ASIA ENERGY TOUR

Takeaways on China Refining: Demand headwinds, potential capacity rationalization, and constrained exports

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We hosted leading energy corporates, policymakers, and industry experts during our Asia LNG Tour on Sep 21-24, meeting with market participants in Beijing, Seoul, and Tokyo. **We have three main takeaways on China's refining sector:**

1. **Subdued outlook for long-term China oil product demand.** Various industry sources project China's total oil demand to contract by 0 to 1 mb/d by 2030 relative to 2025 levels. This decline is partly driven by a contraction in diesel demand, which is being accelerated by the rapid adoption of electric trucks.
2. **2030 China refining capacity under debate amid potential closure plans.** While some speakers continue to project further refining capacity expansion through 2030, others are beginning to forecast accelerated rationalization. That said, execution plans for potential closures remain in the development phase. Under a capacity rationalization scenario, we estimate China's domestic demand-to-capacity utilization rate could remain robust at 86% by 2030, just 1 ppt below the 2025 level.
3. **Constrained five-year outlook for China's product export quotas amid strict emission controls.** Although domestic refiners are actively seeking higher product export quotas, JLC expects the total quota allocation for 2026 to match or fall slightly below 2025 volumes as regulators prioritize national energy security. Over the next five years, expert projections for refined product export quotas remain split between progressive contraction and stabilization at current volumes, although both camps agree that emission controls will continue to heavily influence export policy decisions.

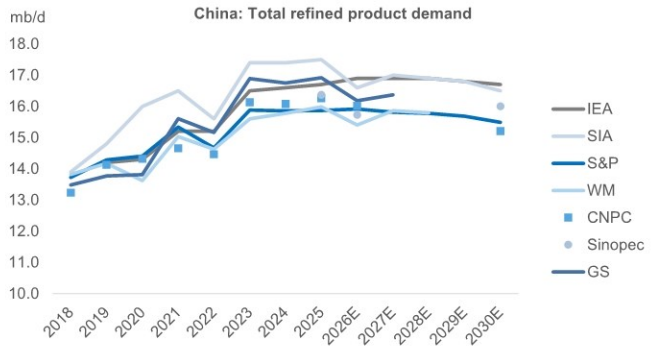
Stock highlights: Constrained product exports from China support our constructive outlook on ex-China refiners. **In Asia**, we highlight **Buy rated S-Oil (on CL) and Thai Oil** due to strong cash flow generation, with valuations still reflecting mid-cycle earnings. We maintain our Neutral rating on Sinopec due to its large domestic exposure, with earnings negatively correlated with Brent oil prices above US$90/bbl due to China's domestic fuel pricing policy. **In the US**, our stock-selection framework continues to screen for positive estimate revisions as a key driver of share performance, leading us to highlight Gulf Coast-exposed, large-cap equities such as **Buy-rated VLO and MPC**.

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Takeaways on China Refining: Demand headwinds, potential capacity rationalization, and constrained exports

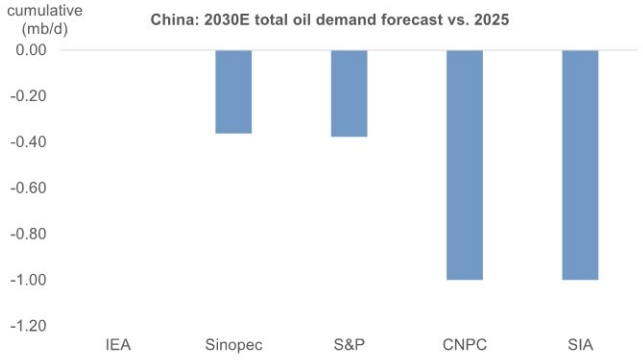
Subdued outlook on long-term China oil product demand. Despite discrepancies in historical data, various industry sources agree that Chinese oil demand will decline by 0 to 1 mb/d by 2030 compared with 2025 levels (Exhibit 1-Exhibit 2). Among the different assumptions driving this range, diesel demand is among the primary contributors, expected to fall by 0.4 to 1.1 mb/d by 2030 compared to 2025 levels (Exhibit 3). Earlier this year, our China Industrials team projected that both heavy- and light-duty electric truck penetration will reach 40% of sales by 2030, with the heavy-duty target aligning with the official NDRC goal (Exhibit 4-Exhibit 5). Based on this adoption trajectory, we calculate that Chinese diesel demand could fall by 0.8 mb/d by 2030 relative to 2025 levels, leaning toward the upper end of the industry's estimated 0.4 to 1.1 mb/d decline range (Exhibit 6). Notably, speakers during our recent field trip presented an even more aggressive outlook, forecasting new energy truck penetration to reach 50%-70% for heavy-duty and 50%–60% for light-duty sales by 2030.

Exhibit 1: Various industry sources agree that Chinese oil demand will decline toward 2030...



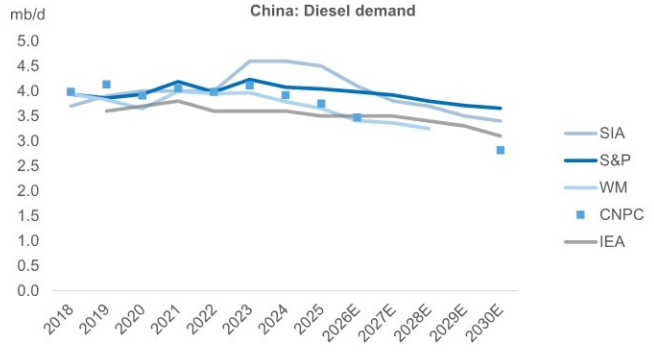
Source: IEA, S&P, Wood Mackenzie, CNPC, Sinopec, SIA Energy, Goldman Sachs Global Investment Research

Exhibit 2: ...by 0 to 1 mb/d by 2030 compared with 2025 levels



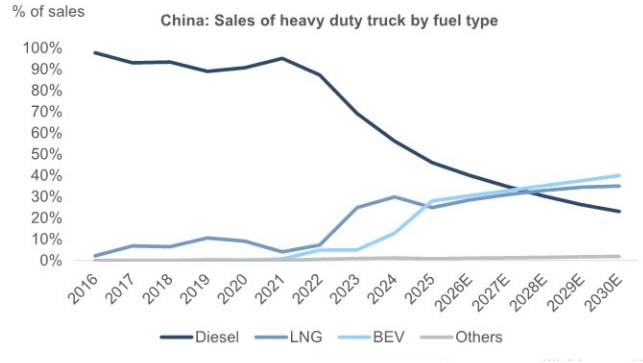
Source: IEA, Sinopec, S&P, CNPC, SIA Energy

Exhibit 3: Chinese diesel demand is projected to fall by 0.4 to 1.1 mb/d by 2030 compared to 2025 levels



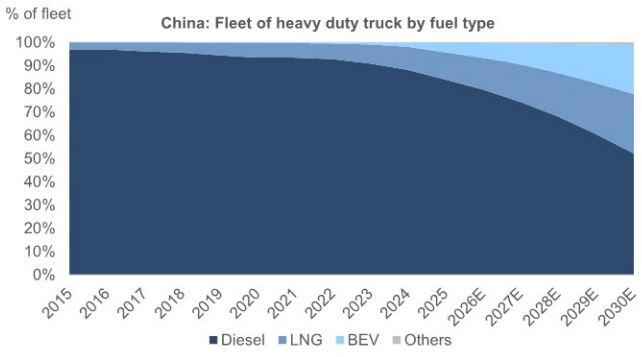
Source: IEA, S&P, Wood Mackenzie, CNPC, SIA Energy, Goldman Sachs Global Investment Research

Exhibit 4: Our China Industrials team expects heavy-duty electric truck penetration to reach 40% of sales by 2030...



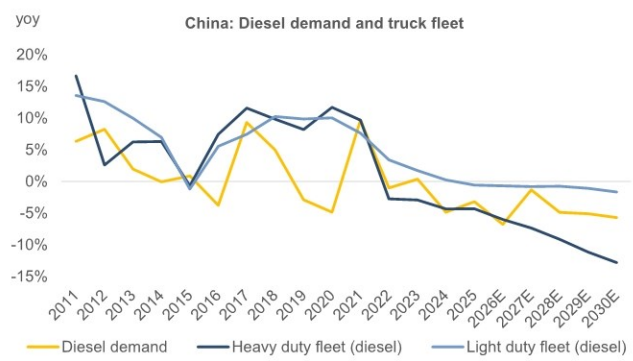
Source: NBS, Goldman Sachs Global Investment Research

Exhibit 5: ...implying heavy-duty electric truck penetration reaching c.20% of the fleet by 2030



Source: NBS, Goldman Sachs Global Investment Research

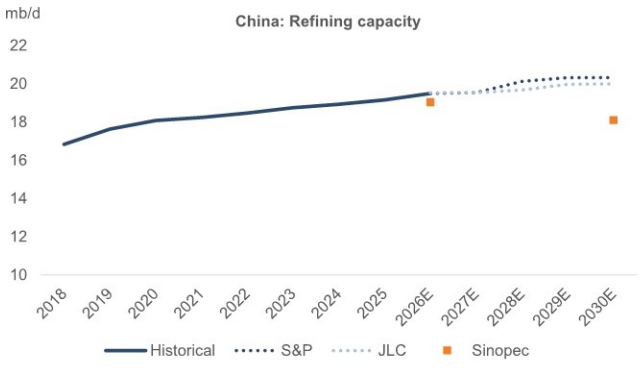
Exhibit 6: We calculate that Chinese diesel demand could fall by 0.8 mb/d by 2030 relative to 2025 levels



Source: NBS, Wood Mackenzie, Goldman Sachs Global Investment Research

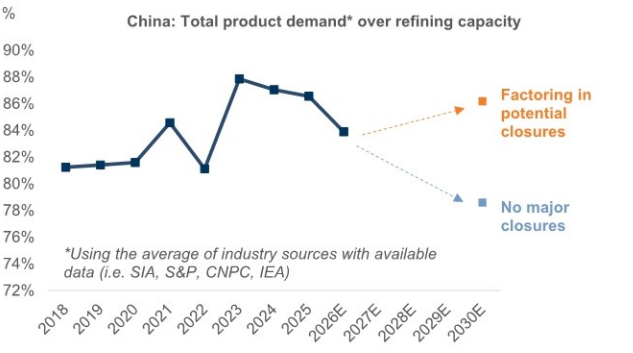
2030 China refining capacity under debate amid potential closure plans. While some speakers continue to expect further refining capacity expansion during the 15th Five-Year Plan (FYP) period (2026–2030), others are beginning to forecast accelerated rationalization (Exhibit 7). For example, estimates from Sinopec research arm suggest that 1.6 to 2.0 mb/d of capacity at small and medium-sized refineries could be shut down. Our understanding is that while the sector is currently establishing overall refining capacity targets for the 15th FYP, actual execution plans for potential closures are still in the development phase, and a definitive closure timeline has yet to be finalized. Under a capacity rationalization scenario, we calculate that China's domestic demand-to-capacity utilization rate could remain robust at 86% by 2030, compared with a decline to 79% if no meaningful shutdowns occur (Exhibit 8).

Exhibit 7: 2030 refining capacity targets under debate amid potential closure plans



Source: S&P, JLC, Sinopec

Exhibit 8: Under a capacity rationalization scenario, we calculate that China's domestic demand-to-capacity utilization rate could remain robust at 86% by 2030

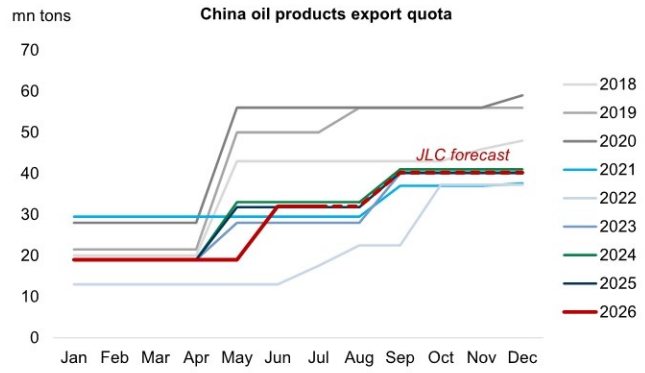


Source: IEA, S&P, CNPC, SIA Energy, Sinopec, JLC

Constrained five-year outlook for China's product export quotas amid strict emission controls. Although domestic refiners are actively seeking higher product export quotas, JLC expects the total quota allocation for 2026 to match or fall slightly below 2025 volumes as regulators prioritize national energy security (Exhibit 9). Over the next five years, expert projections for refined product export quotas remain split between a progressive contraction and stabilization at current volumes. Regardless of the pathway, there is a strong consensus that decarbonization goals will continue to

heavily influence export policy decisions, particularly as the 15th FYP's binding targets are tied to local government officials' KPIs and are being strictly enforced (Exhibit 10).

Exhibit 9: JLC expects the total quota allocation for 2026 to match or fall slightly below 2025 volumes



Source: JLC

Exhibit 10: The 15th FYP's binding targets are tied to local government officials' KPIs and are being strictly enforced

Key Energy Sector Targets of China's 15th Five-Year Plan (2026–2030)			
Indicator	Binding?	2025	2030 Target
Reduction in CO2 emissions per unit of GDP	Yes		-17%
Peak coal and oil consumption	Yes		≤2025 Levels
Share of non-fossil energy in total energy consumption	Yes	21.7%	25%
PM2.5 concentration in county-level and above cities	Yes	28	<27 μg/m3

Source: NDRC

Stock highlights

Asia Refining: Buy S-Oil (on CL) and Thai Oil

In Asia, we highlight Buy-rated S-Oil (on CL) and Thai Oil for their favorable middle distillates exposure (~58% of product yield) and strong cash flow generation. S-Oil is particularly attractive following the completion of its capex cycle, with 50%-60% of products exported and significant leverage to elevated diesel margins. Even with limited profitability on domestic sales due to price caps, as well as broadly higher crude premiums and freight costs, we forecast a 22% FCF yield in 2027E and ~38% of its market cap to be generated in cash over two years. On valuation, both S-Oil and TOP shares are implying discounted EV/EBITDA multiples, offering compelling entry points despite a strengthening refining cycle. For S-Oil, its P/B multiple remains near its historical average at 1.4x and well below its historical peak of 3.8x, even as we forecast ROE to approach historical highs. Importantly, this is despite limited earnings contribution from the new Shaheen project, which is constrained by the weak chemicals cycle. We calculate S-Oil and Thai Oil's current share prices discount a combination of mid-cycle diesel/jet cracks in 2027E and a negative IRR on the Shaheen Project and the Clean Fuel Project for S-Oil and Thai Oil, respectively.

US Refining: Buy VLO and MPC

Among the large-cap equities, we highlight Buy-rated stocks VLO and MPC, where we estimate strong earnings and cash flow generation in the near and medium term. For VLO, we highlight the company's premium asset portfolio, Gulf Coast exposure, strong track record of execution, and scale. We continue to view the company as a key beneficiary of strong refining fundamentals and expect the constructive backdrop to drive growth in cash flow and share repurchases. For MPC, we believe the company's Gulf Coast/West Coast exposure should be supportive of earnings, and we are constructive on the company's strong margin realizations and relatively low-cost operations. We additionally highlight the distributions from MPLX, which contribute to an attractive capital returns profile. For both MPC and VLO, we see potential for enhanced cash flow generation driven by widening light-heavy crude differentials from incremental Venezuelan and Canadian crude production. We believe this could serve as a tailwind to Gulf Coast captures, particularly at assets with feedstock flexibility.

Appendix

Exhibit 11: 12-month target prices, valuation methodology and risks

	Ratings	Price currency	Current price	Target price	Upside / downside	Methodologies	Key risks
Refining							
S-Oil	Buy *	KRW	157,800	220,000	39%	EV/EBITDA	(-) Weaker-than-expected refining margins, delays in ramp-up of Shaheen project, lower for longer petchem margins, stronger-than-expected KRW relative to USD.
Reliance	Buy	INR	1,184.00	1,870.00	58%	SOTP	(-) Lower-than-expected refining/chemical margins, lower-than-expected market share and margins in retail business, project delays and higher future capex.
PTT Global Chemicals	Buy	THB	48.75	59.00	21%	EV/EBITDA	(-) Lower-than-expected refining margins and/or oil prices, ethane flow feedstock disruption from PTT parentco, and stronger THB relative to USD.
Thai Oil	Buy	THB	69.00	80.00	16%	EV/EBITDA	(-) Lower-than-expected refining margins, delays in construction and ramp-up of Clean Fuel Project vs. our base case, significant new announcement or M&A in chemicals, stronger-than-expected THB relative to USD.
Marathon Petroleum	Buy	USD	392.03	472.00	20%	SOTP (50%); P/E (50%)	(-) Lower-than-expected refining margins, weaker-than-expected operational execution, lower-than-expected midstream earnings.
Valero Energy	Buy	USD	387.72	457.00	18%	SOTP (50%); P/E (50%)	(-) Lower-than-expected refining margins, weaker-than-expected operational execution, lower-than-expected renewable diesel earnings, lower-than-expected capital returns.
Sinopec	Neutral	HKD	4.41	4.10	-7%	EV/EBITDA	(+/-) Lower/higher oil prices or weaker/stronger oil time spreads than expected; stronger/weaker refining or chemical margins than expected; higher/weaker-than-expected cost pass-through of imported LNG.
SK Innovation	Neutral	KRW	145,900.00	140,000.00	-4%	SOTP	(+/-) Higher/Lower-than-expected refining/lube margins, higher/lower-than-expected chemical margins, faster/slower-than-expected new battery technology advancement, faster/slower-than-expected growth in global EV sales TAM.

* denotes stock is on the regional Conviction List.

Source: Goldman Sachs Global Investment Research, Datastream

Unless otherwise mentioned, this note is priced as of September 29th, 2026.

Disclosure Appendix

Reg AC

We, Amber Cai, Neil Mehta, Nikhil Bhandari, John Mackay, Randy Lau and Josiah Knight, hereby certify that all of the views expressed in this report accurately reflect our personal views about the subject company or companies and its or their securities. We also certify that no part of our compensation was, is or will be, directly or indirectly, related to the specific recommendations or views expressed in this report.

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Growth is based on a stock's forward-looking sales growth, EBITDA growth and EPS growth (for financial stocks, only EPS and sales growth), with a higher percentile indicating a higher growth company. **Financial Returns** is based on a stock's forward-looking ROE, ROCE and CROCI (for financial stocks, only ROE), with a higher percentile indicating a company with higher financial returns. **Multiple** is based on a stock's forward-looking P/E, P/B, price/dividend (P/D), EV/EBITDA, EV/FCF and EV/Debt Adjusted Cash Flow (DACF) (for financial stocks, only P/E, P/B and P/D), with a higher percentile indicating a stock trading at a higher multiple. The **Integrated** percentile is calculated as the average of the Growth percentile, Financial Returns percentile and (100% - Multiple percentile).

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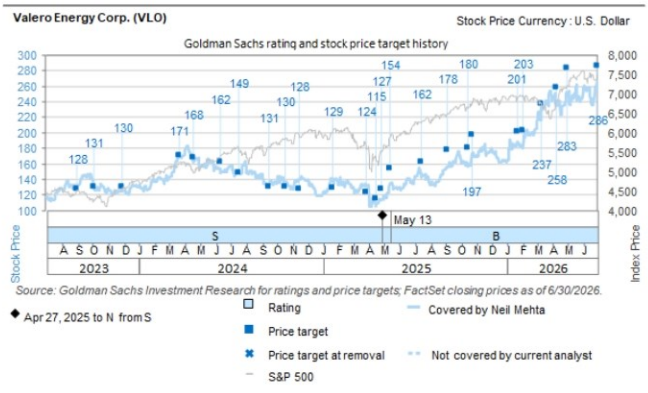
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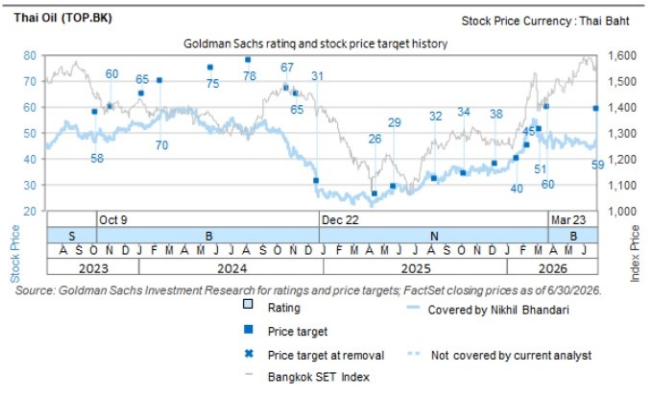
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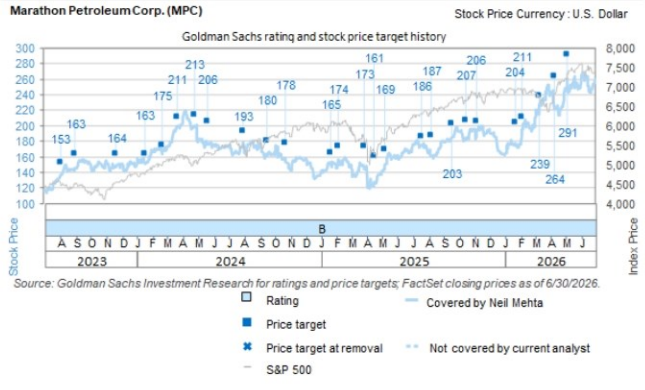
Price target and rating history chart(s)



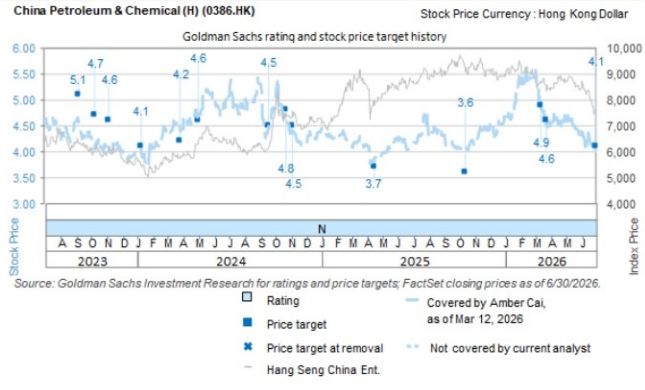
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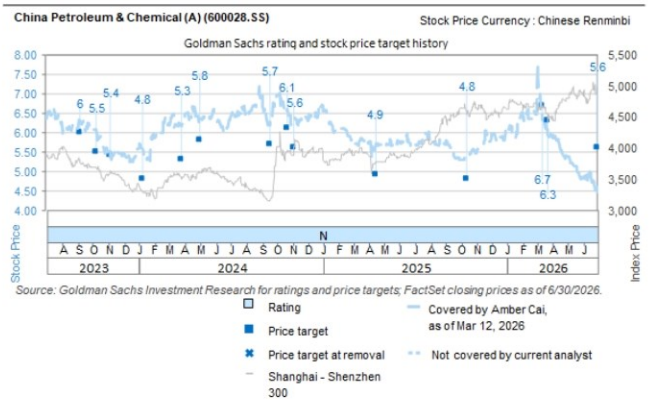
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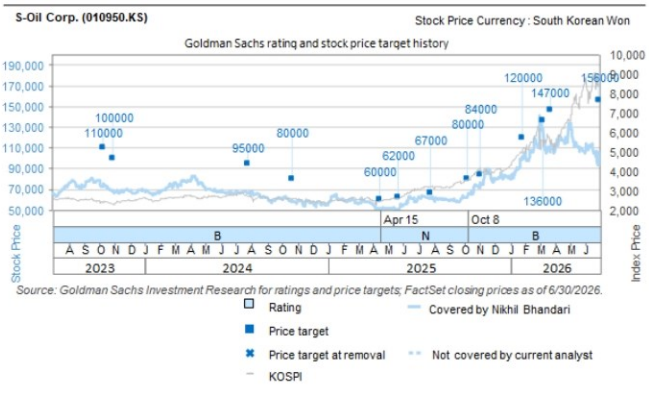
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Target price history table(s)

China Petroleum & Chemical (A) (600028.SS)

Date of report	Target price (Rmb)	Closing price (Rmb)
30-Jun-26	5.60	4.46
23-Mar-26	6.30	6.04
12-Mar-26	6.70	6.46
14-Oct-25	4.80	5.42
15-Apr-25	4.90	5.65
05-Nov-24	5.60	6.28
22-Oct-24	6.10	6.60
17-Sep-24	5.70	6.19
02-May-24	5.80	6.35
27-Mar-24	5.30	6.22
09-Jan-24	4.80	5.58
06-Nov-23	5.40	5.37
09-Oct-23	5.50	6.06

Marathon Petroleum Corp. (MPC)

Date of report	Target price ($)	Closing price ($)
18-Sep-26	472.00	424.89
21-Jul-26	376.00	319.76
07-May-26	291.00	242.26
10-Apr-26	264.00	222.62
11-Mar-26	239.00	226.74
04-Feb-26	211.00	195.92
21-Jan-26	204.00	177.48
05-Nov-25	206.00	186.18
16-Oct-25	207.00	181.15
18-Sep-25	203.00	185.03
08-Aug-25	187.00	160.84
21-Jul-25	186.00	174.88
08-May-25	169.00	149.97
17-Apr-25	161.00	127.72
27-Mar-25	173.00	147.35
04-Feb-25	174.00	156.91
22-Jan-25	165.00	147.61
22-Oct-24	178.00	158.24
16-Sep-24	180.00	161.01
30-Jul-24	193.00	178.29
21-May-24	206.00	176.58
25-Apr-24	213.00	199.51
22-Mar-24	211.00	200.17
21-Feb-24	175.00	166.05
18-Jan-24	163.00	151.80
22-Nov-23	164.00	149.21

China Petroleum & Chemical (H) (0386.HK)

Date of report	Target price (HK$)	Closing price (HK$)
30-Jun-26	4.10	4.00
23-Mar-26	4.60	4.53
12-Mar-26	4.90	4.98
14-Oct-25	3.60	4.04
15-Apr-25	3.70	3.88
05-Nov-24	4.50	4.46
22-Oct-24	4.80	4.63
17-Sep-24	4.50	4.49
02-May-24	4.60	4.62
27-Mar-24	4.20	4.40
09-Jan-24	4.10	4.00

S-Oil Corp. (010950.KS)

Date of report	Target price (W)	Closing price (W)
21-Sep-26	220,000	153,900
03-Aug-26	163,000	121,700
30-Jun-26	156,000	106,400
23-Mar-26	147,000	106,000
08-Mar-26	136,000	129,700
26-Jan-26	120,000	98,300
03-Nov-25	84,000	72,300
08-Oct-25	80,000	62,300
27-Jul-25	67,000	62,300
22-May-25	62,000	50,600
15-Apr-25	60,000	51,800

China Petroleum & Chemical (H) (0386.HK)

Date of report	Target price (HK$)	Closing price (HK$)
06-Nov-23	4.60	4.07
09-Oct-23	4.70	4.12

S-Oil Corp. (010950.KS)

Date of report	Target price (W)	Closing price (W)
22-Oct-24	80,000	58,700
26-Jul-24	95,000	66,400
30-Oct-23	100,000	69,700
09-Oct-23	110,000	72,900

Valero Energy Corp. (VLO)

Date of report	Target price ($)	Closing price ($)
22-Sep-26	457.00	377.14
04-Aug-26	365.00	308.73
21-Jul-26	357.00	314.80
30-Jun-26	286.00	260.44
01-May-26	283.00	246.87
10-Apr-26	258.00	238.82
11-Mar-26	237.00	231.05
03-Feb-26	203.00	192.27
21-Jan-26	201.00	188.19
23-Oct-25	197.00	173.13
16-Oct-25	180.00	156.39
05-Sep-25	178.00	156.77
17-Jul-25	162.00	144.67
13-May-25	154.00	135.11
28-Apr-25	127.00	114.75
17-Apr-25	115.00	110.06
27-Mar-25	124.00	133.23
22-Jan-25	129.00	135.08
14-Nov-24	128.00	140.02
17-Oct-24	130.00	136.65
16-Sep-24	131.00	133.75
17-Jul-24	149.00	150.05
12-Jun-24	162.00	148.38
19-Apr-24	168.00	163.89
22-Mar-24	171.00	169.64
30-Nov-23	130.00	125.36
05-Oct-23	131.00	127.48

Thai Oil (TOP.BK)

Date of report	Target price (Bt)	Closing price (Bt)
21-Sep-26	80.00	69.00
13-Aug-26	74.00	66.25
30-Jun-26	59.00	48.50
23-Mar-26	60.00	44.50
08-Mar-26	51.00	49.00
13-Feb-26	45.00	51.50
22-Jan-26	40.00	41.00
11-Dec-25	38.00	35.00
08-Oct-25	34.00	34.75
13-Aug-25	32.00	34.25
22-May-25	29.00	28.25
15-Apr-25	26.00	23.40
23-Dec-24	31.00	25.50
10-Nov-24	65.00	42.75
22-Oct-24	67.00	46.75
08-Aug-24	78.00	49.00
26-May-24	75.00	49.75
15-Feb-24	70.00	57.50
09-Jan-24	65.00	52.50
09-Nov-23	60.00	47.25
09-Oct-23	58.00	47.75

Price targets shown in table(s) are unadjusted for corporate actions.

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