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FUTURES A–Z

Contracts, ticks, point values, margin, and rolling — the complete specifications.

Alpha Academy · Team Alpha Trading

Futures A–Z: Contracts on Tomorrow's Price

A **futures contract** is a legal agreement to buy or sell something at a set price on a future date. Read that again, slowly — everything in this chapter is built on that one sentence. Two people agree today: "We will make this trade, at this price, on that date." Then, as the real market price moves, that agreement gains or loses value every single day.

Futures let you trade the price of things you never touch: stock market indexes, gold, oil, corn, and more. They are fast, powerful, and open almost around the clock. They are also one of the easiest ways for a beginner to lose money quickly, because a small deposit controls a very large position.

By the end of this chapter you will be able to explain what a futures contract is, read a contract code in plain words, state what one **point** of movement is worth in dollars, explain margin without being fooled by it, work a complete trade tick by tick, and compare futures fairly against stocks and options.

> **NOTE**
> This chapter is education only, not financial advice. Futures are high-risk. Most beginners lose money while learning, and fast markets can cost more than expected. Learn the mechanics first, practise on a simulator if your broker offers one, and risk only money you can afford to lose.

Where Futures Came From: The Farmer and the Airline

Futures were not invented for traders. They were invented for businesses that could not stand surprises. Picture a farmer planting corn in the spring. It will not be ready until the fall, and nobody knows what corn will be worth then. If the price crashes, a year of work pays almost nothing. Now picture a bakery chain that buys huge amounts of grain every month. It has the opposite problem: if the price rockets up, its costs explode.

So the two sides deal in the spring: "In October, we will trade this corn at $4.50 a bushel" — a **bushel** is just a standard unit for measuring grain. The price is locked. The farmer can plant in peace, knowing what he will be paid; the bakery can plan, knowing what it will pay. That simple agreement — a set price, a set amount, a set future date — is the ancestor of every futures contract traded today.

Airlines do the same thing with fuel. An airline will need millions of gallons of jet fuel next year, and fuel comes from oil. If oil prices double, profits get crushed. With oil futures, it locks in a fuel cost in advance — not to get rich on oil, but to buy certainty.

The key point: futures were invented to *remove* risk, not to take it. Trading for profit came later — but the origin explains why these contracts exist and why they expire.

Why Futures Exist: Hedgers and Speculators

A **hedger** is a person or business that already has risk in the real world and uses futures to reduce it. The farmer, the bakery, and the airline above are hedgers. Hedgers gladly give up some possible profit in exchange for safety and predictability.

A **speculator** is a trader with no farm, no bakery, and no airline, who takes on the price risk the hedger wants to avoid, hoping to profit from price movement. When you buy a futures contract because you think the market will rise, you are speculating. That is not a dirty word — speculators give hedgers someone to deal with — but be honest about which one you are. As a reader of this book, you are almost certainly a

speculator, so the risk the hedger paid to get rid of is now in *your* account.

> **SETUP**
> Two plain words decide your direction. Going **long** means you bought — you profit if price rises. Going **short** means you sold a contract you did not own first — you profit if price falls. Futures make shorting as easy as buying, which is one reason beginners get into trouble so fast.

The Anatomy of a Futures Contract

Every futures contract is a standard agreement written by an **exchange** — a regulated marketplace where buyers and sellers meet; the main US futures exchange is the **CME** (the Chicago Mercantile Exchange). Because the contract is standard, everyone trades the identical thing, and any position can be bought or sold back in seconds. Here are the parts.

The underlying. The **underlying** is the thing whose price the contract follows. For the contract nicknamed "ES," the underlying is the **S&P 500**, an index — a single number tracking the combined value of 500 large US companies. You are not buying those 500 stocks — just an agreement tied to that number.

The expiration month. Every contract has an **expiration** — the date the agreement ends. Futures are named by month, and index futures mainly follow a quarterly rhythm: March, June, September, December.

The contract code. A code like **ESZ26** looks like a secret language, but it splits into three plain pieces:

- **ES** — the product: the E-mini S&P 500. "E-mini" means an electronic, smaller version of an older, bigger contract.
- **Z** — the month letter. Each month has a code letter; the four big index months are H = March, M = June, U = September, Z = December.
- **26** — the year, 2026.

So **ESZ26** reads as: "the E-mini S&P 500 contract for December 2026." No mystery. If you can read the code, you know exactly what you hold and when it ends.

The tick. A **tick** is the smallest amount a price is allowed to move. For ES, price moves in steps of 0.25 — it can print 6,000.00, then 6,000.25, then 6,000.50, but never 6,000.10. One full point (1.00) equals four ticks.

The point value. A **point** is a move of 1.00 in price. Each contract states exactly how many dollars one point is worth to you — the single most important number in futures, because it turns price movement into money. Price moves here are not percentages; they are dollars, from one simple formula:

Profit or loss = points moved × dollars per point

Every example in this chapter — and every real futures trade you ever make — runs on that formula.

The Big Contracts: What One Point Is Worth

Below are the contracts a beginner is most likely to meet. **Point value** is the dollars gained or lost per 1.00 move; **tick value** is the dollars for the smallest possible move. Read the differences carefully — one point of crude oil is worth two hundred times one point of the smallest index contract.

Contract	What it tracks	$ per point	One tick (worth)
ES	S&P 500 index (mini)	$50	0.25 point ($12.50)

Contract	What it tracks	$ per point	One tick (worth)
MES	S&P 500 index (micro)	$5	0.25 point ($1.25)
NQ	Nasdaq-100 index (mini)	$20	0.25 point ($5.00)
MNQ	Nasdaq-100 index (micro)	$2	0.25 point ($0.50)
YM	Dow Jones index (mini)	$5	1.00 point ($5.00)
RTY	Russell 2000 index (mini)	$50	0.10 point ($5.00)
GC	Gold, 100 troy ounces	$100	0.10 point ($10.00)
CL	Crude oil, 1,000 barrels	$1,000	0.01 point ($10.00)

A **troy ounce** is the unit gold is weighed in. Point value comes from the size of the real thing underneath: one GC contract covers 100 ounces of gold, so a $1 move per ounce is $100 to the contract. One CL contract covers 1,000 barrels of oil, so a $1 move per barrel is $1,000. Big underlying, big dollars — the same chart move can be a shrug in one contract and a disaster in another.

Leverage: The Magnifier That Works Both Ways

Leverage means controlling something large with something small. Futures are famous for leverage, so let us see it with real numbers.

Say MES is trading at 6,000. One MES contract has a point value of $5, so the total value it controls — the **notional value**, meaning the full dollar size of the position — is 6,000 × $5 = $30,000. You do not pay $30,000 to hold it. Your broker may let you open it with a deposit of, for example, $2,000 (amounts change; check your broker). You control a $30,000 position with $2,000 — roughly 15-to-1 leverage.

Now watch what movement does:

- The index rises 100 points, to 6,100. Profit: 100 × $5 = **$500** — a 25% gain on your $2,000 deposit, from a market move of less than 2%.
- The index falls 100 points instead. Loss: 100 × $5 = **$500**.
- A hard down day of 400 points — which happens in real markets — is 400 × $5 = **$2,000**: your entire deposit, gone in one session, on the *smallest* S&P 500 contract.

And ES, the mini, is ten times bigger than MES. That same 400-point day in one ES contract is 400 × $50 = **$20,000**. The chart does not change. Only the contract size changes.

> **RISK**
> Leverage does not make a trade better. It makes every outcome — win or loss — arrive faster and larger. The market does not care what you deposited. It pays and collects strictly by points × point value.

Margin: A Good-Faith Deposit, Not a Loan

In futures, **margin** is a good-faith deposit — money you put down to show you can cover losses while you hold a position. This differs from stock margin, and the difference matters.

> **SETUP**
> Futures margin is **not a loan**. Your broker is not lending you the rest of the $30,000, and you pay no interest on it. It is a security deposit, like the deposit on a rental car — returned when the position closes, minus any losses taken out as they happen.

There are two margin numbers to know:

- **Initial margin** is the deposit required to *open* the position.
- **Maintenance margin** is the lower amount your account must stay above to *keep* the position open.

Losses are settled in cash as prices move — your balance is adjusted to reflect current prices, a process called **marking to market**. If losses drag your account below the maintenance level, you get a **margin call**: the broker's demand to deposit more money right away, or your position will be closed for you, possibly at the worst moment. Run the deposit too low, and someone else decides when your trade ends.

Two safety habits follow. First, the required deposit is the minimum to *open*, not a sensible amount to trade with — professionals keep far more cash in the account than the minimum, so normal swings cannot trigger a margin call. Second, requirements change; exchanges raise them when markets get wild, exactly when losses are biggest. Always check your broker for the current number.

Trading Hours: Almost 24 Hours

Futures barely sleep. On CME Globex — the CME's electronic trading system — most futures trade from **Sunday at 6:00 PM to Friday at 5:00 PM Eastern Time**, with a daily break from **5:00 PM to 6:00 PM ET** when the next trading day begins.

This matters in good ways and bad ways. The good: overnight news shows up in futures prices immediately, and index futures are the early-warning signal for where US stocks will open. The bad: a position can move against you at 3:00 AM while you sleep. These markets reward traders who use protective **stop orders** — instructions left in advance that close your position automatically at a level you choose — and punish traders who assume nothing happens overnight.

Expiration and Rolling: Contracts Have a Deadline

A stock can be held for decades. A futures contract cannot, because it is an agreement with an end date. As **expiration** approaches, trading in that month dries up and everyone moves to the next month. Moving your position from the expiring contract to the next one is called **rolling**: you close the old contract and open the same position in the next month — for example from **ESZ26** (December) to **ESH27** (the following March).

Rolling is routine, but forgetting is costly: ignore expiration and you can end up in an illiquid contract — **illiquid** means few buyers and sellers, so getting out costs more — or, in physical-delivery contracts, face the delivery process described next. Put every contract's expiration date on your calendar the day you open it.

Cash Settlement vs. Physical Delivery

Contracts end in one of two ways, and you must know which kind you hold.

Cash-settled contracts settle in money. Index futures like ES, MES, NQ, and MNQ are cash-settled: at expiration, the final index value is compared with your entry and the difference is credited or debited in

cash. No shares change hands. Clean and simple.

Physical-delivery contracts end with the real thing. One CL contract is 1,000 barrels of crude oil; one GC contract is 100 troy ounces of gold. Hold these into the delivery period and the contract can obligate you to take or make delivery of the actual commodity — a warehouse-and-trucking problem no home trader wants.

> **RULE**
> Beginners must exit or roll physical-delivery contracts well before expiration and delivery deadlines. Trade the price, never the delivery truck. If you do not know a contract's last trading day and delivery rules, do not trade that contract.

Micros vs. Minis: Same Market, Smaller Stakes

For decades, the standard contracts — the minis like ES at $50 per point — were too big for small accounts to learn on safely. So the CME created **micro** contracts, exactly one-tenth the size: MES at $5 per point instead of $50, MNQ at $2 instead of $20.

Micros exist for one reason: **smaller risk while learning**. Every skill in this chapter — reading codes, counting ticks, surviving a losing streak, rolling before expiration — can be practised on MES, where a 100-point loss costs $500 instead of $5,000 on ES. The lessons are identical. The tuition is not.

A Complete Trade, Worked Tick by Tick

Let us put every piece together in one slow, honest example, made up for teaching. Real trades also subtract **commissions and fees** — your broker's per-trade charges — so check current rates and always count them.

- **The plan.** You believe the S&P 500 will rise this morning. You choose the micro, MES: $5 per point, $1.25 per tick (0.25).
- **The entry.** You buy 1 MES at 6,000.00. You are now long 1 contract; margin sits in your account as a deposit, no loan taken.
- **The move.** The index climbs to 6,012.50, and you sell at 6,012.50 to close. Selling closes a long position — you now hold nothing.
- **Count the points and ticks.** 6,012.50 − 6,000.00 = **12.50 points** gained; 12.50 ÷ 0.25 = **50 ticks**.
- **Count the money, two ways.** By points: 12.50 × $5 = **$62.50**. By ticks: 50 × $1.25 = **$62.50**. The answers must always match both ways — checking both is how you catch mistakes.
- **Subtract costs.** Commission and fees come out of that $62.50; what remains is your actual profit.

Now flip it, because futures demand honesty in both directions. Had the index fallen to 5,987.50 instead, the math is identical with the sign reversed: −12.50 points × $5 = **−$62.50**, taken from your account as the move happened. No mercy and no malice — just points × point value. That is the entire machine.

Futures vs. Stocks vs. Options

Three tools, three different shapes of risk. They are not rivals — they are different instruments. Here is the honest comparison.

Question	Stocks	Options	Futures
What do you hold?	A piece of a company	A contract on 100 shares	An agreement on a future price
Can it expire worthless?	No — shares have no end date	Yes — options expire	Contracts expire; you exit or roll
Built-in leverage?	No (unless you borrow)	Yes — premium controls 100 shares	Yes — deposit controls a big position
Main beginner danger	Slow losses, panic selling	Expiration and time decay	Oversized positions moving fast

One line deserves a second look: a bought option's loss is capped at what you paid, because an option is a right you can walk away from. A futures contract is an **obligation** for both sides — a losing position ends only when you close it, and the loss is whatever points × point value says until you do.

Common Beginner Mistakes

- **Trading the mini before the micro.** ES at $50 a point multiplies every early mistake by ten compared with MES at $5.
- **Skipping the point value.** Trading without knowing what one point is worth is guessing your risk.
- **Running at minimum margin.** With only the required deposit, the first normal swing triggers a margin call and someone else closes your trade.
- **Forgetting expiration.** Letting a contract drift toward expiry — especially a physical-delivery one — turns a simple trade into a delivery problem.
- **Confusing a deposit with a price.** Margin is not what the contract costs. Profit and loss are calculated on the full position: price × point value.
- **Assuming nothing happens overnight.** Futures trade nearly 24 hours. News does not wait for the opening bell, and neither do losses — hold overnight only with a plan and a stop.

Chapter Summary

- A futures contract is a standard agreement to buy or sell at a set price on a future date, created so businesses like farmers and airlines could lock in prices.
- Hedgers use futures to reduce real-world risk; speculators — including you — take that risk on, hoping to profit from price movement.
- Every contract has an underlying, an expiration month, a readable code (**ESZ26** = E-mini S&P 500, December 2026), a smallest price step called a tick, and a dollar value per point.
- Profit and loss always equal points moved × dollars per point; sizes range from MNQ at $2 per point to CL at $1,000.
- Leverage magnifies both directions: a small deposit controlling a $30,000 MES position means ordinary moves can gain — or wipe out — hundreds of dollars in a session.
- Futures margin is a good-faith deposit, not a loan; fall below maintenance margin and a margin call can close your position for you.

- Futures trade nearly 24 hours on CME Globex (Sunday 6 PM–Friday 5 PM ET, daily 5–6 PM break), and every contract expires, so positions are exited or rolled.
- Index futures settle in cash; gold and oil can involve physical delivery, so beginners exit or roll well before expiration.
- Micros are one-tenth the size of minis, built so beginners learn identical mechanics at one-tenth the risk.

Check Yourself

1. In your own words, what is a futures contract, and why did the farmer and the bakery each want one?
2. Read this code in plain words: **MNQH27**. What product is it, and which month and year?
3. You are long 1 NQ and price rises 10 points. How many dollars did you gain before costs? Show the formula.
4. What is the difference between initial and maintenance margin, and what happens below maintenance?
5. Why trade MES before ES, and what must a beginner never let happen with a crude oil (CL) contract?

Answers: 1) An agreement to buy or sell at a set price on a future date. The farmer locked in a selling price so a crash could not ruin the year; the bakery locked in a buying price so a spike could not explode its costs. 2) MNQ is the Micro E-mini Nasdaq-100; H means March — the March 2027 contract. 3) Points × point value = 10 × $20 = $200 gained. 4) Initial margin is the deposit to open; maintenance margin is the lower minimum balance to stay open. Fall below maintenance and you get a margin call — deposit more immediately or the broker closes your position. 5) MES is one-tenth the size of ES ($5 vs. $50 per point), so the same lessons cost one-tenth as much. And never hold CL into expiration and delivery — exit or roll well before the deadline, or risk owing delivery on 1,000 barrels of oil.

> **RULE**
> Before every futures trade, know your point value, your exit, and your expiration date. If any one of the three is a blank, there is no trade.