PFL Academy

Chapter 54 — Inflation, Unemployment, and Personal Finance

THE CHALLENGE

Your parents tell you about college costing $400/year in 1970. Today it's $10,000+. Movie tickets were $1.50; now they're $12. A median home was $23,000; now it's $420,000. Meanwhile, the 2020 COVID recession saw 1 in 7 Americans unemployed. Understanding inflation and unemployment isn't just academic—these forces will shape your salary, job prospects, and purchasing power throughout your life.

LEARNING OBJECTIVES

- Explain inflation and how it's measured using the Consumer Price Index (CPI)
- Analyze causes of inflation: demand-pull, cost-push, and monetary inflation
- Identify types of unemployment: frictional, structural, and cyclical
- Understand the Phillips Curve trade-off between inflation and unemployment

CORE CONCEPTS

Term	Definition
Inflation	Sustained increase in the general level of prices over time, reducing purchasing power of money
Consumer Price Index (CPI)	Average price of a "basket" of goods and services typical consumers buy; used to measure inflation
Demand-Pull Inflation	"Too much money chasing too few goods" - aggregate demand exceeds supply, driving prices up
Cost-Push Inflation	Production costs increase (oil, wages, materials), businesses pass costs to consumers
Frictional Unemployment	Temporary unemployment while transitioning between jobs; normal and healthy part of economy
Structural Unemployment	Skills don't match available jobs; requires retraining or relocation (e.g., automation displacing workers)
Cyclical Unemployment	Unemployment due to economic recession/downturn; temporary until economy recovers
Phillips Curve	Inverse relationship between inflation and unemployment: low unemployment → high inflation; high unemployment → low inflation

Why This Matters

Inflation erodes your purchasing power: If your salary grows 2% but inflation is 3%, you're getting POORER even though your paycheck is bigger. Your $50,000 salary needs to become $90,568 over 30 years just to maintain the same purchasing power at 2% inflation.

Unemployment affects your career: Graduating during a recession (like 2009 or 2020) can mean lower lifetime earnings. The type of unemployment matters—frictional is temporary, but structural may require complete career changes.

The trade-off is real: The Fed can't achieve both low inflation AND low unemployment simultaneously. Understanding this helps you navigate economic conditions and protect your finances.

APPLY IT

Part A: Inflation Type Identification

For each scenario, identify the TYPE of inflation (Demand-Pull, Cost-Push, or Monetary) and explain your reasoning.

Scenario 1: COVID Stimulus

In 2021, the government sent $5 trillion in stimulus checks. Consumers suddenly had extra money and spent heavily on goods (cars, appliances, homes). Factories that closed during COVID couldn't keep up with demand. Prices rose 8.5%.

Inflation Type:

Explain your reasoning:

Scenario 2: 1970s Oil Crisis

OPEC imposed an oil embargo, quadrupling oil prices. Since everything uses energy (manufacturing, transportation, heating), costs rose across all industries. Businesses raised prices to maintain profits.

Inflation Type:

Explain your reasoning:

Scenario 3: Zimbabwe 2008

The government printed massive amounts of money to pay debts. Inflation hit 79.6 BILLION percent per month. Prices doubled every 24 hours. People needed wheelbarrows of cash to buy bread.

Inflation Type:

Explain your reasoning:

Part B: Unemployment Type Classification

Classify each person's unemployment as Frictional, Structural, or Cyclical. Recommend a strategy.

Person 1: Marcus

Marcus quit his accounting job to find a better opportunity with more growth potential. He's been searching for 6 weeks and has two interviews scheduled.

Type: ________________ **Expected duration:** ____________

Recommended strategy:

____

Person 2: Linda

Linda worked as a travel agent for 20 years. When online booking sites eliminated most travel agency jobs, she was laid off. Her skills don't match current job openings.

Type: ________________ **Expected duration:** ____________

Recommended strategy:

____

Person 3: James

James was a construction worker during the 2008 housing crash. With no new homes being built, thousands of construction workers were laid off. He had excellent skills but no projects needed them.

Type: ________________ **Expected duration:** ____________

Recommended strategy:

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Part C: Inflation Impact Calculations

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Real Value Formula:
Real Value = Nominal Value ÷ (1 + Inflation Rate)^Years

Inflation Rate Formula:
Inflation Rate = (CPI this year − CPI last year) ÷ CPI last year × 100%
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Calculation 1: Eroding Savings

You hide $5,000 under your mattress (earning 0%). After 10 years with 3% inflation, what is it worth in today's purchasing power?

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Real Value = $5,000 ÷ (1.03)^10 = $5,000 ÷ _______ = $_______
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How much purchasing power did you lose? $_________

Calculation 2: Salary Reality Check

Your $50,000 salary gets a 2% raise each year. But inflation is 4% per year. After 5 years, what's your REAL purchasing power compared to today?

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Nominal salary year 5: $50,000 × (1.02)^5 = $________
Inflation factor: (1.04)^5 = ________
Real salary: $________ ÷ ________ = $________
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Are you richer or poorer in real terms?

Calculation 3: CPI Inflation Rate

CPI in 2022 was 292. CPI in 2023 was 305. What was the inflation rate?

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Inflation Rate = (305 - 292) ÷ 292 × 100% = ________%
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CHECK YOUR UNDERSTANDING

1. Which type of inflation results from oil price shocks that increase production costs across the economy?

- A) Demand-pull inflation
- B) Cost-push inflation
- C) Monetary inflation
- D) Structural inflation

2. What is the "natural rate of unemployment" and why can't unemployment be zero?

3. The Fed targets 2% inflation. If prices are rising at 7%, what policy tools would the Fed use, and how would this affect unemployment?

Hint: Review the Phillips Curve trade-off and monetary policy tools from L-53.

4. Calculate: If your starting salary is $40,000 with 3% annual raises, and inflation averages 2.5%, what is your REAL salary after 10 years?

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Nominal salary year 10: $40,000 × (1.03)^10 = $40,000 × 1.344 = $________
Inflation adjustment: (1.025)^10 = ________
Real salary: $________ ÷ ________ = $________
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5. You're graduating during a recession with 9% unemployment. Describe three specific strategies you would use to find employment, and explain why each is effective during cyclical unemployment.