Storage is what connects one month to the next

> **COST OF CARRY**
>
> What it costs to hold a physical commodity from one date to a later one: storage, insurance and the financing of the money tied up. Carry is why the same barrel usually costs more for later delivery, and it is the connective tissue between every pair of contract months on the curve.

Lesson 1 said the month is part of the instrument. This lesson is about what relates the months to each other - because they are not independent prices, they are prices connected by the cost of a tank.

The arithmetic of holding on

Suppose storing a barrel costs an illustrative 40 cents a month, plus insurance and the interest on the money the barrel ties up. Holding it a full year costs $4.80 in storage alone. Now compare oil for delivery next month with oil for delivery in a year: anyone with a tank can buy the near one, store it, and deliver it against the far one. If the far price exceeds the near price by more than the cost of doing that, the trade is free money - so it gets done until the gap closes.

That is the machine. The gap between two months is bounded by what it costs to physically carry the good between them, and merchants police the bound all day. When later months cost more, the shape is called contango; when they cost less, backwardation. Learn the names, but not the details - the full treatment, including what each shape pays or costs a position, is module 8's opening act.

The bound breaks in one direction

Carry arbitrage needs spare storage. In April 2020, demand collapsed and every tank at Cushing was full or spoken for. Holders of the expiring WTI contract faced delivery of barrels they could not put anywhere, and paid whatever it took to get out: the May contract settled at minus $37.63 a barrel. A negative price for oil - because the promise from lesson 1 is real, and on that day the physical machinery, not the chart, set the price.

Gold shows the opposite extreme. Vaulting gold costs almost nothing relative to its value, so its curve is quiet and driven mostly by interest rates - one more way gold behaves like a currency in costume.

Why this matters in module 1

The months of a commodity are one connected structure, not a menu of unrelated prices.The connection is physical - tanks, silos, financing - and it can snap when the physical world jams.Every cost your wrapper charges at the roll, module 3's subject, is downstream of this structure.

Check your understanding

1. Why does oil for delivery in a year usually cost more than oil for next month?

a. The market expects prices to rise

b. Holding physical oil for a year costs real money - storage, insurance, financing - and arbitrage ties the price gap to that cost

c. Far-dated contracts are less liquid, so sellers charge more

Answer: b. Anyone with storage can buy near and deliver far, so the gap cannot exceed the cost of carry for long. The gap reflects the tank, not a forecast.

2. What did April 2020's negative WTI price demonstrate?

a. A malfunction in exchange systems

b. That when storage is full, the delivery obligation is real enough to make holders pay to escape it

c. That oil had become worthless

Answer: b. Carry arbitrage needs somewhere to put the barrels. With Cushing full, expiring longs faced physical delivery they could not accept, and the May contract settled at minus $37.63.