

Outlook | November 2025

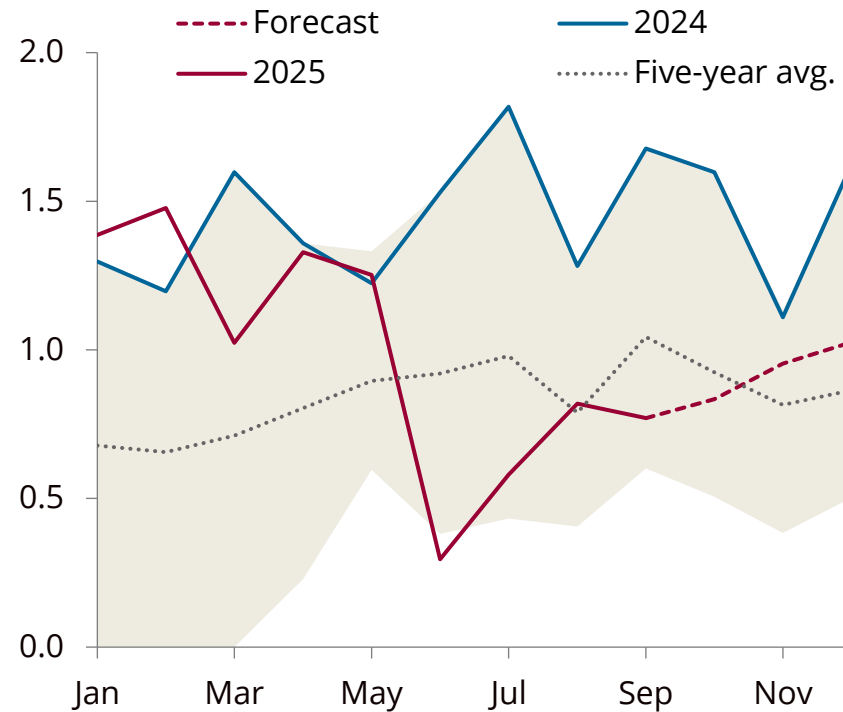
Back, back, back again



Easing US–China tensions to modestly buoy propane flows and delivered markets

US-China propane flows

Mt



Source: China Customs, Energy Aspects

- China's extension of the 10% tariff (in addition to an existing 1%) on US LPG for another year from 10 November gives buyers more certainty than in October, when there were concerns about higher tariffs due to rising tensions.
- This will boost Chinese demand for US LPG (mainly propane), though volumes will stay below pre-tariff levels. The extension should add some liquidity to AFEI propane and support prompt prices.
- More certainty should also provide a floor to US propane, which has competed with Middle Eastern suppliers to offer the lowest price for delivered propane across Asia. But upside to Mont Belvieu propane prices will be capped by a 0.13 mb/d m/m (and 0.2 mb/d y/y) rise in US LPG production in Q4 25 and Q1 26—and all will clear as merchant exports.
- As a result of modestly higher delivered propane prices, Asian pro-nap spreads will narrow from current levels (-\$80/t) to around -\$65/t. This is around \$10/t narrower than current January prices but wider y/y as east-of-Suez propane balances are looser and naphtha balances tighter y/y.
- Up to 0.18 mb/d of lost Russian naphtha may also need to be sourced by Asian buyers from benchmark markets, which will offset rising regional refinery naphtha supply.

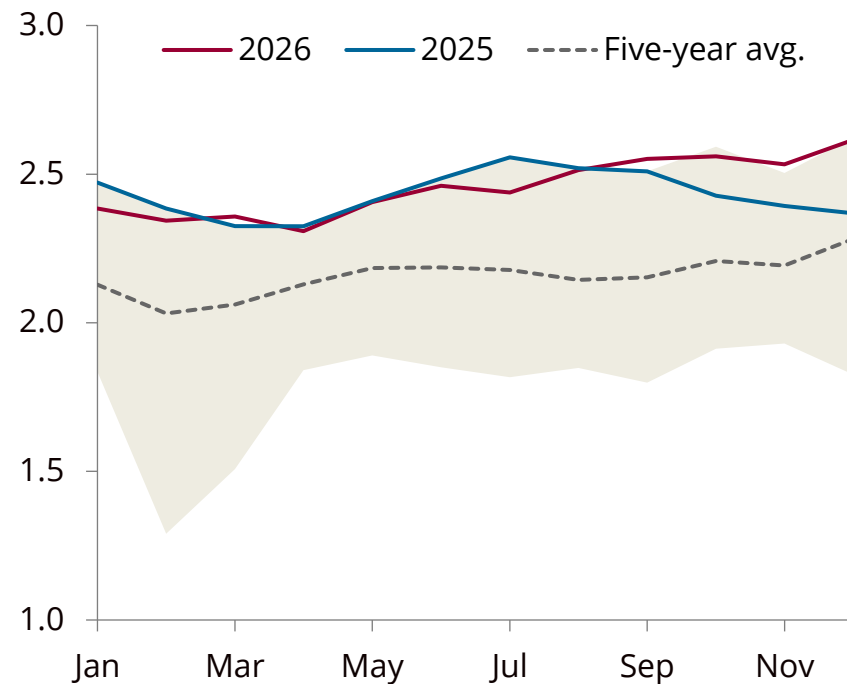
Global ethane outlook



Q1 26 US ethane demand to ease in q/q and y/y as forward frac spreads narrow

US ethane demand forecast

mb/d

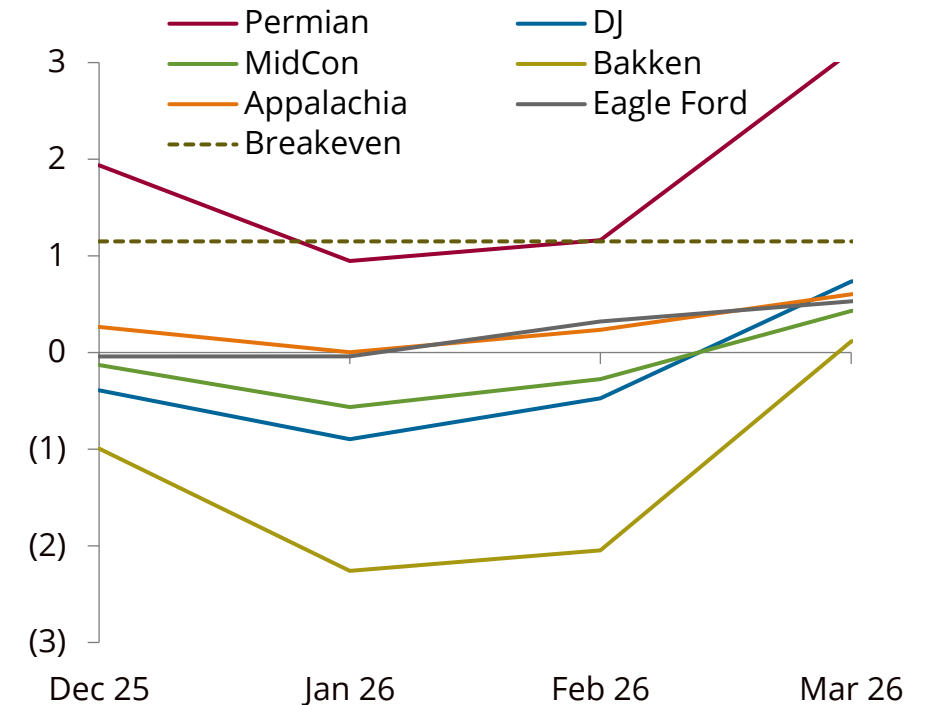


US ethane demand will ease by 30–40 kb/d q/q in Q1 26. While ethane-only crackers should keep high utilisation rates, LyondellBasell will reduce run rates to 80% through Q1 26.

Source: CME, Argus Media Group, Energy Aspects

US forward ethane frac spreads

\$/MMBtu

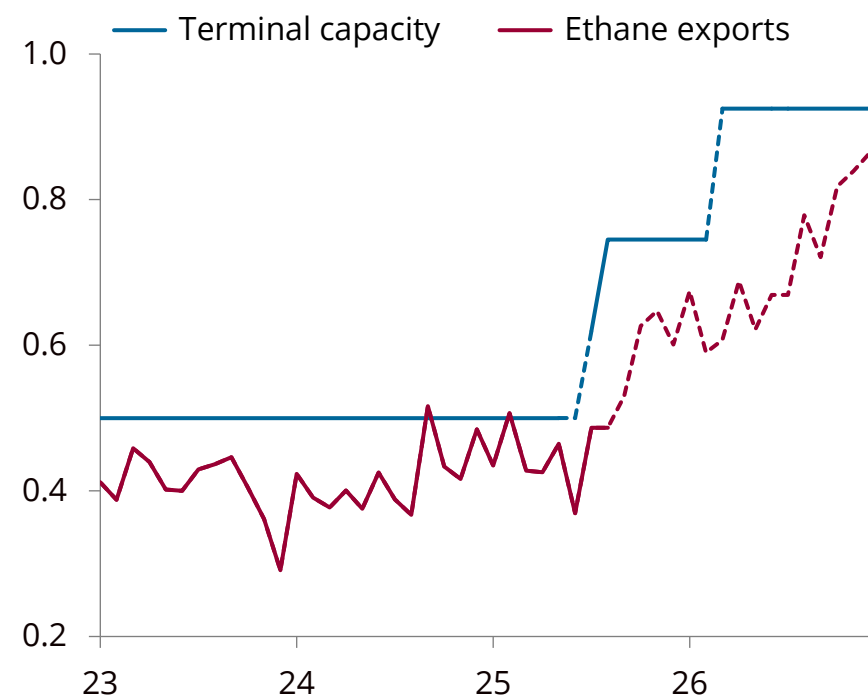


Seasonal heating demand is squeezing forward ethane frac spreads, which point to little opportunistic ethane recovery outside of the Permian until Q2 26.

US ethane exports to resume growth now that USTR fees are postponed

US ethane exports forecast

mb/d

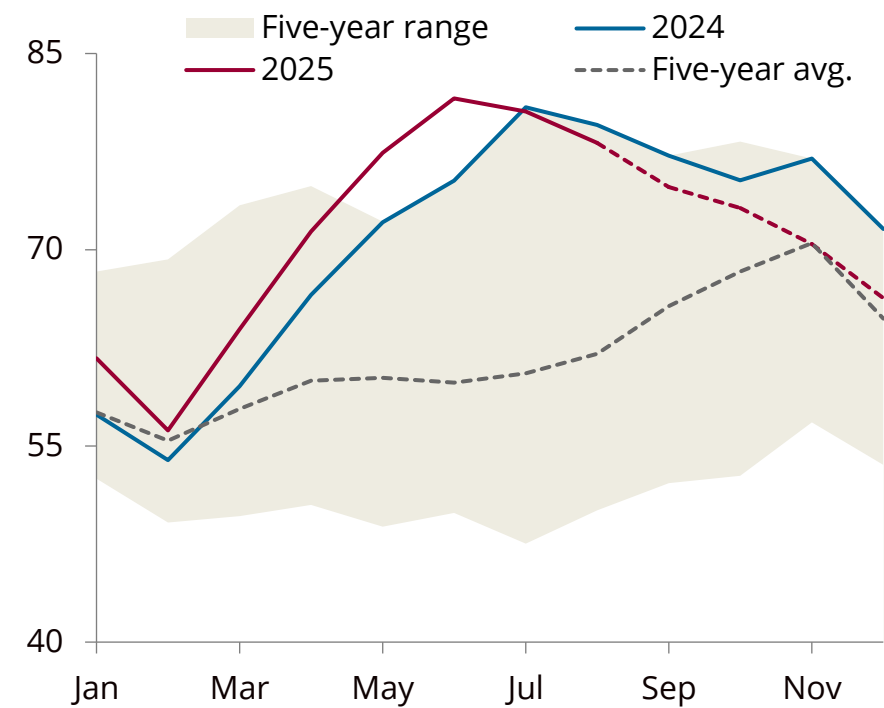


Postponed USTR port fees on Chinese-linked VLECs allows ethane exports to resume unhindered ahead of EPD’s Neches River Terminal ramp to full capacity in early 2026.

Sources: EIA, Energy Aspects

US ethane stocks forecast

mb



US ethane stocks should continue below last year’s level through 2026 as export demand rises, though the downside is tempered by declining Q4 25 domestic demand.

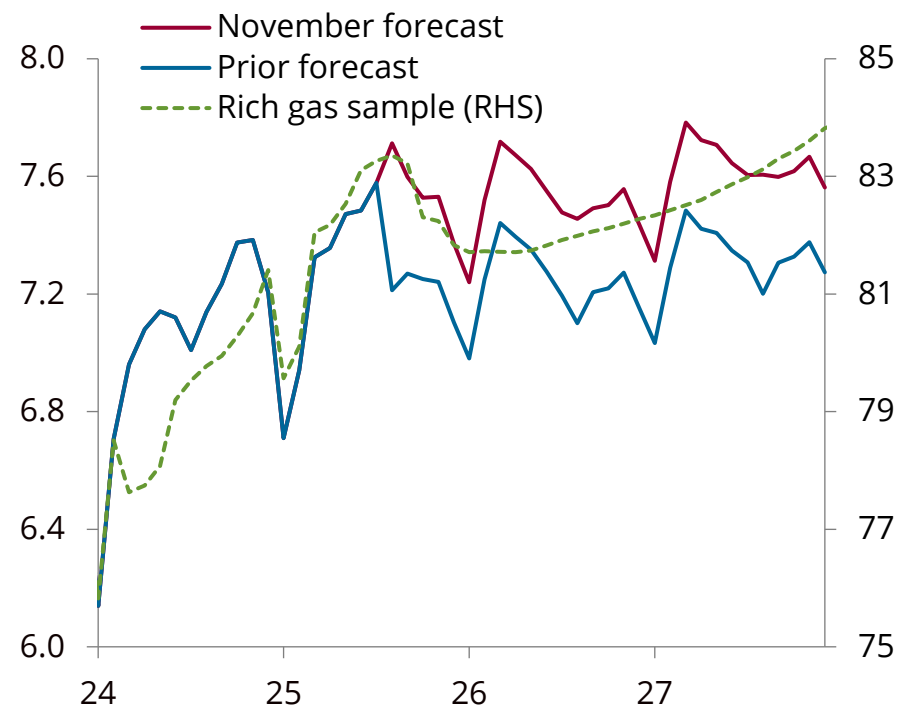
Global LPG outlook



US 2026 NGLs production forecast rises on bullish gas forecast and higher GPMs

US NGLs production forecast

mb/d (LHS); bcf/d (RHS)

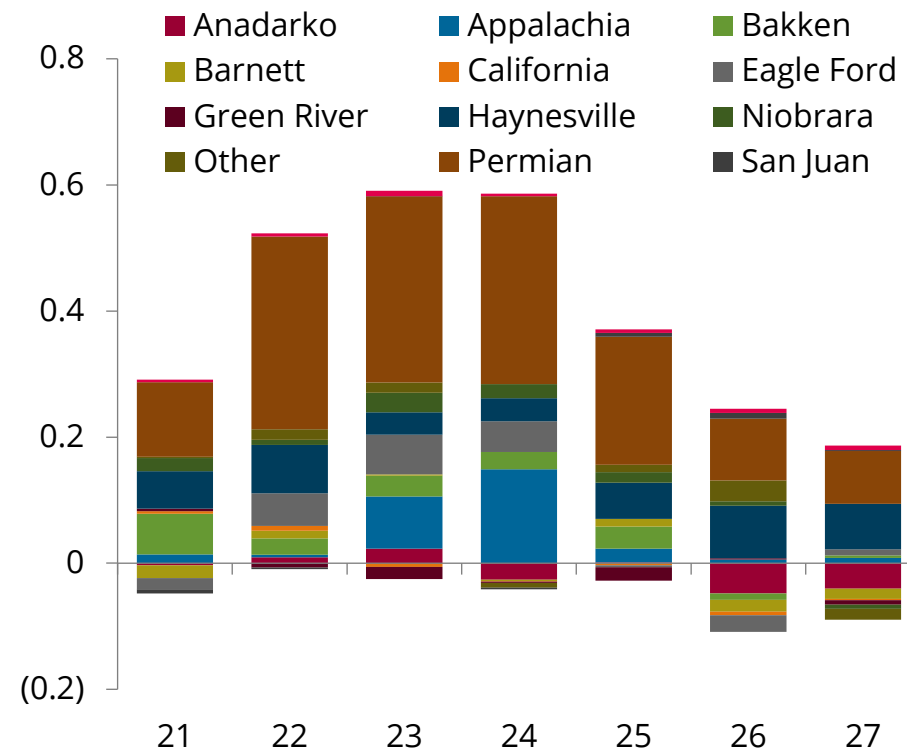


Higher gas production (+2.5 bcf/d through 2026) has lifted our US y-grade forecast by roughly 0.3 mb/d in 2026 compared to last month's forecast.

Source: Energy Aspects

US NGLs production growth forecast, y/y

mb/d

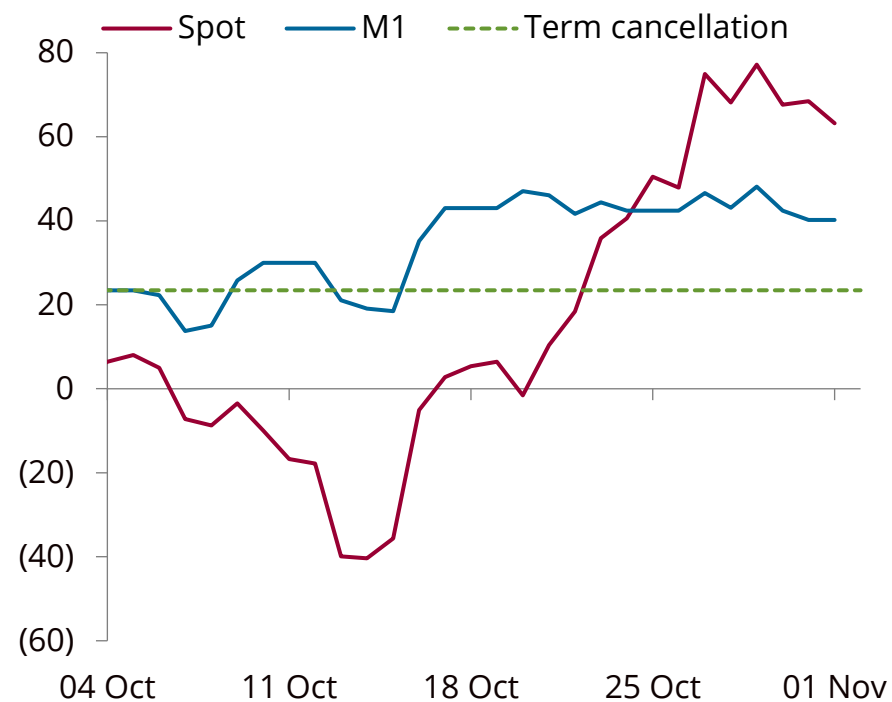


US y-grade production forecast now shows 0.14 mb/d y/y growth in 2026 on wetter gas (higher GPMs) and higher gas production.

Rising Asia-US netbacks will incentivise higher US propane exports into Q1 26

Asia-US propane netbacks

\$/t

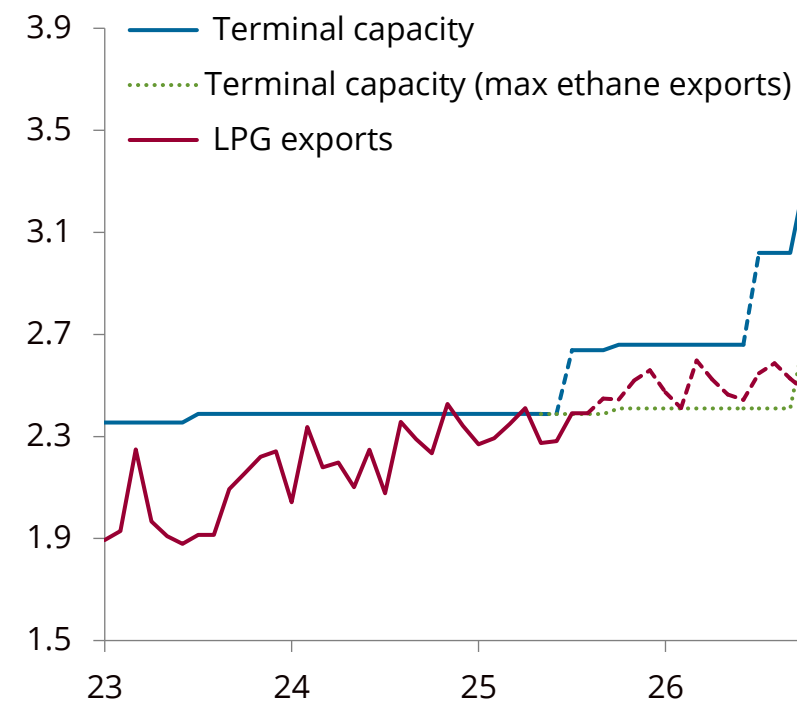


Both prompt and forward netbacks now support rising propane exports into Q1 26, while postponement of USTR and reciprocal fees eliminates the nascent two-tiered VLGC market.

Source: Argus Media Group, CME, Energy Aspects

US LPG exports and forecast

mb/d

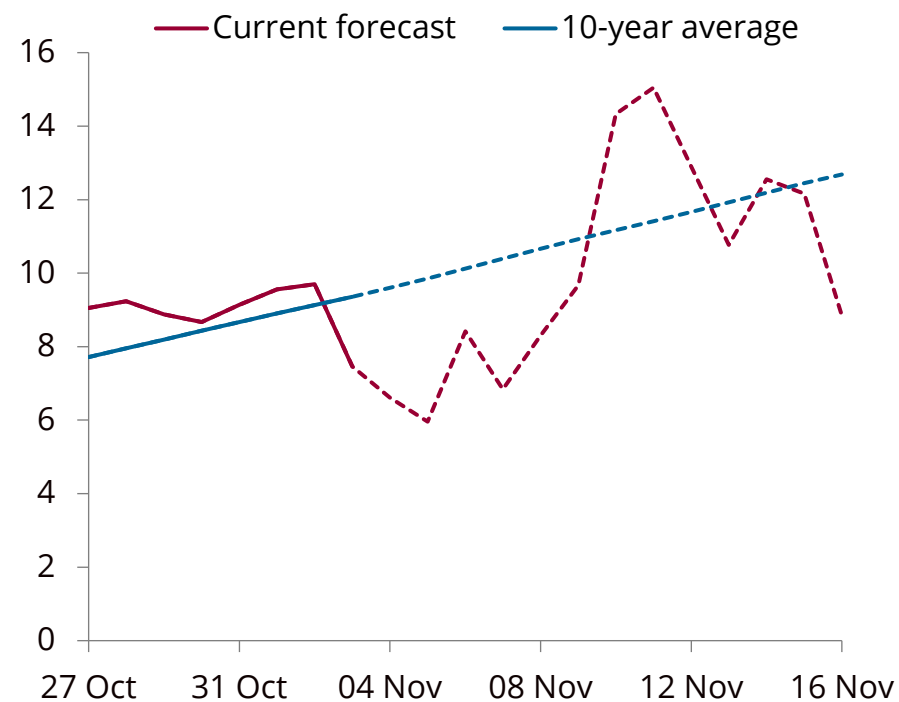


Rising US LPG production will lengthen US balances ahead of Enterprise's Neches River Terminal expansion (+0.36 mb/d) in Q1 26.

Lower heating demand and current LPG exports are swelling US propane inventories

Lower 48 HDD forecast

degree days

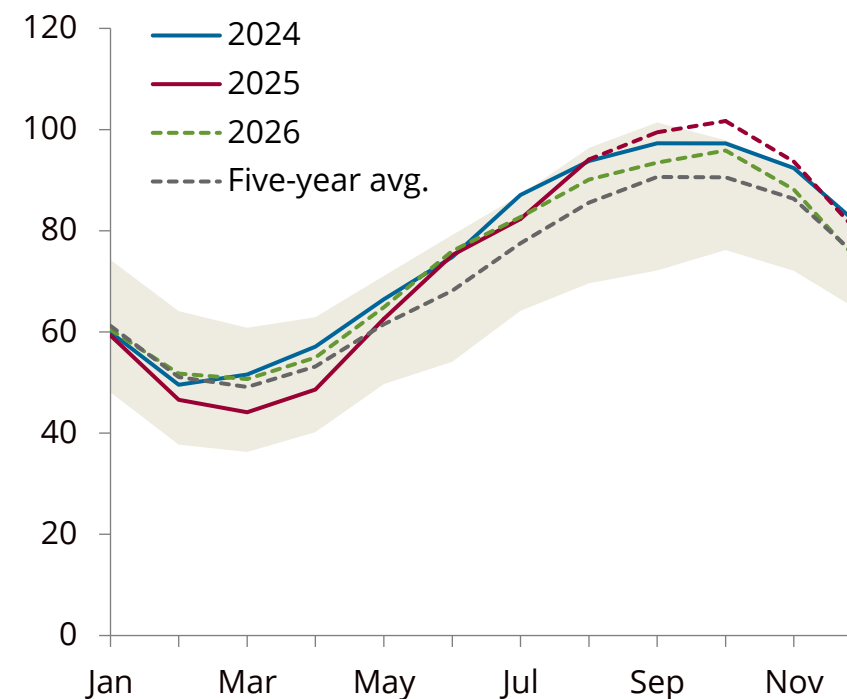


Early November heating demand will be tepid through mid-month before briefly rising mid-month.

Source: Bloomberg, EIA, Energy Aspects

US propane stocks forecast

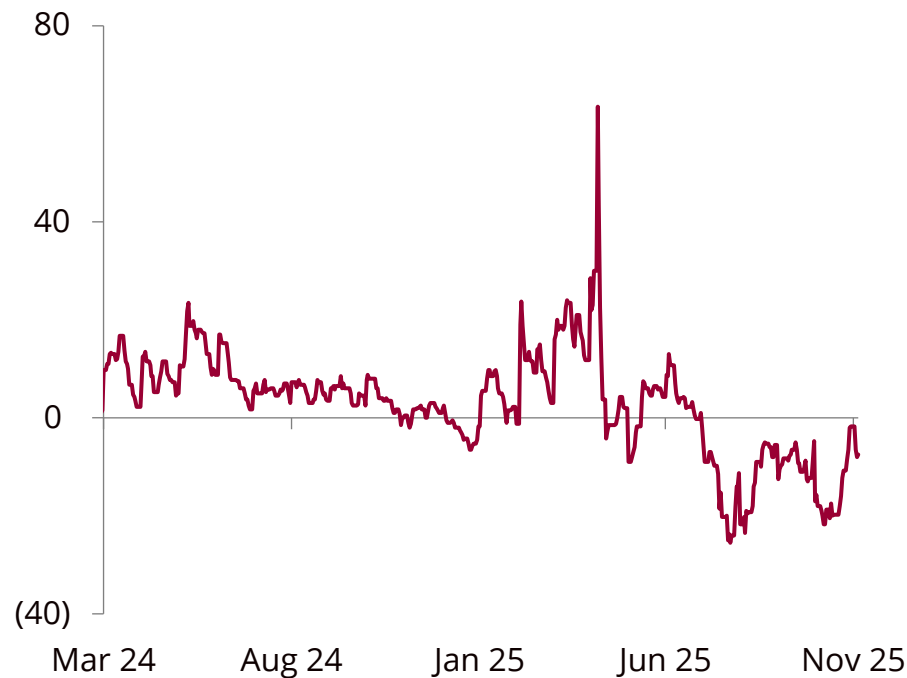
mb



Subdued heating demand and exports have swelled US propane stocks, but rising exports (and weak October production) to bring year-end stocks within the historical range.

Firmer Chinese demand to boost Asian propane prices in Q1 26, but still weaker y/y

AFEI propane cash differentials to M1 swap \$/t



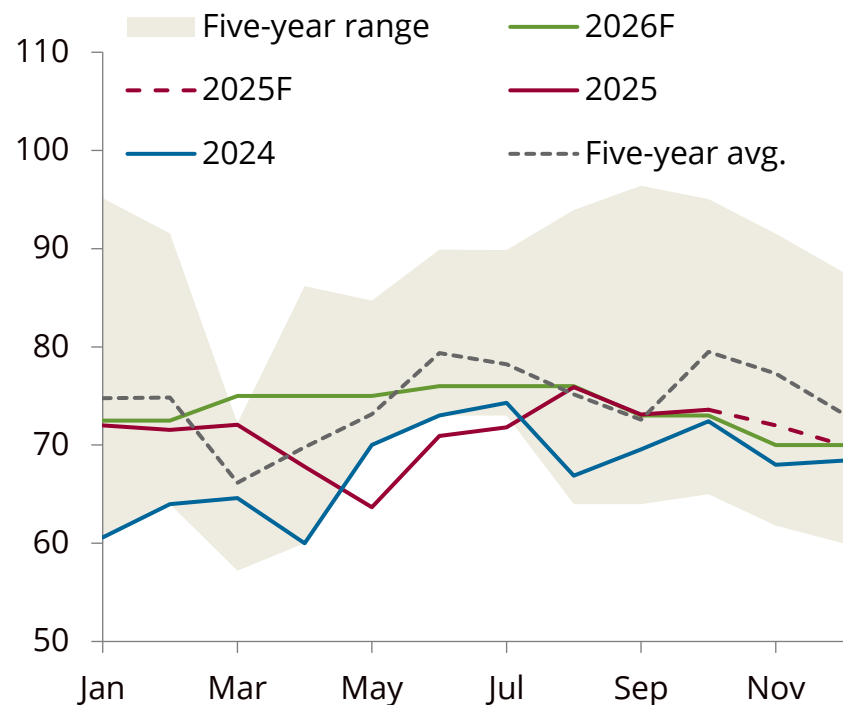
Source: Argus Media Group, Energy Aspects

- We expect Asian propane prices to rise q/q in Q1 26, supported by growth in Chinese petrochemical demand and stronger buying interest from Chinese buyers for US LPG q/q.
- China's extension of 10% tariffs (in addition to an existing 1% tariff) for one year from 10 November will offer Chinese buyers more certainty versus in October when escalating tensions had created fears of higher tariffs.
- Additionally, the expected start-up of two PDH units, originally scheduled for Q4 25 but now likely delayed to Q1 26 due to weak PDH margins, will add to this modest upward price pressure.
- AFEI propane prices and structure will remain lower y/y in Q1 26 despite supportive factors. This is mainly due to looser LPG balances in the Middle East and the US, where supply is set to increase by 69 kb/d and 0.2 mb/d y/y, respectively. This will result in greater LPG supply to Asia and limit upside to prices.
- Highly unseasonal Asian pro-nap spreads will still narrow from current levels (around -\$80/t) to around -\$65/t. This remains considerably wider y/y and not narrow enough to spur flexi-cracker feedstock switching.

Stronger Chinese PDH utilisation and margins y/y on increased global LPG supply

Chinese PDH utilisation

%



China's actual PDH utilisation rate for October was 73.6%. We expect utilisation to be higher y/y in Q1 26, driven by slightly stronger margins compared with last year.

China PDH cash margin

\$/t



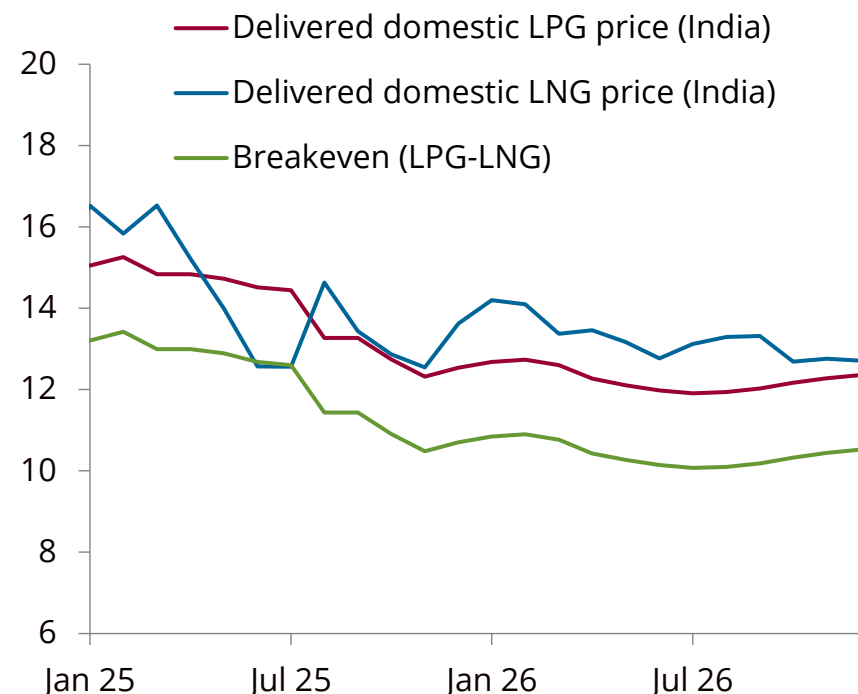
Higher LPG supply from the Middle East Gulf and the US is likely to keep Asian propane prices lower y/y, supporting slightly stronger standalone PDH margins for China y/y in Q1 26.

Source: Oilchem, Argus Media Group, Energy Aspects

Cheaper LPG vs LNG may encourage Indian commercial fuel-switching; buoy demand

Indian delivered LPG/LNG prices, fuel-switching breakeven

\$/MMBtu



Although delivered LPG prices (on a \$/MMBtu basis) are not technically low enough to incentivise switching, LPG prices have and will remain below LNG prices in Q4 25 and 2026.

Source: CME, Argus Media Group, PPAC, Energy Aspects

Indian LPG balances

kb/d

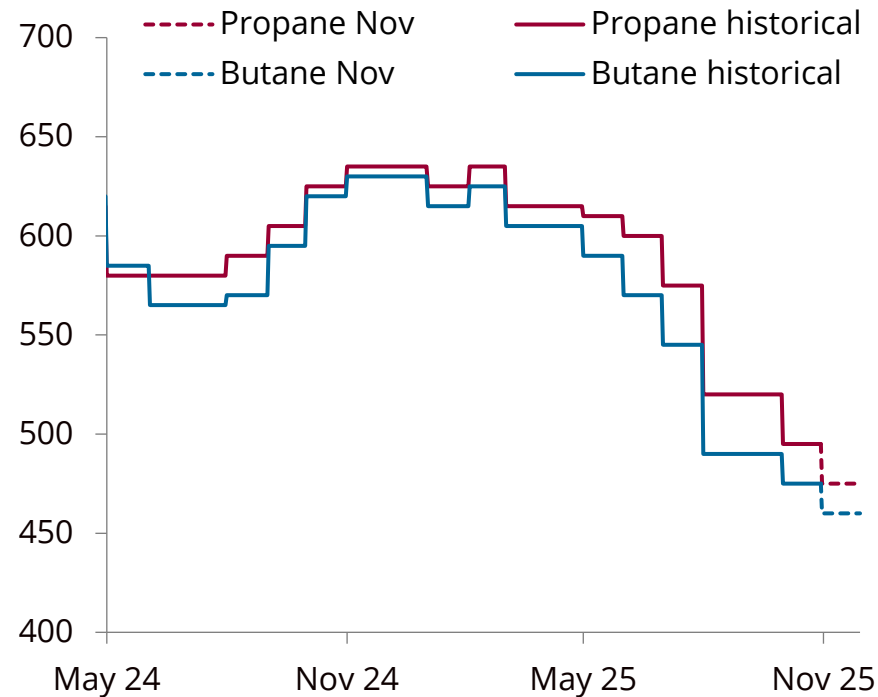
	Q1 25	Q2 25	Q3 25	Q4 25
Demand	1,049	988	1,056	1,088
<i>y/y chg.</i>	40	82	58	60
<i>m/m adj.</i>	0	2	15	20
Supply	476	476	468	491
<i>y/y chg.</i>	(4)	5	18	21
<i>m/m adj.</i>	0	0	0	0
Runs	5,568	5,412	5,320	5,418
<i>y/y chg.</i>	186	28	120	95
<i>m/m adj.</i>	0	37	9	9

We therefore expect overall Indian demand (residential and commercial, which can switch between LPG and natural gas) to remain around 60 kb/d higher y/y at least through Q1 26.

Further OPEC+ unwind, competition with US to lower Q1 26 Aramco CP prices y/y

Aramco LPG contract prices

\$/t

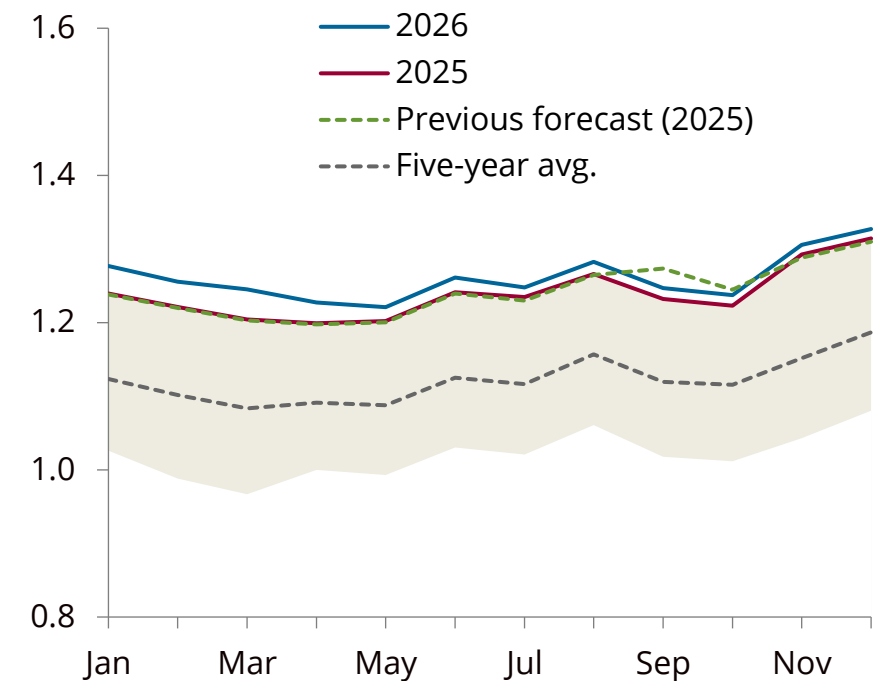


Tumbling Aramco CP prices are unseasonal for November, with sources indicating low 2026 term volumes amid market uncertainty, which will keep CP prices lower y/y in Q1 26.

Source: Argus Media Group, Energy Aspects

Middle East LPG supply forecast

mb/d

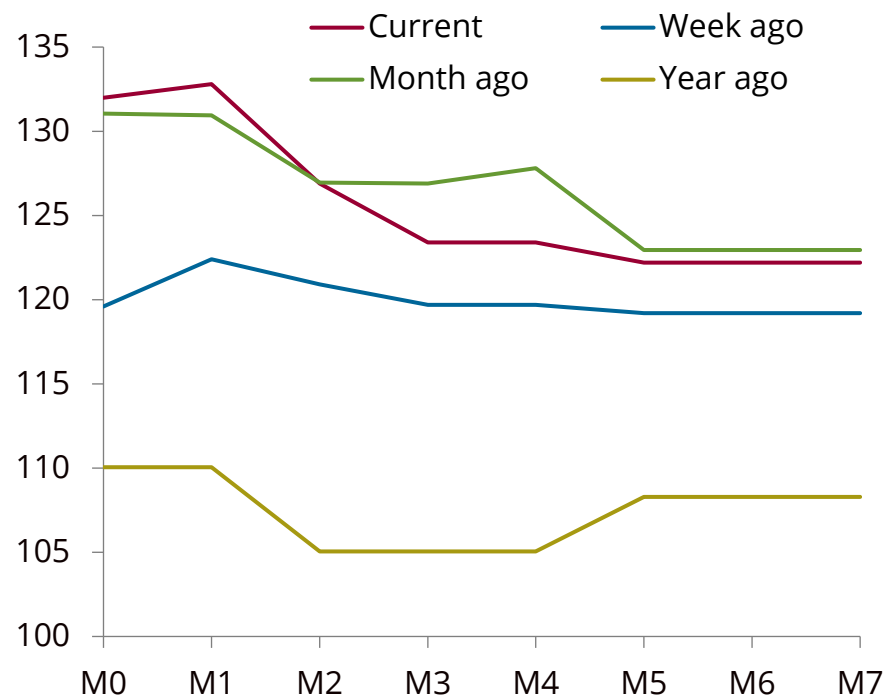


The Middle East needs to compete with US LPG to clear into key Asian shorts so prices/structure will remain weaker y/y. OPEC+ December unwind adds around 7–9 kb/d to Q4 25 supply.

USTR/Chinese port-fee suspension to drive VLGC freight upside in Q4 25 and Q1 26

US Gulf – Japan forward (BLPG3) freight rates

\$/t



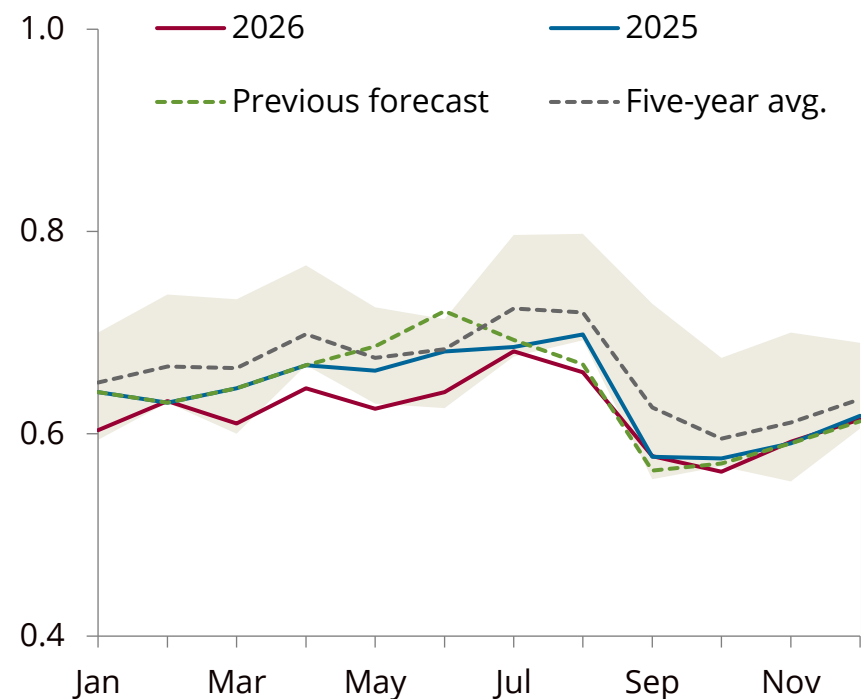
Source: CME, Baltic Exchange, Energy Aspects

- We had tempered our expectations for higher global VLGC freight rates for October and November after USTR port fee imposition was deferred from 14 October to 10 December, and this played out. The recent suspension of both US and Chinese port fees for one year will lift freight again over bal-2025.
- We had still expected freight to remain slightly higher y/y and this will remain the case now more certainty has returned.
- Houston–Chiba and Ras Tanura–Chiba freight had fallen from highs in September to year-ago levels in October, primarily because of surging vessel length due to limited spot demand. We previously wrote of the likely emergence of a two-tiered LPG freight market split between port fee–affected vessels and those unaffected, but this will not be the case (at least for the next 12 months).
- Overall LPG in transit should recover too as more US and Middle Eastern LPG supply will be clearing to Asian shorts like India and China, which is constructive for tonne-mile demand.
- On this basis, we think forward US Gulf – Japan (BLPG3) and Middle East – Japan (BLPG1) forward freight will stay higher y/y in Q1 26 at least, and probably further out.

ARA propane forward structure to find modest support in bal-Q4 25 and Q1 26

European LPG supply forecast

mb/d



Source: Energy Aspects

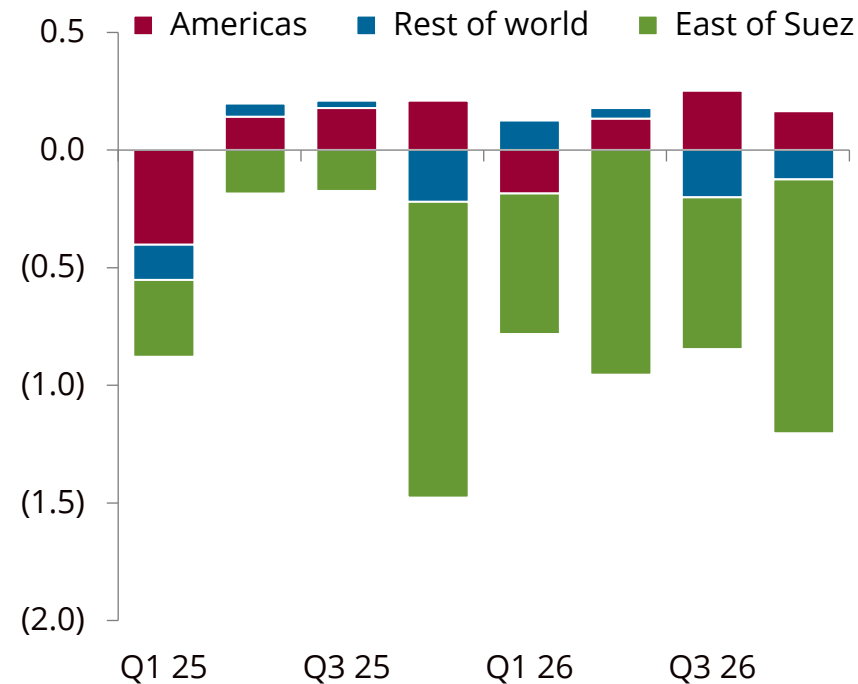
- We expect ARA propane spot premiums and structure to firm slightly q/q in Q4 25 and Q1 26 on prospects of slightly lower US–Europe LPG flows (primarily from PADD 3) if volumes start clearing to Chinese buyers instead.
- But we still expect prices to remain weaker y/y through to Q1 26, as overall regional petrochemical demand (and ethylene prices) are under severe pressure from weak downstream fundamentals, and poor macroeconomic data in key plastic-consuming industries like car manufacturing.
- The recent tit-for-tat port fees imposition by China and the US had risked diverting even more US LPG to Europe, but more certainty will reignite some Chinese demand for US propane.
- ARA propane is now pricing in this expectation, but upward revisions to US LPG supply (+0.13 mb/d from Q4 25 onwards) may not translate into substantially lower flows to Europe overall, meaning prolonged price upside in the medium term will be limited.
- A slightly stronger ARA propane view will add further downward pressure to European propane cracking margins and narrow the pro–nap spread—but it will remain wider y/y in Q1 26.

Global naphtha outlook

Next year stronger y/y overall; downside in Q1 26 q/q as refinery supply returns

Change in net length versus 2024

Mt/m



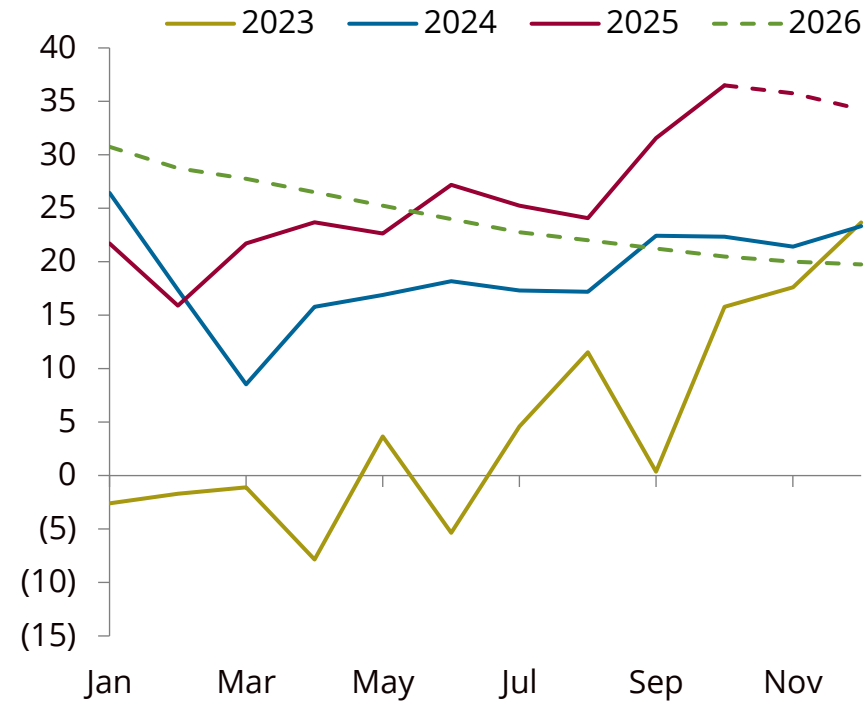
- Asian naphtha will strengthen as balances tighten by 1.5 Mt y/y but Q1 26 will fundamentally weaken q/q as refinery supply rises. By February 2026, global refinery runs will be up by 2.2 mb/d from the 2025 low in October.
- Beyond Q1 26, our bullish view will continue to play out as Chinese demand grows by over 8 Mt y/y.
- But downside in Q1 26 could be somewhat offset by sanctions imposed on Russia. Taiwan petrochemical producer Formosa has already excluded Russian naphtha from its recent tenders.
- Our bearish European petrochemical outlook for Q1 26 remains as length builds in the olefins markets, partly due to increased imports of petrochemicals. The east-west will remain strong and arb opportunities east will remain open.
- Strong gasoline blending incentive to lend some support to naphtha through Q1 26 as gasoline-naphtha spreads remain unseasonably high.
- Upside risk to naphtha remains as attacks on Russian oil infrastructure continue.

Sources: Energy Aspects

Asia to strengthen as Russia sanctions restrict buying, east–west arb to stay open

East–west naphtha spread

\$/t

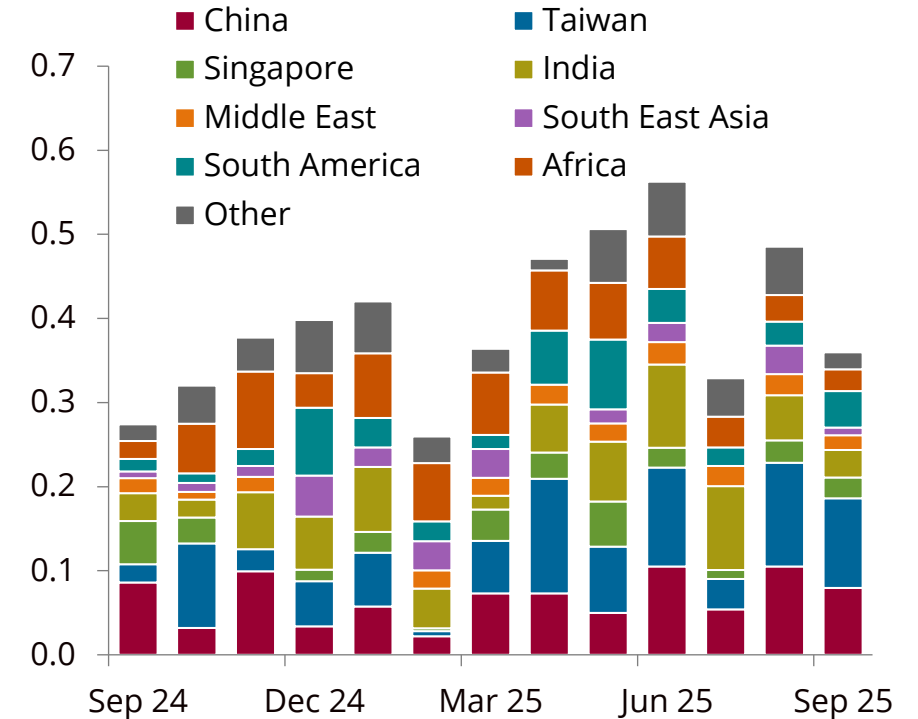


Asian demand and need to replace Russian supply will keep east–west spreads strong through 2026. We expect netbacks stronger y/y and H2 26 east–west spreads will be higher y/y.

Source: CME, OilX, Energy Aspects

Russian naphtha imports by destination

mb/d

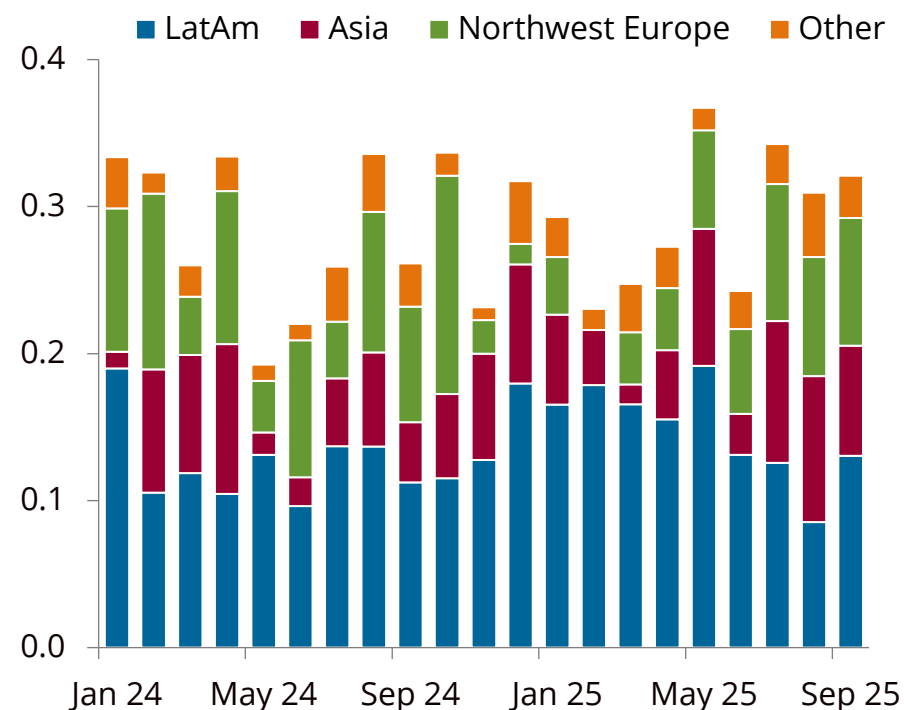


In the short term, Taiwanese exclusion of Russian naphtha could tighten the benchmark by 81 kb/d with a further 0.1 mb/d at risk if Indian and Chinese importers follow suit.

Stronger Q1 26 supply on higher refinery runs and possible reshuffle of Russian flows

US naphtha exports by destination

mb/d

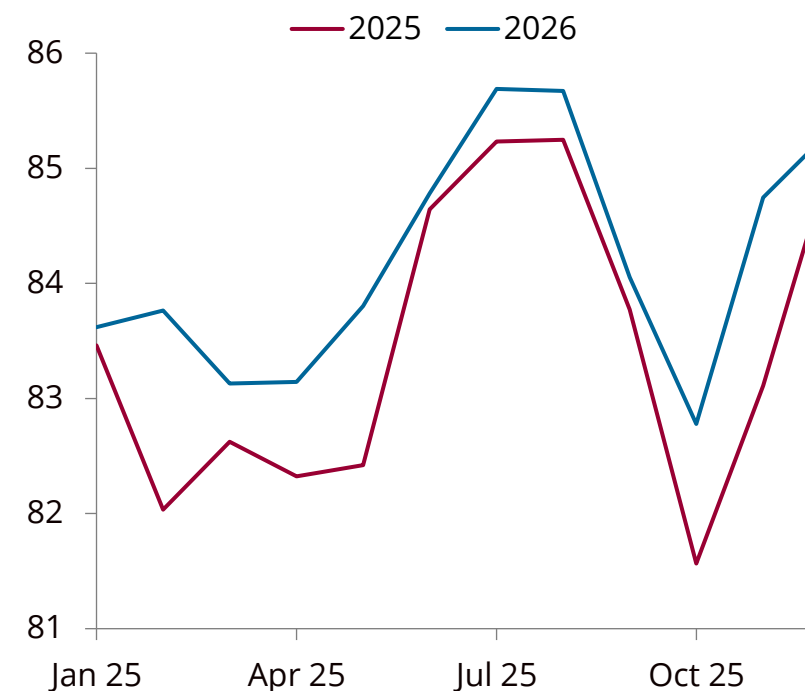


A reshuffle of global naphtha flows would be needed if Russian barrels were displaced in Asia. US supply could potentially be redirected to Asia to fill the gap.

Sources: OilX, Energy Aspects

Global refinery runs

mb/d

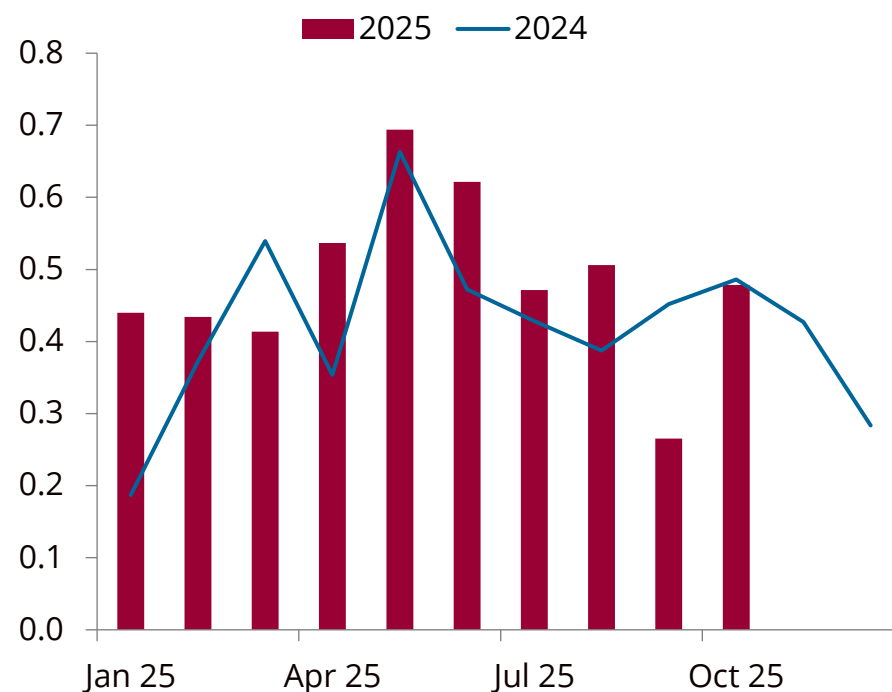


Refinery runs will climb from a low in October, bringing up to 2 Mt more supply into the market in Q1 26.

Exports to Asia and blending to limit European downside amid bearish petchems

Petrochemical imports to Europe

Mt

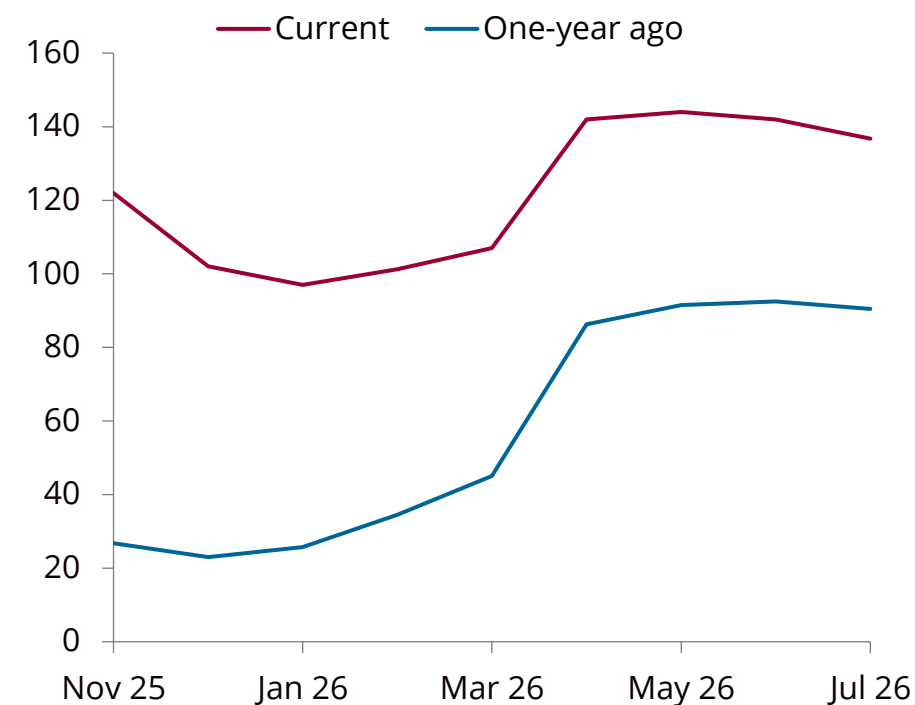


Petrochemical imports to Europe are up YTD by 0.5 Mt y/y in 2025, from mainly the Middle East and the US. This will continue to [pressure cracking margins in Europe in Q1 26](#).

Source: Refinitiv, OilX, Energy Aspects

Gasoline–naphtha spread forward curve

\$/t



Gasoline–naphtha spreads, driven by a tight gasoline market, will provide some support to naphtha in Europe amid the bearish petchem outlook.

Regional balances



Global LPG balances loosen m/m on upward revisions to US, Middle East production

Global LPG balances

kb/d

	Q1 '25	Q2 '25	Q3 '25	Q4 '25	Q1 '26	Q2 '26	Q3 '26	Q4 '26
North America	2,319	3,339	3,342	2,470	2,560	3,385	3,310	2,439
Demand	1,912	1,345	1,430	1,846	1,932	1,412	1,485	1,882
Supply	4,231	4,684	4,772	4,316	4,493	4,797	4,795	4,321
Latin America	(204)	(252)	(239)	(218)	(191)	(244)	(239)	(220)
Demand	612	666	663	622	607	666	674	631
Supply	408	414	424	404	417	421	434	411
Europe	(486)	(405)	(382)	(504)	(485)	(434)	(404)	(487)
Demand	1,125	1,076	1,037	1,098	1,100	1,071	1,044	1,077
Supply	639	670	655	595	615	637	641	590
FSU	122	117	117	125	102	137	143	165
Demand	685	609	589	650	675	591	574	649
Supply	807	726	706	775	776	728	717	814
Middle East	1,395	1,303	1,427	1,489	1,361	1,288	1,379	1,426
Demand	1,011	1,038	988	970	1,113	1,096	1,060	1,056
Supply	2,405	2,341	2,415	2,459	2,475	2,384	2,439	2,482
Asia-Pacific	(2,663)	(2,678)	(2,787)	(2,937)	(2,927)	(2,935)	(2,900)	(2,970)
Demand	5,675	5,555	5,742	5,769	5,928	5,852	5,873	5,824
Supply	3,012	2,876	2,956	2,832	3,001	2,917	2,973	2,855
Africa	(23)	(27)	6	(23)	(17)	(25)	(1)	(29)
Demand	567	521	501	533	579	534	515	547
Supply	544	494	507	510	561	509	514	518
Global	460	1,398	1,484	403	404	1,170	1,287	325
Demand	11,587	10,809	10,949	11,490	11,934	11,222	11,226	11,665
Supply	12,046	12,207	12,434	11,892	12,337	12,393	12,513	11,990

Source: Energy Aspects

- North American balances have loosened in Q4 25 and Q1 26 by 0.18 mb/d m/m on the back of upward revisions to our US rich-gas sample. The added length helped loosen global LPG balances, which had drifted higher over previous months.
- Middle East balances for Q4 25 and Q1 26 are 7–9 kb/d looser m/m due to slight upward revisions to December LPG supply after a further OPEC+ crude unwind.
- Q4 25 European LPG balances are 14 kb/d looser m/m after slight revisions to both supply and demand due to changes in baseline data. Q1 26 balances are flat versus last month.

Price forecasts

Energy Aspects LPG/NGLs price actuals vs forecast (2024–27)

		Mont Belvieu				ARA		Saudi CP		AFEI	
		Ethane (¢/USg)	Propane (¢/USg)	Propane (\$/t)	Butane (¢/USg)	Propane (\$/t)	Butane (\$/t)	Propane (\$/t)	Butane (\$/t)	Propane (\$/t)	Butane (\$/t)
2024	forecast	19	78	405	96	545	541	600	597	633	630
1st quarter	actual	20	83	432	102	527	585	627	637	611	621
2nd quarter	actual	19	75	391	89	517	470	592	591	621	615
3rd quarter	actual	16	74	386	96	584	542	580	565	655	642
4th quarter	actual	21	79	410	96	550	568	601	595	646	643
2025	forecast	27	76	396	92	490	501	526	524	556	555
1st quarter	actual	20	91	475	109	562	579	608	605	623	623
2nd quarter	actual	26	70	364	83	441	451	470	468	497	493
3rd quarter	actual	31	75	390	89	481	480	506	505	544	546
4th quarter	forecast	30	68	356	86	478	496	521	516	561	558
2026	forecast	33	71	367	86	456	467	490	487	519	518
1st quarter	forecast	37	72	374	89	442	459	479	476	490	491
2nd quarter	forecast	30	66	345	79	417	427	445	443	471	467
3rd quarter	forecast	35	73	379	87	467	467	492	491	529	530
4th quarter	forecast	32	71	372	89	498	516	544	539	585	583
2027	forecast	33	76	394	91	489	500	525	522	556	555

Source: Argus Media Group , LSEG, CME, Energy Aspects

Naphtha balances—Q1 '26 weaker but 2026 tighter overall as Asian demand grows

Global naphtha balances

kt

	Q1 '24	Q2 '24	Q3 '24	Q4 '24	Q1 '25	Q2 '25	Q3 '25	Q4 '25	Q1 '26	Q2 '26	Q3 '26	Q4 '26
N. America	6,286	7,401	7,337	6,535	6,312	6,771	6,928	6,411	6,230	7,239	7,577	6,604
Demand	9,047	8,605	8,871	10,336	9,083	9,956	9,747	9,595	9,065	9,280	9,309	9,965
Supply	15,332	16,006	16,207	16,871	15,395	16,727	16,675	16,006	15,295	16,519	16,886	16,569
Europe	(996)	(2,313)	(1,075)	(1,446)	(921)	(1,398)	(144)	(894)	225	(1,057)	(705)	(713)
Demand	13,157	13,113	12,313	12,672	13,139	12,554	11,779	12,044	11,800	12,364	11,835	11,927
Supply	12,161	10,800	11,238	11,226	12,218	11,156	11,635	11,151	12,024	11,307	11,131	11,214
FSU	4,397	4,593	4,081	4,370	3,992	4,605	4,077	4,135	4,242	4,431	4,090	4,374
Demand	1,429	1,418	1,464	1,448	1,432	1,442	1,462	1,457	1,431	1,430	1,463	1,452
Supply	5,826	6,011	5,545	5,818	5,424	6,047	5,539	5,592	5,672	5,861	5,553	5,826
M. East	6,701	6,139	6,332	6,552	6,142	6,188	7,091	6,891	6,036	6,184	6,610	6,859
Demand	4,420	5,108	5,133	4,712	4,950	5,028	4,712	4,385	4,685	5,068	4,923	4,548
Supply	11,121	11,247	11,466	11,264	11,091	11,216	11,803	11,275	10,721	11,252	11,533	11,407
Asia-Pac.	(12,167)	(12,459)	(13,150)	(13,241)	(13,048)	(13,727)	(15,370)	(17,175)	(13,576)	(15,703)	(15,833)	(16,697)
Demand	54,589	52,878	54,596	55,526	53,782	53,952	55,930	57,992	56,748	57,992	58,960	60,034
Supply	42,422	40,418	41,446	42,285	40,733	40,226	40,560	40,818	43,173	42,289	43,127	43,337
China	(3,019)	(3,259)	(3,851)	(2,767)	(3,424)	(4,573)	(4,974)	(6,639)	(3,585)	(5,541)	(5,542)	(5,737)
Demand	23,205	22,354	23,932	23,814	23,318	23,986	24,597	26,301	25,180	26,810	27,125	27,434
Supply	20,186	19,095	20,081	21,047	19,894	19,413	19,623	19,662	21,596	21,269	21,583	21,697
Global	6,459	5,669	6,090	5,854	4,449	4,406	4,571	1,496	4,751	2,688	3,492	2,459
Demand	85,269	83,834	84,982	86,975	84,988	85,431	86,110	88,218	86,864	89,302	89,601	90,820
Supply	91,728	89,503	91,072	92,830	89,436	89,836	90,681	89,714	91,615	91,990	93,093	93,279

- 2026 balances will be 1.5 Mt tighter y/y overall as Asian demand grows.
- Asian demand to grow by 12.4 Mt y/y in 2026, over 9 Mt of which will come from China.
- Q1 '26 demand in Asia will rise by 3 Mt y/y.
- European balances will lengthen by 1.1 Mt y/y in 2026 as petrochemical cracking demand continues to gradually decline.
- Overall supply will grow by 1.9 Mt in Q1 '26 q/q as refinery maintenance concludes in Europe and Asia.

Source: Energy Aspects



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