The Price of Borrowing

How interest and inflation shape market choices

E.C.6 "Evaluate how interest rates impact decisions in the market economy. Analyze the relationship between interest rates and inflation rates to both the borrower and the lender..."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline choices made by borrowers or buyers, circle interest and inflation rates, and number two places where a rate affects a market decision.

A Loan for Local Deliveries

1. A neighborhood bike shop wants to buy two cargo bikes for local deliveries. The owner can pay from savings or take a loan and start deliveries now. A lender offers a fixed 8% annual interest rate: for each $1,000 borrowed, the shop owes $80 in interest after one year, plus the $1,000 principal. At that rate, the owner expects deliveries to earn enough to justify borrowing. If loan rates rise, the extra deliveries must earn more to cover interest. Some buyers may delay a financed purchase, so nearby sellers could see fewer orders.

2. Inflation changes what those future dollars can buy. The **nominal interest rate** is the rate printed on the loan agreement. The **real interest rate** is approximately the nominal rate minus the inflation rate. If people expect 3% inflation, they can estimate the purchasing-power cost of the shop's 8% loan by subtracting 3 from 8. Suppose prices actually rise 7% over the year instead. The fixed dollar interest payment does not change, but its purchasing power is lower than expected. The shop benefits from that surprise, while the lender receives a lower real return.

3. The lender also has choices. A credit union wants its loans to return about 4% after expected inflation. To set a quoted rate, it adds expected inflation to that real-return goal. If its inflation forecast increases, it may raise the quoted rate for new loans. That response can discourage customers from financing costly items, even though unexpected inflation reduces the real cost of an existing fixed-rate loan. Borrowers must compare the real cost of credit with the value of buying now; lenders must compare the real return with other uses of their money. Neither side knows future inflation for certain.

2 ANSWER WITH EVIDENCE

Use the passage

1. With the shop's 8% loan rate and 3% expected inflation, what is the approximate real interest rate? How could the owner use that estimate?

2. If inflation turns out to be 7% instead of 3%, what is the loan's approximate real interest rate? Explain the effect on the borrower and lender.

3. Suppose the shop is offered 11% instead of 8%, while expected inflation stays at 3%. How might this change affect the shop and nearby sellers?

4. The credit union wants a 4% real return. What rates would it quote if it expected 2% inflation and then 5% inflation? Why would the rates differ?

3 YOUR TURN

Your own words

Invent a purchase other than cargo bikes that someone could make with a fixed-rate, one-year loan. Choose a nominal rate and an expected inflation rate, estimate the real rate, then explain how higher expected inflation with the quoted rate unchanged could affect the buyer's decision and the lender's expected real return.

ANSWER KEY

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HIGH SCHOOL · E.C.6

PART 1 · READ AND MARK

Underline choices made by borrowers or buyers, circle interest and inflation rates, and number two places where a rate affects a market decision. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	With the shop's 8% loan rate and 3% expected inflation, what is the approximate real interest rate? How could the owner use that estimate?	**About 5%. The owner can compare that real borrowing cost with the value of starting deliveries now.**
2	If inflation turns out to be 7% instead of 3%, what is the loan's approximate real interest rate? Explain the effect on the borrower and lender.	**About 1%. The shop repays fixed dollars that have less purchasing power than expected, while the lender receives a lower real return.**
3	Suppose the shop is offered 11% instead of 8%, while expected inflation stays at 3%. How might this change affect the shop and nearby sellers?	**The approximate real rate rises from 5% to 8%. The shop may delay buying the bikes because deliveries must earn more to cover the loan, leaving sellers with fewer orders.**
4	The credit union wants a 4% real return. What rates would it quote if it expected 2% inflation and then 5% inflation? Why would the rates differ?	**It would quote about 6% and 9%, respectively. The higher quote offsets higher expected inflation to preserve its target real return.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

A family considers financing a washing machine at a fixed 10% rate for one year. With 2% expected inflation, the approximate real rate is 8%. If expected inflation rises to 6% while the loan rate stays at 10%, the expected real rate falls to 4%. Financing the washer now becomes more attractive, but the lender expects a smaller real return.

Accept real rates calculated as nominal interest minus inflation. For the open task, look for a distinct purchase, consistent rates, and effects on both the buyer's decision and the lender's expected real return.