93%	
Consumption (million tons)	7,004	6,018	7,033	
Diesel	2,838	2,429	2,827	
Gasoline A95	1,899	1,651	1,953	
Gasoline A92 & E5	1,010	848	968	
Jet A1	452	400	480	
Fuel Oil (FO)	141	121	141	
LPG	477	409	477	
Others	187	160	187	
Average input price (USD/barrel)				
World Brent	101	80	70	Positive factors are (1) OPEC+ and Russia's price supports and (2) rising demand from the Chinese market. Negative factors are concerns about the US economic situation.
Input crude oil of BSR	104	88	77	
Average output price (USD/barrel)				
Diesel oil	132.7	104.9	92.5	
Gasoline A95	127.5	103.2	90.5	
A92 gasoline	120.6	99.4	87.4	
Jet A1	136.8	105.6	93.3	
Fuel Oil (FO)	108.7	91.8	81.3	
LPG (USD/ton)	825.5	704.2	641.5	

Source: Binh Son Refining &amp; Petrochemical, KB Securities Vietnam

Valuation: BUY recommendation -  
target price VND21,400 apiece

We update the valuation of BSR using the FCFF method. The valuation has reflected our cautious view on crack spread in the coming period. The target price for BSR is VND21,400/share, equivalent to a 28.1% upside compared to the closing price of VND16,700/share on May 22, 2023.

Table 4. BSR – Valuation according to DCF model

Risk-free rate	5.00%	Long term growth	2%
Equity risk premium	8.08%	Present value of long-term value (TV)	24,289
Beta	1.09	Total present value for the period 2023-2027 (PV)	18,051
Cost of Equity	13.8%	Total present value	42,340
Average interest rate	7.0%	Plus: Money & short-term investment	33,794
Taxes	20%	Minus: Gross debt	-9,757
Cost of debt after taxes	5.6%	Minus: Minority interests	-95
Equity ratio	70%	Owner equity value	66,282
Average cost of capital	11.3%	Number of shares outstanding (million shares)	3,100.5
		Equity/share (VND)	21,400
		Current price (May 22, 2023)	16,700
		Upside	28.1%
		Dividend yield	2.3%
		Total profitability	30.4%

Source: KB Securities Vietnam

## Risks

Unpredictable oil prices would affect BSR's performance

A plunge in crude oil prices may negatively affect BSR's business results in two ways: (1) lowering the price of BSR's refined products and (2) lowering the value of inventories, forcing the company to make provisions, thereby reducing GPM. In 1Q23, crude oil prices dropped by 17.1% YoY to USD73.43/barrel, which immediately pushed the prices of refined products, excluding Jet A1 and Diesel, down by about 10-15% YoY. The company also had to make provision of VND413 billion for inventory devaluation. At the beginning of 2Q, OPEC + suddenly cut output by 1.15 million barrels of crude oil per day, pushing oil prices to USD85/barrel. However, just one month later, crude oil prices fell back to USD73/barrel amid concerns over the weakening of the US economy and the country's public debts. Investors should consider this risk when investing in BSR in the context of complicated and unpredictable world oil market.





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### Investment Ratings for Stocks

(based on expectations for absolute price gains over the next 6 months)

Buy:	Hold:	Sell:
+15% or more	+15% to -15%	-15% or more

### Investment Ratings for Sectors

(based on expectations for absolute price gains over the next 6 months)

Positive:	Neutral:	Negative:
Outperform the market	Perform in line with the market	Underperform the market

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