

Why Diesel Prices Are So High

Refining margins, not crude oil, account for most of the increase

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The U.S. average retail price of diesel was \$5.97 per gallon the week of September 7, 2026, up \$2.25 from its February average of \$3.72, before the disruption in the Strait of Hormuz began. Crude oil accounts for 68 cents of that increase. The refining margin — the gap between the wholesale price of diesel and the cost of the crude it is made from — accounts for \$1.71.

The world is short of refined diesel rather than crude oil. Russia, once Europe's largest diesel supplier, has nearly stopped exporting refined products after Ukrainian attacks on its refineries and a Russian government ban on diesel exports. The Gulf refineries that replaced Russian diesel in Europe have lost most of their exports to the disruption in the Strait of Hormuz. U.S. refineries are running near full capacity, and a growing share of their output is being bid away to replace the lost supply.

The \$5.97 price is the highest nominal figure in EIA's weekly record, 16 cents above June 2022. Adjusted for inflation, it remains about 9 percent below the 2022 peak.

1 Crude oil explains less than a third of the increase

Diesel is the largest part of the fuel category EIA calls distillate, which also includes heating oil but not jet fuel. The retail price of diesel can be divided into three parts. Crude oil cost is the Brent price divided by the 42 gallons in a barrel. The refining margin is the U.S. Gulf Coast wholesale price of ultra-low sulfur diesel less that crude cost. Taxes, distribution, and retail covers the rest, including roughly 60 cents of federal and state fuel tax. Because that last category compares a national retail average with a single wholesale hub, it also absorbs regional price differences and the lag between wholesale and retail price changes.

Period	Retail diesel	Crude oil	Refining margin	Taxes, distribution & retail	Brent (\$/bbl)
2019 average	\$3.06	\$1.53	\$0.35	\$1.18	\$64
June 2022	\$5.75	\$2.94	\$1.37	\$1.45	\$123
average					
2023–2025	\$3.88	\$1.84	\$0.60	\$1.43	\$77
average					
February 2026	\$3.72	\$1.68	\$0.54	\$1.50	\$71
August 2026	\$5.46	\$2.17	\$2.02	\$1.27	\$91
Week of Sept. 7, 2026	\$5.97	\$2.36	\$2.25	\$1.35	\$99

Dollars per gallon unless noted. Components may not sum to totals because of rounding.

Figure 1. Components of the U.S. retail diesel price

The refining margin, shown in red in Figure 1, was a thin layer above the crude cost through 2019 and 2020. It widened sharply in 2022, narrowed through 2024 without returning to its earlier width, and expanded again in 2026. In the latest week it was \$2.25 per gallon, nearly equal to the \$2.36 cost of the crude itself.

The comparison with 2022 shows how different the two episodes are. At the June 2022 peak, crude cost \$2.94 per gallon with Brent near \$123 per barrel. In the latest week it cost \$2.36 with Brent near \$99. Crude is 58 cents per gallon cheaper than at the previous record, while the refining margin is 89 cents wider.

The 2026 episode did not start as a refining shock. Measured against WTI, the U.S. crude benchmark, crude oil accounted for 43 to 52 percent of the increase in retail diesel from February in each month from March through May. Measured against Brent the spring share ran higher, reaching 64 percent in April, when Brent averaged \$118 per barrel and traded \$18 above WTI. From July onward crude accounted for less than a third of the increase on either benchmark. The episode began with crude and the margin rising together and has been mainly a refining shock since midsummer.

The refining margin is a gross spread, not refiner profit. Refiners pay operating costs out of it and must meet obligations under the federal Renewable Fuel Standard by blending biofuels

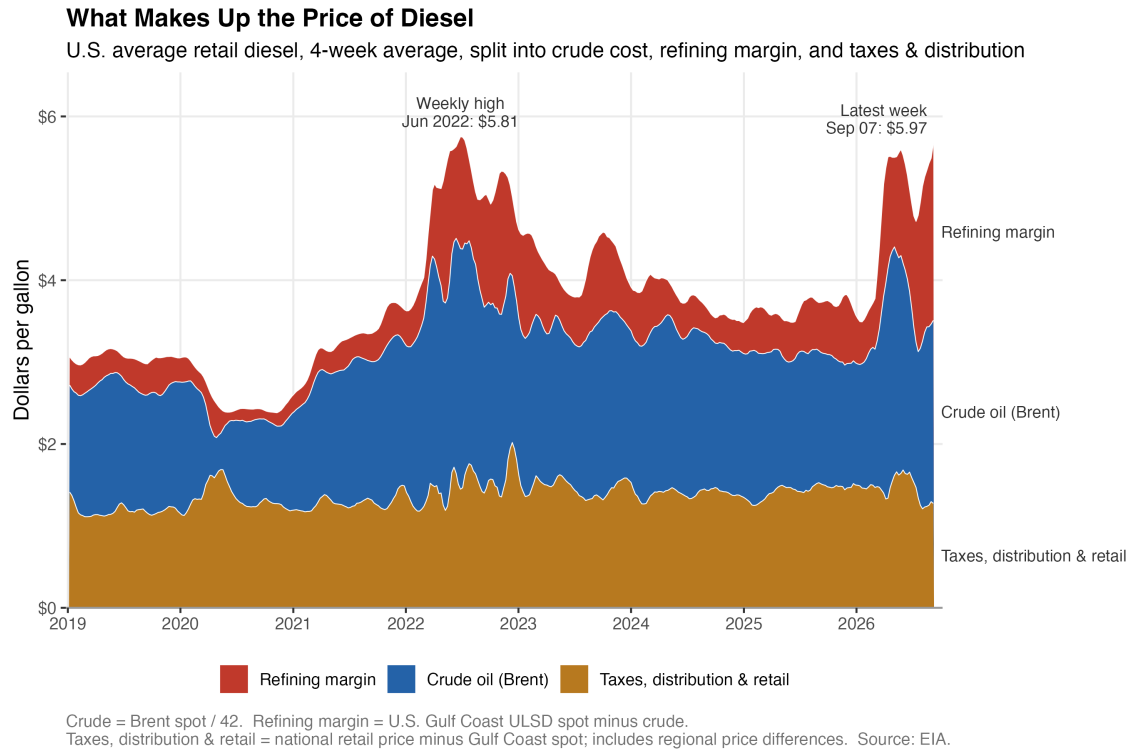


Figure 1: Diesel price decomposition

or buying credits, and inland refiners often buy crude priced below Brent, so realized margins differ from the spread. A wide spread is best read as the price signal of a shortage. Measured against WTI rather than Brent, the margin is about 19 cents per gallon wider in level, but its increase since February is nearly identical: \$1.74 rather than \$1.71.

2 The diesel margin has stayed high since 2022

From 2015 through 2021 the Gulf Coast diesel margin averaged 31 cents per gallon, and annual averages from 2009 through 2021 fell between 20 and 39 cents. The margin averaged \$1.09 in 2022, 79 cents in 2023, 45 cents in 2024, and 58 cents in 2025, and has averaged \$1.29 so far in 2026. The widest weekly margin since 2009 was \$2.27 in May 2022, and the next five widest all came in August and September 2026. In the latest week the diesel margin was \$2.25 and the gasoline margin \$1.14.

Figure 2. Refining margins for diesel and gasoline

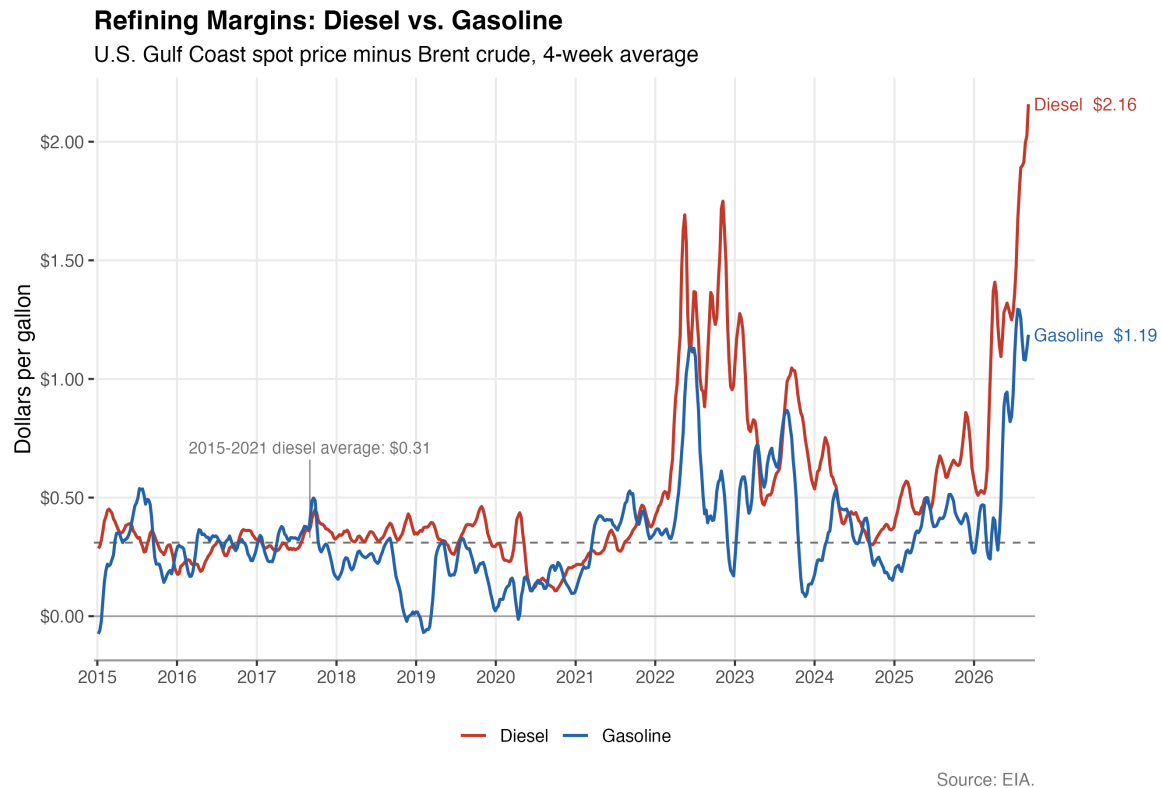


Figure 2: Diesel and gasoline refining margins

How much diesel responds to a change in crude oil has also shifted, though by far less than the margin itself. A barrel holds 42 gallons, so a \$1-per-barrel increase in crude adds 2.38 cents per gallon of raw material cost. Within any given year from 2010 through 2021, each \$1 change in WTI moved the Gulf Coast wholesale price of diesel by 2.33 cents, essentially the raw material cost. Within years from 2022 through 2025 the response was 3.18 cents, about 1.3 times the raw material cost, though that estimate is less precise. A \$10 move in crude oil that once changed diesel by about 24 cents per gallon now changes it by about 32 cents. Estimates that pool several years together show a much larger change, but mainly because 2022 brought high crude prices and a wide margin at the same time. The major change since 2022 is in the level of the margin, not in the response to crude.

3 Russia and the Gulf removed much of the world's diesel supply

Diesel is traded globally, and the U.S. wholesale price reflects what buyers elsewhere will pay for the same fuel.

In 2022 Russia supplied half of Europe's diesel imports. The European Union banned seaborne imports of Russian diesel in early 2023, and by 2024 Russia accounted for less than 1 percent of Europe's seaborne distillate imports. Europe replaced those barrels largely from the Middle East, which supplied 43 percent of Europe's gasoil imports in the first half of 2025, and from India and the United States. On January 21, 2026, the EU also banned imports of fuel refined from Russian crude in third countries such as India and Turkey. Imports from the refineries most affected fell 69 percent, or 120,000 barrels per day, in February through April compared with the second half of 2025.

Russian supply then fell further. Ukrainian attacks on Russian refineries and export facilities curbed product exports through 2025 and intensified in 2026. On July 8 the Russian government banned diesel exports by producers to protect its domestic fuel market, and it has extended the ban through September 30. Separate bans on diesel exports by non-producers and on gasoline exports run through January 31, 2027. By August the International Energy Agency described Russian product exports as at a near-halt. EIA expects outages at Russian refineries to continue through the first half of 2027.

The disruption in the Strait of Hormuz, which began in late February, struck the supply that had replaced Russia. Net diesel exports from the Gulf countries averaged 390,000 barrels per

day in August, just over a quarter of their pre-war level. Combined net diesel exports from the Gulf and Russia in August were 1.6 million barrels per day lower than in February, when the two accounted for almost 45 percent of global seaborne diesel trade. Reduced refinery runs in China added to the shortfall. The IEA expects global refinery throughput to fall by 2.6 million barrels per day in 2026 and reported record refining margins in the Atlantic Basin in August.

The shortfall arrives against competing demand for the same molecules. Jet fuel and marine fuel draw on the same middle-distillate portion of the barrel as diesel, and heating oil demand rises with the Northern Hemisphere winter.

4 U.S. refineries are running near capacity, and more of the output is leaving

U.S. refineries ran at 98.0 percent of capacity in the week of August 28, the highest weekly rate since August 2018, and at 97.8 percent the following week. Distillate production was 5.35 million barrels per day in the week ending September 4, above the highest level for that week in any year from 2021 through 2025.

That output comes from a smaller refining base. Operable crude distillation capacity was 18.98 million barrels per day before the pandemic, fell to 17.88 million by December 2021, recovered to 18.42 million by January 2025, and was 18.03 million in June 2026 — 5 percent below the pre-pandemic level. Three closures since early 2025 removed about 550,000 barrels per day, partly offset by expansions elsewhere: LyondellBasell's Houston refinery in March 2025, Phillips 66's Los Angeles refinery in October 2025, and Valero's Benicia, California, refinery, which EIA removed from its capacity estimates in March 2026. Even so, refineries processed 16.46 million barrels of crude per day in the first half of 2026, essentially the same as the 16.48 million in the first half of 2019. The lost capacity has shown up not as lost output but as lost spare capacity: at utilization near 98 percent, U.S. refiners had little room to run harder when foreign supply disappeared.

Some of the capacity lost since 2020 was converted rather than closed. Phillips 66's Rodeo refinery and Marathon Petroleum's Martinez refinery, both in California, now produce renewable diesel, which can be used in place of petroleum diesel. Rodeo alone has capacity of 767 million gallons per year. Total U.S. renewable diesel capacity is estimated at about 5.2 billion gallons per year for 2026, roughly 340,000 barrels per day, but plants have run

well below capacity: EIA puts production at 190,000 barrels per day in 2025 and expects about 237,000 in 2026. Renewable diesel offsets part of the petroleum refining loss, though its supply depends on feedstock costs and biofuel policy rather than on crude oil markets.

A rising share of U.S. distillate output is exported. Exports averaged 1.45 million barrels per day in the first half of 2026, up 19 percent from 1.22 million a year earlier and the highest first-half level since at least 2015. That equals about 29 percent of U.S. distillate production, up from about 25 percent in the first half of 2025. EIA's weekly estimates, which are less precise than the monthly data, put exports at about 1.71 million barrels per day from July through early September, compared with 1.38 million over the same weeks of 2025.

	Jan–Jun 2025	Jan–Jun 2026	
Destination	(thousand b/d)	(thousand b/d)	Change
Latin America & Caribbean	949	925	−3%
Europe	204	360	+76%
Africa, Asia & other	67	164	+145%
Total	1,220	1,449	+19%

Figure 3. U.S. distillate exports by destination, January–June of each year

Latin America has been the main market for U.S. diesel for a decade, with Mexico the largest single buyer, and shipments there were roughly unchanged. The entire increase went to Europe and to more distant markets. Exports to Europe reached their highest first-half level since at least 2015, and the Netherlands, entry point to the Amsterdam–Rotterdam–Antwerp trading hub, took 14.5 percent of all U.S. distillate exports, second only to Mexico. Shipments to Africa, Asia, and Australia more than doubled, led by South Africa, Singapore, and Australia.

Exports are the channel through which the foreign shortage reaches U.S. prices rather than its cause. The increase in exports, about 230,000 barrels per day in the first half and about 330,000 over the summer, is small next to the 1.6-million-barrel-per-day loss of Gulf and Russian supply. When foreign buyers bid for U.S. barrels, U.S. wholesale prices rise until enough diesel stays home to meet domestic demand.

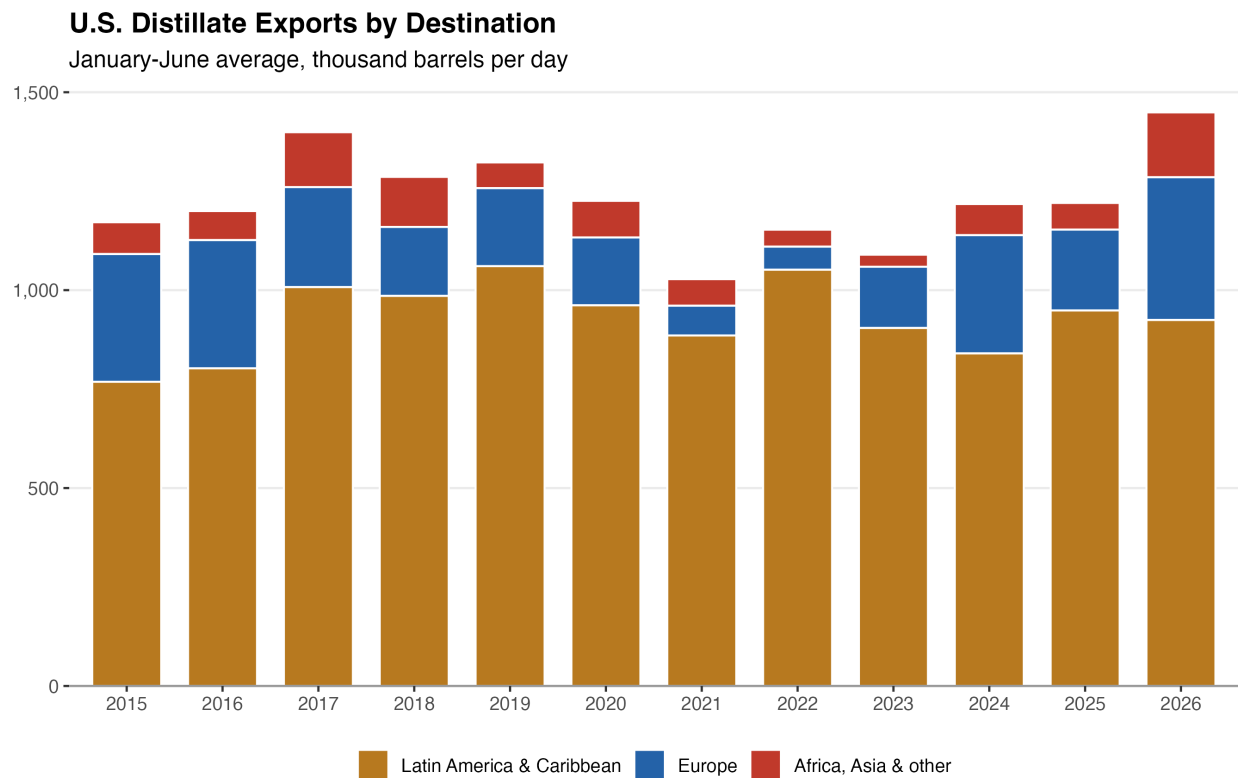


Figure 3: Distillate exports by destination

5 Lighter shale crude is not what changed

U.S. crude oil production rose from 5.5 million barrels per day in 2010 to 13.7 million in 2026, largely from light crude in shale formations such as the Permian Basin. Light crude yields more gasoline and naphtha and fewer middle distillates per barrel.

The API gravity of crude run in U.S. refineries, where higher values indicate lighter crude, rose from 30.3 degrees in 2008–2010 to 33.8 degrees in 2025. A regression of monthly distillate yield on API gravity, with a time trend and monthly seasonality, associates each degree of lighter crude with a distillate yield about 0.6 percentage points lower. Applied to the 3.4-degree increase, the central estimate is about 330,000 barrels per day of diesel on current refinery runs. The estimate is imprecise: its 95 percent confidence interval runs from almost no effect to about 640,000 barrels per day. Refiners also choose their crude slate partly in response to prices, which makes the result an association rather than a clean causal effect.

Figure 4. Crude oil quality, distillate yield, and crude exports

Refiners more than offset it. Distillate yield rose from 27.2 percent of refinery input in 2010 to 30.0 percent in 2025 as refiners added conversion capacity. Much of the light crude is exported rather than refined here: crude exports rose from 42,000 barrels per day in 2010 to 4.7 million in the first half of 2026, which is why refinery crude gravity rose only about 3 degrees while production more than doubled. And the timing does not match. Refinery crude gravity rose between 2013 and 2019 and has been roughly flat since; the diesel margin broke upward in 2022 and spiked in 2026. Lighter crude limits how much diesel U.S. refineries can make from domestic crude, but it is not the reason diesel is high now.

6 Inventories are at record lows for the season

Days of supply — inventories divided by recent consumption — measure inventory tightness better than barrels, because distillate consumption is about a third higher than in the early 1990s. U.S. distillate stocks were 28.6 days of supply on September 4. Every week from August 7 through September 4 set the lowest level for that week since at least 1991, when EIA's weekly consumption data begin, with a low of 27.2 days on August 21. Days of supply have been below the 2021–2025 range in 14 of the 36 weeks so far this year. Because the measure divides by domestic consumption while exports are running well above recent years, it overstates how long current stocks would last. In barrels, stocks of 106.3 million on

Lighter Crude, Higher Diesel Yield

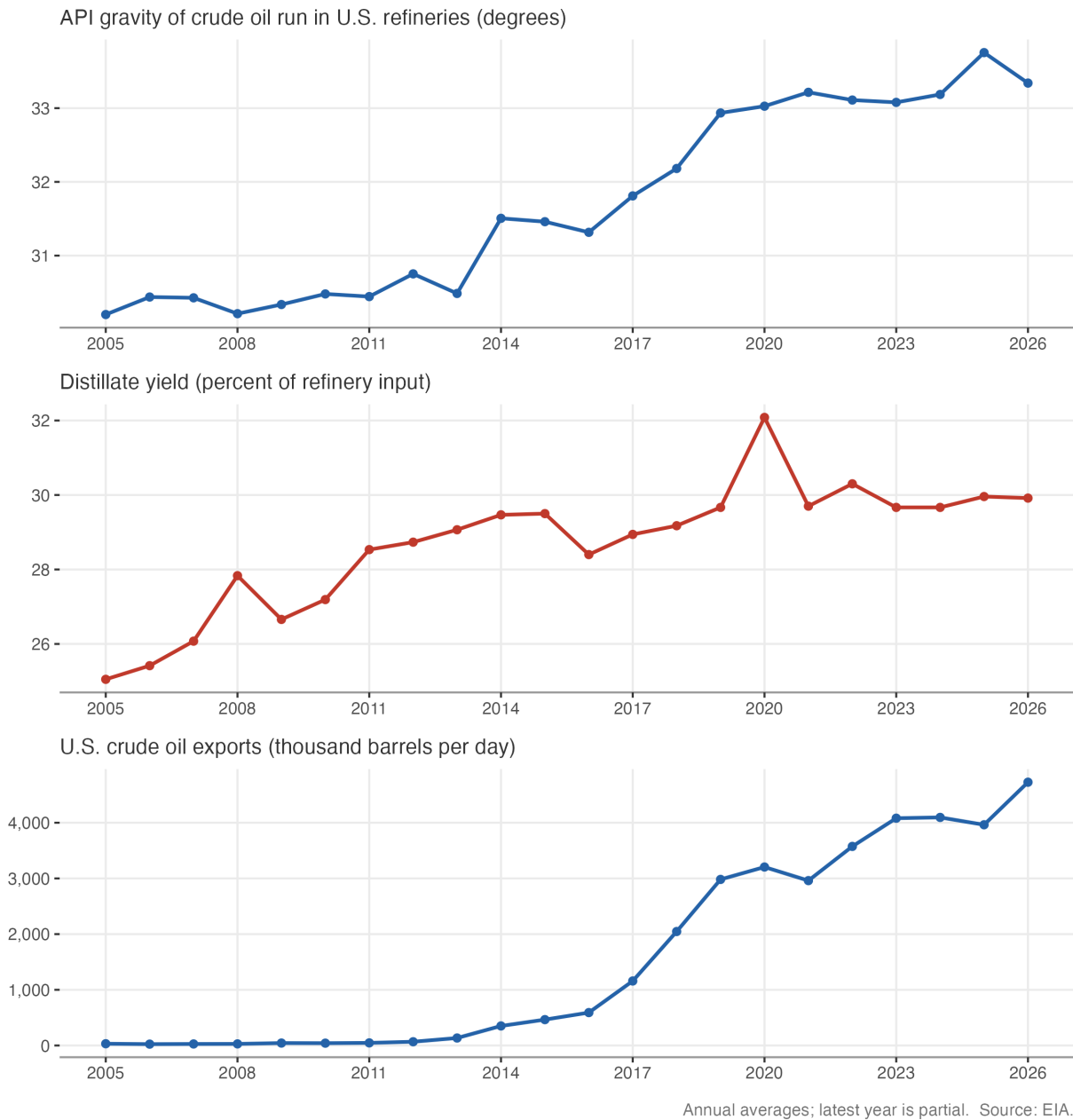


Figure 4: Crude quality and distillate yield

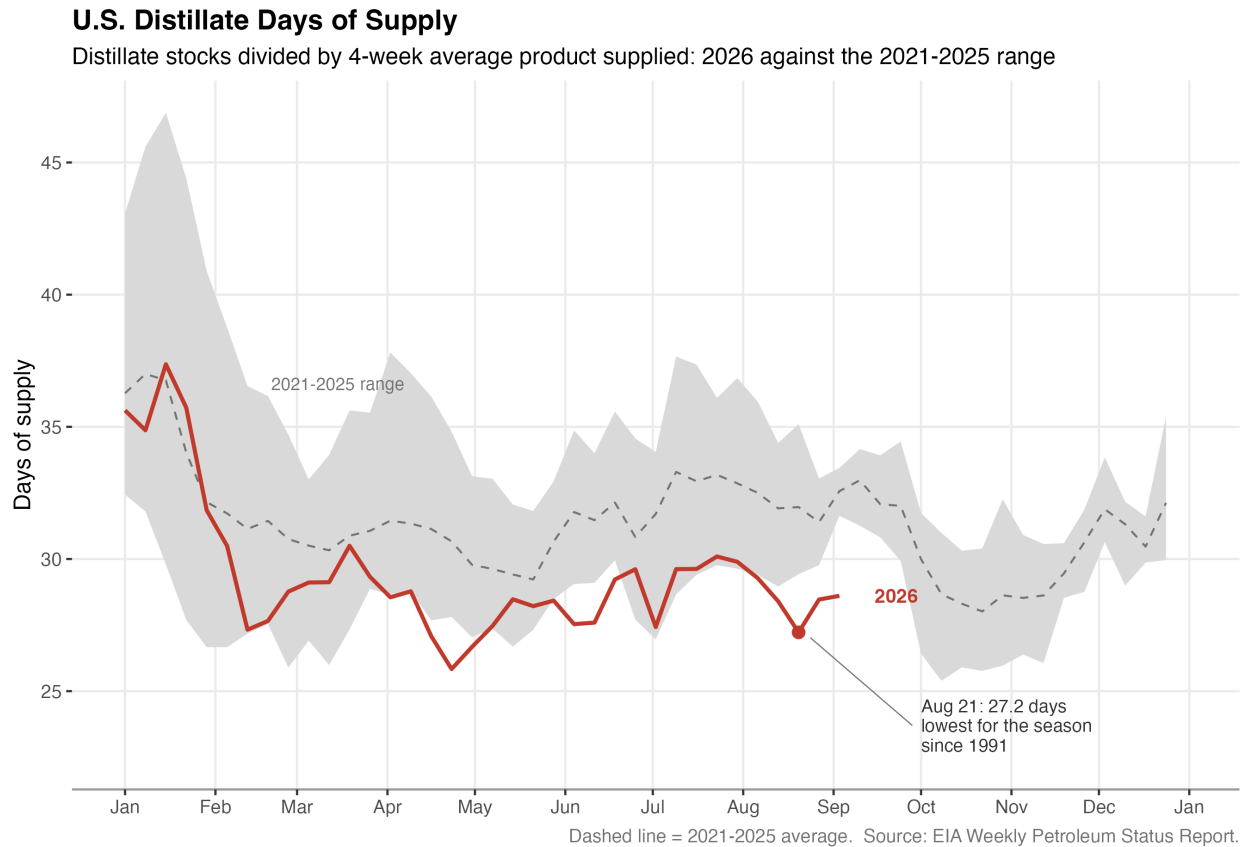


Figure 5: Distillate days of supply

September 4 were at least 5 percent below the lowest level for that week from 2021 through 2025.

Figure 5. U.S. distillate days of supply against the 2021–2025 range

The shortage is concentrated on the East Coast.

Region	Stocks, Sept. 4 (million bbl)	vs. 2021–2025 average	vs. 2021–2025 low
East Coast	21.7	–35%	–23%
Midwest	28.5	–9%	+3%
Gulf Coast	42.5	–3%	+2%
Rocky Mountains	3.5	–1%	+4%
West Coast	10.1	–14%	–4%

Comparisons are to the same week in 2021–2025.

East Coast stocks were 23 percent below the lowest level for that week in any year from 2021 through 2025, and West Coast stocks were also below the five-year range. The East Coast deficit matters most heading into winter, because heating oil use is concentrated in the Northeast, where about 18 percent of households heated primarily with it as of 2021, compared with about 4 percent nationally. Gulf Coast, Midwest, and Rocky Mountain stocks were below average but within the range. Midwest prices have nonetheless risen as much as the national average, because Midwest wholesale prices move with Gulf Coast prices, which reflect competition from both export buyers and East Coast demand.

East Coast stocks are short while Gulf Coast exports are strong. Most Gulf Coast diesel reaches the East Coast by pipeline: in 2025, pipelines carried about 730,000 barrels per day of distillate from the Gulf Coast to the East Coast, and tankers and barges about 160,000. When pipelines are full, additional supply has to move by water, and under the Jones Act fuel shipped between U.S. ports must travel on vessels built, owned, flagged, and crewed in the United States, which raises the cost of moving fuel between U.S. coasts relative to shipping it abroad. In normal markets the measured effect on diesel prices has been small: Kellogg and Sweeney estimate that without the Jones Act, East Coast diesel prices in 2018–2019 would have averaged 82 cents per barrel lower, about 2 cents per gallon. The federal government waived the law for energy and fertilizer shipments beginning March 17, 2026, and has since extended the waiver through November 15. In the first month of the waiver, Kpler ship-tracking data showed shipments between U.S. ports essentially unchanged and Gulf Coast shipments to other U.S. coasts declining, as higher prices abroad drew fuel to export markets. That test came before the East Coast shortage became acute. East Coast stocks in March were below average but near the 2021–2025 low for those weeks; the steep decline began in late May, and stocks reached 41 percent below average on August 28. Whether the waiver matters under current conditions has not yet been measured. A later article in this series examines the question in detail.

EIA expects distillate inventories to fall below 100 million barrels in September and to remain below the five-year low through the end of 2026 and most of 2027. It identifies fall refinery maintenance and harvest-season agricultural demand as additional pressure over the coming weeks. The Strategic Petroleum Reserve holds crude oil, not diesel, so releases from it would do little to relieve a shortage of refined product.

7 What this means for a farm diesel budget

Farm diesel is exempt from federal and most state highway fuel taxes, so the price paid on the farm is below the retail figures above. Those taxes are mostly set per gallon, so the increase since February is essentially the same for dyed farm diesel as for highway diesel. Midwest retail diesel rose \$2.27 per gallon from February to the week of September 7, compared with \$2.25 nationally.

The K-State North Central Kansas corn budget uses 4 gallons of diesel per acre. At the Midwest increase, fuel costs about \$9.06 more per corn acre than at February prices. A farm using 10,000 gallons a year faces a fuel bill roughly \$22,700 higher if all of that fuel is bought at current prices. Gallons contracted or prepaid before the increase are insulated from it.

A \$10-per-barrel change in crude oil changes fuel cost by about \$1.27 per corn acre at the post-2022 response described above. A 25-cent change in the refining margin changes it by \$1.00 per acre, and the margin has moved by more than that in a single month several times this year.

8 What would bring diesel prices down

EIA expects diesel crack spreads to stay above \$2 per gallon through November and then decline steadily through mid-2027. Its September outlook puts retail diesel at an average of \$5.07 per gallon for 2026 and \$4.40 for 2027. Given prices through August, the 2026 figure implies an average of about \$5.50 for September through December, below the current price. That outlook was completed on September 3, before the latest week's 37-cent increase.

Futures markets point the same direction. On September 14, New York Harbor ultra-low sulfur diesel futures traded at about \$5.00 per gallon for October delivery, \$4.56 for December, \$4.00 for April 2027, and \$3.54 for September 2027 — a decline of about \$1.46 per gallon, or 29 percent, across the year. That slope is the market's expectation that the shortage eases, not a guarantee. The contracts are for delivery in New York Harbor, the East Coast market where stocks are shortest, so the slope partly reflects expected easing there, and Midwest prices trade at their own differential to New York Harbor. For budgeting, the curve indicates that the market currently expects wholesale diesel next spring and summer to cost well below today's price.

Relief depends mainly on supply: restored refined product exports through the Strait of Hormuz, repair of Russian refining capacity and an end to Russia's export bans, and recovery in Chinese refinery runs. Lower crude prices alone would not bring diesel back to normal, because the margin rather than crude accounts for most of the price above normal. On the demand side, the end of harvest reduces agricultural use, while a cold winter would raise heating oil demand.

A diesel price forecast built on these relationships follows later in this series.

9 Data and methods

Retail prices are EIA weekly averages for on-highway diesel and regular gasoline, for the United States and the Midwest (PADD 2). Wholesale prices are EIA spot prices for U.S. Gulf Coast ultra-low sulfur No. 2 diesel and conventional gasoline. Crude cost in the decomposition uses Brent spot, the benchmark for internationally traded crude. The Brent–WTI spread averaged \$6.85 per barrel in February and \$7.91 in the latest week but ranged from \$1.39 in June to \$18.28 in April, so the benchmark matters more within 2026 than for the February-to-September comparison. Pass-through estimates regress the weekly Gulf Coast diesel spot price on WTI spot with year fixed effects, so they measure the response to crude within a year rather than across years, using Newey–West standard errors. Retail prices, reported for Mondays, are matched to spot prices for the preceding Friday; Figure 1 uses 4-week averages to smooth timing noise. Distillate stocks by region, product supplied, production, weekly exports, and refinery utilization are from the EIA Weekly Petroleum Status Report; days of supply are stocks divided by 4-week average product supplied. Comparisons with 2021–2025 use the same calendar week, except for utilization, production, and national stocks in barrels, which use a three-week window centered on that week. Exports by destination are EIA monthly data, with regional totals reconciled to the national total; EIA's separate national monthly export series is about 3.5 percent lower for the first half of 2026, 1.40 rather than 1.45 million barrels per day. Refinery capacity is EIA monthly operable crude distillation capacity. Movements from the Gulf Coast to the East Coast are EIA annual receipts by pipeline and by tanker and barge; distillate consumption is EIA annual product supplied. Renewable diesel production is from the EIA Short-Term Energy Outlook. Crude quality is the weighted-average API gravity of crude oil input to U.S. refineries, and distillate yield is EIA's refinery yield of distillate fuel oil, measured as a percentage of refinery input. The yield regression uses monthly data from 2005 through mid-2026 with

a linear time trend, month indicators, and Newey-West standard errors. Futures prices are delayed intraday quotes for New York Harbor ULSD contracts on September 14, 2026, not settlement prices. Inflation adjustment uses the CPI-U.

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