

Binh Son Refinery (BSR)

High crack spreads as the growth driver

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Analyst Tieu Phan Thanh Quang
quangtp@kbsec.com.vn

Revenue and NPAT in 1Q22 grew strongly by 65.2% YoY and 25.1% YoY

In 1Q22, Binh Son Refinery (BSR) recorded NPAT of VND2,312 billion (+25.1% YoY) and net revenue of VND34,783 billion (+65.2 % YoY). Sales volume during the quarter hit only 1,594 thousand tons (+2.4% YoY). However, the increase in selling prices in line with Brent crude oil price rallies (averaging US\$97.9/barrel, +59.7% YoY) led to high revenue growth for BSR.

High crack spreads would boost BSR's revenue and profit

The prolonged war in Ukraine and import bans on Russian fuel by Western countries caused disruptions in crude oil supply from Russia to European oil refineries and a shortfall in finished petroleum products. Furthermore, the Zero-Covid policy of China, the largest importer of oil and second largest refiner of oil in the world, led to waning demand and supply from refineries in this nation. Therefore, we believe the crack spreads of refined oil products will continue to remain high until the shortage of refining capacity and finished petroleum products is resolved by the end-2022.

BSR has been conducting a feasibility report on upgrading & expanding the Dung Quat Refinery

We expect that Dung Quat Refinery will come into stable operation in 2022, with an efficiency of 108%, given no maintenance overhaul (BSR overhauls every three years in 50-52 days, the latest was in 2020) and make up for the shortfall in production resulting from the reduced capacity of Nghi Son Refinery.

We recommend BUY for BSR shares with target price of VND38,200 apiece

Based on the DCF valuation method, business outlook, and possible risks, we recommend BUY for BSR stock. The target price is VND38,200/share, 38.4% higher than the closing price on June 3, 2022.

Buy maintain

Target price VND38,200

Upside/Downside	38.4%
Current price (June 3, 2022)	VND27,700
Consensus target price	VND31,850
Market cap (VNDbn)	85,574

Trading data

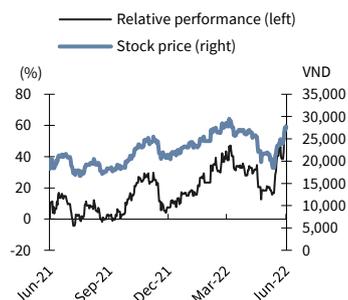
Free float	7.9%
3M avg trading value (VNDbn)	217.33
Foreign ownership	0.0%
Major shareholder	PetroVietnam (PVN) (92.1%)

Share price performance

(%)	1M	3M	6M	12M
Absolute	24.9	-5.2	26.6	48.1
Relative	32.5	9.2	45.6	56.8

Forecast earnings & valuation

FY-end	2020A	2021A	2022F	2023F
Revenue (VNDbn)	57,959	101,079	148,917	116,418
EBIT (VNDbn)	(3,046)	6,545	12,979	10,628
NPATMI (VNDbn)	(2,819)	6,705	12,857	10,295
EPS (VND)	(909)	2,162	4,147	3,320
EPS growth (%)	-201.2	-337.8	92.0	-20.0
P/E (x)	-10.7	10.5	9.2	11.5
EV/EBITDA (x)	-61.3	7.3	7.1	8.1
P/B (x)	1.0	1.9	2.5	2.2
ROE (%)	-9.2	17.8	26.9	19.1
Dividend yield (%)	0.0	0.0	2.6	3.9



Source: Bloomberg, KB Securities Vietnam

Business performance

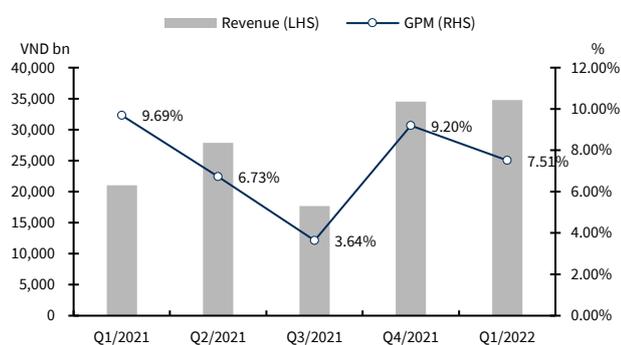
Revenue and NPAT in 1Q22 grew strongly by 65.2% YoY and 25.1% YoY

In 1Q22, BSR posted NPAT of VND2,312 billion (+25.1% YoY) and net revenue of VND34,783 billion (+65.2 % YoY). Sales volume during the quarter hit only 1,594 thousand tons (+2.4% YoY). However, the increase in selling prices in line with Brent crude oil price rallies (averaging US\$97.9/barrel, +59.7% YoY) led to high revenue growth for BSR.

Profit margin decreased slightly QoQ as BSR had to set aside for the inventory devaluation

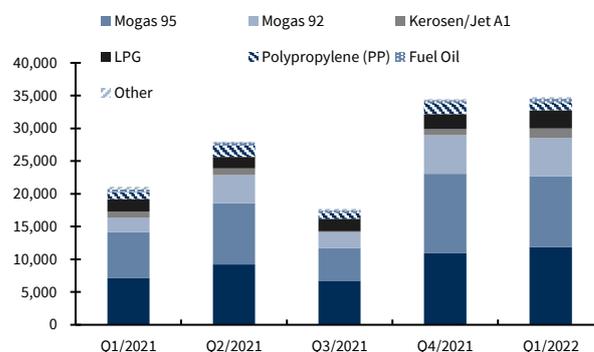
The gross profit margin in the first quarter of 2022 was 7.5% (down QoQ and down YoY). BSR often buys 80% of the crude oil volume under pre-signed contracts and directly purchases the other 20% in the market. As a result, oil price fluctuations will directly affect BSR's raw materials for oil production, notably in 1Q20 and 2Q20. In the first quarter of 2022, BSR set aside more than VND1,900 billion against the devaluation of crude oil prices purchased directly in the market, lowering the gross profit margin. In our estimates, excluding the provision for inventory devaluation, BSR's gross profit margin would be around 13%, given high crack spreads and rising oil prices.

Fig 1. BSR – Revenue, gross profit margin (VNDbn, %)



Source: Binh Son Refinery, KB Securities Vietnam

Fig 2. BSR – Revenue breakdown (VNDbn)



Source: Binh Son Refinery, KB Securities Vietnam

Table 1. BSR – 1Q21–1Q22 business results

VND bn	Q1/2021	Q1/2022	%YoY	Notes
Revenue (VND bn)	21,049	34,783	65.2%	Revenue increased strongly thanks to strong selling price momentum while output was flat.
Diesel	7,174	11,838	65.0%	Output decreased by 5% YoY, but average selling price increased by 72% YoY.
Gasoline A95	6,962	10,845	55.8%	
Gasoline A92 & E5	2,304	5,988	159.9%	Output increased by 58% YoY and average selling price increased by 64% YoY.
Jet A1	972	1,462	50.4%	
Fuel Oil (FO)	435	656	50.7%	
LPG	1,941	2,779	43.1%	
Other	1,260	1,214	-3.6%	
Gross profit	2,041	2,612	28.0%	
GPM (%)	9.69%	7.51%		Gross profit margin decreased as BSR recorded more than VND1,900 billion of inventory provision in Q1/2022.
SG&A expenses	-261	-336	28.9%	Transportation costs increase due to the impact of rising oil prices.
% SG&A / Revenue	-1.24%	-0.97%		
Operating profit	1,780	2,275		
Financial Income	200	356		
Financial expenses	-132	-189	43.3%	Interest expense increased due to the implementation of the factory upgrade project.
Profit before tax	1,849	2,463	33.2%	
Profit after tax	1,848	2,312	25.1%	
NPM (%)	8.78%	6.65%		
Production volume (mn tons)	1,746	1,667	-4.5%	
Sales volume (mn tons)	1,556	1,653	6.2%	
Diesel	626	596	-4.8%	
Gasoline A95	480	461	-4.0%	
Gasoline A92 & E5	159	252	58.3%	
Jet A1	80	70	-12.6%	
Fuel Oil (FO)	42	42	-2.1%	
LPG	128	135	5.1%	
Other	40	98	144.6%	
Average input price (USD/bbl)				
Brent	61	98	59.7%	
BSR's weighted brent price	62	101	61.8%	
BSR's average output price (USD/bbl)				
Diesel	68.8	118.9	72.8%	
Gasoline A95	75.7	122.5	61.8%	
Gasoline A92 & E5	73.1	119.8	63.9%	
Jet A1	68.0	116.8	71.8%	
Fuel Oil (FO)	67.4	103.3	53.3%	
LPG (USD/ton)	662.3	902.0	36.2%	

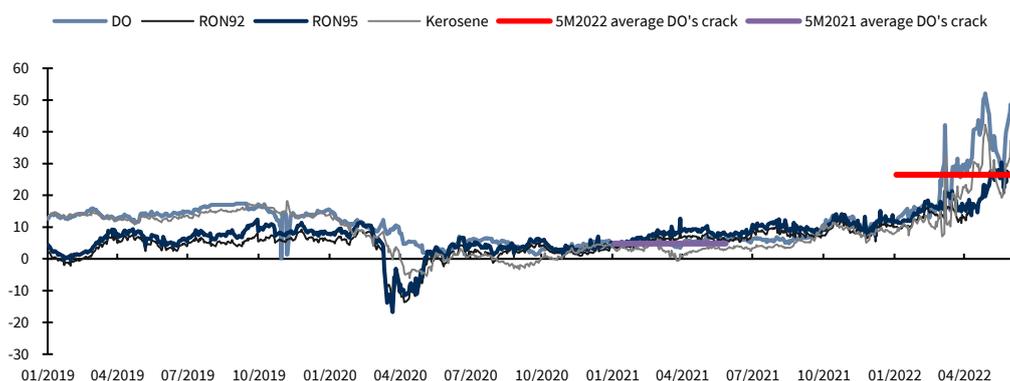
Source: Binh Son Refinery, KB Securities Vietnam

High crack spreads would boost BSR's revenue and profit

The crack spreads, the main factor affecting the revenue and profit of refineries like BSR, witnessed positive changes over the first half of 2022. By the end of 1Q22, the crack spreads of BSR's primary products such as Diesel, A92&95 gasoline, and LPG recorded significant increases, reaching 202%, 62-74%, and 176% YoY, respectively. We believe the crack spreads will continue to stay high in the wake of the geopolitical tensions between Russia and Ukraine and the import bans on Russian fuel, causing disruptions in crude oil supply from Russia to European oil refineries and a shortfall in finished petroleum products. To be more specific, the crack spread of Diesel in the first five months of 2022 averaged USD26.5/barrel (+4.8x YoY).

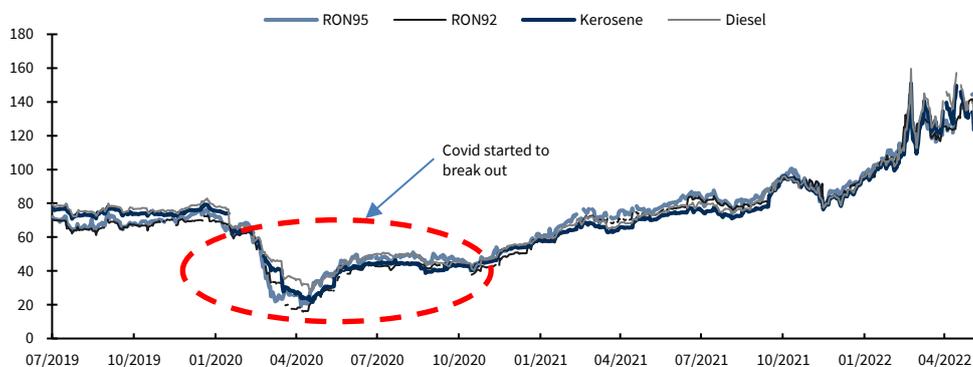
Furthermore, the Zero-Covid policy of China, the largest importer of oil and second largest refiner of oil in the world, led to waning demand and supply from refineries in this nation. Therefore, high crack spreads of refined oil products will likely continue until the shortage of refining capacity and finished petroleum products is resolved by the end-2022.

Fig 3. BSR – Crack spread of key products (USD/bbl)



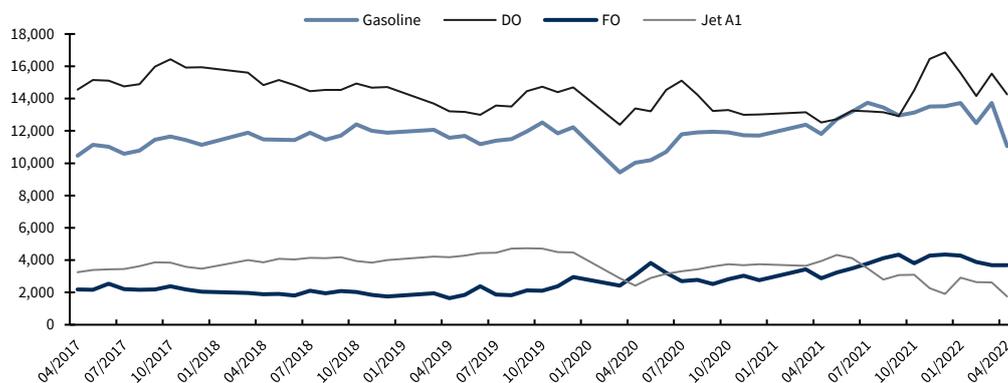
Source: Bloomberg, KB Securities Vietnam

Fig 4. BSR – Prices of finished petroleum products (USD/bbl)



Source: Bloomberg, KB Securities Vietnam

Fig 5. China – Oil production (thousand tons)



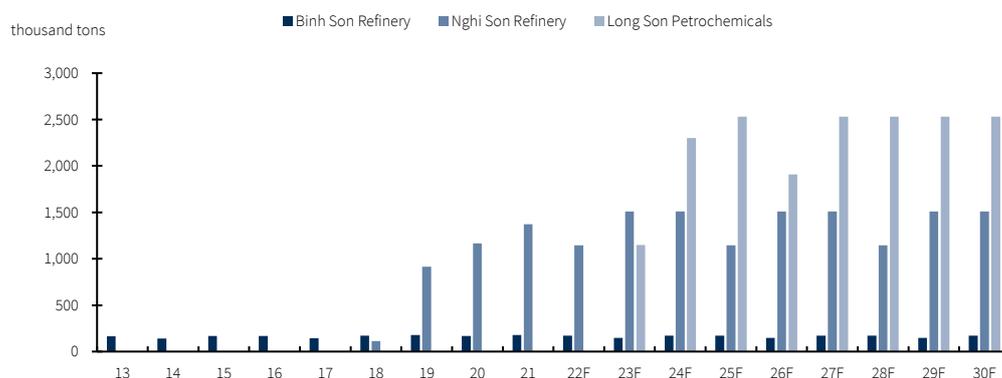
Source: Bloomberg, KB Securities Vietnam

BSR has been conducting a feasibility report on upgrading & expanding the Dung Quat Refinery

BSR has been conducting a feasibility report on upgrading & expanding the Dung Quat Refinery, which can reduce the total investment of the entire project from USD1.8 billion to USD1.2 billion. The firm expects to complete the report in 2H22 and put the expanded Dung Quat project into operation in 2026. We believe it is essential for BSR to enter the petrochemical segment with higher profit margins than oil refining, which is still in the early stage in Vietnam.

We also note that our valuation only includes the project to upgrade the plant worth USD300 million to meet the emission standards as per Decision 49/2011/QĐ-TTg approved by the Prime Minister. Accordingly, manufactured, assembled, and imported brand-new cars are subject to level-5 exhaust emission standards from January 1, 2022. We will cover the Dung Quat Refinery expansion project until further detailed information.

Fig 6. Vietnam – Oil production of large refineries (thousand tons)



Source: Binh Son Refinery, Nghi Son Refinery, KB Securities Vietnam

Forecast & Valuation

2022F business results

In 2022, we estimate BSR to achieve NPAT of VND12,857 billion (+ 92% YoY) on revenue of VND148,917 billion (+ 47% YoY), assuming that:

- The average oil price is USD90/barrel (+28.6% YoY).
- Production efficiency should reach 106% of the design capacity.
- Sales volume is estimated at 6,892 thousand tons (+7.4% YoY), down from the previous forecast of 7,024 thousand tons (+9.5% YoY).
- The crack spread of DO, A95 gasoline, A92 gasoline, and Jet A1 is USD19.3/barrel (+286% YoY), USD25.5/barrel (+51.8% YoY), USD21.6/barrel (+42% YoY), and USD17.6/barrel (+226% YoY) thanks to recovering demand and shortage of finished petroleum products.

2023F business results

In 2023, we estimate BSR to achieve VND10,246 billion (-20% YoY) in NPAT and VND116.418 billion (-22% YoY) in revenue, assuming that:

- The average oil price is USD80/barrel (-11% YoY).
- Production efficiency should reach 90.9% of the design capacity due to the fifth maintenance overhaul within 52 days.
- Sales volume may hit 5.932 thousand tons (-14% YoY).
- The crack spread of DO, A95 gasoline, A92 gasoline, and Jet A1 is USD19.1/barrel (-1% YoY), USD24.8/barrel (-3% YoY), USD21.2/barrel (-2% YoY), and USD17.6/barrel (flat YoY) assuming lower oil prices and stable supply of finished petroleum products.

Table 2. BSR – 2021A–2023E business results

VND bn	2021A	2022E	2023E	Notes
Revenue (VND bn)	101,079	148,917	116,418	2023 revenue decline due to the 5th overhaul last 52 days.
Diesel	34,097	58,320	45,268	
Gasoline A95	33,403	41,909	33,114	
Gasoline A92 & E5	15,382	20,396	15,455	
Jet A1	3,001	8,528	6,863	Output volume and selling prices increase in 2022 & 2023 base on expectations of resumption of aviation operations.
Fuel Oil (FO)	1,768	2,460	1,909	
LPG	7,939	11,240	8,892	
Other	5,490	6,063	4,916	
Gross profit	7,732	14,727	11,995	
GPM (%)	7.65%	9.89%	10.30%	
SG&A expenses	(1,187)	(1,748)	(1,367)	
% SG&A / Revenue	-1.17%	-1.17%	-1.17%	
Operating profit	6,545	12,979	10,628	
Financial Income	1,017	1,096	1,474	Financial income in 2023 is higher thanks to higher amount of cash in 2022.
Financial expenses	(619)	(639)	(751)	
Profit before tax	6,978	13,470	11,385	
Profit after tax	6,673	12,796	10,246	
NPM (%)	6.60%	8.59%	8.80%	
Production volume (mn tons)	6,413	6,890	5,909	
Sales volume (mn tons)	6,423	6,892	5,932	
Diesel	2,547	2,916	2,501	
Gasoline A95	1,950	1,791	1,562	
Gasoline A92 & E5	884	872	729	
Jet A1	215	416	369	Output volume increase in 2022 & 2023 base on expectations of resumption of aviation operations.
Fuel Oil (FO)	156	172	148	
LPG	487	551	473	
Other	184	174	150	
Average input price (USD/bbl)				
Brent	70	90	80	
BSR's weighted brent price	72	96	86	
BSR's average output price (USD/bbl)				
Diesel	78.8	118.3	107.1	
Gasoline A95	88.8	121.8	110.4	
Gasoline A92 & E5	87.2	117.9	106.8	
Jet A1	77.4	113.9	103.2	
Fuel Oil (FO)	73.3	92.6	83.1	
LPG (USD/ton)	702.6	883.2	812.5	

Source: Binh Son Refinery, KB Securities Vietnam

We recommend BUY for BSR stock with a target price of VND38,200 per share

Based on the FCFF valuation method, we raise BSR's valuation by 3.8%, reflecting the higher upside potential for the crack spreads and its positive impacts on BSR's revenue and NPAT. The target price is VND38,200/share, 38.4% higher than the closing price of VND27,600/share on June 3, 2022.

Table 3. BSR – DCF valuation method

Risk-free rate	3.00%	Terminal growth rate	2%
Equity risk premium	10.0%	PV of Terminal Value	60,987
Beta	1.50	PV of Free Cash Flows 2021–2015	43,059
KE	18.0%	Total value of FCF and TV	104,046
Cost of debt	7.0%	Plus: Cash & ST investments	28,022
Corporate tax rate %	20%	Less: Debt	-13,583
Cost of debt after tax	5.6%	Less: Minority Interest	-66
Equity weighted	70%	Equity Value	118,419
WACC	14.3%	No. of outstanding shares (mn shares)	3,100.5
		Value per share (VND)	38,200
		Current price (June 3, 2022)	27,700
		Upside	38.4%
		Dividend yield	2.6%
		TSR	41.0%

Source: KB Securities Vietnam

Risks

Lower/higher-than-expected oil prices may lead to fluctuations in business results

A sharp drop in oil prices will cause inventory value to fall as BSR needs to set aside for inventory devaluation and negative gross profit. BSR's production cycle is about 15 days, while days in inventory is about 30 days. In 1Q20, BSR lost VND2,332 billion due to a 30% decrease in oil prices and dwindling demand under the adverse impact of the COVID-19 pandemic. In addition, the company set aside more than VND1,900 billion for inventory devaluation, which affected the gross profit margin. Given the complicated and unpredictable movements of world oil markets, this risk factor should be closely followed.

BSR may face difficulties in raising capital for the expansion of the Dung Quat Refinery

BSR plans to expand and upgrade the Dung Quat Refinery from 6.5 million tons/year to 8.5 million tons/year, and the plant can process both sour crude oil and sweet crude oil instead of only sweet crude oil at present. However, BSR may face difficulties in raising capital for the project since PetroVietnam (PVN) does not guarantee the loan for this project. We will include this project in BSR's valuation when BSR finds financing and starts this project, which will be an upside risk for BSR.

KB SECURITIES VIETNAM RESEARCH

Nguyen Xuan Binh
Head of Research
binhnx@kbsec.com.vn

Equity

Duong Duc Hieu
Head of Equity Research
hieudd@kbsec.com.vn

Nguyen Anh Tung
Senior Analyst – Financials & Information Technology
tungna@kbsec.com.vn

Pham Hoang Bao Nga
Senior Analyst – Real Estate, Construction & Materials
ngaphb@kbsec.com.vn

Luong Ngoc Tuan Dung
Analyst – Retails & Consumers
dunglnt@kbsec.com.vn

Tieu Phan Thanh Quang
Analyst – Oil & Gas, Utilities
quangtpt@kbsec.com.vn

Nguyen Duc Huy
Analyst – Banks, Insurance & Securities
huynd1@kbsec.com.vn

Research Division
research@kbsec.com.vn

Macro/Strategy

Tran Duc Anh
Head of Macro & Strategy
anhtd@kbsec.com.vn

Le Hanh Quyen
Analyst – Macroeconomics & Banks
quyenlh@kbsec.com.vn

Thai Huu Cong
Analyst – Strategy, Chemicals
congth@kbsec.com.vn

Tran Thi Phuong Anh
Analyst – Strategy, Fishery & Textiles
anhttp@kbsec.com.vn

Support team

Nguyen Cam Tho
Assistant
thonc@kbsec.com.vn

Nguyen Thi Huong
Assistant
huongnt3@kbsec.com.vn

KB SECURITIES VIETNAM (KBSV)

Head Office:

Levels G, M, 2 & 7, Sky City Tower, 88 Lang Ha Street, Dong Da District, Hanoi, Vietnam
Tel: (+84) 24 7303 5333 – Fax: (+84) 24 3776 5928

Hanoi Branch:

Level 1, VP Building, 5 Dien Bien Phu, Ba Dinh District, Hanoi, Vietnam
Tel: (+84) 24 7305 3335 – Fax: (+84) 24 3822 3131

Ho Chi Minh Branch:

Level 2, TNR Tower Nguyen Cong Tru, 180-192 Nguyen Cong Tru Street, District 1, HCMC, Vietnam
Tel: (+84) 28 7303 5333 – Fax: (+84) 28 3914 1969

Saigon Branch:

Level 1, Saigon Trade Center, 37 Ton Duc Thang, Ben Nghe Ward, District 1, HCMC, Vietnam
Tel: (+84) 28 7306 3338 – Fax: (+84) 28 3910 1611

CONTACT INFORMATION

Institutional Client Center: (+84) 28 7303 5333 – Ext: 2656
Private Customer Care Center: (+84) 24 7303 5333 – Ext: 2276
Email: ccc@kbsec.com.vn
Website: www.kbsec.com.vn

Investment ratings & definitions

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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