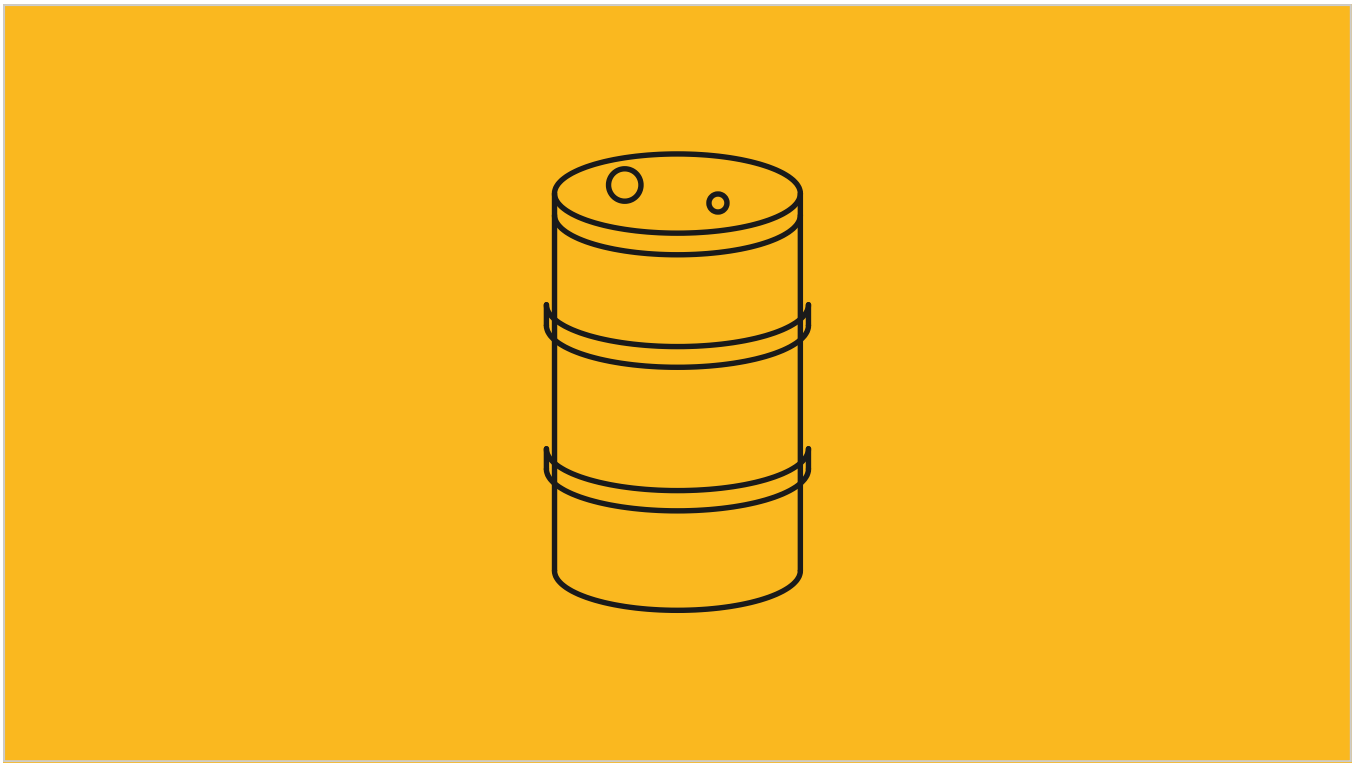
Finance

A Primer on Oil Markets

Benchmarks, futures and spare capacity were each built in response to a crisis, which is why the oil price moves on politics before it moves on barrels.



Emmanuel Awosika ▪ 12 June 2026 ▪ 10 min read

The price of oil arrives as a single number on a screen, quoted to the cent and updated every second. It looks like the price of a thing. It is closer to the price of a contract for a particular grade of crude, delivered at a particular place, in a particular month — and most of the barrels behind it will never be delivered at all.

None of that machinery was designed. It accumulated, mostly in response to crises, and each part of it carries the shape of the emergency that produced it. The market prices political risk because it was built by political shocks.

A barrel is not one thing

Crude oil is not a commodity in the way gold is. What comes out of the ground varies by field, and the variation is commercial. Two properties do most of the work: density, which the industry calls light or heavy, and sulphur content, which it calls sweet or sour.[1]

Light sweet crude is easier and cheaper to turn into the products refineries most want to sell, so it trades at a premium. Heavy sour crude needs more processing and trades at a discount. A refinery is built for a particular diet, and a plant configured for heavy sour barrels cannot simply switch to light sweet ones because the price looks better.

That rigidity matters more than it sounds. A shortage of one grade is not solved by a surplus of another, which is why the world can hold plenty of oil and still be short of the oil that a given refinery can actually run. It is also why sanctions work: a barrel that has to be rerouted to a different buyer often has to be rerouted to a different *kind* of buyer, and pay for the privilege.

Before there was a price

For most of the twentieth century there was no oil market in the sense meant here. A small group of international companies produced, shipped and refined the oil, and set a posted price largely among themselves. Producing states received a share of it. There was no exchange, no curve, and very little for an outsider to trade.

That arrangement ended in October 1973. Arab members of OPEC cut production and embargoed several countries over their support for Israel in the war that month, and the posted price roughly quadrupled within a few months.[2] The immediate shock was queues and rationing. The lasting change was that pricing power moved from the companies to the producing states, and the importing world discovered it had no instrument for a supply shock other than to pay.

Most of what looks permanent about the oil system today was built in the five years after that. Consuming countries founded the International Energy Agency in 1974 and bound themselves to hold emergency stocks. The United States authorised its Strategic Petroleum Reserve the following year.[3] Both exist because 1973 demonstrated that a market with no buffer transmits a political decision directly into an economy.

How the benchmarks took over

The state-set price lasted barely a decade. It was rigid in both directions, and by the mid-1980s it was holding prices above what the market would bear while producers quietly discounted underneath it. In 1986 Saudi Arabia stopped defending the price, output rose across the group, and the price collapsed by more than half in a matter of months.

What replaced the posted price was formula pricing: rather than name a number, a seller quotes a differential against a published benchmark. With hundreds of distinct grades in trade, this is the only workable arrangement – the market prices a handful of references properly and prices everything else relative to them.[4]

Three references matter. Brent, a blend of North Sea grades, anchors a large share of internationally traded crude. West Texas Intermediate anchors North America, priced for delivery at a pipeline hub in Oklahoma.[5] Dubai and Oman together anchor the sour barrels moving from the Gulf to Asia. Futures followed the formulas – WTI listed in 1983, Brent in 1988[6] – and the screen price was born. When a headline says oil rose today, it means one of these three.

Most barrels are paper

The great majority of trading in oil is not trading in oil. It is trading in futures: standardised contracts to buy or sell a set quantity in a set month, bought and sold many times over before that month arrives. Nearly all are closed out before delivery is ever due.

This is not a distortion of the market so much as the point of it. A producer who wants a known price next year, and an airline that wants a known fuel cost, can each fix one now without either taking a view on where the price will actually go. The speculators on the other side are what make it possible to do that at short notice and in size.

But the paper keeps a physical tail, and the tail occasionally moves. In April 2020, with demand collapsed and storage at Cushing close to full, the expiring West Texas Intermediate contract settled below zero: holders paid to be relieved of barrels they had nowhere to put.[7] Nothing about the market's plumbing had broken. The contract had simply been asked, for once, to mean what it says.

Spare capacity is the lever

Supply decisions are concentrated in a way demand decisions are not. The OPEC+ group coordinates production targets across its members, and a small number of them – chiefly in the Gulf – hold most of the world's spare capacity: the ability to raise output quickly and hold it there.[8] How much spare capacity exists is often more important to the price than how much oil is being produced today, because it determines whether a disruption anywhere else can be covered.

The clearest demonstration came in 1990. Iraq invaded Kuwait in August, removing the exports of both countries at once, and the price roughly doubled. It then fell sharply – before the fighting resolved anything – as it became clear that Saudi Arabia would replace most of the lost barrels from spare capacity. The market was not pricing the war. It was pricing whether the war would cost anyone a barrel.

Spare capacity can also be used as a weapon rather than a cushion. In late 2014, with American shale adding supply quickly, OPEC declined to cut production and let the price fall instead – from around a hundred dollars to under thirty within about fifteen months. The target was the cost base of the newcomers. It did not work as intended: shale cut its costs faster than anyone expected, and by 2016 OPEC was negotiating with Russia and others to restrain output jointly, which is the arrangement still in place.

The same instrument failed spectacularly once more in March 2020, when that arrangement briefly broke down and Saudi Arabia raised output into a pandemic that was erasing demand. Within weeks the group agreed the largest coordinated cut in its history. The negative print in April was the interval between those two decisions.

The curve is a readout

Futures exist for many months ahead, and the line joining them has a shape. When later months trade above nearer ones the market is in contango, and it pays to buy oil, store it and sell it forward — a signal that supply is comfortable. When nearer months trade above later ones the market is in backwardation, storage loses money, and barrels are wanted now.[9]

In 2020 the contango grew steep enough to make floating storage economic: traders chartered tankers, filled them, and left them at anchor to deliver against a later contract. Ships that exist to move oil were used to hold it still. The shape of the curve had made waiting more valuable than delivering, and the physical world reorganised itself accordingly within weeks.

Where geography sets the price

Oil is priced where it is produced and consumed somewhere else, so the route between the two is part of the price. A large share of seaborne crude passes through a handful of narrow passages, and the narrowest of them is the Strait of Hormuz, at the mouth of the Gulf, through which something close to a fifth of the world's oil consumption moves.[10]

What the market prices there is rarely a closure. It is the probability of one. A risk premium can appear on a threat, sit in the price for weeks, and drain away without a single cargo being delayed — which looks irrational until you notice that the premium is the cost of insurance against an event that would be catastrophic and is merely unlikely.

When disruption does arrive it usually reroutes rather than stops. Attacks on shipping in the Red Sea from late 2023 pushed much traffic around the Cape of Good Hope, adding thousands of miles and days of sailing to affected voyages. Very little oil was destroyed. A great deal of oil arrived later, in a market where when a barrel arrives is most of what it is worth.

When sanctions rewrite the map

The 2022 sanctions on Russian oil were designed around the fact that a barrel is not one thing. Rather than remove the supply — which would have raised prices on everyone — the European embargo on seaborne crude was paired with a price cap allowing Russian oil to move on Western shipping and insurance only if it sold below a set level.[11] The intent was to keep the barrels flowing while compressing what they earned.

What followed was one of the fastest reorganisations of trade flows the market has seen. Russian crude that had gone to Europe went to India and China instead, at a discount that reflected the longer voyage, the thinner pool of buyers and the legal risk attached to handling it. A grade differential that had been a technical matter of density and sulphur became a political one.

The lesson generalises. Sanctions rarely reduce the number of barrels in the world by much. They change who may buy which barrels, on what terms, and the market absorbs that as a change in differentials rather than a change in the headline price. The screen can look calm while the map underneath it is being redrawn.

From crude to the pump

Crude is an input, not a product. What consumers buy is petrol, diesel, jet fuel and the rest, and the gap between the crude price and the product price is the refining margin.[12] That margin has its own supply and demand — refining capacity is finite, regional, and slow to build — so product prices can rise while crude is flat, or fail to fall when crude does.

Add fuel duty, distribution and retail margin, and the number at the pump is several steps removed from the number on the screen. They move together because one is an input to the other. They differ because everything in between is its own market, with its own bottlenecks and its own politics.

Which is the useful thing to hold on to. The oil price is not a reading taken off the world; it is the output of a system built out of embargoes, price collapses, wars and pandemics, each of which left a piece of machinery behind. When the number moves, it is usually that machinery responding to a decision someone made — and the decision is generally easier to find than the number is to predict. ■

Footnotes

1. Density is measured on the API gravity scale, where a higher number means a lighter crude. Sweet and sour refer to sulphur: sweet crude has little, sour crude has more, and the sulphur has to be removed before the fuel can be sold. ↩

2. The embargo itself was lifted in March 1974, but the price never returned to its pre-crisis level. The durable change was not the shortage; it was that the producing states had discovered the price was theirs to set. ↩

3. The reserve was authorised by the Energy Policy and Conservation Act of 1975 and is held in salt caverns on the Gulf Coast. It has been drawn on for supply disruptions, hurricanes and, more contentiously, price management. See the Department of Energy's overview. ↩

4. The US Energy Information Administration keeps a plain-language overview of what drives crude oil prices, broken into supply, demand and the financial markets that sit on top of both. ↩

5. The delivery point is Cushing, Oklahoma, an inland pipeline junction with a large tank farm. Because the contract settles by physical delivery there, local storage conditions can pull the price away from the wider market – which is exactly what happened in April 2020. ↩

6. Brent futures are listed on ICE; the West Texas Intermediate contract trades on CME. Both are cash-margined daily, which is why a position can cost money long before any delivery month arrives. ↩

7. The settlement was about minus thirty-seven dollars a barrel on 20 April 2020. It applied to the expiring contract only; oil for the following month never traded below zero, and the physical market outside Cushing was weak but positive. ↩

8. Spare capacity is usually defined as production that can be brought on within about thirty days and sustained for an extended period. It is a small fraction of world supply and concentrated in very few countries, which is what gives their production decisions their weight. ↩

9. The terms describe the curve, not a forecast. A market in contango is not predicting higher prices so much as pricing the cost of carrying oil until then – storage, insurance, and the money tied up in it. ↩

10. There is no practical way around it for most Gulf exports. Pipelines that bypass the strait exist but carry a fraction of the volume, which is why a threat to Hormuz prices differently from a threat almost anywhere else. ↩

11. The cap was set at sixty dollars a barrel by the G7 and allies, alongside the European Union's embargo on seaborne Russian crude from December 2022. Enforcement runs through shipping and insurance, most of which is Western, rather than through the oil itself. ↩

12. Refiners call it the crack spread, after the cracking process that breaks heavy hydrocarbon molecules into lighter ones. It is usually quoted as the margin from turning a set number of barrels of crude into a set mix of products. ↩