PFL Academy

Chapter 58: Supply, Demand, and Market Structures — Student Activity Packet

The Challenge: Why Do Prices Vary So Much?

Why does a cup of coffee cost $3 at one shop but $6 at another? Why do airline tickets skyrocket for Thanksgiving travel? Why is your local cable internet so expensive when there's no competitor?

The answers lie in understanding **supply and demand dynamics** and **market structures**. Today's market-savvy consumers save thousands annually by recognizing when prices are likely to fall, which markets offer negotiating power, and when to act quickly before prices rise.

Your Goal: Master these concepts to make smarter financial decisions—from timing major purchases to recognizing fair prices in different types of markets.

Learning Objectives

- Analyze how supply and demand interact to determine equilibrium prices and quantities
- Calculate consumer and producer surplus in various market scenarios
- Compare how competition levels impact prices, quality, and consumer welfare
- Evaluate how different market structures affect consumer choices and pricing
- Apply supply and demand principles to make informed purchasing decisions

CORE CONCEPTS

Term	Definition
Demand	Quantity consumers are willing and able to purchase at various prices; generally increases as prices decrease
Supply	Quantity producers are willing and able to offer at various prices; generally increases as prices increase
Equilibrium Price	Price where quantity demanded equals quantity supplied; the market "clears" with no shortage or surplus
Consumer Surplus	Difference between what you'd pay vs. what you actually pay; represents the "deal" you get
Perfect Competition	Many buyers/sellers, identical products, no barriers to entry; prices driven to lowest level
Monopoly	Single seller controls market; typically higher prices and reduced consumer choice
Oligopoly	Few large firms dominate; limited competition often leads to similar pricing across competitors
Elasticity	How much quantity demanded changes when price changes; affects price volatility

Why Market Understanding Matters

Timing purchases strategically can save hundreds to thousands of dollars. Knowing when demand drops (apartment rentals in winter) or supply increases (end-of-year car inventory) helps you buy at optimal times.

Recognizing market structure tells you whether comparison shopping will help. In competitive markets, prices vary significantly—shop around! In monopolies, your energy is better spent finding alternatives or negotiating features.

Understanding elasticity helps you budget. Products with inelastic demand (gasoline, rent) experience large price swings—build larger cushions for these expenses.

Part A: Supply and Demand Shifts (15 minutes)

Instructions: For each scenario, identify whether supply or demand shifts, which direction it shifts, and predict the effect on equilibrium price and quantity.

Scenario 1: Smartphone Market

A popular tech reviewer gives a new smartphone an excellent rating, going viral on social media.

Which curve shifts? ▫ Supply ▫ Demand

Direction of shift: ▫ Left (decrease) ▫ Right (increase)

Effect on equilibrium price: ▫ Increases ▫ Decreases ▫ No change

Effect on quantity sold: ▫ Increases ▫ Decreases ▫ No change

Consumer purchasing strategy:

Scenario 2: Coffee Market

A drought in Brazil (major coffee producer) destroys 30% of the coffee bean crop.

Which curve shifts? ▫ Supply ▫ Demand

Direction of shift: ▫ Left (decrease) ▫ Right (increase)

Effect on equilibrium price: ▫ Increases ▫ Decreases ▫ No change

Effect on quantity sold: ▫ Increases ▫ Decreases ▫ No change

If you're a regular coffee buyer, what should you expect?

Scenario 3: Television Market

New manufacturing technology cuts the cost of producing 4K TVs by 40%.

Which curve shifts? ▫ Supply ▫ Demand

Direction of shift: ▫ Left (decrease) ▫ Right (increase)

Effect on equilibrium price: ▫ Increases ▫ Decreases ▫ No change

Effect on quantity sold: ▫ Increases ▫ Decreases ▫ No change

Should you wait to buy a TV or buy now?

Scenario 4: Housing Rental Market

A major employer announces they're moving their headquarters (5,000 jobs) out of the city.

Which curve shifts? ▫ Supply ▫ Demand

Direction of shift: ▫ Left (decrease) ▫ Right (increase)

Effect on equilibrium rent prices: ▫ Increases ▫ Decreases ▫ No change

If you're looking for an apartment, is this good or bad news? Why?

Strategy Tip: *When supply increases or demand decreases → prices fall (good time to buy). When supply decreases or demand increases → prices rise (buy early or wait for conditions to change).*

Part B: Market Structure Analysis (15 minutes)

Instructions: Analyze how the same product (basic internet service) would be priced and what consumer options exist under different market structures.

The Setup

Imagine basic 100 Mbps internet service that costs $20/month to provide. Let's see how different market structures affect what you pay and your options.

Market Structure	Number of Providers	Likely Monthly Price	Consumer Surplus
Perfect Competition (15 providers)	15	$25-30 (close to cost + small profit)	HIGH Prices near cost
Oligopoly (3 providers)	3	$50-70 (limited competition)	MEDIUM Some excess profit
Monopoly (1 provider)	1	$80-100 (no competitive pressure)	LOW Maximum extraction

Calculate the annual cost difference:

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Perfect Competition annual cost: $27 × 12 = $324 Monopoly annual cost: $89 × 12 = $1,068
Annual extra cost under monopoly: $1,068 - $324 = $_______
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Identify the market structure for these real-world examples:

Product/Service	Market Structure	Why?
Your local water utility		
Wireless phone service		
Gasoline stations		
Online retail (Amazon, etc.)		
Airlines serving your city		

Strategy Question:

In which market structure should you spend the most time comparison shopping? Why?

In a monopoly market, what strategies can you use to reduce costs?

Part C: Strategic Purchase Planning (15 minutes)

Instructions: Apply supply-demand and market structure analysis to plan a real purchase.

Your Planned Purchase

Product/service: ____________________

Approximate budget: $ ____________

Timeline (when you need it): ____________________

Step 1: Market Structure Analysis

Number of sellers	
Market structure type	▫ Competitive ▫ Oligopoly ▫ Monopoly
Product differentiation	▫ Identical ▫ Somewhat different ▫ Very different
Your bargaining power	▫ High ▫ Medium ▫ Low

Step 2: Supply-Demand Pattern Analysis

When is demand typically highest?	
When is demand typically lowest?	
Are there supply variations (new models, seasonal)?	
Current price trend (rising/falling/stable)?	

Step 3: Strategic Decision

Optimal timing for purchase:

Reasoning based on supply-demand analysis:

Negotiation leverage points:

Expected savings from strategic approach: $_______

Example: *Used car market is an oligopoly (few large dealer chains + many small dealers). Demand peaks June-August, lowest January-February. End-of-month timing increases dealer motivation. Expected savings: $800-1,200 through timing and negotiation.*

CHECK YOUR UNDERSTANDING

1. If a frost destroys a significant portion of Florida's orange crop, what happens to orange juice prices?

- A Prices decrease because demand falls
- B Prices increase because supply decreases
- C Prices stay the same because equilibrium is maintained
- D Prices decrease because consumers switch to substitutes

2. Which market structure gives consumers the MOST surplus (best deals)?

- A Monopoly
- B Oligopoly
- C Perfect competition
- D All market structures provide equal surplus

3. Gasoline has inelastic demand. This means:

- A People will stop buying gas when prices rise
- B Small supply disruptions cause large price swings
- C Gas stations have no pricing power
- D Prices stay constant regardless of supply changes

4. In an oligopoly (like wireless carriers), why do competitors often have similar prices?

- A Government regulations require identical pricing
- B Each firm watches competitors and avoids price wars that hurt all
- C Production costs are identical for all firms
- D Consumers demand identical pricing

5. Short Answer: You're planning to rent an apartment in a college town. Using supply-demand analysis, when would be the WORST time to search, and when would be the BEST time? Explain your reasoning.