



Professional Development

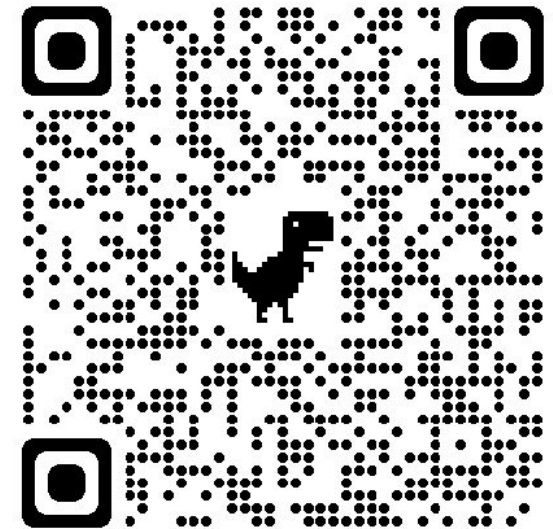
Winter Institute

Microeconomic Foundations: A Teacher's Guide



Presented by: Susanna Pierce McConnell
Email: Susanna.Pierce.McConnell@gmail.com

Date: January 22, 2024



About Me

Susanna McConnell

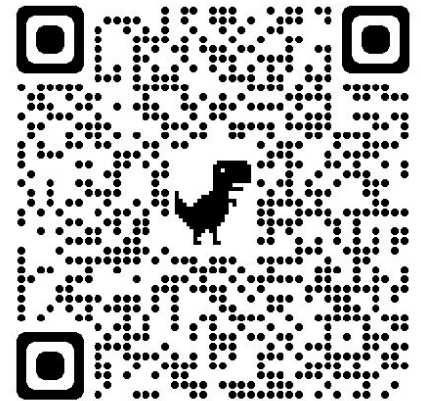


AP Microeconomics Teacher, Curriculum Consultant, Master Teacher

Susanna Pierce McConnell is a curriculum consultant, Master teacher for the Council of Economics Education, on the Teacher Advisory Board at Marginal Revolution and an AP Economics at Westlake High School. She strives to make teaching and learning meaningful for teachers and students. In her past 16 years in education, she has taught social studies in the US and abroad, participated in Harvard's Globalizing the Classroom Fellowship, and has traveled with US teachers to schools in Japan and South Africa on two remarkable Study Tours. Susanna founded the Teacher Innovation Academy on her high school campus where she facilitated PD for 6 years for 30 educators who strive to share best practices through innovation. Susanna earned degrees in Spanish and International Economics and her Master of Arts in Teaching from Trinity University in San Antonio. Her greatest joys are finding the many connections of economics to the real world, traveling, speaking Spanish, and spending time with her family.

Agenda (CST)

- 8:00: Welcome, Updates, Norms
- 8:05: Participant Insights
- 8:10: Student Challenges + Solutions
 - Principles of Demand and Supply
- 8:50: Mini Break (5 mins)
- 8:55: Student Challenges + Solutions
 - Market Structures
- 9:25: Wrap Up and Reflection





Session 1: Demand and Supply

Objectives

- Participants will:
 - Deepen their grasp of microeconomics principles, encompassing demand, supply, and market equilibrium.
 - Engage with interactive exercises to enhance their aptitude in conveying microeconomic concepts.
 - Introduce real-world examples to render microeconomics relatable and captivating for teachers.
 - reflect on the implementation into their own classroom.

National Standards

- **Standard 7: Markets and Prices:** A market exists when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.
- **Standard 8: Role of Prices:** Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.

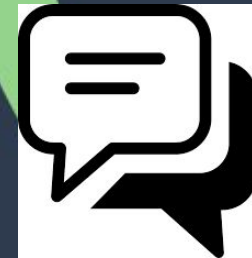


What city are you in, years of experience, and a difficult concept when teaching supply and demand?

Susanna: Austin, 16, moving along curve

Let's Connect:
SEL

Add your
response in the
Chat box!





UNIT 2 Supply and Demand	
~13-15 Class Periods	20-25% AP Exam Weighting
MKT 4	2.1 Demand
MKT 4	2.2 Supply
MKT 2	2.6 Market Equilibrium and Consumer and Producer Surplus
MKT 3	2.7 Market Disequilibrium and Changes in Equilibrium

MKT 4	1.4 Demand
MKT 4	1.5 Supply
MKT 4	1.6 Market Equilibrium, Disequilibrium, and Changes in Equilibrium

Unit 2: Microeconomics	
2.1	Demand (includes HL only sub-topics)
2.2	Supply (includes HL only sub-topics)
2.3	Competitive market equilibrium

What causes market fluctuations?

Demand, the Law of Demand, and Non-Price Determinants, Supply, the Law of Supply, Market Equilibrium

Calendar of Markets in AP Micro



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
February 5 Unit 2 Video Notes HW: Unit 2 Video Notes, due	February 6 Demand (2.1) HW:	February 7 MRU Review Supply (2.2) HW:	February 8 Market Equilibrium + Disequilibrium (2.6 + 2.7) MRU Review HW:	February 9 Double Shifts HW: NO HW

What challenges do students face?

Challenges	Solutions
1. Pre-existing Knowledge of “Demand” Shifting vs. Movement Along	Teaching Model MRU: Video , MRU Interactive
2. Shifters of Demand vs. Supply	Teaching Model: MRU: Demand or Supply? MRU: Demand , MRU: Supply
3. Market Outcomes with Single and Double Shifts	Teaching Model MRU: Double Shift , MRU: Eq.
4. Engagement: Real World	Current Events: Messi Effect, Taylor Swift



Problem #1:

Demand vs.

Quantity

Demanded

Lecture: Demand vs. Quantity Demanded

September 13, 2022

- Check In: Best Sale?
- Review: Video - Auction
- Notes: Demand vs. Quantity Demanded
- Practice: Dry Erase
- Practice Problems, Day 1 (Demand)


HW: Unit 2 Summary Video, due Thursday @11:59 PM

1

Check In: What's the best bargain you've purchased?

Warm Up

How does this clip show the law of the demand?



the office

3



Review

Law of Demand: negative causal relationship between P & Q_d

Shifters of Demand:

- Trends or Tastes
- Related Goods' Prices
- Income
- Buyers (# of buyers)
- Expectations

4

Change in Demand vs. Change in Quantity Demanded

Demand vs. Quantity Demanded

Change in Demand An external factor that shifts the entire demand curve to the right or left.	Change in Quantity Demanded An internal price change that causes a movement along the curve from 1 point to another.
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- Consumer behavior changes
 - TRIPE
- The law of demand
- Price change

5

Live Notes: Demand vs. Quantity Demanded



Example Problem

<p>Scenario 1: The price of P Terry's burgers drops in restaurants in Austin Texas. How does this price drop impact the market for burgers at P Terry's?</p>	<p>Scenario 1: The price of P Terry's burgers drops in restaurants in Austin, Texas. How does this price change impact the competitor's market at Hat Creek for burgers?</p>
<p>The Market for Burgers at P. Terry's</p>	<p>The Market for Burgers at Hat Creek</p>
<p>Explanation:</p>	<p>Explanation:</p>

8

Example Problem

<p>Scenario 1: The price of P Terry's burgers drops in restaurants in Austin Texas. How does this price drop impact the market for burgers at P Terry's?</p>	<p>Scenario 1: The price of P Terry's burgers drops in restaurants in Austin, Texas. How does this price change impact the competitor's market at Hat Creek for burgers?</p>
<p>The Market for Burgers at P. Terry's</p>	<p>The Market for Burgers at Hat Creek</p>
<p>Explanation: price Δ</p>	<p>Explanation: Rel. Goods</p>

Video: Demand vs. Quantity Demanded



1. What causes a change in the quantity demanded?
2. What causes a shift of demand?

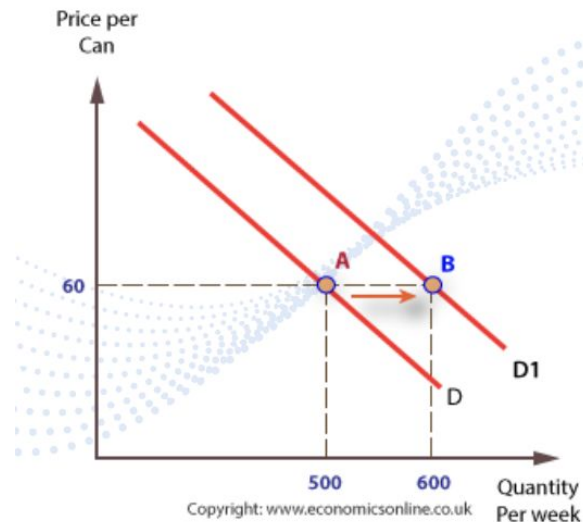


The video thumbnail features a blue vertical bar on the left with the text 'MICRO' and 'MRU' (with a play button icon). The main content area shows two graphs side-by-side. The left graph shows a downward-sloping line 'D₁' with two blue dots and a red arrow pointing up and to the right, indicating a movement along the curve. The right graph shows two parallel downward-sloping lines 'D₁' and 'D₂' with a red arrow pointing from 'D₁' to 'D₂', indicating a shift. Below the graphs, the text 'QUANTITY DEMANDED' is in a blue box, 'VS.' is in black, and 'DEMAND' is in a black box.

Teaching: Group Practice

Group Review: Problems

1.



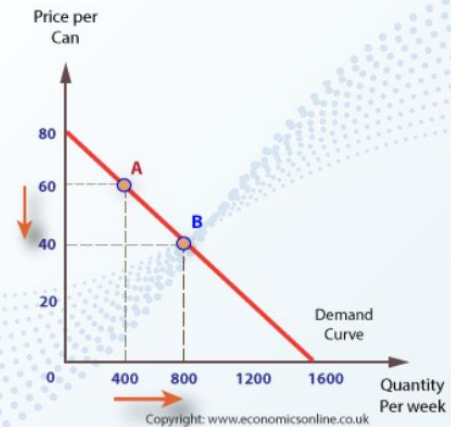
An increase of demand

2.



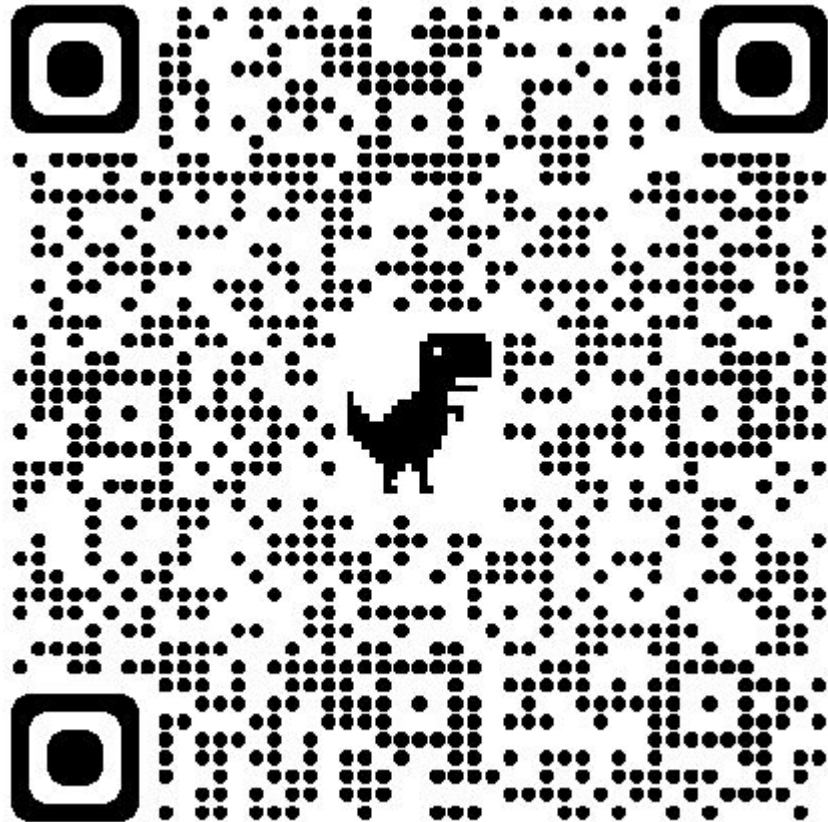
A decrease of demand

3.



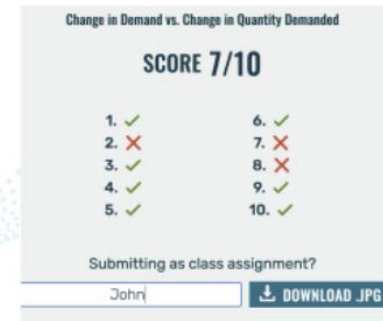
An increase of quantity demanded

Independent Practice: MRU Interactive



Rest of Class

1. Interactive Practice
 - a. Download the JPG of your problems.



2. Complete the demand problems.
3. Start your video notes.



Problem #2:

Demand or Supply?

Lecture: Acronym: Demand



- Trends or Tastes
- Related Goods' Prices
- Income
- Buyers (# of buyers)
- Expectations



These factors change consumer behavior to demand more or less at ALL prices.

Market Model Overview: Steps

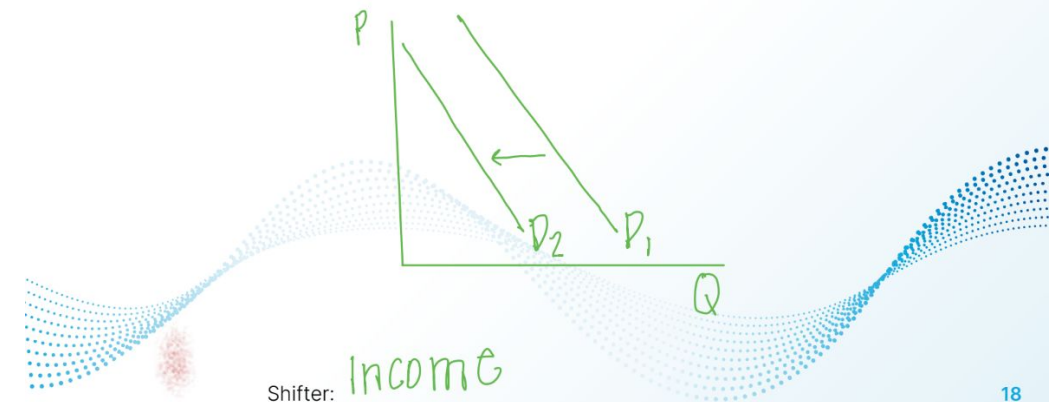
1. **R**ead the scenario.
2. **U**nderline the external factor that's changing ceteris paribus.
3. **D**ecide if the demand curve (TRIBE) or supply curve (SPICE) shifts. **D**raw the impact.
4. **E**xamine the impacts.

Live Notes: RUDE

Read the problem. Underline the shifter. Draw the impact. Explain the effect on P and Q.

Incomes drop during the pandemic with increased business layoffs. What happens to the market for hotels?

Scenario #2: Incomes drop during the pandemic with increased business layoffs. What happens to the market for hotels?



Lecture: Acronym for Supply

- Sellers
- Productivity
- Input costs
- Cash to/from Government (taxes/subsidies)
- Expectations

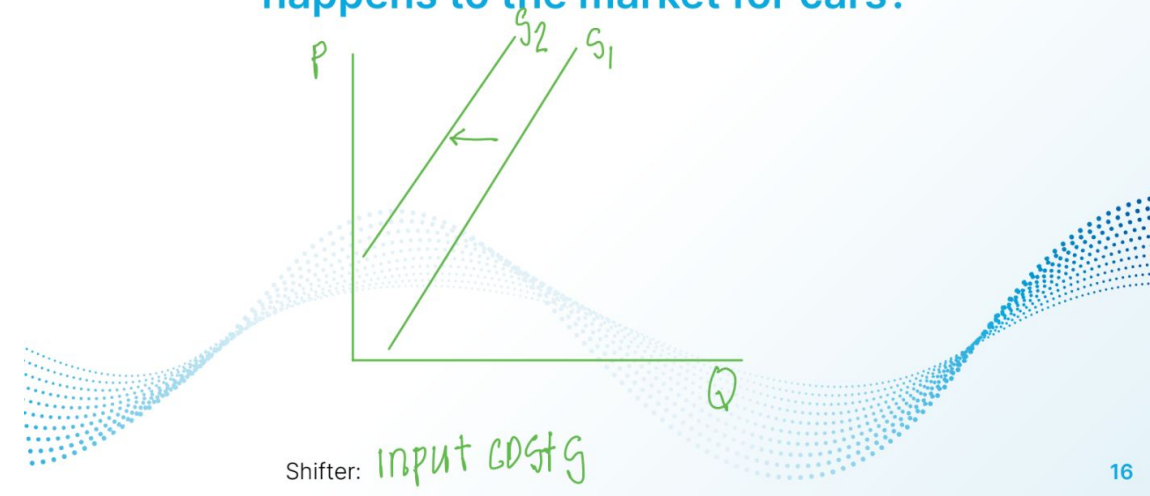
These factors change producer behavior to supply more or less at ALL prices.

Live Notes: RUDE

Read the problem. Underline the shifter. Draw the impact. Explain the effect on P and Q.

The price of microchips increases. What happens to the market for cars?

Scenario #2: The price of microchips increases. What happens to the market for cars?



Teaching: Group Practice

September 13, 2023

- Announcements
- Review: Demand and Supply Shifters
 - Group Specialize (10 mins)
- Guided Notes: Market Equilibrium
- Practice Problems

Question: What's an item you have bought on sale before?

HW: Edpuzzle (9/14) + Video Notes (9/18)

Unit 2: Market Equilibrium Practice Problems (2.6 + 2.7)

For each problem, read the problem, underline the key phrase, draw the graph, and then explain the impact on the price and quantity. Label every axis and curve.

DEMAND SHIFTERS: SUPPLY SHIFTERS:

- 1. There is a drought across the US. What happens to the market for corn?

Graph:




Component:

P	Q

- 2. There is an increase in births in the US. What happens to the market for Baby Gap?

Graph:



Component:

P	Q

Review: What are the non-price shifters of D and S?

Demand:
 Tastes
 Related Goods
 Income
 Buyers
 Expectations

Supply:
 Sellers
 Productivity
 Input Costs
 Cash Changes
 Expectations

Review: Get 2 Boards

Lt. Blue: D1 + S1

Dark Blue: D2 + S2

Green: D3 + S3

Grey: D4 + S4

Mixed: D5 + S5

Purple: D7 + D8

Tall: D/S decrease

Yellow 8: D/S increase


Roles:

- #1: Write the problem/answer #1.
- #2: Write the problem/answer #2.
- #3: Explain #1.
- #4: Explain #2.

Unit 2: Market Equilibrium Practice Problems (2.6 + 2.7)

- 3. Tesla now adds more robots into their car production. What happens to the market for Tesla cars?

Graph:




Component:

P	Q

- 4. There is an increase in the cost of coffee beans. What happens to the market for coffee in restaurants and cafes?

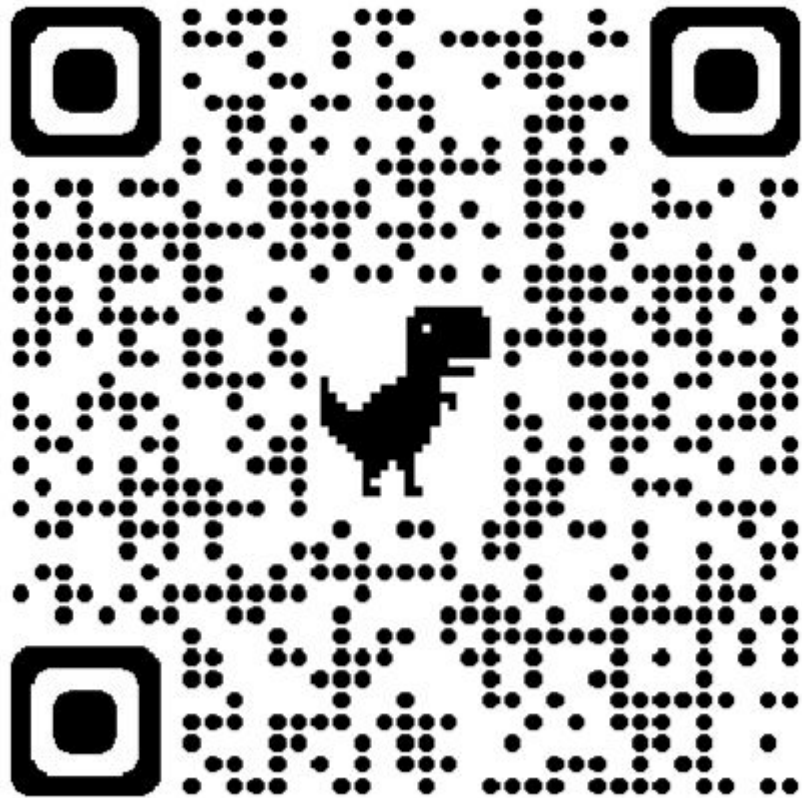
Graph:



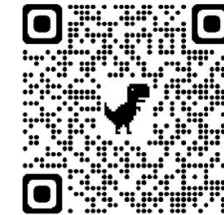
Component:

P	Q

Independent Practice: MRU Interactive



Rest of Class



1. Complete the MRU Interactive.
 - a. Add a photo with your name - must be over 70%
2. Finish the Market Equilibrium problems (double shifts).
3. Upload your Market Equilibrium problems to Google Classroom.



Problem #3:

Market Outcomes

with Single and

Double Shifts

Live Notes: Market Equilibrium

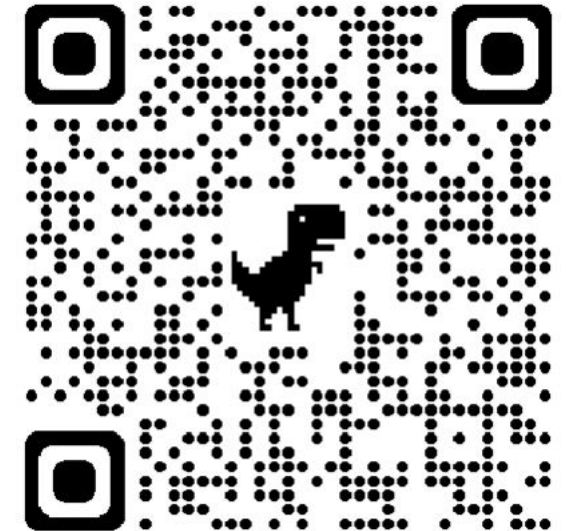
Unit 2: Market Equilibrium + Changes (2.6 + 2.7): How do you show the impact of market forces?

Market Equilibrium occurs where _____ is = _____ with an equilibrium _____ and _____.

A _____ results in the market when _____ is > than _____.

A _____ results in the market when _____ is < than _____.

Market Equilibrium	An Increase in Demand on the Market
	<p>Scenario: Michael Jordan advertises his new Nike Airs.</p> <p>Component:</p>



Live Notes: Market Equilibrium

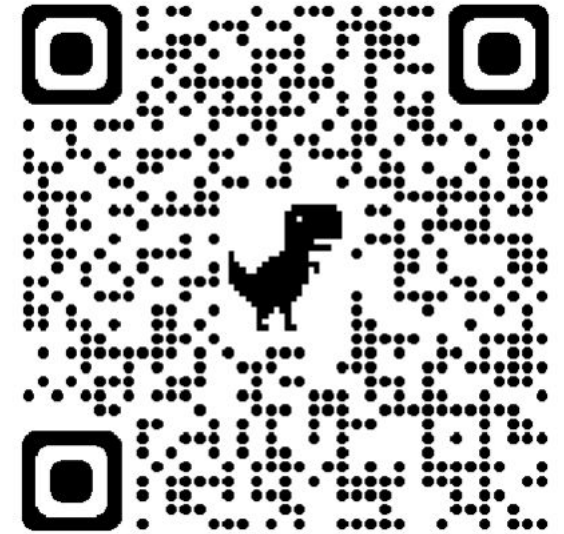
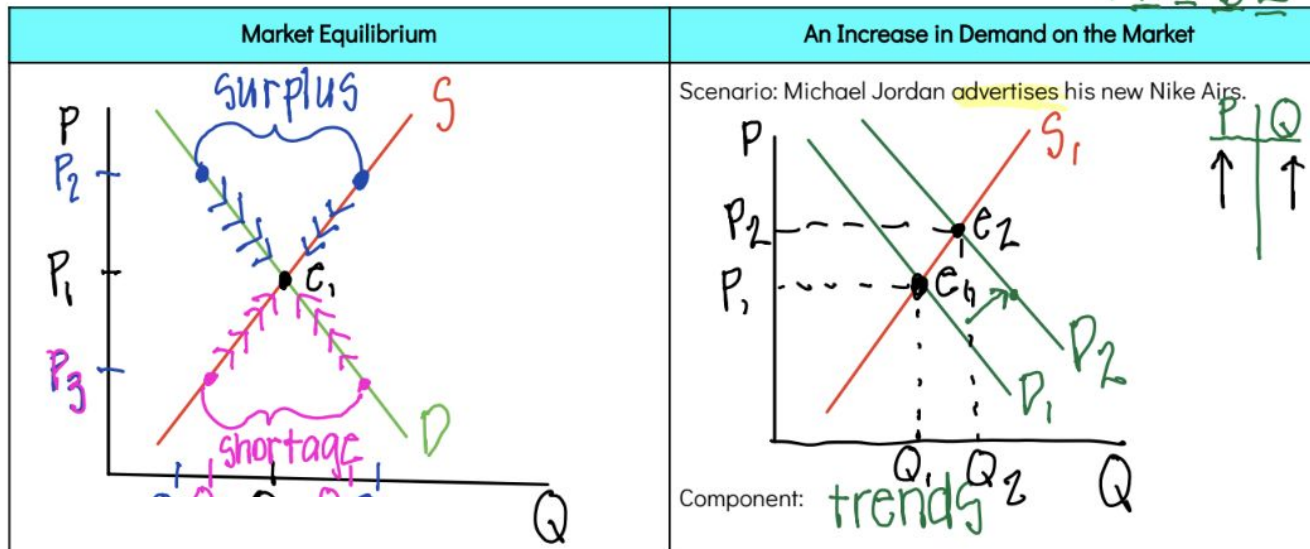
Unit 2: Market Equilibrium + Changes (2.6 + 2.7): How do you show the impact of market forces?

Market Equilibrium occurs where Q_d is = Q_s with an equilibrium P and Q .

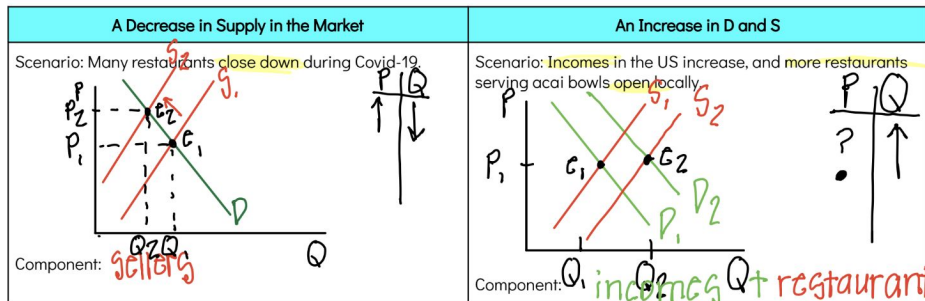
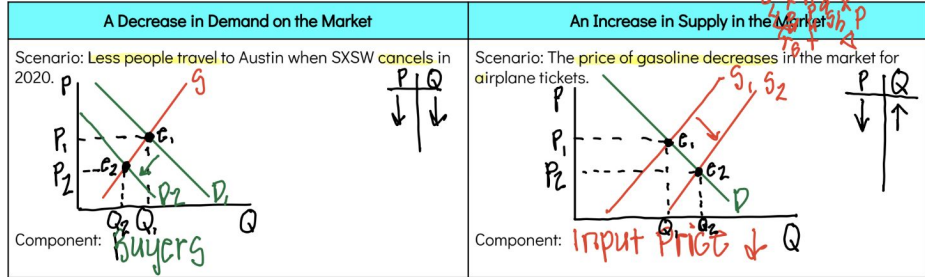
A shortage results in the market when Q_d is > than Q_s .

A surplus results in the market when Q_s is > than Q_d .

TRIBE



Live Notes: Double Shifts + Summary



Double Shifts Summary

If...	Then...
Demand and Supply Increase	Price ? Quantity ↑
Demand and Supply Decrease	Price ? Quantity ↓
Demand Increases and Supply Decrease	Price ↑ Quantity ?
Demand Decreases and Supply Increases	Price ↓ Quantity ?

Teaching: Group Practice

Practice Example

The price of gasoline is expected to go up. What happens to the market for gasoline today?

Practice Example

Consider the market for diesel trucks. What would happen if more people started buying electric trucks and many companies stopped producing them.

Unit 2: Market Equilibrium Practice Problems (2.6 + 2.7)

Double Shifts in the Market

- 7. Lululemon advertises with Lebron James while the number of stores increases nationally. What happens to the market for Lululemon?

Graph:

Component:

P	Q

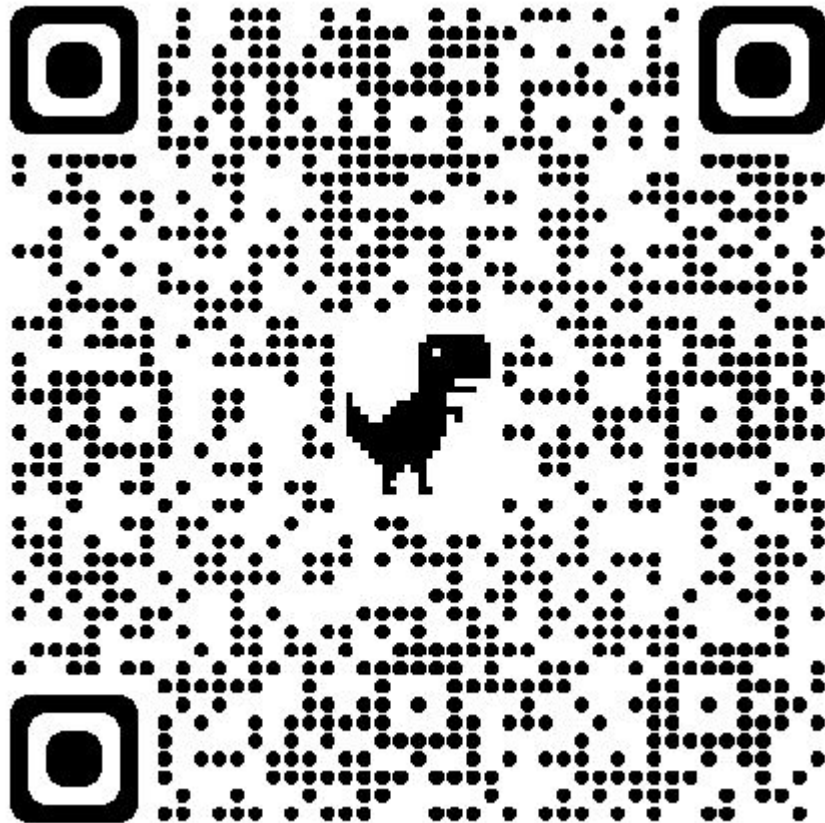
- 8. People hear about the dangers of flying with Covid-19. At the same time, airlines cut many of their flights. What happens to the market for airline flights?

Graph:

Component:

P	Q

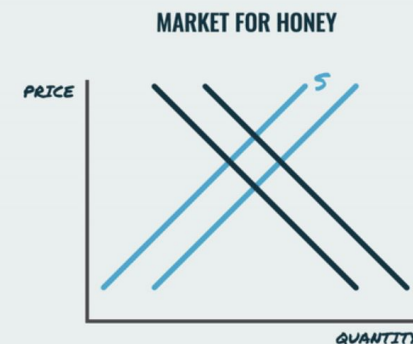
Independent Practice: MRU Interactive



TEACHER RESOURCES

Shifts in Both Supply and Demand Curves Interactive Practice

Featured in [Unit Plan: Finding Equilibrium, Supply meets Demand](#)



BREAKING NEWS

Parasites are causing huge declines in bee colonies around the U.S. Meanwhile, "hot honey," honey with a kick, gains lots of popularity in the South.

Consider the market for honey. What happens?

SUBMIT



Problem #4: Engagement

Engagement #1: Messi Effect



CEE

The Messi Effect – How One Single Player Will Impact Soccer in America

The Messi Effect: New Miami star brings big business to MLS

How can you add Messi's rise and impact into your classroom? The Messi Effect Susanna

Course Connections: Superstar Impact CEE

The Shifters of Demand

- Trends or Tastes
- Related Goods' Prices
- Income
- Buyers (# of buyers)
- Expectations

Thankful for my tribe

These factors change consumer behavior to demand more or less at ALL prices.

Messi's "Trending" in Saudi Arabia CEE

Messi's Club Move Signals

Messi's Essential Experiences

Messi as a Saudi Arabia Ambassador



CEE

Implementation #1: Hooks and Warm-Ups

Time Required: 10-15 minutes

CEE

Why are one major league's ticket prices increasing by > 1,700%?

SEL Hook

Add your response in the Chat box

Warm Up #1 CNBC News: Messi Effect CEE

WHAT MESSI MEANS FOR U.S. SOCCER

DURATION: 10 minutes

1. What's something significant you heard in the video?
2. So what impact does he have on markets?
3. Now what will be Messi's impact on future businesses, cities, and larger regions?



Is the cost of bringing Lionel Messi to MLS falling on fans?

The profile of Inter Miami - and the league itself - have been boosted by the Argentinian's arrival. But it's led to an increase in prices for some



Some Inter Miami season ticket prices will double next season. Photograph: Sam Navarro/USA Today Sports

It's difficult to overstate the impact [Lionel Messi](#) has had on Inter Miami and MLS since he joined the club in July. But there are some concerning signs underneath the veneer of Messi Mania.

"Soccer in North America will never be the same," Camilo Durana, the executive vice-president of Apple partnership, properties and events at MLS, told [Forbes](#) in June, days after the announcement that Messi was moving to the league.

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The Messi Effect – How One Single Player Will Impact Soccer In America

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Jun 20, 2023, 12:22pm EDT

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SUCCESS · LIONEL MESSI

Lionel Messi is bringing an absolutely enormous pile of money into American soccer and MLS

BY PAOLO CONFINO August 21, 2023 at 3:37 PM CDT

Lionel Messi, Saudi Arabia and the Deal That Paid Off for Both Sides

A contract between Messi and Saudi Arabia's tourism authority offers a glimpse at the details of their multimillion-dollar relationship.

Messi is having a whale of a time in Miami. CHANDAN KHANNA—AFP/GETTY IMAGES



Lionel Messi has parlayed his global sports stardom into a lucrative deal as a spokesman for Saudi tourism. Thomas Peter/Reuters

Real World #2: Messi Current Event

Engagement #2: T. Swift Effect



Market Systems: Add Original Photos

Trend

It's becoming a trend to like Taylor Swift: a lot of people consider it to be a mark of good taste to like her music and be a "swiftie" so there is more demand for it.



Related Prices

The prices of hotels are increasing which is a compliment to Taylor concerts and thus might decrease demand for them..



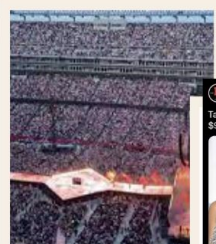
Sellers

Every year, Taylor offers more concerts so she is increasing her selling of tickets and thus increasing the supply of them.



Input costs

The internal cost of renting venues to have TSwift concerts could increase and cause a decrease in supply of the concerts.



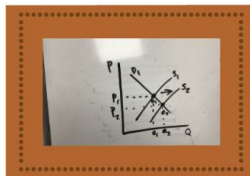
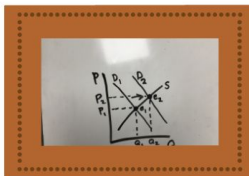
Buyers, Expectations

While the amount of people who attend TSwift concerts could increase, the sellers expect a surge in prices. This causes an increase in demand but a decrease in supply as sellers hold out, meaning that the equilibrium price would increase while the quantity decreases.



Increase of Demand

Price INCREASES
Quantity INCREASES

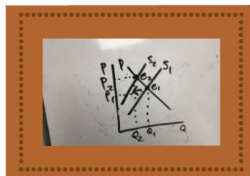
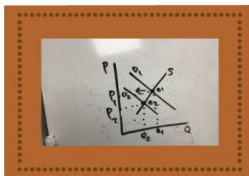


Increase of Supply

Price DECREASES
Quantity INCREASES

Decrease of Demand

Price DECREASES
Quantity DECREASES



Decrease of Supply

Price INCREASES
Quantity DECREASES

Engagement #3: MRU Lesson Plan



Free Econ Class Content

If you're looking for great **FREE** content for your econ or personal finance class, you're in the right place! Fill out the form below to get access to all of MRU's lesson plans, interactives, videos, classroom exercises, and more. All of our material is free, and it's always available here at MRU.org.

Build mastery of supply and demand

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- 5 lesson plans

Finding Equilibrium:
Supply meets Demand
HIGH SCHOOL UNIT PLAN

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Engaging Activities
Check full of interactive games, videos, and news articles to keep students engaged.

Science of Learning
Use techniques such as retrieval practice and interleaving to optimize student learning and retention.

Teacher Friendly
Easy-to-understand lesson plans, student activities, and answer keys provided via Google Docs.



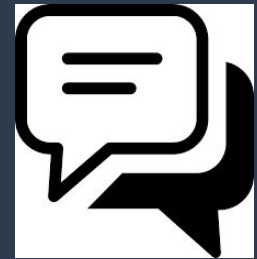
Interactive Practice
Students build mastery through interactive supply and demand questions.

Videos
Engage students with short animated explainers that include interactive questions to check for student understanding





What questions do you have?



Questions from the Audience



Mini -Break (5 mins)



Session 2: Market Structures

Objectives

- Participants will:
 - examine different market structures, their characteristics, and the implications of price and output decisions.
 - Engage with interactive exercises to enhance their aptitude in conveying microeconomic concepts.
 - Introduce real-world examples to render microeconomics relatable and captivating for teachers.
 - reflect on the implementation into their own classroom.

National Standards

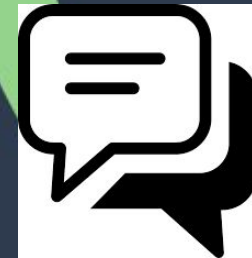
- **Standard 9: Competition and Market Structure:**
 - Competition among sellers usually lowers costs and prices, and encourages producers to produce what
 - consumers are willing and able to buy. Competition among buyers increases prices and allocates goods
 - and services to those people who are willing and able to pay the most for them



What's your name, favorite restaurant, and a difficult concept when teaching market structures?

Let's Connect:
SEL

Add your
response in the
Chat box!





TOPIC 3.7
Perfect Competition

PRD-3	4.2 Monopoly
	4.3 Price Discrimination
	4.4 Monopolistic Competition
	4.5 Oligopoly and Game Theory

2.11 Market failure—market power

The Theory of the Firm

Market Structures: Perfect Competition,
Monopolistic Competition, Oligopoly,
Monopoly

Calendar of Theory of the Firm in AP Micro



MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>April 1</p> <p>PC in the SR - 3.7</p> <p>HW: U4 VNs, 4/11</p>	<p>April 2</p> <p>PC in the LR - 3.7</p> <p>HW: U4 VNs, 4/11</p>	<p>April 3</p> <p>Unit 4a FRQs</p> <p>HW: U4 VNs, 4/11</p>	<p>April 4</p> <p>Monopoly in the SR - 4.2</p> <p>HW: Unit 4 VNs, 4/11</p>	<p>April 5</p> <p>Monopoly in the LR Comparison of PC to Monopoly Review - 3.7 + 4.1 + 4.2</p> <p>HW: U4 VN, 4/11</p>
<p>April 8</p> <p>Price Discrimination - 4.3</p> <p>HW: NO HW</p>	<p>April 9</p> <p>Monopolistically Competitive - 4.4</p> <p>HW: U4 VN, 4/11</p>	<p>April 10</p> <p>Oligopoly + Game Theory - 4.5</p> <p>HW: U4 VN, 4/11</p>	<p>April 11</p> <p>Unit 4 Quiz Game Theory Problems + Edpuzzle - 4.5</p> <p>HW:</p>	<p>April 12</p> <p>Comparing 4 Firms Unit 4 FRQs (4.2-4.5)</p> <p>HW:</p>
<p>April 15</p> <p>Review/Albertio</p> <p>HW: Review</p>	<p>April 16 - STAAR</p> <p>HW: Study for Exam</p>	<p>April 17</p> <p>UNIT 4 EXAM</p> <p>HW: None</p>	<p>April 18</p> <p>HW: Topic Selection</p>	<p>April 19</p> <p>HW: Research</p>

What challenges do students face?

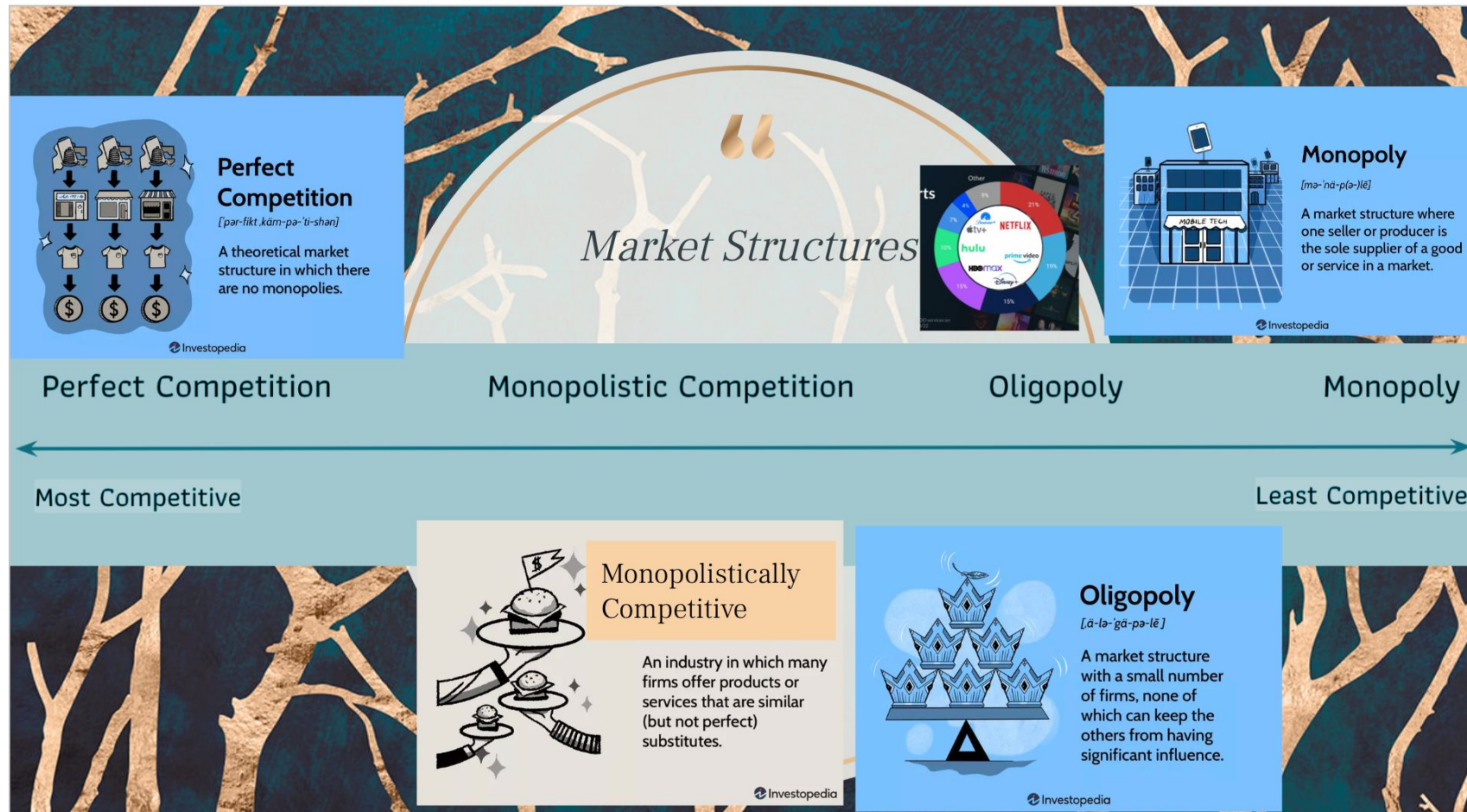


Challenges	Solutions
1. Overall Classifications	Preview + Spectrum
2. Specific Characteristics of Each	Acronyms + Graphic Organizer
3. Graphs: Interpreting and Drawing	Digital Assessments
4. Engagement	Current Events + Projects



Problem #1: Overall Classifications

Lecture: Overview of the Theory of the Firm



Student Practice: Preview to Market Structures

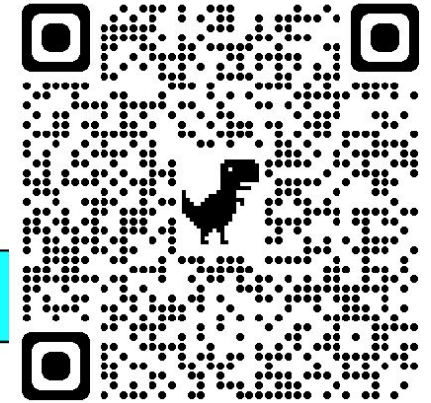


Make a copy of this document, and share it with your group.

Group Member Names:

A. **Review:** What are the 4 types of [firm structures](#)? Have each group member add info on one.

Firm Structure	Characteristics	Pros and Cons
Monopoly		Pros: Cons:
Oligopoly		Pros: Cons:
Monopolistically Competitive		Pros: Cons:
Perfect Competition		Pros: Cons:





Problem #2:

Specific

Characteristics

Lecture: Perfect Competition



What are the characteristics of a PC Firm?

- Many sellers
- Perfect Information
- No barriers to entry
 - Free entry and exit
- Identical products
- Price “takers”
 - No power over price

Phrase to Remember:
Many Perfect Novels Involve Parody.

Real World Examples

Milk



Agriculture



Use phrases and pictures.

Lecture: Monopoly

What are the characteristics of a Monopoly Firm?

THESE 2 COMPANIES CONTROL MOST OF THE SUNGLASSES BOUGHT IN THE US



SOURCE: IBISWorld

BUSINESS INSIDER

- One Seller
- No close substitutes
- High Barriers to entry
 - prevents firms from entering the market
- Price Maker

One, non-competitive has power in the market.

Use phrases and pictures.

Lecture: Monopolistic Competition



What are the characteristics of a Monopolistically Competitive Firm?

Use phrases and pictures.

- Relatively large number of firms
- Easy entry and exit
 - Few barriers to entry
- Advertising
- Differentiated products



- product is distinguished by design, service, quality, location [non-price]

Lecture: Oligopoly

What are the characteristics of an Oligopoly?

- Few, large producers
 - Concentration ratio- four-firm concentration 40%
- Differentiated or standardized product
- High barriers
- Mutual Interdependence among competitors
 - Actions of one firm affect others

Use phrases and pictures.

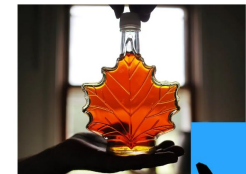
few distinct sellers
have market control

Examples of an Oligopoly

Music Industry - [Article](#)

SONY & BMG
MUSIC ENTERTAINMENT

Maple Syrup [PSA Example](#) or OPEC



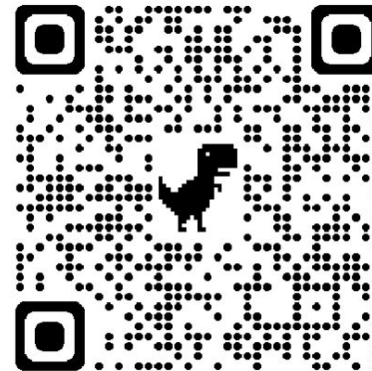
Collusion is conduct in which rival firms cooperate with each time to raise prices above competitive levels through coordinatou action.

Small Groups and Live Notes



Unit 4: The Comparison of All Market Structures

Category	Perfectly Competitive	Monopoly	Monopolistically Competitive	Oligopoly
# of Firms				
Example Industry				
Type of Product				
Barriers to Entry				
Market Power				
Type of Demand				
Profit Maximization Rule				
Formula for Profit + Formula for Loss				
0 Economic Profit Formula				
Profit in the SR? Profit in the LR?				
Shut down Rule				
Allocative Efficiency ($P = MC$)				
Productive Eff. ($P = \text{min. ATC}$)				



Unit 4: The Comparison of All Market Structures

Category	Perfectly Competitive	Monopoly	Monopolistically Competitive	Oligopoly
# of Firms	Many, 100s	1	10-100	2-7
Example Industry	agriculture	Amazon; De Beers	restaurants	Soft drinks; CANADA syrup
Type of Product	identical	Unique and only	differentiated	Differentiated or standardized
Barriers to Entry	none	high	low	high
Market Power	None; price taker	All; price maker	Some; price maker	a lot; price maker
Type of Demand	Perfectly elastic $MR = D = AR = P$	Inelastic $D = AR = P$ $MR < D$	Relatively inelastic $D = AR = P$ $MR < D$	Inelastic $D = AR = P$ $MR < D$
Profit Maximization Rule	$MR = MC$ Mr. McECON	$MR = MC$ Mr. McECON	$MR = MC$ Mr. McECON	$MR = MC$ Mr. McECON
Formula for Profit + Formula for Loss	$P > ATC$ $P < ATC$	$P > ATC$ $P < ATC$	$P > ATC$ $P < ATC$	$P > ATC$ $P < ATC$
Zero Economic Profit Formula	$P = ATC$	$P = ATC$	$P = ATC$	$P = ATC$
Profit in the SR? Profit in the LR?	yes No; no barriers	Yes Yes; high barriers	Yes No; low barriers	Yes Yes; high barriers
Shut down Rule	$P < AVC$	$P < AVC$	$P < AVC$	$P < AVC$
Allocative Efficiency ($P = MC$)	In the SR + LR	never	never	never
Productive Eff. ($P = \text{min. ATC}$)	In the LR	never	never	never



Problem #3: Graphs

Lecture: Guided Notes + Live Graphing



$$MR = D = AR = P$$

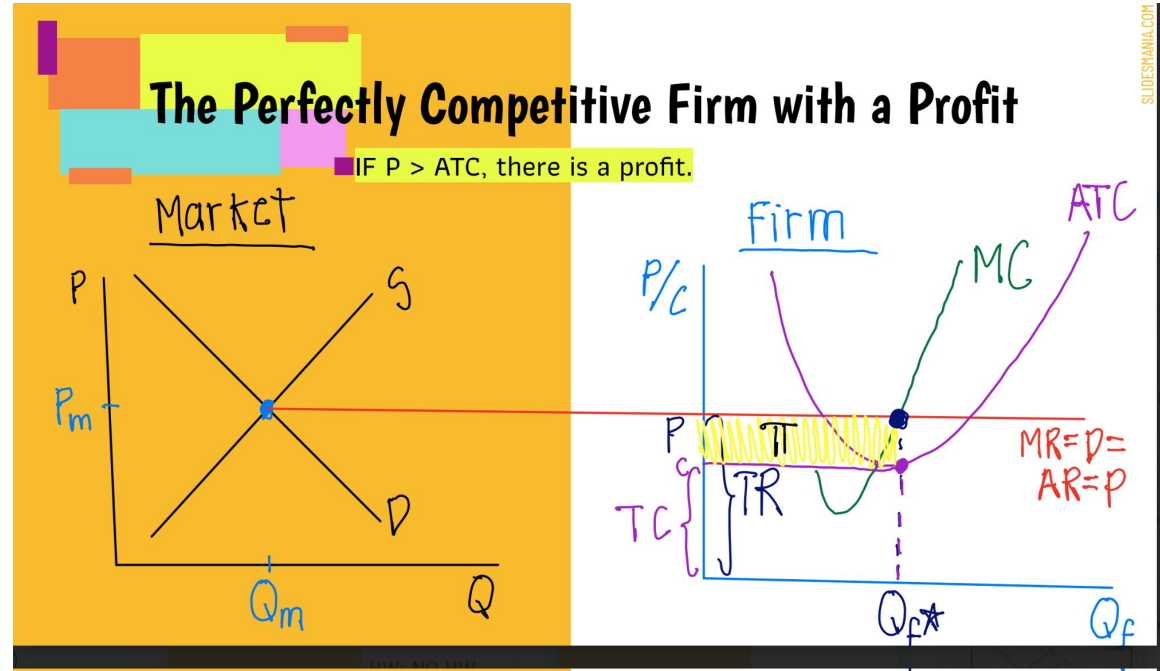
The Perfectly Competitive Firm with a Profit

IF $P > ATC$, there is a profit.

SLIDESMANIA.COM

The Perfectly Competitive Firm with a Profit

IF $P > ATC$, there is a profit.



SLIDESMANIA.COM

Lecture: Guided Notes + Live Graphing



Swoosh, Mr. Durant



Short Run Outcome: Monopoly with a Profit:

$$P > ATC$$

Swoosh

MR

Durant



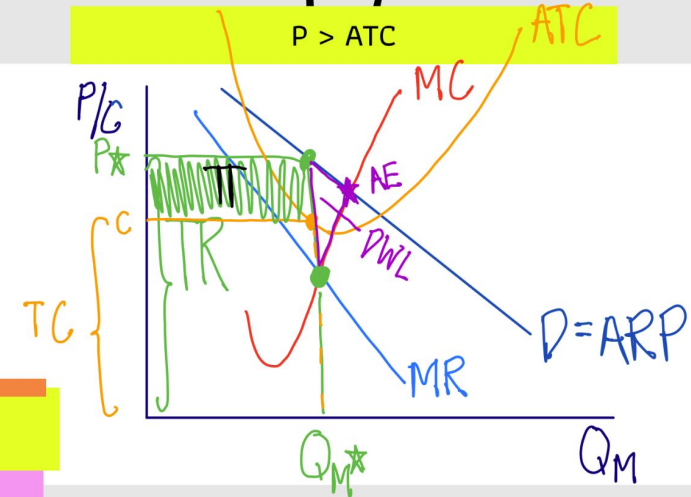
Short Run Outcome: Monopoly with a Profit:

$$P > ATC$$

Swoosh MC

MR MR

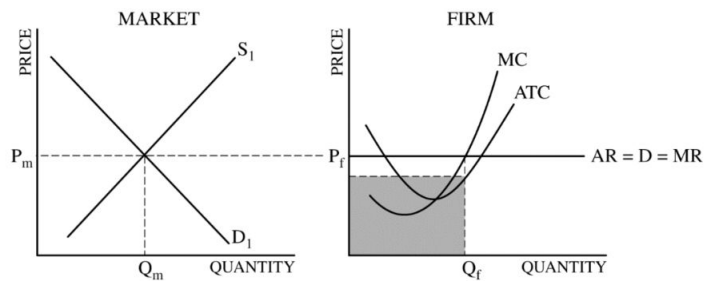
Durant $D=ARP$



Teaching: Group Practice



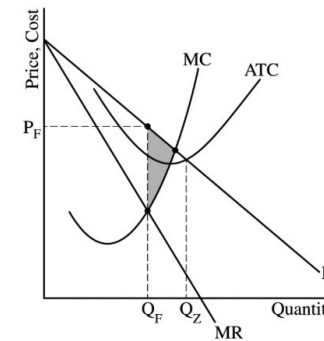
PC Firm in the Short Run - Mini FRQ Warm Up - Practice FRQ



1. Identify an industry that might have this type of a market structure, given its characteristics.
2. Is the firm maximizing profit at Q_f ? How do you know this?
3. If the firm produces Q_f , is there a profit, loss, or zero economic profit? Explain.
4. Identify what the shaded box represents for this firm.
5. Explain when this firm would choose to shut-down and why. Add this point onto the firm's cost structure.

Have students interpret graphs before drawing them.

A. Diagram Analysis: Use the diagram below to answer the questions.



1. Explain the type of firm that is shown above, and give an example in the real world.
2. Is this firm maximizing profit by producing Q_f ? Explain.

3. If this were a perfectly competitive firm, where would the firm produce? How does this compare to this firm structure?
4. Is this firm earning a profit, loss, or zero economic profit? Explain.
5. Label the Total Revenue in the diagram as TR, the Total Cost as TC, and if relevant, the remaining box as profit or loss.
6. What is the shaded triangle, and why does this firm structure have it?

B. Practice: Draw a Monopoly with a profit or loss. Label the profit maximizing quantity as Q_f , the price as P_f , and shade the profit or loss. Remember to include the D, AR, MC, and ATC.

Monopoly with a Profit	Monopoly with a Loss

Teaching: Group Practice



ADVANCED PLACEMENT
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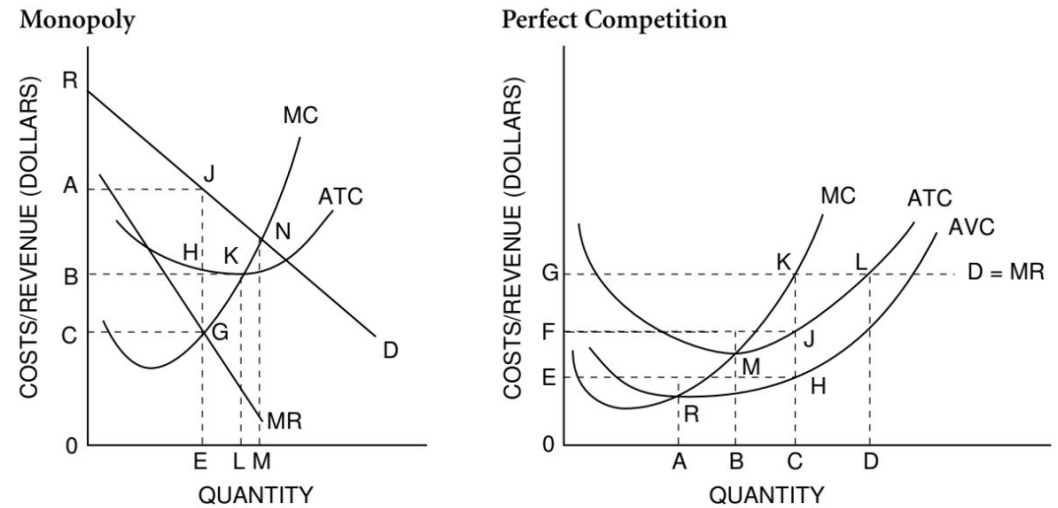
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Teaching Opportunity

A Quick Review of Perfect Competition and Monopoly

* Figure 39.1
Graphs of Monopoly and Perfect Competition



These questions are based on Figure 39.1. Underline the correct answer. Assume that the monopoly can set only one price. Both the monopoly and the perfect competitor seek to maximize profits.

- A monopoly firm will maximize profits at what price?
(A) 0A (B) 0B (C) 0C (D) 0R
- Economic profits for the monopoly firm are represented by the area of which rectangle?
(A) 0CGE (B) 0AJE (C) AJHB (D) BAJN
- Total costs for the monopoly firm are represented by the area of which rectangle?
(A) 0RJE (B) 0CGE (C) AJHB (D) BAJN

Independent Practice: Informal Assessments

Unit 4: Perfect Competition in the Short Run

Day 2: Practice Problems - Check your answers in the Google Form, and answer the question.

- In the short run, a perfectly competitive firm produces output and earns zero economic profit if:
 - $P > ATC$
 - $AVC < P < ATC$
 - $P = AVC$
 - $AVC > P > ATC$
 - $P = ATC$
- If a producer, a perfectly competitive firm will maximize profits at the output where:
 - marginal revenue equals marginal cost.
 - marginal revenue equals price.
 - price equals average total cost.
 - price exceeds marginal cost.
 - price equals minimum average variable cost.
- When a firm cannot affect the market price of the good that it sells, it is said to be a:
 - price-taker.
 - natural monopoly.
 - dominant firm.
 - cartel.
 - price discriminating monopoly.
- The market structure called _____ is described as having a single producer selling a single, undifferentiated product.
 - perfect competition
 - monopoly
 - oligopoly
 - monopolistic competition
 - duopoly

Use the graph below to answer questions 5-7.

5. If the market price is \$2.00, the firm will produce _____ units of output per day.

- 100
- 200
- 300
- 400
- 0

6. In the short run, total cost per day is:

- \$175
- \$100
- \$200
- \$100

7. If the firm faces a market price of \$2.00, its total profit per day is:

- \$200
- \$175
- \$275
- \$200

8. Use the graph below to answer question 8.

8. In the figure, total cost at the profit-maximizing quantity of bushels is _____.

- 150
- 16
- 42
- 72
- 4

PC in the SR: Problem Check

Please submit your problems from yesterday, to see if you got the information correct.

Last Name, First Name *

Short answer text

Class Pd. *

1

3

4

Google Form

Insights

Average
8.23 / 9 points

Median
9 / 9 points

Range
3 - 9 points

Settings

Make this a quiz

Assign point values, set answers, and automatically provide feedback

RELEASE GRADES

Immediately after each submission

Later, after manual review

Turns on Responses → Collect email addresses

CHROMEBOOK SETTINGS

Locked mode

Respondents aren't allowed to open tabs or other applications while taking this quiz. Respondents must take this quiz using a managed Chromebook. [Learn more](#)

RESPONDENT SETTINGS

Missed questions

Respondents can see which questions were answered incorrectly

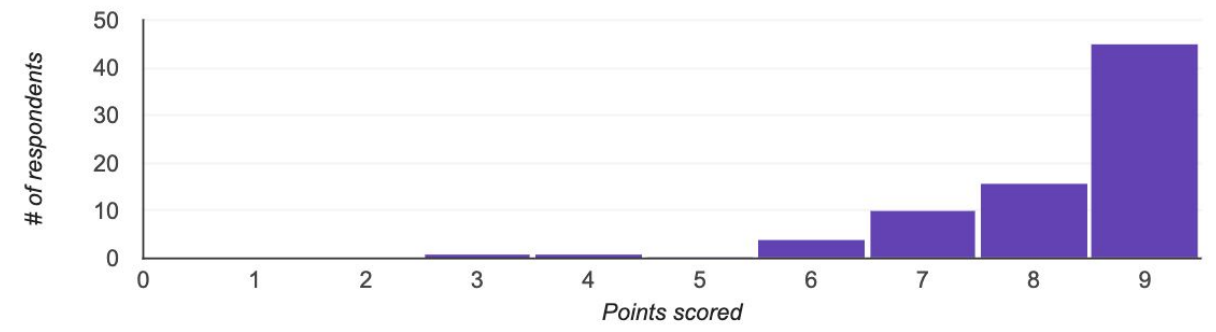
Correct answers

Respondents can see correct answers after grades are released

Point values

Respondents can see total points and points received for each question

Total points distribution



Independent Practice: Informal Assessments

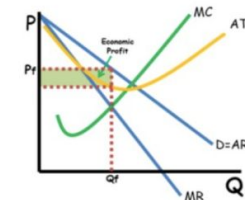
Socratic

7. For this outcome to exist, a monopolist must have

Show Results

24/24 Students Answered

- A $P < ATC$
- B $P = ATC$
- C $P > ATC$
- D $P > AVC$
- E $P = MC$

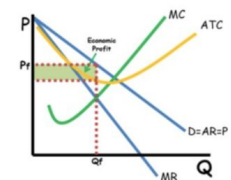


7. For this outcome to exist, a monopolist must have

Hide Results

24/24 Students Answered


- A $P < ATC$ 4%
- B $P = ATC$ 0%
- C $P > ATC$ 79%
- D $P > AVC$ 13%
- E $P = MC$ 4%



.....	✓ 82%	✓	✓	✗	✓
.....	✓ 82%	✓	✓	✓	✓
.....	✓ 73%	✓	✓	✗	✓
.....	82%	✓	✓	✗	✓

Independent Practice: Quizizz




Perfect Competition and Monopoly
 University • Education
 79% accuracy • 4.2K plays

Marini Marini
 4 years

AI Enhance Copy and Edit

INSTRUCTOR-LED SESSION **Start a live quiz**
 ASYNCHRONOUS LEARNING **Assign homework**

15 questions Show answers Preview

Multiple Choice 30 seconds 1 point

Which of the following could attract new firm to join an industry?

- Normal profits
- Economic losses
- Economic profits
- Accounting profits

Multiple Choice 5 point

A firm operating in a perfectly competitive market will shut down when price is below the minimum of _____.

- marginal cost curve
- average total cost curve
- average fixed cost curve
- average variable cost curve

Multiple Choice

A perfect competitive firm charges a price that is _____.

- different to other firms
- higher than other firms
- lower than other firms
- similar to other firms



100%	8570	Evaluate
100%	8700	Evaluate
100%	10730	Evaluate
100%	9070	Evaluate
100%	8080	Evaluate
100%	9680	Evaluate
100%	9710	Evaluate
100%	10090	Evaluate

Multiple Choice 5 point 88% Accuracy 10s Avg. time

Question: 9. A company would want to charge a _____ price to a person with an inelastic demand, and a _____ price to a person with elastic demand.

Options:

- A higher, lower (51 answered)
- B higher, higher (0 answered)
- C lower, lower (1 answered)
- D lower, higher (0 answered)

Correct: 51 students
 Incorrect: 1 student
 Unattempted: 6 students

Start
 Challenge friends
 Flashcards

Settings

- Read text aloud
- Timer
- Memes
- Power-ups

Memes

- Fellow Kids
- The Vault [A...]
- Puns

Random classic cosmic... synthwa...



Problem #4: Engagement

Engagement: Monopoly



What are some interesting statistics you heard?

What pieces of information explain the market structure of Luxottica?

Engagement: Product Differentiation



[Objective](#) [Standards](#) [Resources](#) [Procedure](#) [Group Activity](#) [Extension](#)



Objective

Students will be able to

- Define product differentiation and identify real world examples.
- Design and advertise their own product to peers.

Standards

[National Standards in Economics](#)
[State Standards](#)
[Common Core State Standards](#)

Concepts

[Advertising, Market Structures, Monopolistic Competition](#)



Professional Development Webinar

 **Bring Product Differentiation to Life with Creativity**
On-Demand Webinar | Time: 60 mins

Engagement: Game Theory



Why Penalty Kicks Are Unfair To The Goalie

BEST PENALTY KICK STRATEGY

Watch later Share

BUSINESS INSIDER

slidesmania.co

Debrief:

1. What is something significant you heard in this video?
2. What is a major take-away from this video, with regards to game theory?
3. What are you now wondering?

Engagement: Discussion Prep



Unit 4 Discussion Preparation: In the Real World

A. **Background:** Choose 1 article and 1 podcast connected to this unit. Then, use this document to help prepare you for our in person discussion.

Articles on Game Theory	Podcast/Video
538: Football: When to Go for 2 Advanced Football: Run/Pass Britannica: Arms Race Frontier Economics: GT in Poker Fansided: Basketball 3 Pointer The Conversation: GT in Penalty Kicks	NPR: The Case Against Facebook NPR: Printers Are the Worst NPR: Stadiums and Captive Audiences NPR: Big Tech AntiTrust NPR: Antitrust Standard Oil NPR: Apple NPR: Google NPR: The Science of Hoops NPR: The Prisoner's Dilemma and Arms Race Why Barnes & Noble Is Copying Local ... How Warby Parker Disrupted Then A... YouTube: Amazon vs. Walmart How Home Depot Became the World's...

Article Chosen:

Important findings/data/details I read that made me curious:

Podcast Chosen:

Important findings/data/details I heard that made me curious:

Unit 4 Discussion Preparation: In the Real World

B. **Reflection:** Respond to the following question in 2-3 sentences, based on what you heard in the video and podcast.

- What insights did you gain? **Highlight the specific example or quotes from the source.**

Source #1:

Source #2:

C. **Preparation for Discussion:** Add 2 open-ended questions you now have for your peers to prepare for tomorrow's discussion.

Question #1:

I read (name) _____ and it said (add quote)....

and
I'm wondering...

Question #2:

One podcast I listened to was (name) _____ and it said (add quote)....

and
I'm wondering...

take-away of the conversation.

- Will Walmart and Amazon collaborate? Many feel like they won't because they both control separate parts. Walmart is in person and Amazon is online. Neither companies have interest in switching from online to in person or vice-versa.
- In poker, there is no nash equilibrium strategy. Instead, mixed strategy is used. If there was a nash equilibrium, that would be used, but a mixed strategy is the next best option.
- Emotions play a big role in game theory. In the prisoner's dilemma, prisoners choose to confess out of fear. If emotions didn't drive choices, prisoners might not confess more often because they don't care if they're stuck in jail or not.
- Should Barnes and Noble make all stores smaller or should they keep some big? It depends on the environment. Some places might have a culture of going to a store to get items and leave, and some places might want more personal stores.
- Will Amazon ever fall from being the top online store? It's likely that it will split up because it is a monopoly. This is similar to when AT&T and Standard Oil broke up. There's also a possibility that once split up, Amazon will slowly rebuild.
- Recently, poker has shifted from in person to online. In person, game theory was played through psychology and body language. Now, game theory is played strictly based on odds of cards. There are less variables, and it is mainly luck.
- Is it possible for a company to become a monopoly like Standard Oil did? There are many more regulations now that help stop the production of monopolies. Despite this, there are monopolies on the diamond and sunglasses industry that have held strong for many years.

What is your three word phrase to highlight your class's conversation on this topic?

Phrase of 3 Words Game Theory Works!

Engagement: Market Structures Book



Market Structures Project - Exam Redo

Task: Write and record a podcast, talkshow or Children's book about "Market Structures" to help clarify the unique features of perfectly competitive firms, monopolies, monopolistically competitive firms, and oligopolies. This show will last between 5-7 minutes, or the digital Children's book would be 15-20 "pages/slides".

Introduce these "characters" to an audience where you coherently and creatively include all of the information for each: (SEE RUBRIC)

- Real World Example: Where each structure "lives" or exists in the real-world
- Background: The key characteristics of this structure
- Strengths
- Weaknesses
- The Overall Market Impact with the HAND DRAWN GRAPH in the short and long run (efficiencies, inefficiencies, deadweight loss)
- Justification: Why might this structure be better than the others?
- Opposition: Who in society might dislike this structure?
- Wrap Up: Something that makes the structure distinctive from others - a catchy phrase



Engagement: Market Structures Project

01
PERFECTLY
COMPETITIVE
FIRMS
Or PC for short!



INTRODUCTION

Hey y'all! I'm Perfectly Competitive Firms (or PC for short) and I live on a small farm in California.

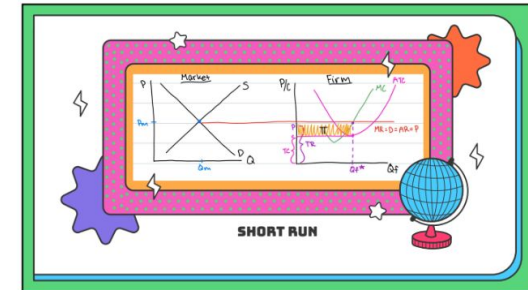


MY WEAKNESSES ARE...

LOWER lower quality of products, lack of innovation, instability for businesses, and lack of economies of scale.



SHORT RUN



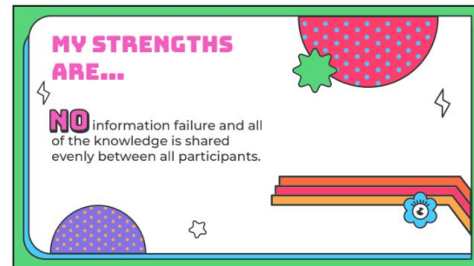
SOME OF MY KEY CHARACTERISTICS INCLUDE...

- ONE** a large number of sellers,
- TWO** no barriers to entry,
- THREE** identical products,
- FOUR** perfect information,
- FIVE** and I am a price taker.

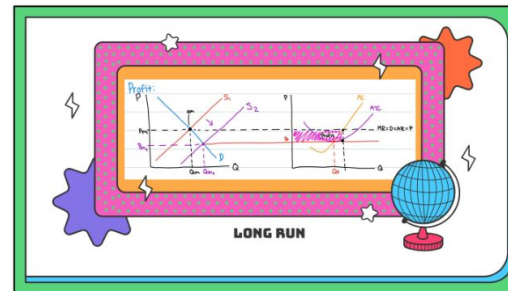


MY STRENGTHS ARE...

NO information failure and all of the knowledge is shared evenly between all participants.



LONG RUN



JUSTIFICATION

I'm better than other market structures because my barriers to entry are fairly low and firms can enter and exit the market easily.



Reflection CEE

Supply and Demand

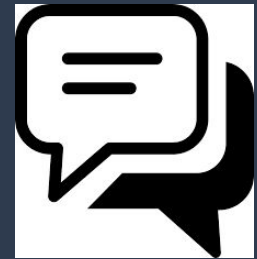
Challenges	Solutions
1. Pre-existing Knowledge of “Demand” Shifting vs. Movement Along	Teaching Model MRU: Video , MRU Interactive
2. Shifters of Demand vs. Supply	Teaching Model MRU: Demand , MRU: Supply MRU Interactive
3. Market Outcomes with Single and Double Shifts	Teaching Model MRU Interactives
4. Engagement: Real World	Current Events: Messi Effect, Taylor Swift

Market Structures

Challenges	Solutions
1. Overall Classifications	Preview + Spectrum
2. Specific Characteristics of Each	Acronyms + Graphic Organizer
3. Graphs: Interpreting and Drawing	Digital Assessments
4. Engagement	Current Events + Projects



What questions do you have?



Questions from the Audience



What takeaway do you have?
What's something you're now
wondering?



Add your
response in the
Chat box!

Reflect

References

- [MRU: Interactives](#)
- [MRU: Content](#)
- [YouTube: The Office: Law of Demand](#)
- [YouTube: News Nation + Swiftonomics](#)
- [Market Place: What Messi Means for Apple TV](#)
- [YouTube: CNBC Could Messi Supercharge MLS?](#)
- [YouTube: Messi Effect on MLS Soccer](#)
- [Socratic](#)
- [Quizizz: PC vs. Monopoly](#)
- [YouTube: Macklemore + Shoes - Product Differentiation](#)
- [YouTube: BI: Penalty Kicks and Soccer](#)
- [YouTube: Adam Ruins Everything: Monopoly](#)



Thank You

Susanna.Pierce.McConnell@gmail.com

