

Crack Spreads: The Refiner's Margin, Decoded.

What the gap between crude oil and finished fuel tells you about refiner stocks, gas prices, and the inflation you feel at the pump — explained simply.

3 CRUDE

2 GASOLINE

1 DISTILLATE

What a crack spread actually measures

A crack spread is a refiner's paycheck. It's the difference between what a refinery pays for crude oil and what it earns selling the gasoline and diesel it makes from that crude. Nothing more mystical than that.

The name comes from the refining process itself. Heat, pressure, and catalysts "crack" the long carbon chains in crude oil apart, breaking heavy molecules into the lighter, more valuable ones that become gasoline, diesel, and jet fuel. The spread is simply the value created by that transformation, priced by the market every single day.

Refiners don't set this number. Traders do, through the futures market, by pricing crude oil (WTI or Brent) against the finished products (RBOB gasoline, ultra-low-sulfur diesel) refiners actually sell. That's what makes the crack spread useful: it's a real-time, market-driven read on refining profitability, not a number a company reports once a quarter.

WHY IT MATTERS

Crude oil going up or down tells you about the cost of the raw material. The crack spread tells you about the *margin* — the part that actually shows up as refiner profit. In 2026, this distinction has mattered more than at almost any point in the last two decades: crude prices have swung, but the spread has told a completely different story.

The standard formula: the 3-2-1

Refineries don't make one product from crude, they make several at once. The industry's shorthand for this is the **3-2-1 crack spread**, which assumes 3 barrels of crude in produces roughly 2 barrels of gasoline and 1 barrel of diesel out. That ratio approximates a real U.S. Gulf Coast refinery's output mix.

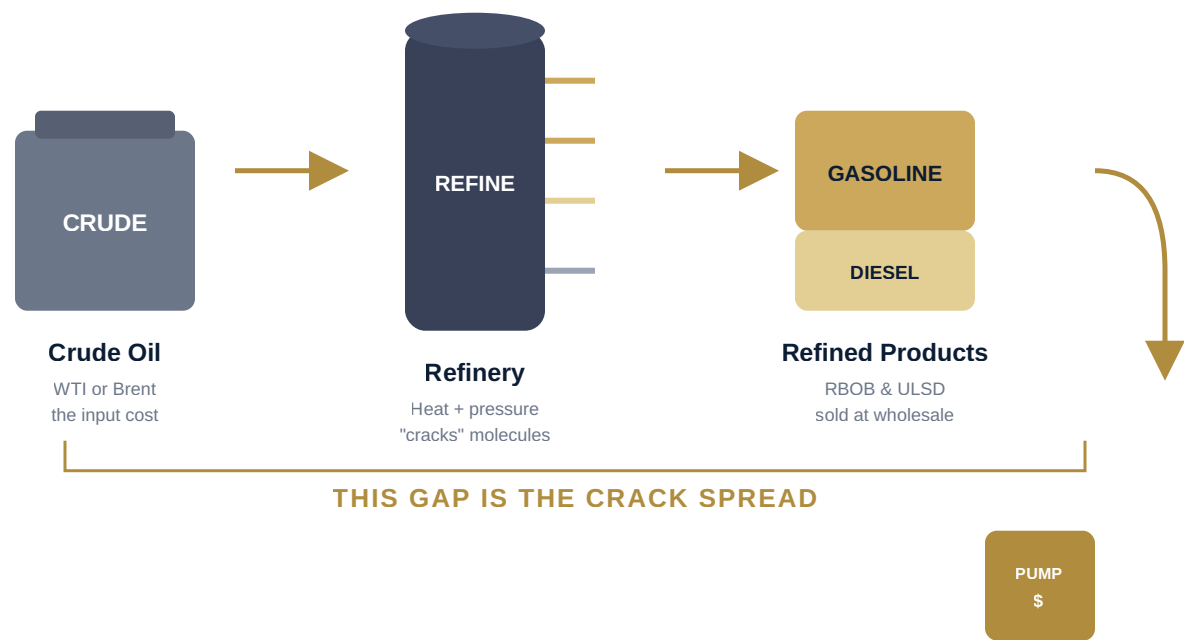
INPUT	APPROXIMATE ROLE
3 barrels of crude oil (WTI)	The cost side of the equation
2 barrels of gasoline (RBOB)	~67% of output, the largest revenue driver
1 barrel of diesel / heating oil (ULSD)	~33% of output, tied to freight and heating demand

3-2-1 Crack = [(2 × Gasoline) + (1 × Diesel) – (3 × Crude)] ÷ 3

The result is expressed in dollars per barrel. It's a gross margin, before a refiner's own operating costs, labor, and maintenance are subtracted — but it's the number the entire industry watches first.

From wellhead to gas pump: where the crack spread lives

Crude oil isn't sold to drivers. It has to be transformed first — and the crack spread is the toll collected at that transformation.



Inside the refinery: what one barrel of crude becomes

SHARE OF OUTPUT	PRODUCT	WHERE IT GOES
■ ~67%	Gasoline (RBOB)	The largest single output, and the price consumers see every day at the pump
■ ~33%	Diesel / Heating Oil (ULSD)	Feeds trucking, agriculture, construction, and winter heating demand
■ Remainder	Jet fuel, asphalt, petrochemical feedstock	Smaller output streams, each priced on its own crack spread

WHERE THE SPREAD IS CAPTURED

The crack spread is the gap between what a refiner pays for crude and what it earns selling refined product, shown above. When that gap widens, the refiner in the middle keeps more of it. When it narrows, that margin compresses, no matter what crude oil itself is doing.

What actually moves the spread

Six forces push crack spreads wider or narrower. Most of the time it's a combination, not just one.

- **Refining capacity & outages.** Planned maintenance, unplanned shutdowns, or permanent capacity closures shrink product supply while crude keeps flowing. Less product output against steady crude supply widens the spread.
- **Weather and disaster events.** Gulf Coast hurricanes are the classic case — Hurricane Harvey in 2017 knocked out refining capacity fast and spiked cracks almost overnight.
- **Geopolitical shocks.** War, sanctions, or shipping-route disruption can widen spreads in a counterintuitive way: crude supply comes back online faster than refined product inventories can be rebuilt, exactly what happened with the Strait of Hormuz in 2026.
- **Seasonality.** Gasoline cracks typically rise March through September (summer driving season, costlier low-emission fuel blends). Diesel cracks typically peak October through February (winter heating demand).
- **Demand shifts.** Weak driving demand, high pump prices, or improving vehicle fuel efficiency can compress gasoline cracks even when crude is stable.
- **Product inventory levels.** Low gasoline, diesel, or jet fuel inventories relative to crude inventories are often the single biggest swing factor of all — this has been the core story in 2026.

Reading the stress bands

Crack spreads live in fairly consistent historical ranges. Knowing which band you're in tells you how unusual current conditions are.

RANGE (3-2-1, \$/BBL)	WHAT IT SIGNALS
■ \$10–\$20	Normal, healthy operating environment. Most years since 2010 have sat here outside of major disruptions.
■ \$30+	Stress threshold — refinery outages, hurricane season, or crude moves not yet passed through to product prices.
■ \$40+	Acute stress, historically reserved for major disruption events lasting weeks to months.

THE 2026 PICTURE

The 3-2-1 crack spread reached roughly \$55.78/bbl in March 2026, a four-year high, and has since traded near record levels above \$69/bbl — two to three times its historical "normal" range, and squarely in acute-stress territory. Jet fuel cracks briefly touched \$100/bbl.

Why refiner stocks move on this, not on oil

Refiners buy crude and sell products — the crack spread is their gross margin. When it widens, their earnings widen with it, even if crude oil itself is falling.

80%+2026 YTD GAIN, MARATHON
PETROLEUM & VALERO**787%**MPC ADJUSTED EPS GROWTH,
MOST RECENT QUARTER**~11%**S&P 500 RETURN, SAME PERIOD,
FOR COMPARISON

This is the single most important idea in this report: **refiner stock performance decouples from the crude oil price** and tracks the spread instead. In 2026, crude has fallen and chopped sideways for stretches while refiner stocks kept climbing — because the market was pricing their margin, not their raw material cost.

Who benefits, and why not equally

- **Independent Gulf Coast refiners** (Valero, Marathon Petroleum, Phillips 66, HF Sinclair) capture the most upside. Their WTI-based crude costs have risen more slowly than Brent-linked crude, so a widening spread flows almost directly to their bottom line.
- **Integrated majors** (ExxonMobil, Chevron) see a muted, mixed effect. Their refining segments benefit, but gains are partly offset by pressure on their upstream, crude-producing operations when crude prices are soft.
- **Midstream and product-logistics names** can see secondary tailwinds when refiners run at high utilization to capture wide margins, since more volume moves through pipelines and terminals.

THE TAKEAWAY FOR STOCK-WATCHERS

Watching the daily crude oil headline is watching the wrong number if your position is in refiners. The crack spread is the industry's real financial heartbeat — as long as it stays well above historical norms, refiner cash flow, buybacks, and dividend coverage stay well supported.

The spread consumers actually feel

A widening crack spread means gasoline and diesel are getting more expensive faster than crude oil itself. That's a distinct and important inflation signal — one that can hide behind a calm-looking crude oil chart.

- **Gasoline is the inflation signal households see every day.** It is one of the most visible prices in the economy, and a wide gasoline crack keeps pump prices elevated even if crude oil itself isn't rising.
- **Diesel is the inflation signal that spreads quietly through everything else.** Diesel is a direct input to trucking, agriculture, construction, and backup power. When diesel cracks spike, freight rates and food costs feel it before headline CPI does.
- **It's a diagnostic tool, not just a price.** A crack spread spike while crude is flat or falling tells you the bottleneck is in refining capacity or product inventories, not crude supply. That distinction matters for how long the pressure is likely to last.
- **It complicates the Fed's job.** A central bank can often look past a brief crude oil spike, especially if core inflation is easing. Persistent product-market tightness is harder to dismiss, because it can keep retail energy prices elevated even after crude stops rising — and that means less room for rate cuts than headline oil prices alone would suggest.

CURRENT CONDITIONS, JULY 2026

The benchmark 3-2-1 crack spread has closed near a record \$69.66/bbl, with the gasoline crack near \$59 (last seen during the 2022 energy shock) and the diesel crack above \$91, also a record. Crude, meanwhile, has traded well below its own highs — underscoring that the pressure on consumers right now is coming from the product market, not the crude market.

Three things to watch next

1. Product inventory rebuilds. As refiners run at high utilization to capture today's wide margins, watch weekly EIA inventory data for gasoline and distillates. Rebuilding stockpiles is what eventually narrows the spread.

2. Refinery utilization rates. High utilization signals refiners chasing the margin; it also means less spare capacity if another disruption hits.

3. The crude-to-product lag. Watch whether crude oil prices and product prices start moving back together. Persistent divergence is the signal that structural tightness, not a temporary shock, is driving the story.