

AA-18

BONDS, RATES & COMMODITIES

IOUs, yields, gold, and oil — the foundation under the stock market.

Alpha Academy · Team Alpha Trading

Bonds, Interest Rates & Commodities: The Market's Foundation

Stocks get the headlines. Underneath them sits a much bigger, quieter foundation: **bonds**, **interest rates**, and **commodities**.

This might sound like the boring chapter. It actually explains why the stock market moves the way it does. When traders on TV mention "the 10-year yield," they are talking about bonds. When gas prices spike, that is commodities. When borrowing gets expensive and stocks sag, that is interest rates at work.

By the end, you will know what a bond is, why bond prices and yields move in opposite directions, why stock traders watch one specific number daily, and what commodities are. We define everything as we go.

Bonds: Loans You Can Buy

A Bond Is an IOU

A **bond** is a loan, packaged so that ordinary people can buy it.

When a government or company needs money — for roads, factories, or a project — it can borrow from a bank. Or it can borrow from thousands of investors at once by **issuing** bonds, which means creating and selling them to investors for the first time.

The deal a bond offers you, the buyer: you hand over money today as the lender; the borrower pays you **interest** — a fee for the use of money — on a regular schedule; and on a set future date, it pays your original money back. That IOU is why bonds are also called **debt**: the borrower is in debt to you.

A stock makes you a part-owner of a company; a bond makes you a lender. Owners take bigger risks for bigger possible rewards. Lenders get a steadier, more predictable deal — but no ownership and no share of growth beyond the promised payments.

The Key Bond Words

Three words explain almost every bond:

- **Face value** (also called **par value**) is the amount the borrower promises to pay back at the end. For most bonds, the standard face value is $1,000.
- **Coupon** is the interest rate the bond pays, based on face value. (Long ago, investors literally clipped paper coupons off bonds to collect interest.)
- **Maturity** is the date the loan ends and the face value is paid back. A bond that matures in 10 years is a 10-year loan.

A Complete Worked Example

A company issues a bond with:

- Face value: $1,000
- Coupon: 4%
- Maturity: 10 years

You buy one bond for $1,000.

Step 1 — yearly interest. 4% of $1,000 = 0.04 x $1,000 = $40 per year.

Step 2 — how it arrives. Most US bonds pay twice a year, so you receive $20 every six months — the same $40 total. **Step 3 — the end:** after 10 years, at maturity, the company pays back your $1,000.

Step 4 — add it up. Over 10 years you collected 10 x $40 = $400 in interest, plus your $1,000 back — $1,400 total, as long as the borrower kept its promise.

That "as long as" is the catch. A borrower can fail; if the company goes bankrupt, payments can stop. That risk is called **credit risk**. US government bonds are considered the safest because the borrower is the US government itself. Risky borrowers must offer higher coupons to attract lenders — higher promised interest almost always means higher risk. There is no free lunch.

The Seesaw: Bond Prices and Yields

What Is Yield?

Yield is the return you actually earn on a bond, based on the price you actually paid.

Pay exactly $1,000 for a bond paying $40 a year and your yield is 4% — the same as the coupon. But bonds are bought and sold between investors after they are issued, and prices change. The payment stays fixed at $40, so when the price changes, the yield changes. That one fact creates the most important relationship in this chapter.

The Playground Seesaw

Picture a playground seesaw: one side goes up, the other must go down. Bond prices and yields are its two sides:

- Price goes up → yield goes down.
- Price goes down → yield goes up.

Let us prove it with numbers, using a bond that pays a fixed $40 a year:

- **You pay $1,000:** yield = $40 / $1,000 = 4%.
- **The price falls and you pay $800:** still $40 a year, so yield = $40 / $800 = 5%. Price down, yield up — you bought the same promise for less.
- **The price rises and you pay $1,250:** yield = $40 / $1,250 = 3.2%. Price up, yield down.

Same bond, same $40 — three prices, three yields, always moving opposite each other.

> **RULE**
> Bond prices and yields move in opposite directions, like a seesaw. When a headline says "yields rose," it means bond prices fell.

Why Do Bond Prices Move at All?

Mainly because of interest rates in the wider economy.

Imagine you own our 4% bond, and new bonds now pay 6%. Would anyone pay full price for yours? No. Its price must fall until its yield competes — to roughly where $40 a year equals 6%: about $40 / 0.06 = $667.

The reverse works too: if new bonds pay only 2%, buyers bid your 4% bond's price up and its yield falls toward 2%.

So when general interest rates rise, existing bond prices fall — and vice versa. This is **interest rate risk**, and it is why "safe" bonds can still lose market value if you sell before maturity. Hold to maturity and get paid, and you receive face value regardless — but the price along the way can swing.

US Treasuries: The Benchmark for Everything

Bonds issued by the US government are called **Treasuries**, after the US Treasury Department, which handles the nation's money. You will hear three names:

- **Treasury bills** — maturing in one year or less.
- **Treasury notes** — maturing in 2 to 10 years.
- **Treasury bonds** — maturing in 20 or 30 years.

Treasuries matter far beyond the bond market: they are treated as the closest thing to a risk-free loan in finance, so every other borrowing rate is compared against them. A company pays the Treasury rate for its loan length, plus extra for its extra risk. Mortgages, car loans, and business loans all trace back to Treasury yields.

When the world feels scary, investors rush into Treasuries, pushing prices up and yields down — a "flight to safety."

Why Stock Traders Watch the 10-Year Yield

The most watched bond number in the world is the yield on the **10-year Treasury note** — the **10-year yield**, or **TNX** on quote screens. Why do stock traders care about a bond?

- **It is the benchmark borrowing cost**, influencing mortgage and company loan rates across the economy.
- **It competes with stocks.** If a nearly risk-free Treasury pays 5%, a risky stock must promise much more to look attractive. When yields jump, money often leaves stocks for bonds, and stock prices fall.
- **It signals expectations.** Rising yields can mean investors expect a strong economy or stubborn **inflation** — rising prices that make each dollar buy less. Falling yields can mean investors expect trouble.

A stock trader who ignores bonds is like a sailor who ignores the weather report.

Credit Ratings: Report Cards for Borrowers

Professional firms called **credit rating agencies** grade borrowers on exactly that question: how likely is repayment?

A **credit rating** is a letter grade judging how likely repayment is, starting at AAA and stepping down through AA, A, and BBB. Bonds graded BBB and above are called **investment grade** — considered relatively safe. Below that, BB and lower, are nicknamed **junk bonds**: the risk of not being repaid is much higher, so they pay much higher coupons to compensate. A suspiciously high promised return is the market charging for danger, not being generous. Ratings are agency opinions, not guarantees, and they have been wrong before — but they are a fast warning label on any bond.

Commodities: Trading Real Things

What a Commodity Is

A **commodity** is a basic physical good people and businesses need, where one unit is basically the same as another — a barrel of oil is a barrel of oil, a bushel of wheat is a bushel of wheat.

Common examples:

- **Energy:** crude oil and natural gas
- **Metals:** gold, silver, and copper
- **Agriculture:** wheat, corn, soybeans, and coffee

Farmers and oil companies use commodity markets to lock in prices for things they will produce later. A wheat farmer can agree today on a price for wheat harvested months from now, so a price crash cannot destroy the farm. Big buyers, like airlines buying fuel, do the reverse to protect against price spikes.

How Beginners Usually Meet Commodities

Almost nobody learns commodities by taking delivery of 1,000 barrels of oil in their driveway. Traders and most investors get commodity exposure in two main ways:

- **Futures.** A **futures contract** is an agreement to buy or sell a set amount of a commodity at a set price on a future date. Futures are the main way commodities trade, on exchanges like the CME in Chicago. They use leverage — a small deposit controls a large amount of product — so losses can be large and fast. Futures get a full chapter later in this course.
- **Commodity ETFs.** The exchange-traded baskets from the previous chapter, built to follow the price of gold, oil, or a mix of commodities, tradable in a normal brokerage account.

Gold: The Classic Fear Trade

Gold deserves its own paragraph. For thousands of years it has been treated as money no government can print. It pays no interest and no dividend; its price is driven almost entirely by trust and fear.

When wars, banking crises, or inflation panics scare investors, money flows into gold and its price rises. When the world feels calm, gold often cools off. That is why traders call gold a **fear trade** or a **safe haven** — an asset people run to when nervous. It can fall for years at a stretch, but gold's reputation explains most headlines about it.

Oil works differently: **crude oil** reacts to supply, demand, wars in oil regions, and exporter decisions — and since oil becomes gasoline, its price reaches your wallet within weeks. Food commodities like wheat react heavily to weather; a drought can send prices sharply higher.

How It All Connects Back to Stocks

- **Interest rates shape stock prices.** When rates rise, borrowing costs more and companies' future earnings are worth less today, so many stock prices fall — especially fast-growing companies priced for the distant future.
- **The 10-year yield is your daily weather report.** Its fast rise is one of the most common reasons behind rough stock market days, even when no company did anything wrong.
- **Commodities feed inflation.** Rising oil and food prices push living costs up, pressuring the **Federal Reserve** — the central bank of the United States, which sets the economy's key interest rate — to keep rates high, which loops back to pressure stocks and bonds.
- **Fear flows in a pattern.** Scared money tends to leave stocks and buy Treasuries (pushing yields down) and gold. Spotting that flow helps you understand a scary headline day instead of just reacting to it.

You do not need to trade bonds or commodities to benefit here — just learn to read the weather they create around stocks.

Common Beginner Mistakes

- **Thinking coupon and yield are always the same.** They match only at exactly face value; pay a different price and the yield changes.
- **Believing "yields up" means bonds got better.** Yields rise when prices fall — existing holders just lost market value.
- **Assuming all bonds are safe.** A Treasury and a junk bond share a name, not a risk level.
- **Chasing the highest coupon.** The highest payments attach to the borrowers most likely to fail.
- **Ignoring the 10-year yield.** Then a rate-driven sell-off feels random when it was visible in bonds first.
- **Treating gold like a stock.** Gold has no earnings and pays nothing; it is a trust-and-fear meter that can decline for years.

Chapter Summary

- A bond is an IOU: you lend to a government or company, it pays interest, and it returns your money at maturity.
- Key words: face value (usually $1,000), coupon (interest rate on face value), maturity (when the loan ends).
- A $1,000 bond with a 4% coupon pays $40 a year, usually $20 every six months.
- Yield is the return on the price you actually paid; prices and yields move in opposite directions, like a seesaw.
- When general interest rates rise, existing bond prices fall — and vice versa.
- US Treasuries are the benchmark for borrowing costs everywhere, and investors rush to them when scared.
- Stock traders watch the 10-year yield because it competes with stocks and signals the economy's direction.
- Credit ratings grade borrowers from AAA down; below BBB is junk — much higher risk, much higher coupons.
- Commodities are real goods like gold, oil, and wheat, traded mostly via futures and ETFs; gold is the classic fear trade.

Check Yourself

1. In plain words, what is a bond, and how is it different from a stock?
2. A $1,000 bond has a 5% coupon. How much interest does it pay per year?
3. You buy a bond paying $40 a year for $800. What is your yield? Why is it higher than the coupon?
4. Why do stock traders watch the 10-year Treasury yield?
5. Why is gold called a fear trade?

Answers: 1) A bond is a loan you make to a government or company — an IOU paying interest and returning your money at maturity; a stock makes you a part-owner, a bond makes you a lender. 2) $50 per year — 5% of $1,000 (usually $25 every six months). 3) $40 / $800 = 5%. The price fell below face value, and by the seesaw rule a lower price means a higher yield. 4) It is the economy's benchmark borrowing cost, it competes with stocks for investor money, and its moves signal expectations about growth and inflation. 5) Investors buy gold when scared — wars, crises, inflation fears — treating it as a safe haven no government

can print.

> **RULE**
> Watch the foundation, not just the house — bond yields tell you the weather before the stock market feels the storm.