March 15th, 2023

Shinhan Securities



Binh Son Refining and Petrochemical Company Limited

[Vietnam / OIL & GAS]

Bloomberg Code (BSR VN) | Reuters Code (BSR.HM)

BUY

Initiate Coverage

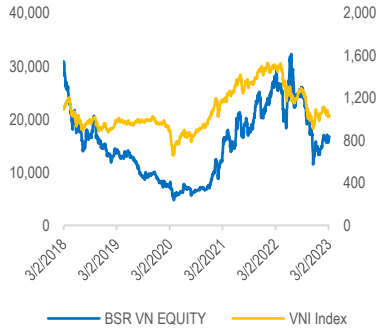
Target price (12 months)	**19,300 VND**
Current price (14/03/23)	15,800 VND
Upside/downside (%)	22.1%

VNINDEX	1,040
HNXINDEX	202
Market Cap (bn VND)	48,375
Outstanding shares (mn)	3,101
Free-Floating (mn)	244
52-Wk High/Low (VND)	33,500/9,900
90-day avg. trading volume (mn)	8.36
90-day avg. turnover (bn VND)	128

Major shareholders (%)	Vietnam Oil and Gas Group	95.76

Performance	3T	6T	12T
Absolute (%)	19.1	-31.4	-42.3
Relative to VN-Index (%)	18.8	-16	-13.9

Source: Bloomberg



Open account

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A pioneer in the petrochemical industry

Initiate coverage with BUY rating and target price of VND 19,300

Binh Son Refining and Petrochemical Company Limited (BSR) is one of the only two refineries in Vietnam, serves around one-third of the domestic market. In 2023, BSR's growth engine comes from the stability of diesel crack and the moving share to HOSE. In the long-term, we believe the expansion in petrochemicals and Dung Quat's Refinery Upgrading project to be key growth drivers. We value BSR for the first time at 19,300 VND, equivalent to a 22.1% return.

A positive outlook in 2023 thanks to the diesel crack spread, which is forecasted to decline by 20% compare to 2022 but still 40% higher than five-year average

With the robust consumption demand and the tight supply, the crude oil price is expected to remain at a high level in 2023. The crack spread shows a strong correlation with the price of crude oil. BSR's financial performance benefits from high crack spread. Given the diesel spread still 40% higher than five-year average, we expect BSR' profit to be positive.

Moving shares listing to HOSE in 2023 will be a plus catalyst

The company basically meets the conditions to list on the HSX, after being profitable for 2 consecutive years. Listing to HOSE will help: (1) improve liquidity, (2) attract investment capital flows from foreign individuals and organizations and (3) improve transparency.

Maintaining its position in the refinery sector while gradually expanding into petrochemicals – the transition of future energy trends.

Due to the solid demand for petroleum products, BSR maintains at least 35% market share in refinery sector. In the long term, BSR will gradually expand into petrochemicals - a profitable and high-demand product line.

Dung Quat's Refinery Upgrading and Expansion project will set to be BSR's key growth driver in the future

BSR's expansion project will solve the 3 problems: (1) diversify input sources and increase economic effectiveness: (2) expand capacity by 16%: and (3) upgrade output products to EURO 5 (EU5) to meet the standards and increase the competitiveness.

Risks: (1) Volatile oil price, (2) BSR will undergo a fifth maintenance and (3) Stiffer competition with imports because imported products enjoyed preferential tariffs following national commitments for free trade agreements.

Year to Dec.	2022	2023F	2024F	2025F	2026F
Revenue (bn VND)	**167,123**	**125,437**	**131,301**	**119,303**	**93,815**
OP (bn VND)	15,213	9,315	7,801	5,402	4,765
NP (bn VND)	**14,394**	**8,834**	**7,420**	**5,163**	**4,564**
EPS (VND)	4,661	2,792	2,345	1,632	1,443
BPS (VND)	16,443	19,292	21,685	23,350	24,822
OPM (%)	9.1%	7.4%	5.9%	4.5%	5.1%
NPM (%)	8.6%	7.0%	5.7%	4.3%	4.9%
ROE (%)	**28.3%**	**14.7%**	**11.0%**	**7.1%**	**5.9%**
PER (x)	4.1	6.8	8.1	11.7	13.4
PBR (x)	1.2	1.0	0.9	0.8	0.8
EV/EBITDA (x)	3.9	6.0	7.5	11.0	13.0

Source: Company data, Shinhan Securities Vietnam

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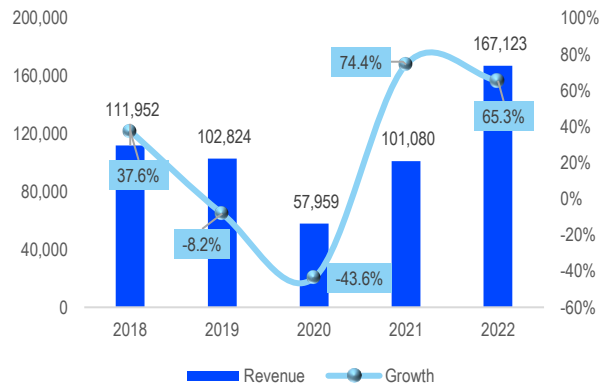
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Company background

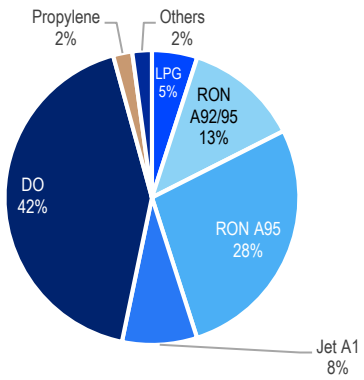
History

Binh Son Refining and Petrochemical Joint Stock Company (BSR) was established in 2008. BSR was assigned to manage and operate Dung Quat Refinery by Viet Nam Oil and Gas group in 2008. Dung Quat Refinery Project is a national focal work regarding oil and gas. In 2018, Binh Son was officially listed on Upcom with the ticker "BSR". BSR is one of only two refineries in VietNam, which provides 35% of its petroleum needs. BSR is operating in the field of RON 92/95, diesel, liquefied petroleum gas and polypropylene. Therein, gasoline and diesel are still mainstay products accounting for over 90% of total production volume and revenue.

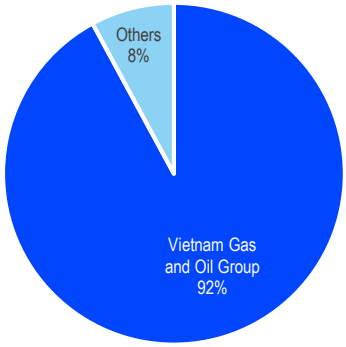
Revenue (bn VND)



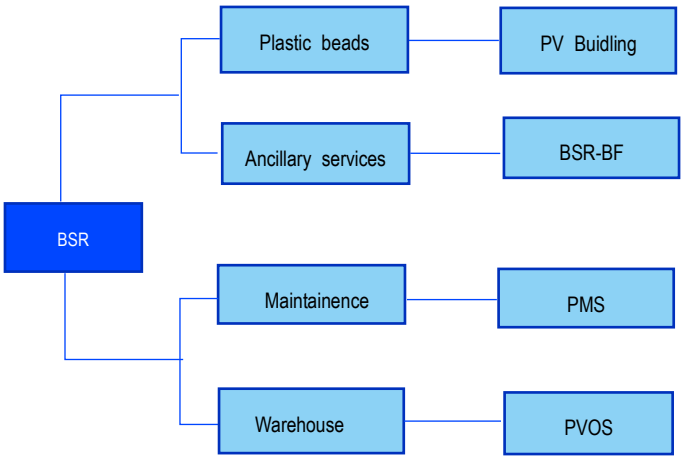
BSR's revenue breakdown by segment (%)



Shareholder Structure 15/03/2023



Model of Governance



Source: Data Company, Shinhan Securities Company

Investment Catalyst & Theses

A positive outlook in 2023 thanks to the stability of diesel crack spread, which is forecasted to decline by 20% compare to 2022 but still 40% higher than five-year average

With the robust consumption demand and the tight supply, the oil price is expected to continue to resilient in 2023. The crack spread shows a strong correlation with the price of crude oil. Crack spread refers to the pricing difference between a barrel of crude oil and its byproducts – which affects the profit for BSR's financial performance.

Crack spread = Petroleum product refined price - Crude oil price

In which:

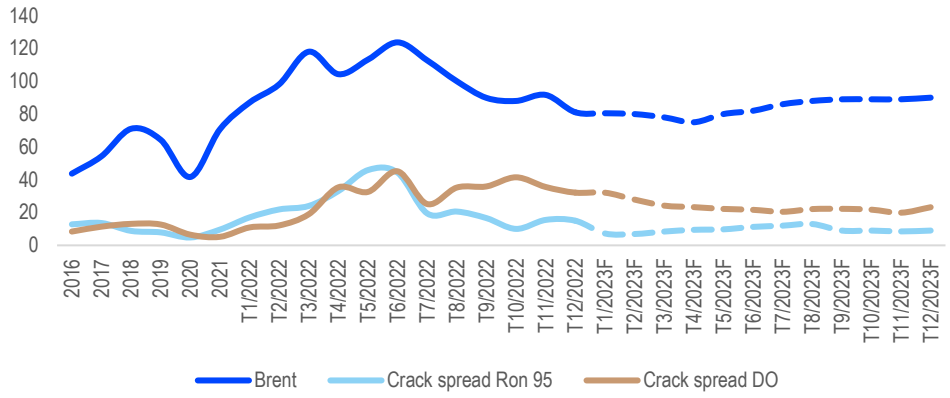
Petroleum product refined price = MOPs Price + Premium, in which:

- MOPs: average 10-day Singapore Platts price
- Premium: based on the agreement between BSR and its customers

Crude oil price = (FOB + Freight + Insurance) + Premium

- FOB: average 30-day Brent oil price
- Premium: the gap, depends on (1) the quality difference of crude oil, (2) the supply – demand balance of crude oil. Negotiated when signing crude oil supply contracts.

Crack spread and oil price (USD/barrel)

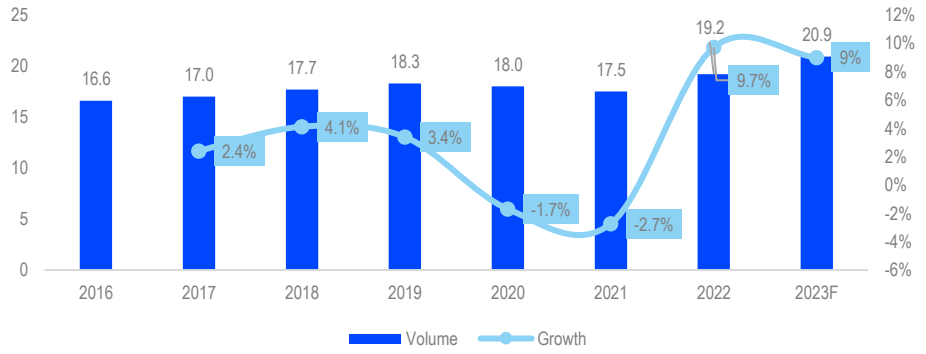


Nguồn: Platts, Shinhan Securities Vietnam

According to Platts, the crude oil price and crack spread are expected to remain at a high level in 2023, a good sinal for refineries like BSR. The crack spread Ron 92/95 is forecasted to decline by 50%, while the crack spread diesel is reduced by 20% on the high base thanks to its multiple usages such as a fuel for motor vehicles and as a source of power for diesel generators.

- A tight of oil supply: (1) OPEC has considered sharply cut oil output and (2) The tension between Russsia and Ukraine.
- A strong domestic consumption for petroleum products in Vietnam has witnessed a CAGR 5.5% in the 2023-2030, supporting for BSR to grow in coming years.

Vietnam petroleum consumption (million tons)



Source: Ministry of Industry and Trade, Shinhan Securities Vietnam

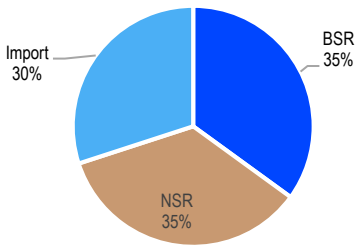
Moving shares listing to HOSE in 2023 will be a plus catalyst

The company basically meets the conditions to list on the HSX, after being profitable for 2 consecutive years. It takes at least 6 months to move share listing to HOSE will help: (1) improve liquidity, (2) attract investment capital flows from foreign individuals and organizations and (3) improve transparency.

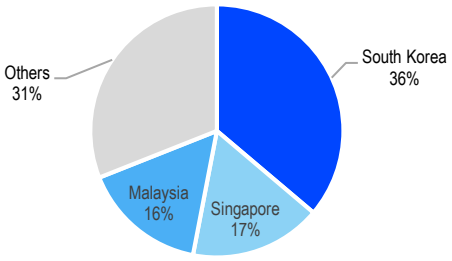
Maintaining its position in refinery sector while gradually expanding into petrochemicals – the transition of future energy trends.

BSR and Nghi Son Refinery (NSR) are the only two refineries opearting in Viet Nam, accounting for 65 - 70 percent of local requirements. The rest was imported, mainly from South Korea, Singapore, Malaysia,...

Refinery market share 2022 (%)



Vietnam fuel import by country in 2022



Source: General Department of Customs, Shinhan Securities Vietnam

BSR's orientation is maintaining at least 35% market share in refinery sector, while gradually expanding into petrochemical field – high value-added products. This will help BSR diversify products and keep up with the transition of future energy trends for sustainable growth

In the short term, BSR increases to produce petrochemical products: propylene (PP). The current domestic supply can only meet 40% of PP demand due to high investment requirement including initial capital and working capital.

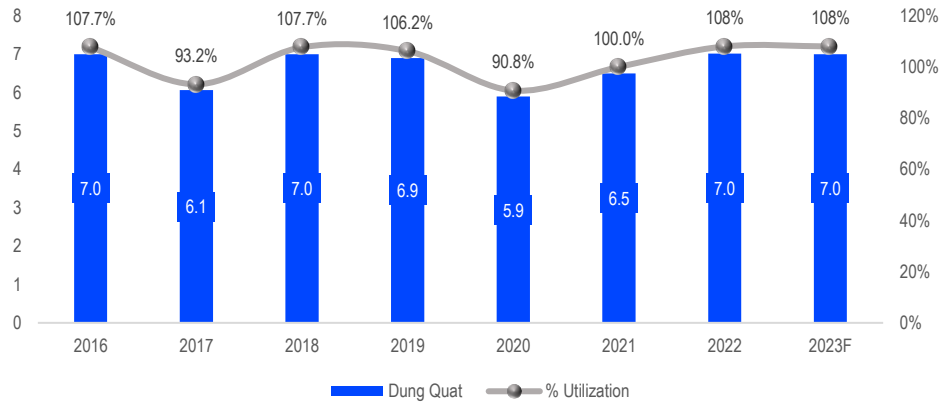
In the long term, BSR will develop petrochemical products including plastic and synthetic rubber materials – to deepen its petrochemical value chain.

Dung Quat's Refinery Upgrading and Expansion project will set to be BSR's key growth driver in the future

Dung Quat Oil Refinery is designed to process 6.5 million tonnes of crude oil per year. Since commercial operations began at the refinery in February 2009, Dung Quat Oil Refinery has operated at 108 – 110% of

the refinery's design capacity, because of not meeting the domestic consumption.

Output volume (million ton/year) and utilization (%)



Source: Company data, Shinhan Securities Vietnam

BSR is set to upgrade to its Dung Quat Refinery at a cost of USD 1.2 billion and 60% of the funds needed for the plan will come from loans. Work is scheduled to be completed by Q1/2028.

We believe Dung Quat's Refinery Upgrading and Expansion project will ensure sustainable development.

(1) Diversify input sources and increase economic effectiveness: It is expected that after project is completed, types of sourer crude oils (the sulphur content is more than 0.5%,) to be used will be Murban, ESPO,…which will relieve the lack of crude oil domestic's supply.

Sour crude oils account for 80 - 90% cost of many oil refineries in the world, while sweet crude oils (the sulphur content is less than 0.5%) make up 90% of the total cost of Dung Quat's refinery. Thus, diversifying the input sources will improve gross profit margin from 5% to 10%.

(2) Expand capacity by 16%. Therefore, production volume will increase to 7.5 million tons.

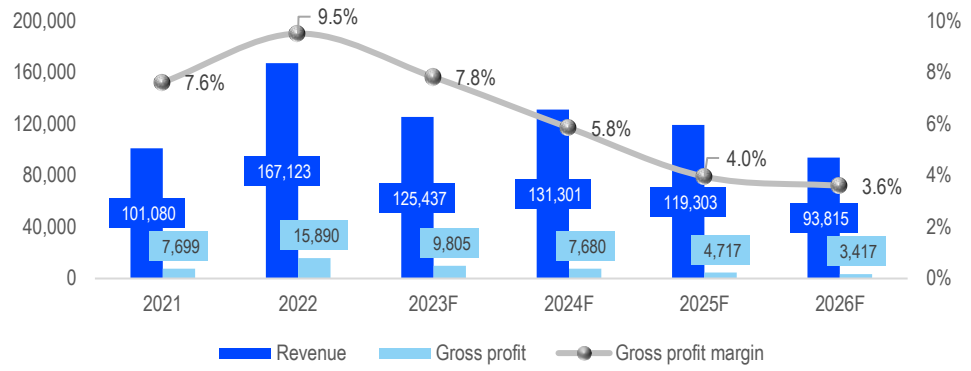
(3) Upgrade output products to EURO 5 (EU5) to meet the standards and increase the competitiveness.

Earnings estimates

In 2023, we forecast BSR's revenue and profit to reach VND 125,437 bn (-25% YoY) and VND 8,843 bn (-38% YoY), respectively. The above result is driven by lower utilization of capacity and a decrease in crack spread.

We forecast production volume will decrease to 5.9 million tons (-15% y.o.y) in 2023 when the fifth Turnaround is executed. The crack spread RON 92/95 is projected to decline by 50% y.o.y, while the crack spread diesel to reduce by 20% y.o.y.

Forecast of BSR' s revenue, profit and gross profit margin



Source: Company data, Shinhan Securities Company

Assumption	2022	2023F	YoY	2024F	YoY
Domestic volume (million tons/ year)	7	5.9	-15%	7	18%
Oil price (USD/barrel)	101	88	-12.8%	82	-6.8%
RON 92					
Crack spread Ron 92 (USD/barrel)	18.9	10.4	-45%	9.9	-5%
Ron 92 price (USD/barrel)	120	96.4	-18%	92	-6%
RON 95					
Crack spread Ron 95 (USD/barrel)	25	13.4	-46%	12.5	-7%
Ron 95 price (USD/barrel)	126	101.4	-20%	94.6	-7%
Diesel					
Crack spread Diesel (USD/barrel)	35	28.7	-18%	20	-30%
DO price (USD/barrel)	136	116.7	-14%	102	-12%

BSR's revenue and profit outlook	2022	2023F	YoY	2024F	YoY
Net revenue (bn VND)	**167,123**	**125,437**	-24.9%	**131,301**	4.7%
Ron 92 revenue	24,088	15,396	-36%	16,341	6%
Ron 95 revenue	47,523	34,492	-27.4%	35,512	6%
DO revenue	66,717	48,331	-27.5%	47,983	-1%
Operating Profit (bn VND)	15,213	9,315	-38.8%	7,801	-16.3%
Net Profit	**14,394**	**8,834**	-38.6%	**7,420**	-16%
EPS (VND)	4,661	2,792	-40%	2,345	-16%
BPS (VND)	16,433	19,292	17.3%	21,685	12.4%
OPM	9.1	7.4		5.9	
NPM	8.6	7		5.7	
ROE (%)	**28.3**	**14.7**		**11**	
PER (x)	4.1	6.8		8.1	
PBR (x)	1.2	1		0.9	
EV/EBITDA (x)	3.9	6		7.5	

Valuation and Recommendation

Initiate coverage with BUY rating and target price of VND 19,300

We initiate coverage (BSR) with a buy recommendation and a target price of VND 19,300, corresponding to an increase of 22.1% from the current price. For a long-term view, BSR is an investment that can be considered with following advantages:

1) Maintaining position in the refinery sector while gradually expanding into petrochemicals – the transition of future energy trends.

2) Vietnam has strong demand for petroleum products.

3) Dung Quat's Refinery Upgrading and Expansion project will set to be BSR's key growth driver in the future.

Valuation

We apply a Discounted Cash Flow (DCF) valuation method to value BSR. We assume that average oil price is staying at 88 USD/barrel and don't include the contribution of Dung Quat Refinery Expansion project in our forecast.

DCF valuation					
Unit: billion VND	**2023F**	**2024F**	**2025F**	**2026F**	**2027F**
NPAT-Mi	8,657	7,272	5,060	4,473	5,335
Plus: After-tax interest expense	259	314	317	280	276
Plus: Depreciation & Amortization	2,245	2,347	2,456	2,572	2,698
Minus: Change in working capital	-4,138	542	-1,150	-2,414	1,617
Minus: CapEx	898	939	1,228	1,286	1,619
Free Cash Flow (FCF)	14,401	8,452	7,755	8,453	5,073
PV of FCF	30,803				
Growth rate	0%				
Present value of long-term value	13,893				
Enterprise value	**43,976**				
Debt	8,954				
Cash and cash equivalents	25,205				
Equity value	**60,045**				
Number of shares outstanding (mn units)	3,100				
Target price (VND)	**19,300**				

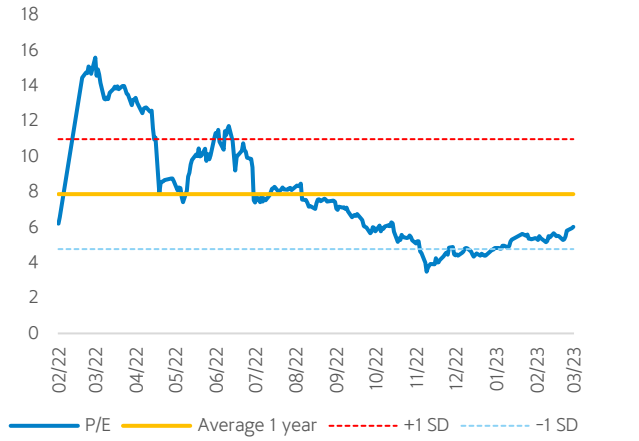
WACC	**15.9%**
Risk-free rate	4.2%
Equity risk premium	11.13%
Beta	1.89
Debt cost	8%
The cost of equity	17.3%
Debt-to-equity ratio	17.6%
Total debt (VND bn)	8,954

Source: Company data, Shinhan Securities Company

Scenario for Brent Oil Price

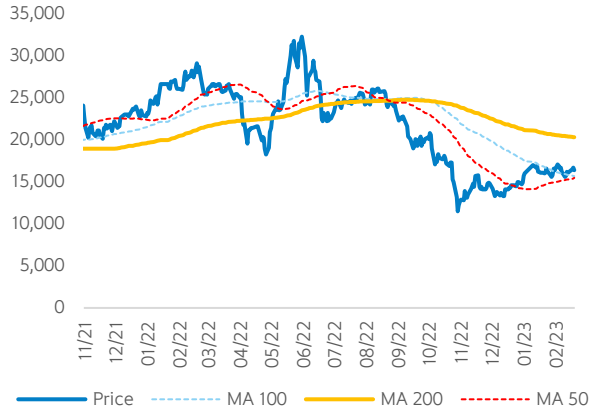
Assumption					
			Base case		
Oil price (USD/barrel)	68	78	**88**	98	108
Oil price change compare to base case (%)	-22.7%	-11.4%		11.3%	22.7%
Valuation					
Target price (VND/share)	14,973	17,625	**19,300**	21,700	24,913
Target price change compare to base case (%)	-22.7%	-9.6%		12.4%	29%
P/E	3.2	3.8	**4.1**	4.6	5.1

BSR's PER 1 year



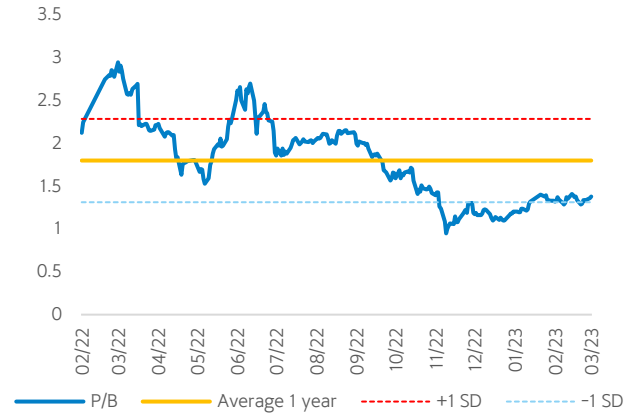
Source: Bloomberg, Company data, Shinhan Securities Vietnam

Correlation between stock price and MA 1 year



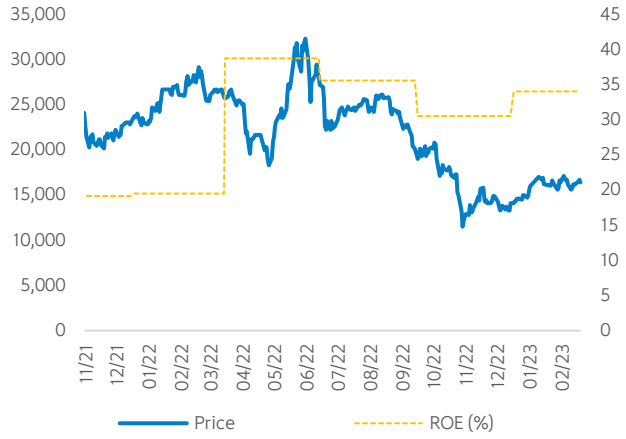
Source: Bloomberg, Company data, Shinhan Securities Vietnam

BSR's PBR 1 year



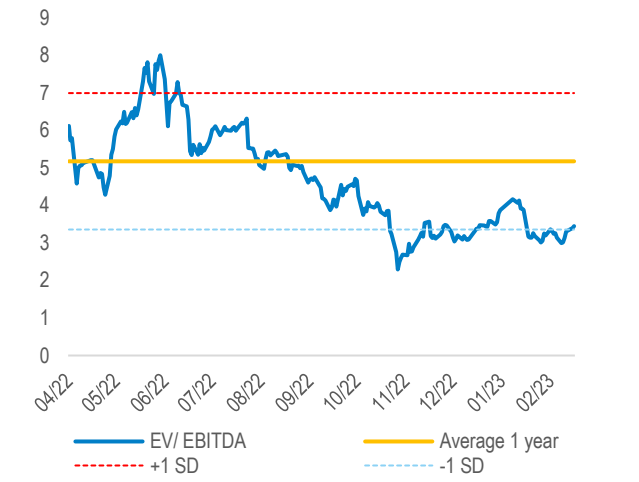
Source: Bloomberg, Company data, Shinhan Securities Vietnam

Correlation between stock price and ROE



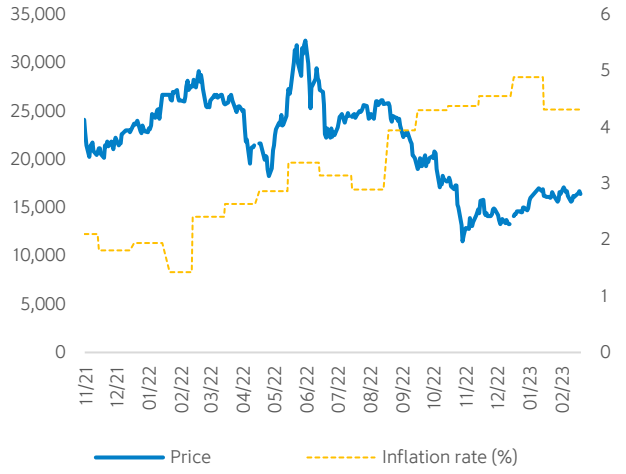
Source: Bloomberg, Company data, Shinhan Securities Vietnam

BSR's EV/EBITDA 1 year



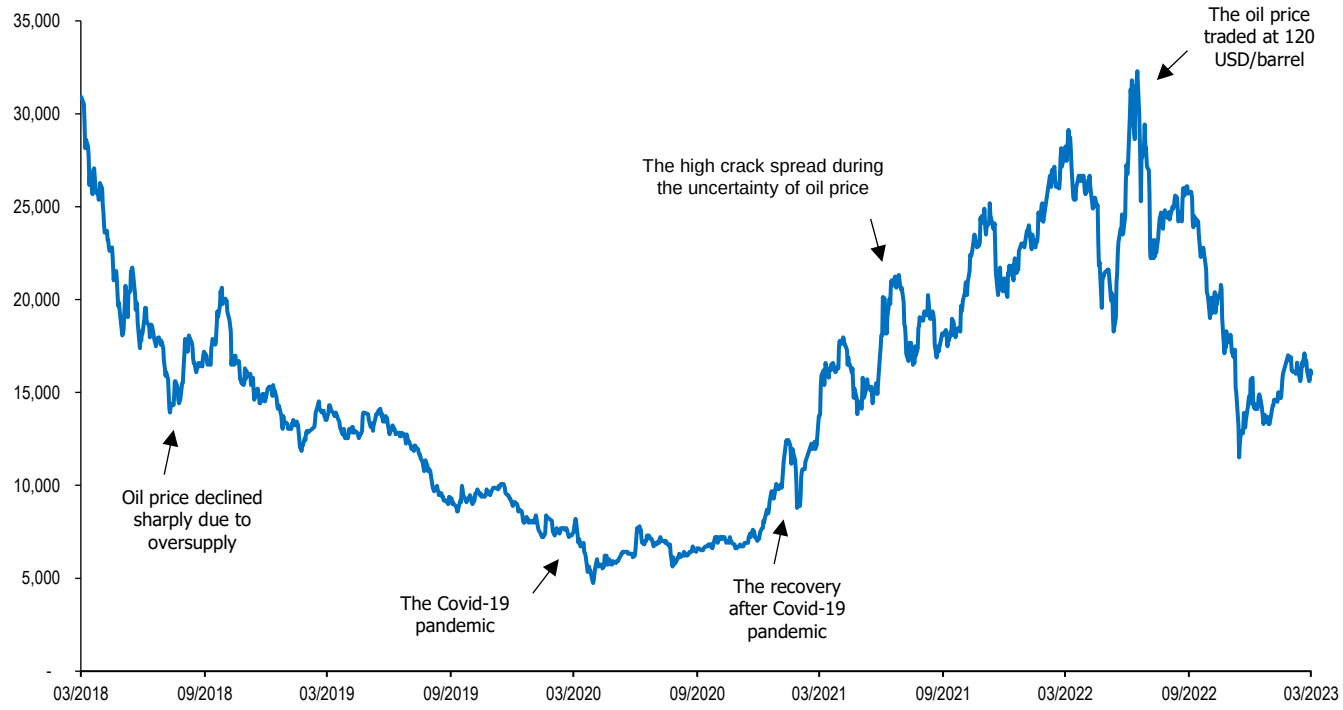
Source: Bloomberg, Company data, Shinhan Securities Vietnam

Correlation between stock price and Vietnam inflation rate



Source: Bloomberg, Company data, Shinhan Securities Vietnam

Key event chart of BSR



Source: Bloomberg, Company data, Shinhan Securities Vietnam

Risks

Adversely volatile oil price

Crude oil accounts for 90 – 95% of total cost, the fluctuation of oil price directly affects BSR's performance.

Risk of maintenence

Dung Quat Refinery will undertake the fifth maintenance that will last for 50 day, causing to lower operating capacity.

The company faced stiffer competition from imports.

The company faced increasing competition this year because imported products enjoyed preferential tariffs following national commitments for free trade agreements.

Appendix: Financial statements

Statement of financial position

Year to Dec. (bn VND)	2021	2022	2023F	2024F	2025F
Total assets	66,796	77,796	87,180	96,721	100,183
Current assets	44,544	57,779	68,334	79,135	83,720
Cash & equivalents	16,346	22,853	40,689	50,016	56,806
Short-term financial asset	4,190	2,172	2,172	2,172	2,172
Accounts receivable	13,601	16,324	12,544	13,130	11,930
Inventories	10,358	16,349	12,848	13,736	12,732
Non-current assets	22,251	20,017	19,944	19,811	19,857
Net fixed assets	20,136	18,075	18,002	17,869	17,915
Investment assets	1,206	1,275	1,275	1,275	1,275
Other long-term assets	910	667	667	667	667
Total liabilities	29,232	26,881	27,254	29,227	27,422
Current liabilities	26,940	25,600	25,673	27,446	25,441
Accounts payable	9,450	10,004	7,709	8,241	7,639
Short-term borrowings	9,829	8,954	12,171	13,012	12,061
Others	7,661	6,641	5,793	6,192	5,740
Non-current liabilities	2,291	1,281	1,581	1,781	1,981
Long-term borrowings	943	0	300	500	700
Other financial liabilities	1,349	1,281	1,281	1,281	1,281
Total shareholders' equity	37,564	50,915	59,926	67,494	72,761
Capital stock	31,005	31,005	31,005	31,005	31,005
Capital surplus	0	0	0	0	0
Other capital	3	5,599	5,599	5,599	5,599
Retained earnings	6,562	14,376	23,210	30,630	35,794
Non-controlling interest equity	-6	-65	112	260	363
*Total debt	10,772	8,954	12,471	13,512	12,761
*Net debt (cash)	9,763	16,071	30,390	38,676	46,217

Statement of comprehensive income

Year to Dec. (bn VND)	2021	2022	2023F	2024F	2025F
Revenue	101,080	167,123	125,437	131,301	119,303
Growth		65.3%	-24.9%	4.7%	-9.1%
COGS	93,381	151,233	115,633	123,622	114,586
Gross profit	7,699	15,890	9,805	7,680	4,717
GPM	7.6%	9.5%	7.8%	5.8%	4.0%
SG&A	1,188	1,421	1,380	1,444	1,312
Operating profit	6,907	15,213	9,315	7,801	5,402
Growth		120.3%	-38.8%	-16.3%	-30.8%
OPM	6.8%	9.1%	7.4%	5.9%	4.5%
Non-operating profit	396	743	891	1,566	1,997
Financial income	1,015	1,664	1,833	2,566	3,002
Financial expense	619	920	942	1,001	1,004
In which: interest expenses	407	253	275	334	337
Net other non-operating profit	34	86	74	86	86
Pre-tax profit	6,941	15,299	9,390	7,887	5,488
Income tax	257	905	555	467	325
Net profit	6,684	14,394	8,834	7,420	5,163
Growth		115.4%	-38.6%	-16.0%	-30.4%
NPM	6.6%	8.6%	7.0%	5.7%	4.3%
Controlling interest	6,716	14,450	8,657	7,272	5,060
Non-controlling interest	-32	-56	177	148	103
EBIT	6,511	14,470	8,425	6,235	3,405
Growth		122.2%	-41.8%	-26.0%	-45.4%
EBIT Margin	6.4%	8.7%	6.7%	4.7%	2.9%
EBITDA	8,822	16,662	10,670	8,582	5,860
Growth		88.9%	-36.0%	-19.6%	-31.7%
EBITDA margin	8.7%	10.0%	8.5%	6.5%	4.9%

Statement of cash flow

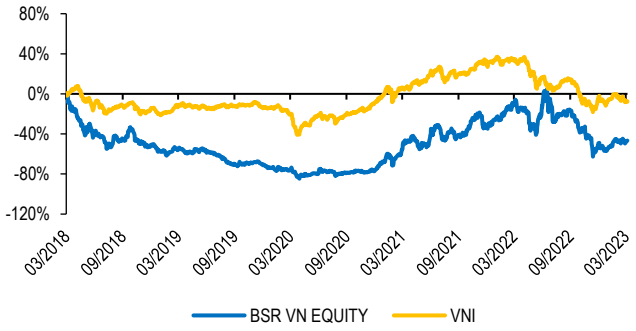
Year to Dec. (bn VND)	2021	2022	2023F	2024F	2025F
Cash flow from operations	425	7,433	15,041	9,076	8,665
Net profit	6,716	14,450	8,657	7,272	5,060
Depreciation expense	2,552	2,193	2,245	2,347	2,456
(Gain) from investing activities					
Change in working capital	1,295	-9,211	4,138	-542	1,150
Others	-10,138	0	0	0	0
Cash flow from investments	-753	-433	-898	-939	-1,228
Change in fixed assets	-170	-123	-898	-939	-1,228
Change in investment assets	-583	-242	0	0	0
Others	0	-68	0	0	0
Cash flow from financing	4,770	-1,877	3,694	1,189	-648
Change in equity	0	-59	177	148	103
Net borrowing	4,772	-1,817	3,517	1,041	-751
Dividends	-2	0	0	0	0
Change in total cash	4,442	5,123	17,836	9,327	6,789
Beginning cash	12,793	16,346	22,853	40,689	50,016
Change in FX rates					
Ending cash	17,235	21,469	40,689	50,016	56,806

Key ratios

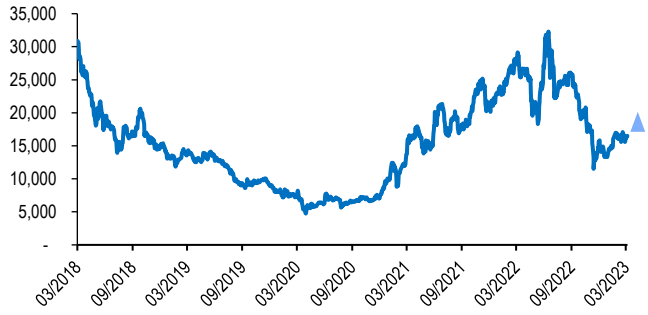
Year to Dec.	2021	2022	2023F	2024F	2025F
EPS (VND)	2,166	4,661	2,792	2,345	1,632
BPS (VND)	12,117	16,443	19,292	21,685	23,350
DPS (VND)	0	0	0	0	0
PER (x)	8.8	4.1	6.8	8.1	11.7
PBR (x)	1.6	1.2	1.0	0.9	0.8
EV/EBITDA (x)	7.3	3.9	6.0	7.5	11.0
Dividend payout ratio (%)	0%	0%	0%	0%	0%
Dividend yield (%)	0%	0%	0%	0%	0%
Profitability					
EBITDA margin	8.7%	10.0%	8.5%	6.5%	4.9%
OPM	6.8%	9.1%	7.4%	5.9%	4.5%
NPM	6.6%	8.6%	7.0%	5.7%	4.3%
ROA	10.0%	18.5%	10.1%	7.7%	5.2%
ROE	17.8%	28.3%	14.7%	11.0%	7.1%
Stability					
Debt to equity ratio	28.7%	17.6%	20.8%	20.0%	17.5%
Net debt ratio	110.7%	96.5%	284.8%	450.7%	788.6%
Cash ratio	60.7%	89.3%	158.5%	182.2%	223.3%
Interest coverage ratio (x)	16.0	57.1	30.6	18.7	10.1
Activity					
Working capital turnover (days)	53	51	53	53	53
Inventory turnover (days)	40	39	41	41	41
Receivable turnover (days)	49	36	37	37	37

Binh Son Refining and Petrochemical Company (BSR VN)

Share price



Target price (VND)



Date	Rating	TP (VND)	TP gap (%)	
			TB	Max/Min
15/03/2023 (Initiation)	BUY	19,300	-11	-41.7/9.6

Note: Calculation of target price gap based on past 12 months

Shinhan Securities Vietnam

Stock	Sector
◆ **BUY:** Expected 12-month gain of 15% or more ◆ **HOLD:** Expected 12-month loss of 15% to gain of 15% ◆ **SELL:** Expected 12-month loss of 15% or more	◆ **OVERWEIGHT:** Based on market cap, largest share of sector stocks under coverage is rated BUY ◆ **NEUTRAL:** Based on market cap, largest share of sector stocks under coverage is rated HOLD ◆ **UNDERWEIGHT:** Based on market cap, largest share of sector stocks under coverage is rated SELL

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