Economics in Action · Chapter 6

Trade, Financial Markets & Real Estate

One simple idea ties them all together

NEWS

Interest rates rise



A share of a company



A bond



A house

price

price

price

Nothing about them changed. So why?

One phone, many countries



Comparative advantage, from Chapter 1

You don't have to be the best. Just give up less to make it.

Specialize, trade, and both sides end up with more

More reasons to trade

- **Different resources:** minerals, climate, skills
- **Scale:** bigger markets bring costs down
- **Variety:** cars for cars, cheese for cheese
- That last one: **intra-industry trade**

Better off overall, not everyone

Who wins

- Consumers: lower prices, more choice
- Exporters: a bigger market
- Gains: real, but spread thinly

Who can lose

- Workers and firms competing with imports
- A factory town whose plant can't compete
- Losses: concentrated and visible

Many economists: the winners should help the losers (retraining, support while people find new work)

Tariffs: a quick reminder from Chapter 2



Price at home goes up



Domestic producers gain



Buyers lose



Deadweight loss

Who pays? The incidence rule from Chapter 2: often **mostly buyers at home**

Why use tariffs anyway?

The usual arguments

- Protect jobs in one industry
- Let a young industry grow up
- National security
- Push back on unfair practices

The common replies

- Protected jobs often cost consumers far more than they pay
- Young industries sometimes never grow up
- Tariffs invite retaliation, which hurts exporters

Most economists: broad tariffs are costly; narrow, targeted ones are a judgment call

The effect people miss

Many imports are parts and materials



Protecting one industry can quietly hurt others

An exchange rate is a price

EXCHANGE RATE

~~1 euro = $1.10~~

1 euro = **$1.25**

The dollar got weaker



€50 jacket

Costs an American

~~$55~~

$62.50

Same jacket

Illustrative numbers

Stronger or weaker?

Stronger (appreciated)

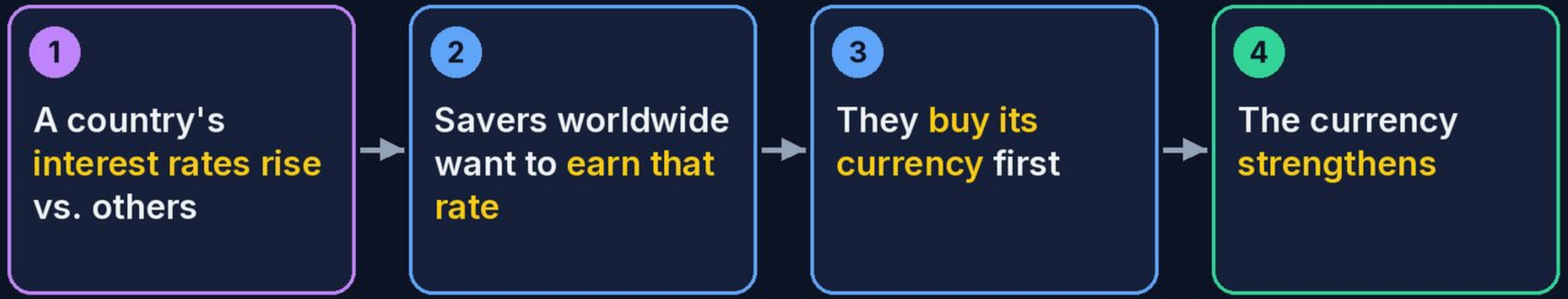
- Buys more of other currencies
- Great for travelers abroad and buying imports
- Harder on exporters: their goods look pricier

Weaker (depreciated)

- Buys less of other currencies
- Imports and trips abroad cost more
- Exporters' goods look cheaper abroad

What moves exchange rates?

Supply and demand for currencies, and, from Chapter 5, interest rates



A higher rate can make imports a bit cheaper and exporters a bit less competitive

Not every currency floats

- A peg: fixed to another currency, often the dollar
- The central bank buys and sells to hold the rate
- Upside: businesses get price certainty
- Cost: rates set to defend the peg, not the economy
- If markets stop believing it, the peg can break suddenly

Trade deficit: buying more from the world than you sell

Not like a business losing money: money **flows back in** as investment

A problem? It depends on **why.** Economists disagree.

Section 5

Bonds

Two ways to raise money: borrow it (a bond) or sell ownership (a stock)

A bond is an IOU

BOND

I owe you: interest on a schedule, then your money back

Face value — $1,000
paid back at the end

Coupon — $30 a year
3% of face value

Maturity — 10 years
when it ends

Lend now, get paid back

Interest on a schedule, then your money back on a set date

Governments and companies sell them

Riskier borrower → lower credit rating → higher interest

(The risk premium from Chapter 5)

You can sell it early

The price you get depends on rates at the time

Illustrative numbers

Rates rise. Who wants the old bond?

Old bond 3%

$1,000 face

pays $30 a year

10 years

New bond 5%

costs $1,000

pays $50 a year

10 years

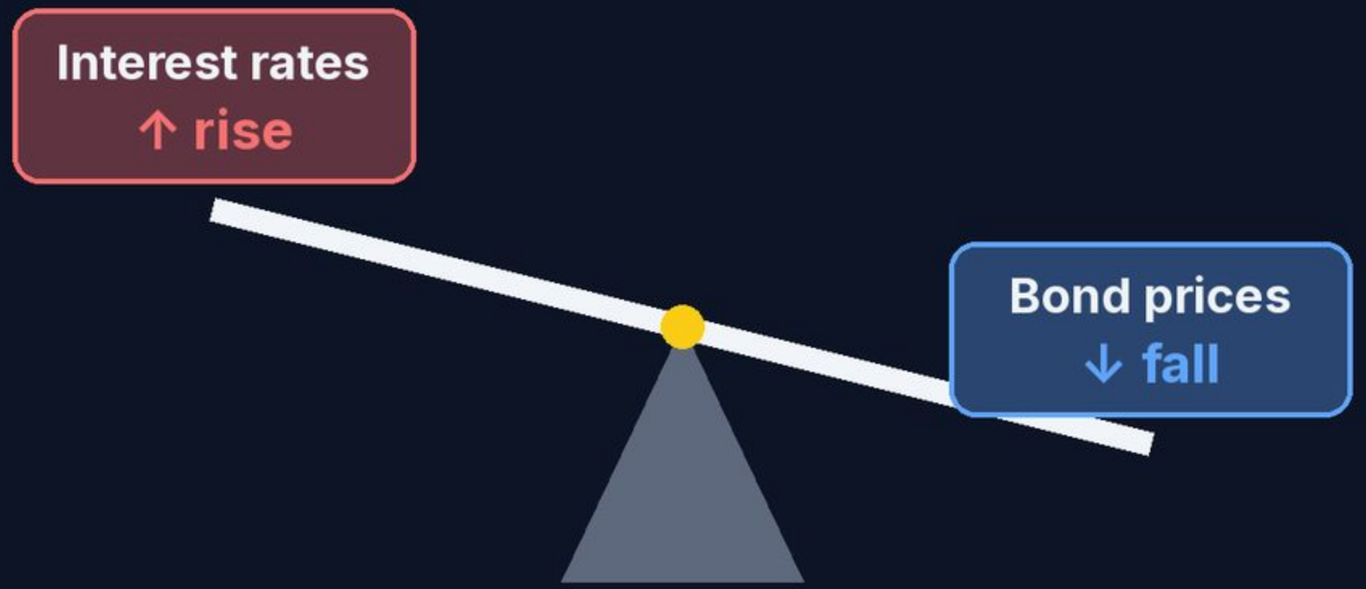
Who'd pay $1,000 for the old one?

Old bond's price falls to about $846

At $846, its $30 a year plus $1,000 at the end gives a buyer about the same 5% as a new bond

Illustrative numbers

Prices and rates: a seesaw



Rates fall → prices rise. Opposite directions.

The rule

Rates up → existing bond prices down

Rates down → prices up

Longer left to run → bigger swing

Yield

The return at today's price. At $846, the old bond yields 5%

"Yields rose" = "bond prices fell"

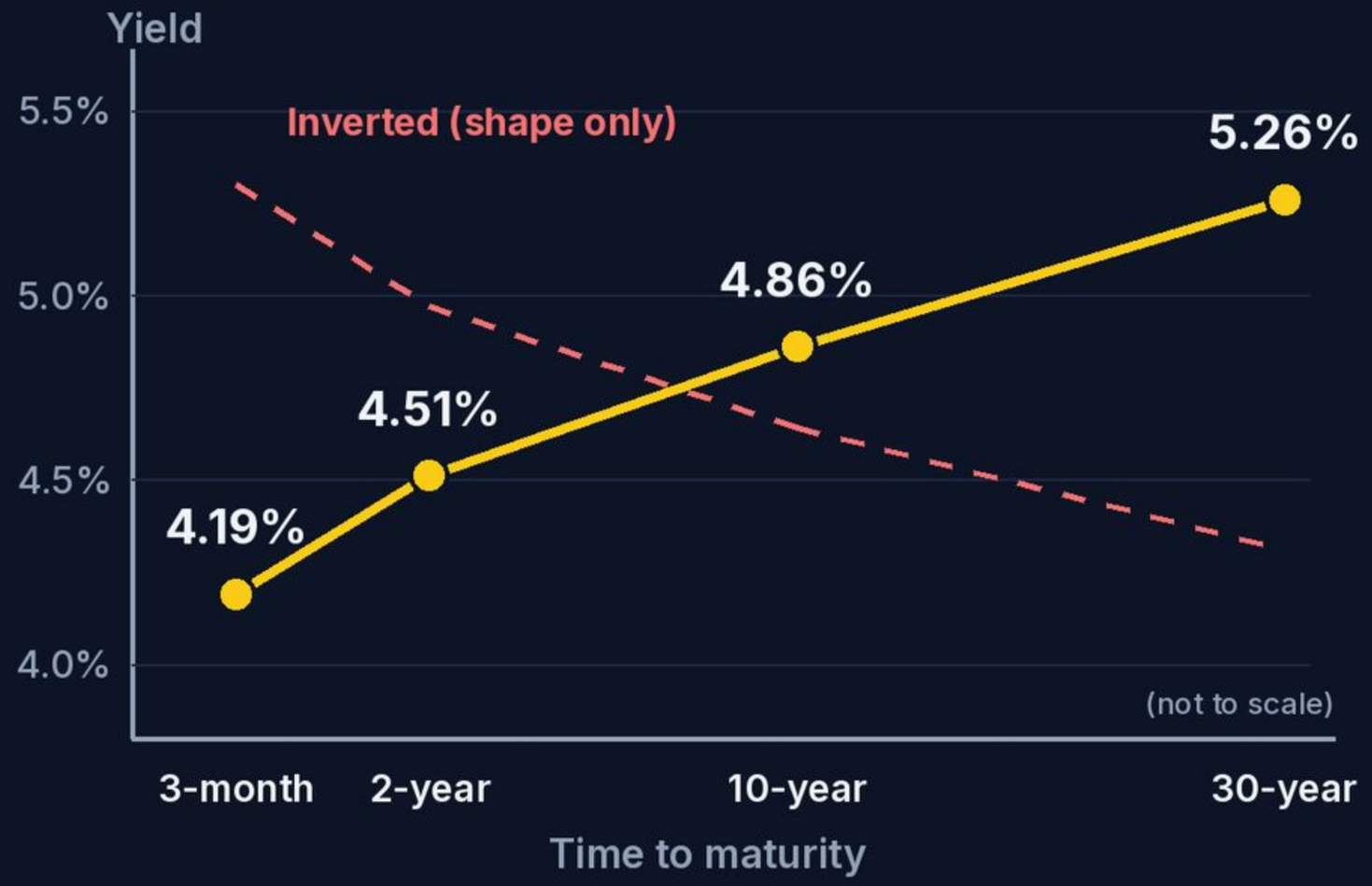
Real example, November 2026

What these numbers looked like when this course was made

Focus on what each number means

Real example, November 2026

Treasury yield curve, November 6, 2026



Upward slope

Longer loans pay more: the normal shape

Long rate ≈ expected short rates + term premium

Inverted curve

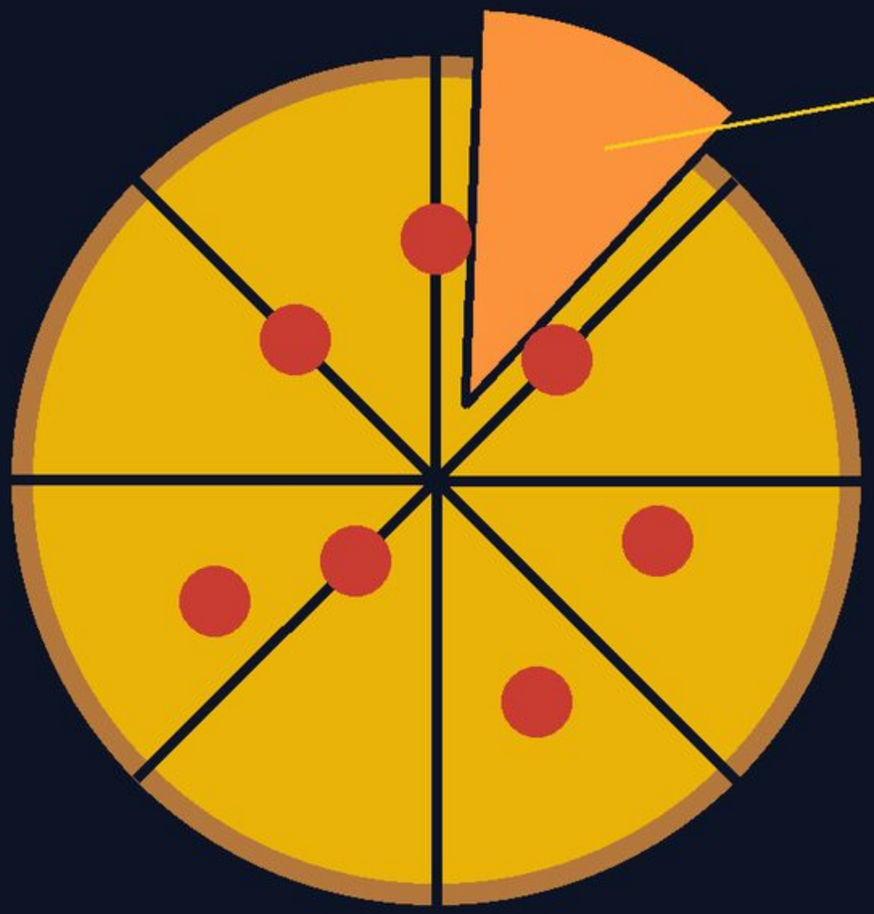
Short rates above long ones

Markets expect rates to fall, often a weaker economy

A warning light, not a forecast

Source: U.S. Treasury, daily par yield curve

Stocks: owning a slice



A share = one slice of a company

Own 1 of a million shares → one millionth of its factories, brands and future profits

After the first sale, shares trade owner to owner; the company gets nothing from those trades

Owners are paid as dividends, or profits are kept to grow the business

A share is worth what its **future profits** are worth today

P/E = share price ÷ profit per share

$100 ÷ $5 a share = **20:** about 20 years of today's profits

High P/E: **fast growth** expected · Low: **slow growth** or **more risk**

Illustrative numbers

The risk ladder



Higher risk → higher expected return, bigger swings

Equity risk premium: the extra expected return for holding stocks. In any single year, stocks can fall a lot.

Two quick ideas

Diversification

- Own a little of many companies, not a lot of one
- One failure is a small part of what you own
- Index funds: a slice of every company in a broad list, at low cost

Efficient markets

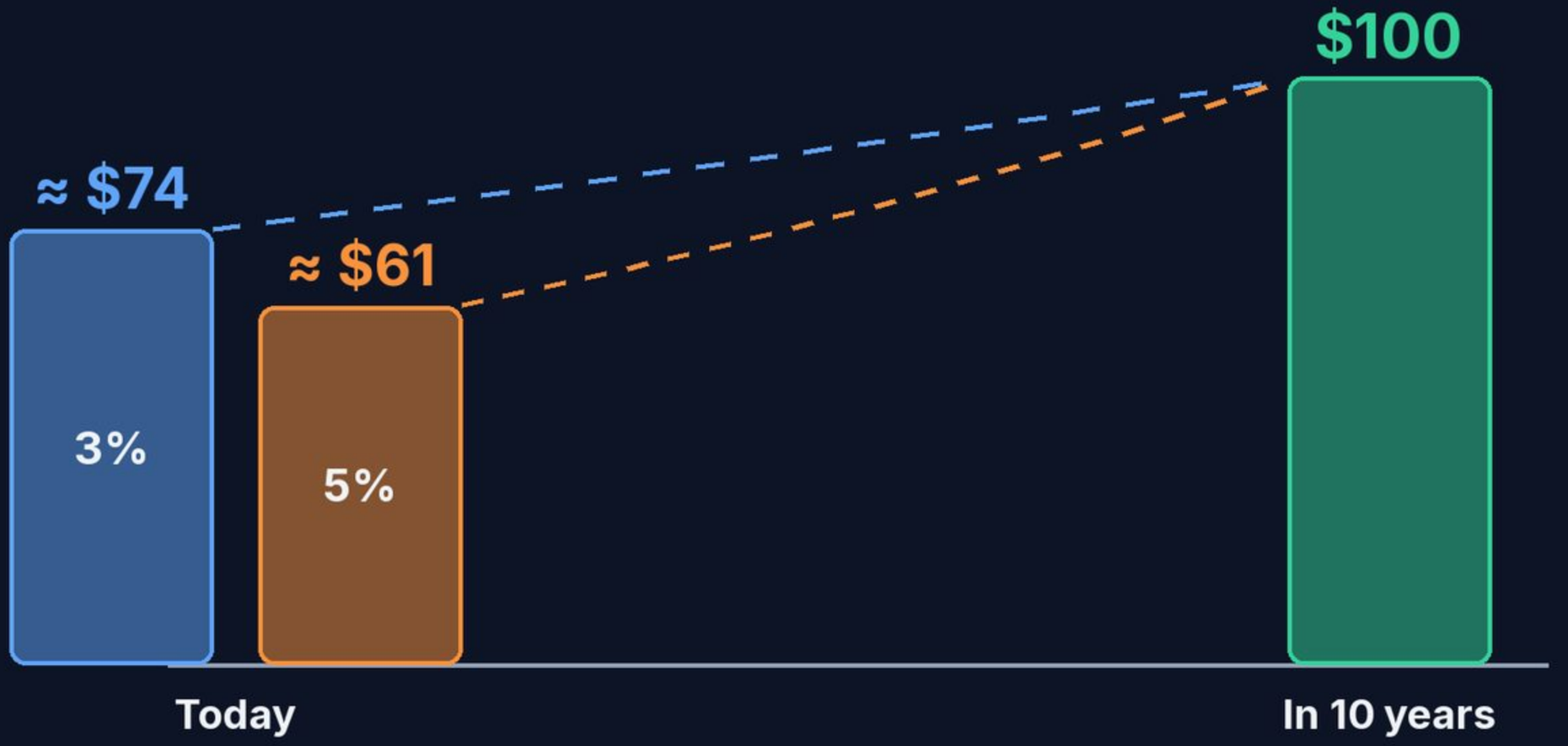
- Prices already reflect what lots of people know
- Very hard to beat the market consistently
- Prices aren't always right; mistakes are hard to spot ahead of time

Prices move on **expectations** (Chapter 1 again)

News that changes expected profits moves the price **right away**

The stock market isn't the economy: it can rise in a weak economy, or fall in a good year

What is $100 in 10 years worth today?



At 3%

about $74

At 5%

about $61

Higher rate → the same future $100 is worth less today

Illustrative numbers

Compounding: the rule of 72

72 ÷ interest rate ≈ years for money to double · cousin of Chapter 4's rule of 70

Interest rate	Years to double
6% a year	72 ÷ 6 ≈ 12 years
3% a year	72 ÷ 3 ≈ 24 years

You earn interest on your interest: why starting to save early matters so much

Any asset = a stream of future payments



Bond
→ interest + face value





Stock
→ future profits





Building
→ future rents



Higher rates

↓ each future payment is worth less today

↓ lower price

even if the payments haven't changed

A second force, same direction

Safe bonds pay more → stocks and property must offer more → with the same payments, **their prices fall**

What something is worth today depends on **what it will pay** and **the rate used to value it**

Rates up → the same future **looks smaller** from here

And higher rates can **slow the economy,** shrinking the payments too

Pause and predict · 1 of 2

Rates rise sharply. Company A: a utility, steady profits now. Company B: young tech, most profits expected 15 years out. Which stock price probably falls more?

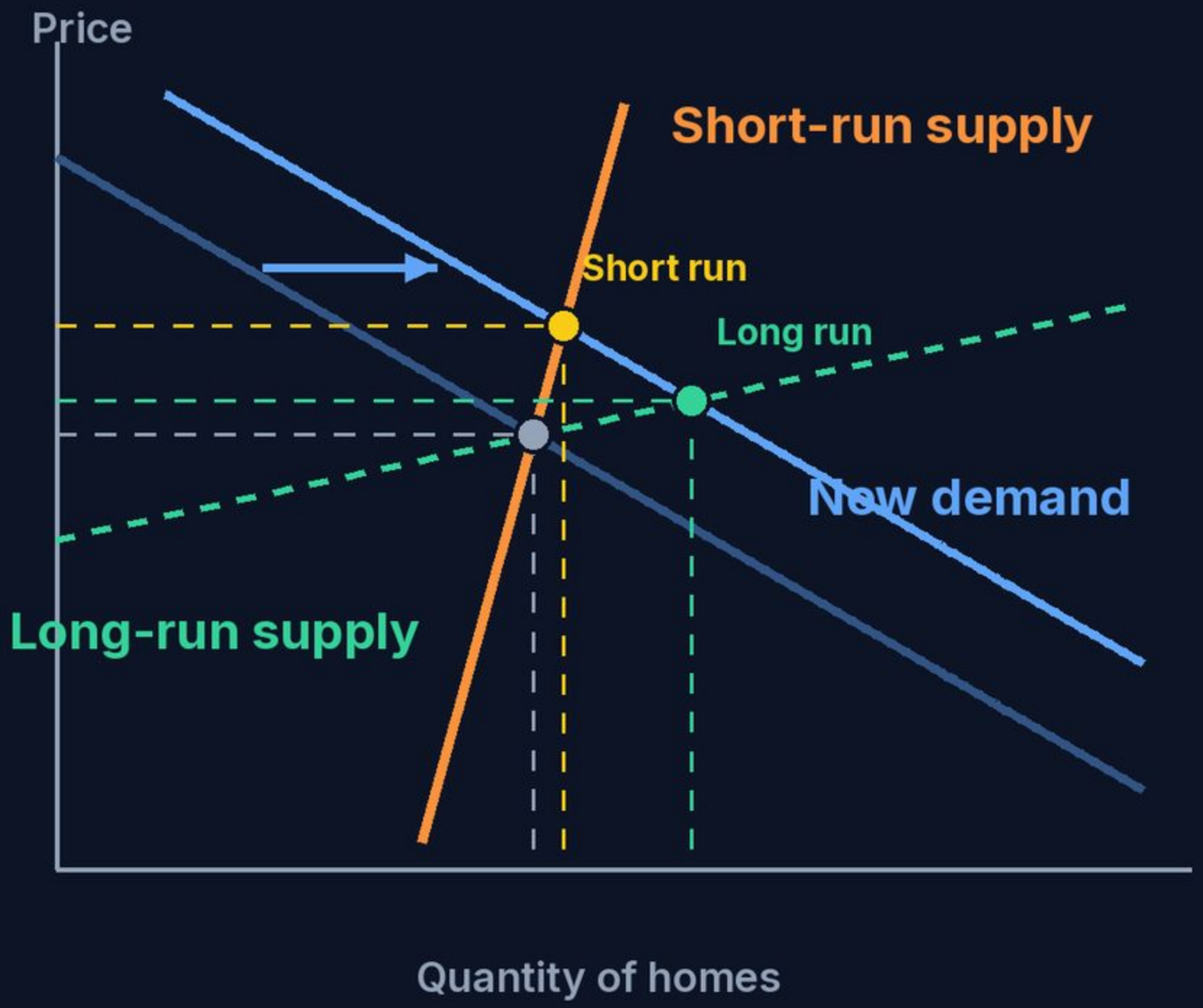
Answer

Probably Company B. The further away a payment, the more a higher rate shrinks it today. Same reason a 30-year bond swings more than a 2-year.

Real estate: the whole course in one market



Housing: slow, inelastic supply



A big employer moves in

Short run: price jumps, quantity barely moves

Over years, builders respond, if they're allowed to build

Easy land and permits: modest rise. Hard to build: big rise.

Illustrative

Rules and caps

Zoning (Chapter 3)

- Decides how tall, how dense, how many units
- Real reasons: traffic, noise, shadows (externalities)
- Strict rules act like a limit on supply → higher prices

Rent cap (Chapter 2)

- A price ceiling
- Below market rent → predict a shortage
- Over time: less reason to build or maintain
- Effects depend on design; economists argue the details

Why the same house costs more in a city



Quiet rural town

$250,000



Near a big city center

$900,000

Same house. Different land.

Illustrative numbers

Property taxes: who really pays?

Chapter 2's tax lesson again

- A tax on buildings can discourage building
- A tax on land alone can't shrink the land: less distortion
- Passed on to renters? Depends on how sensitive each side is

Rent = the price of using a home for a month

Price = owning all its future months: all its **future rents**

Price ≈ **present value** of future rents

$300,000 mortgage, 30 years, fixed

Illustrative loan · monthly principal and interest

At 4%

about $1,432 a month

At 7%

about $1,996 a month

Same $1,432 at 7%

borrows only about $215,000

Same buyer, same income: **about a quarter less** to borrow

Real example, November 2026

7.18%

average 30-year fixed rate, week of November 5, 2026

Source: Freddie Mac

4.86%

10-year Treasury yield, November 6, 2026

Source: U.S. Treasury

Mortgage basics

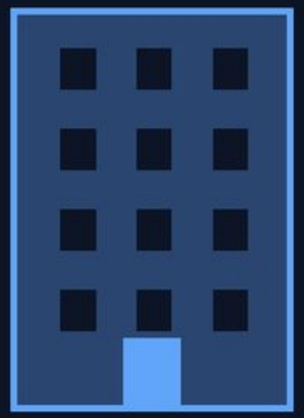
- Fixed-rate: the same rate for the whole loan
- Adjustable: starts at one rate, then moves with market rates
- Lock-in effect: owners with cheap old mortgages don't sell
- Fewer homes for sale: holds prices up, freezes the market

The cap rate: a building's yield

Cap rate = net operating income ÷ price

NOI = rent − operating costs (maintenance, insurance, property taxes)

before any mortgage payments · describes the building, not how it was paid for



NOI $50,000 a year

Price $1,000,000

Cap rate = $50,000 ÷ $1,000,000 = 5%

Like a bond's yield: pay a price, get a **stream of income** back

Illustrative numbers

Pause and predict · 2 of 2

Rates rise. Buyers now want a 6% return from buildings like this, not 5%. Rent and costs don't change: still $50,000 a year. What happens to the price?

Answer

It falls to about $833,000: $50,000 ÷ 0.06. Same building, same rent, price down about a sixth. Cap rates tend to rise when bond yields rise.

Cap rate vs cash-on-cash return

Illustrative numbers

Cap rate

The building

$50,000 NOI
÷ $1,000,000 price

= 5%

Cash-on-cash

Your money: cash left after the mortgage ÷ cash you put in

$500,000 down + $500,000 mortgage at 6%, 30 years

Mortgage payments ≈ $36,000 a year

Cash left ≈ $50,000 − $36,000 = $14,000

$14,000 ÷ $500,000 ≈ **2.8%**

Bottom line: the mortgage constant

Mortgage constant = yearly payments ÷ loan ≈ **7.2%** (interest + paydown)

Below the cap rate → cash return **up.** Above → **down.** Here 7.2% > 5%, so it falls.

Even at 4% interest: constant ≈ 5.7% → cash-on-cash ≈ 4.3% · Paydown builds equity, but isn't cash in your pocket

Inflation and real estate

Helps

- Property is a real asset: rents and replacement costs tend to rise
- Fixed-rate borrowers repay in dollars worth less (Chapter 4)

Hurts

- Inflation usually brings higher interest rates
- Higher rates push property prices down

A decent shield against inflation over long periods, but rarely a smooth one

The housing cycle



Illustrative shape, no dates

Leverage: credit is the amplifier

Illustrative: a $300,000 home bought with 10% down ($30,000)

If the price…	Home is worth	Your stake
Rises 10%	$330,000	$60,000: about 2×
Falls 10%	$270,000	$0: all gone

Bigger gains on the way up, bigger losses on the way down (before counting costs)

2008: the cautionary tale

Leverage + hidden risk + falling prices



A simplified version of a very complicated story

Renting vs. buying

Buying means

- Interest, property taxes, insurance, maintenance
- A down payment that could have earned a return elsewhere (opportunity cost, Chapter 1)

Renting means

- Paying a landlord
- Flexibility, no big upfront bet
- Not "throwing money away"

It depends: how long you'll stay, price vs. rent where you live, interest rates, your situation

Recap

Recap & self-check

This chapter in six lines, then the whole course

Recap

- Trade: comparative advantage · better off overall, with losers as well as winners
- Tariff: tax on imports · buyers pay more, producers gain, deadweight loss
- Exchange rate: a currency's price · higher rates → stronger currency
- Bonds: rates up → prices down · stocks: a slice of future profits, riskier
- Any asset = present value of future payments · rates up → prices down
- Real estate: inelastic supply · mortgage rates, cap rates, leverage

Cheat sheet · Chapter 6

Trade & currencies

Comparative advantage: make what you give up least to make, trade for the rest

Better off overall, but there are losers too

Tariff = tax on imports

Gain: domestic producers

Lose: buyers at home (price ↑)

Plus a deadweight loss

(Retaliation can hurt exporters)

Exchange rate = a currency's price

€50 jacket: $55 at $1.10 → $62.50 at $1.25

(weaker dollar: imports cost more)

Higher rates → stronger currency

Bonds & present value

Bond seesaw

Rates up → bond prices down

(and the reverse; longer bonds swing more)

Yield curve

Real example, November 2026



Source: U.S. Treasury, Nov 6, 2026

Present value

$100 in 10 years: about $74 at 3%, about $61 at 5%

Any asset = present value of its future payments

Rates up → asset prices down

Real estate



Short-run supply is inelastic: demand ↑ → price jumps

$300k, 30 years (illustrative):

4% ≈ $1,432 · 7% ≈ $1,996 a month

Mortgage rate 7.18%: Freddie Mac

(Real example, November 2026)

Cap rate = NOI (before mortgage) ÷ price

$50k ÷ $1M = 5% → buyers want 6%: $50k ÷ 0.06 ≈ $833k

Cash-on-cash = cash left after the mortgage ÷ cash you put in

Compare the cap rate with the mortgage constant (yearly payment ÷ loan)

Leverage makes the cycle swing hard

Self-check 1 of 3

You own a bond that pays 4%. Rates on new bonds fall to 2%. What happens to your bond's price, and why?

Answer

It rises. Your bond pays more than any new bond, so buyers pay more than face value. Rates and bond prices move in opposite directions.

Self-check 2 of 3

A government puts a tariff on imported washing machines. Name one group that gains and one that loses.

Answer

Gain: domestic makers (maybe their workers). Lose: buyers, imported or home-made. Plus a deadweight loss, and exporters if others retaliate.

Self-check 3 of 3

A city grows fast, but strict rules make building very hard. A few years later, rates fall. Home prices?

Answer

Up, probably a lot. Demand rises, supply is almost fixed, and lower rates make payments cheaper. All three point the same way.

The whole course on one page

1

Chapter 1

Prices come from supply and demand

2

Chapter 2

Elasticity, price controls, taxes and market power change the outcome

3

Chapter 3

Markets fail when costs, payment or information go missing

4

Chapter 4

GDP, jobs and inflation are the economy's scoreboard

5

Chapter 5

The Fed sets short rates; expectations set the rest

6

Chapter 6

An asset is worth its future payments, discounted by interest rates

Six ideas did almost all the work

- Opportunity cost
- Thinking at the margin
- Supply and demand
- Real vs. nominal
- Incentives
- Present value

Enough for most economic news, and a lot of your own **money decisions**

Next time you see a headline, ask

- Did supply shift, or demand?
- Is that number real or nominal?
- Was that rate move a surprise?
- What would this be worth today?

Economics in Action · Complete

Thanks for watching all six chapters

Go and put it to work.