Microeconomics II

Paris Sciences et Lettres

Guillermo Woo-Mora

Spring 2025

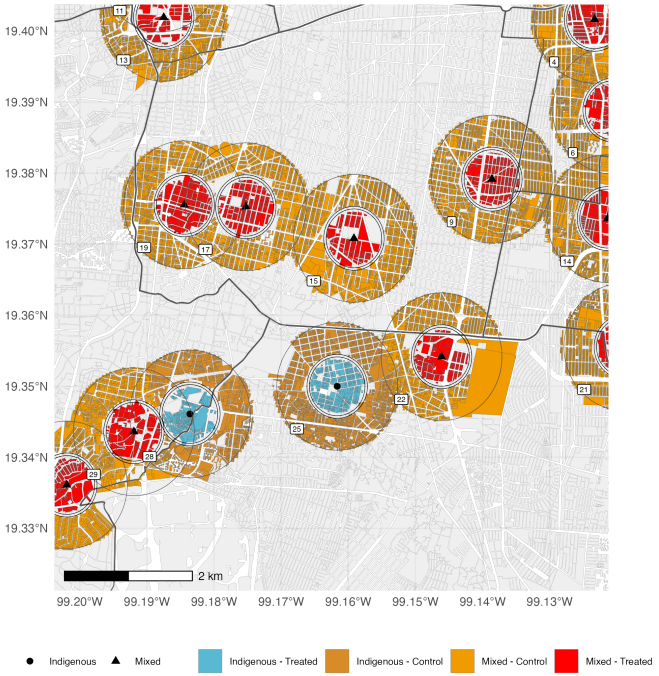
Welcome

Presentation

- Guillermo (Billy) Woo-Mora
- From Mexico 🇲🇽
- 4th year PhD candidate at PSE
- 📧 guillermo.woo-mora@psemail.eu
- Research interests:
  - Political economy of development
  - Historical economics
  - Social/Cultural economics

- *Durable or persistent inequalities*:

Long-term impacts of segregation policies



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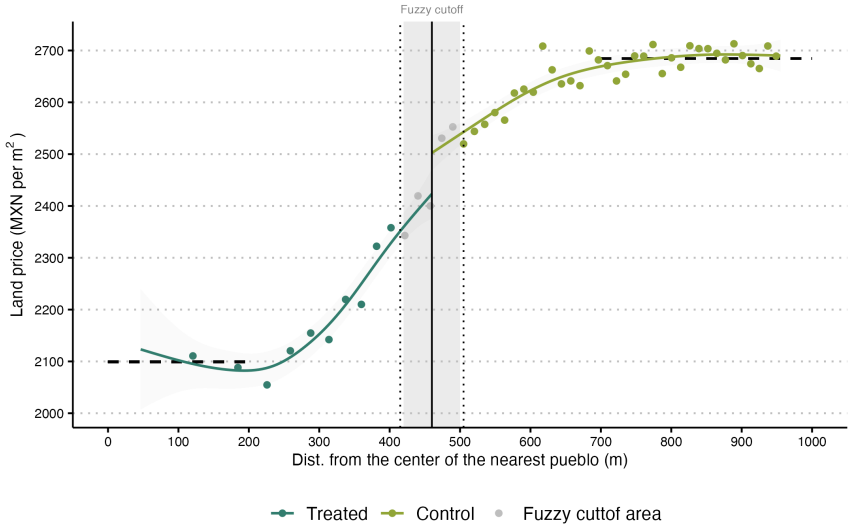

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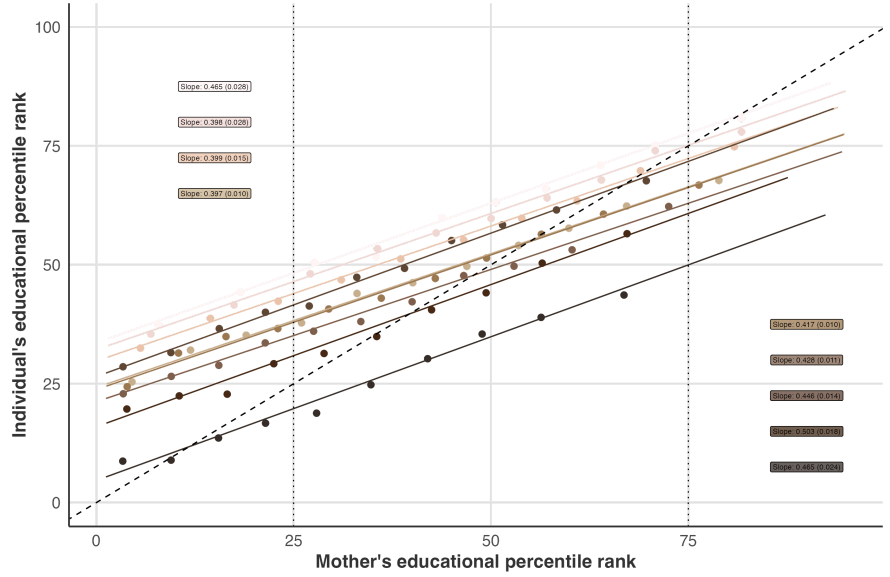
- *Durable or persistent inequalities*:

Between-group (skin tone) disparities and discrimination



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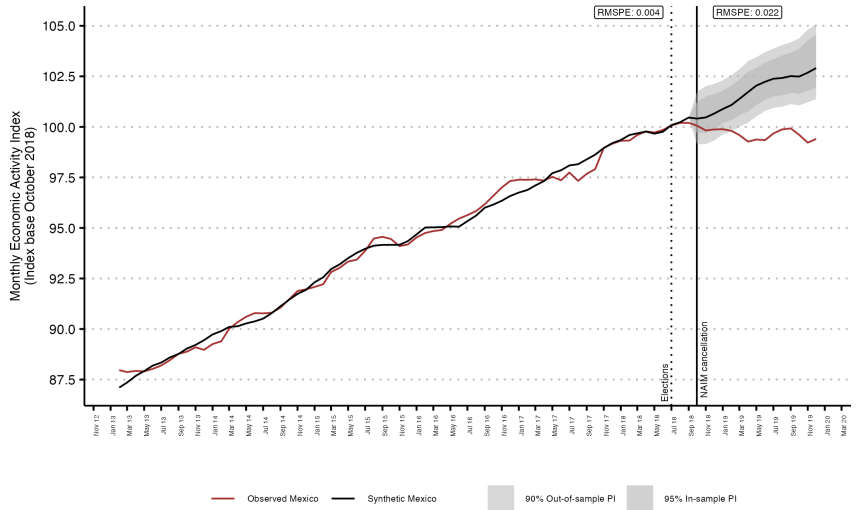
- *Populism: origins and consequences*:

Populist policies and populist leaders economic effects



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- A funny story or a interesting fact...

Now, your turn 😃

Microeconomics

Behavior and decision-making processes of individual agents in an economy, including their strategic interactions and the resulting economic outcomes

- Preferences
- Incentives
- Scarcity or constrains
- Optimization: be in the best possible scenario

Trade-offs

Microeconomics I and II

Micro I (First semester)

Decision-making of **consumers** and **producers** and the determination of **prices** in a **competitive economy**.

Partial equilibrium analysis of **competitive markets**.

Micro II (Second semester)

1. **Effects of public policies** supporting prices and production on the **welfare of consumers and producers**.
2. **Imperfectly competitive market structures**: how decisions of producers and consumers who have **market power** and can influence prices.
3. **General equilibrium**: markets interact with each other and **efficiency**.

Pindyck and Rubinfeld's *Microeconomics* (2020), Ninth Edition.

Microeconomics II

Pindyck and Rubinfeld's *Microeconomics* (2020), Ninth Edition.

- Chapter 8: Profit maximization and competitive supply (Short recap)
- Chapter 9: The Analysis of Competitive Markets
- Chapter 10: Market Power: Monopoly and Monopsony
- Chapter 11: Pricing with Market Power
- Chapter 12: Monopolistic Competition and Oligopoly
- Chapter 16: General Equilibrium and Economic Efficiency
- Chapter 18: Externalities and Public Goods*

Approx. two classes per chapter, with 45-60 minutes per chapter to solve exercises.

Will try to have a short break (10 min.) per class if time allows.

 Google calendar with course's dates

 Syllabus with content by date

Course policies

Grading

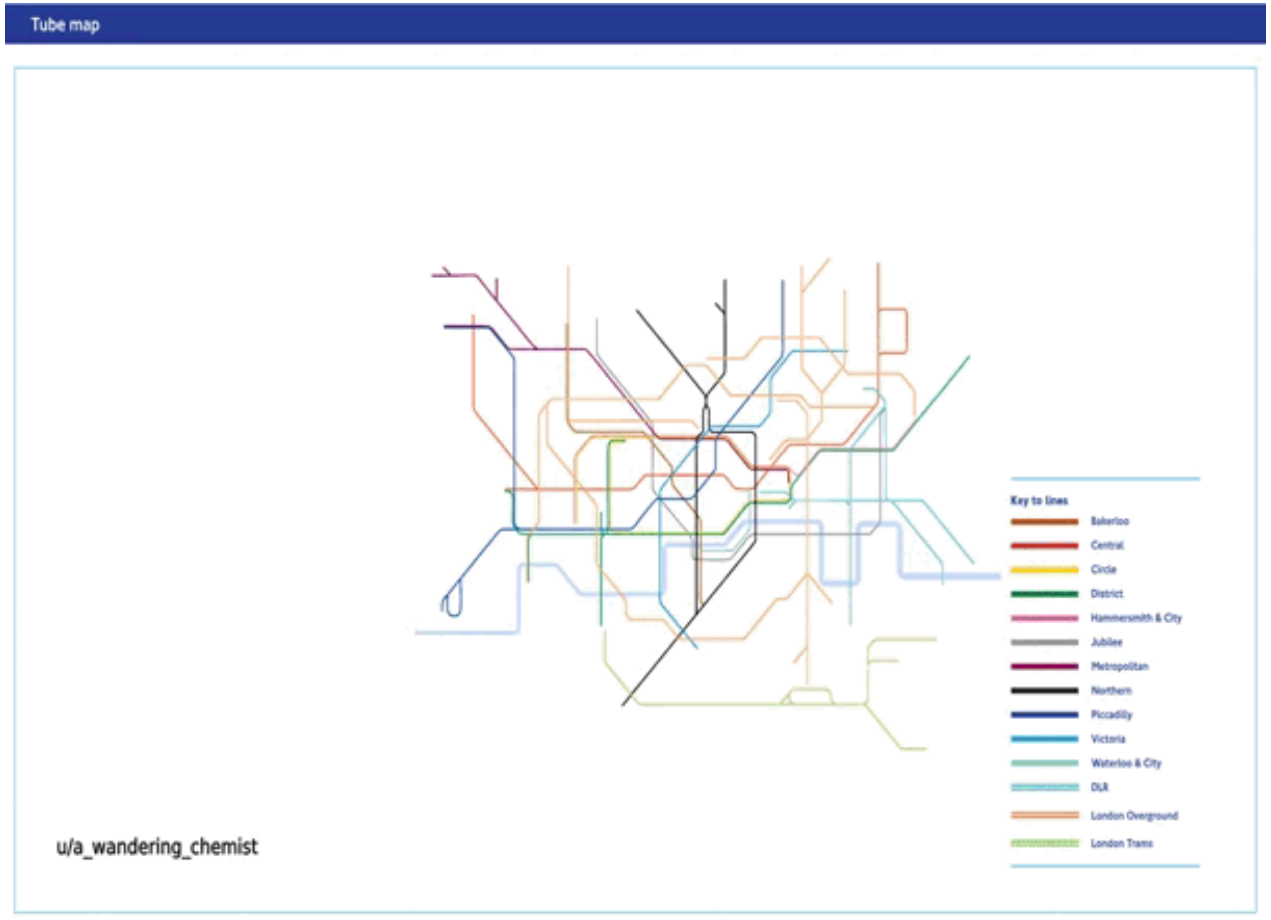
1. Midterm exam 40%
2. Final exam 40%
3. TD and surprise quizzes 15%

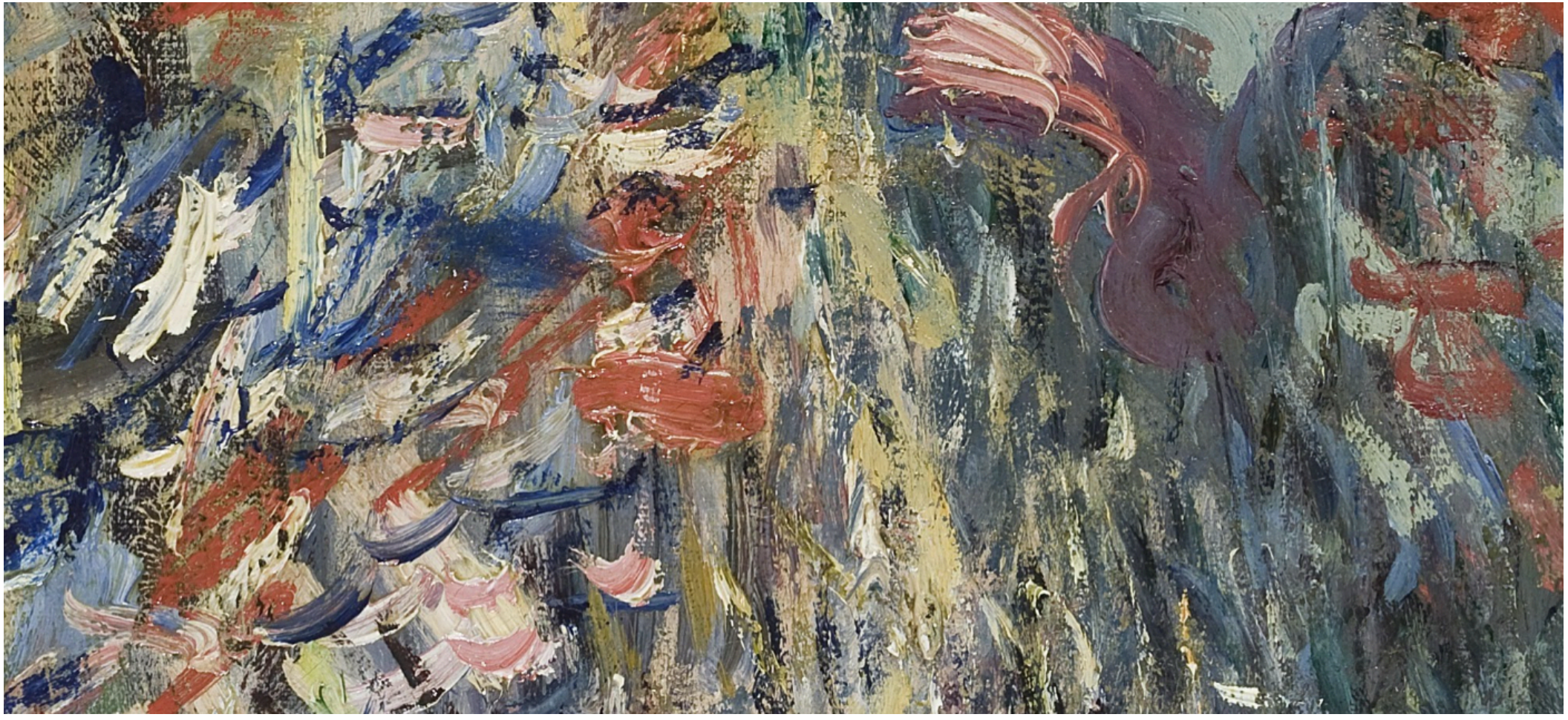
Policies

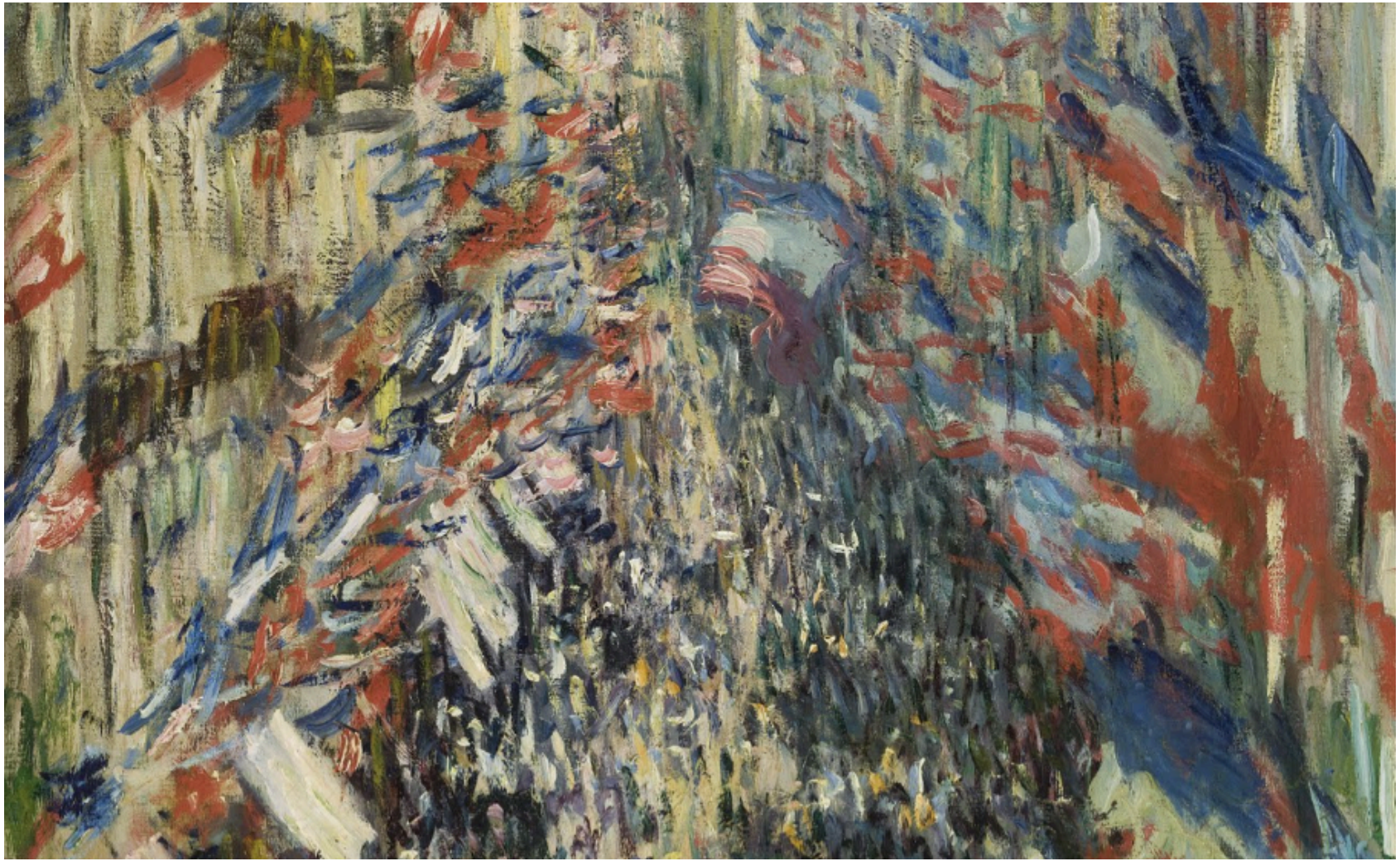
- Respect your classmates and instructor. Harassment of any kind will not be tolerated.
- **No electronic devices (computers, cellphones, tablets) are allowed during lectures.** Want evidence? Read this.
- Academic integrity is mandatory. Cite all sources properly. **Cheating during exams or using ChatGPT as a substitute rather than a complement will result in strict penalties.**
- If the classroom environment becomes disruptive (e.g., excessive noise), the class will be terminated, and the subject will be considered complete.

Microeconomics

Models


Tube map
Key to lines
Bakerloo
Central
Circle
District
Hammersmith & City
Jubilee
Metropolitan
Northern
Piccadilly
Victoria
Waterloo & City
DLR
London Overground
London Trams
u/a_wandering_chemist





La Rue Montorgueil. Claude Monet.

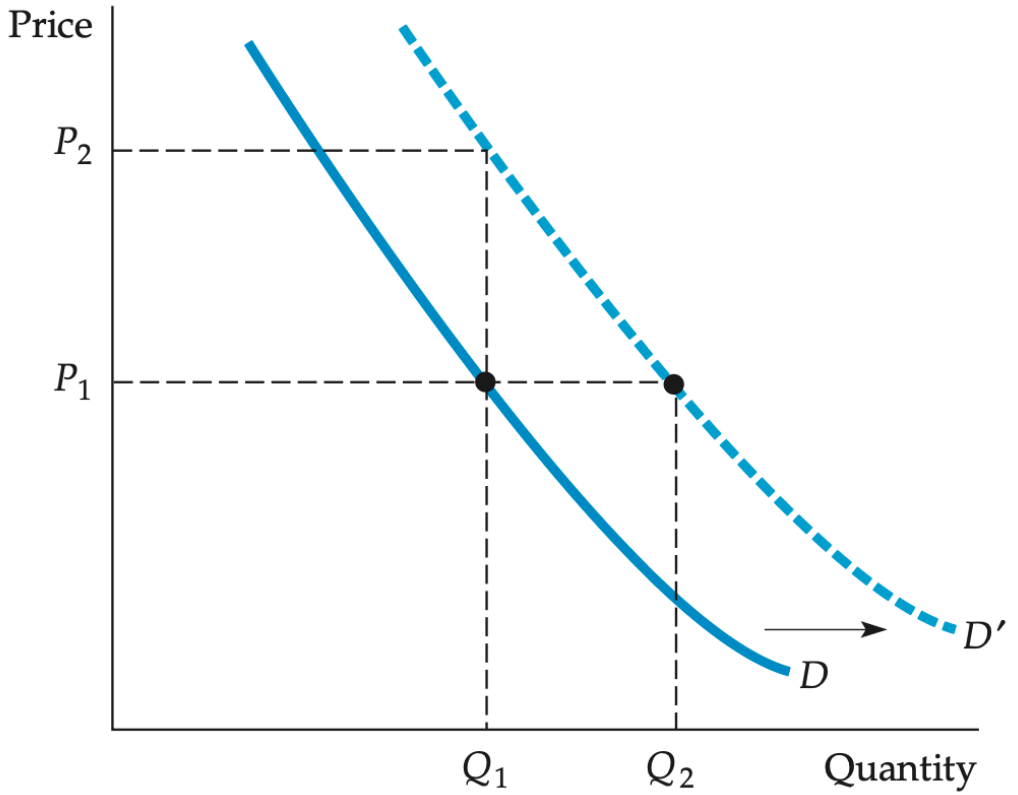
Like impressionist paintings, the economy is made up of individual different actions.

Micro is a useful tool

Beware of *Market fundamentalist*! (Basu, 2010)

Recap: Demand

Demand

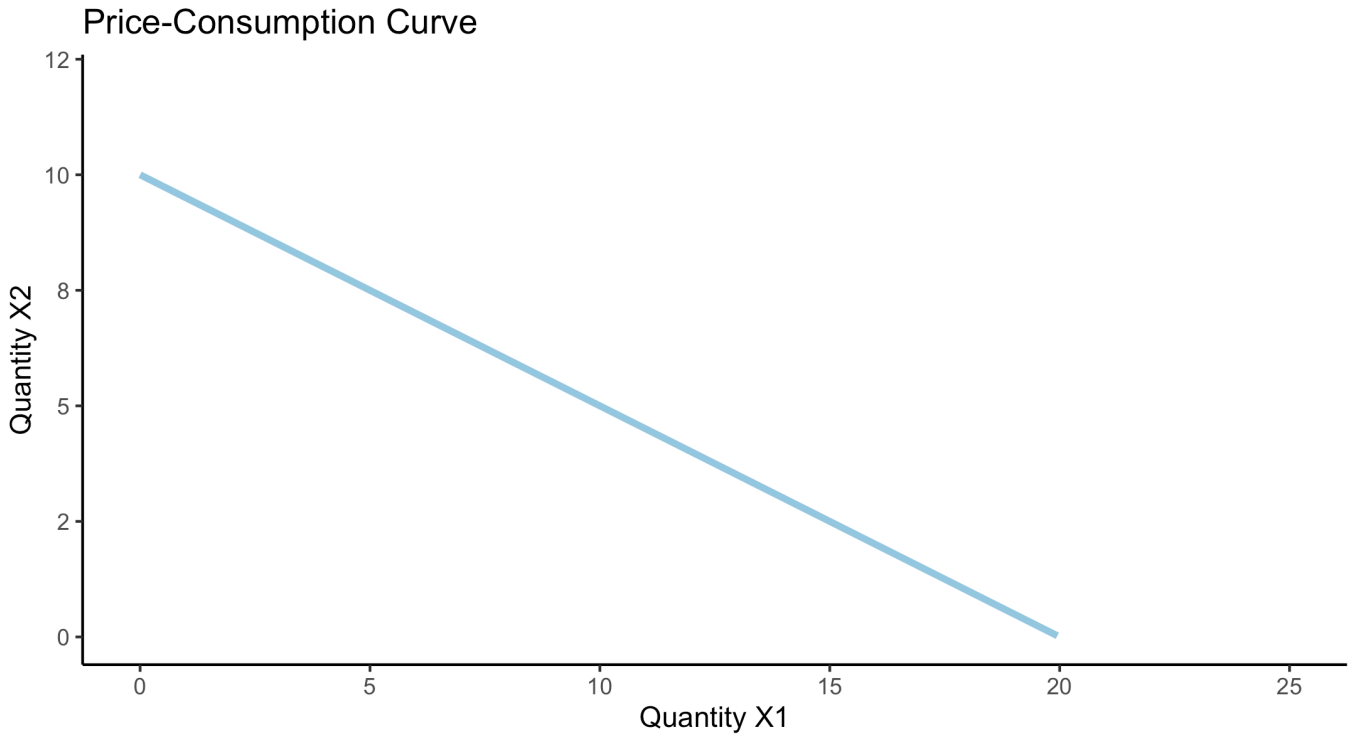


Demand

$$max\ U(x_1, x_2) \quad s.t.\ p_1 \cdot x_1 + p_2 \cdot x_2 = I$$

Demand

$$max\ U(x_1, x_2) \quad s.t.\ \mathbf{1} \cdot x_1 + \mathbf{2} \cdot x_2 = \mathbf{20}$$



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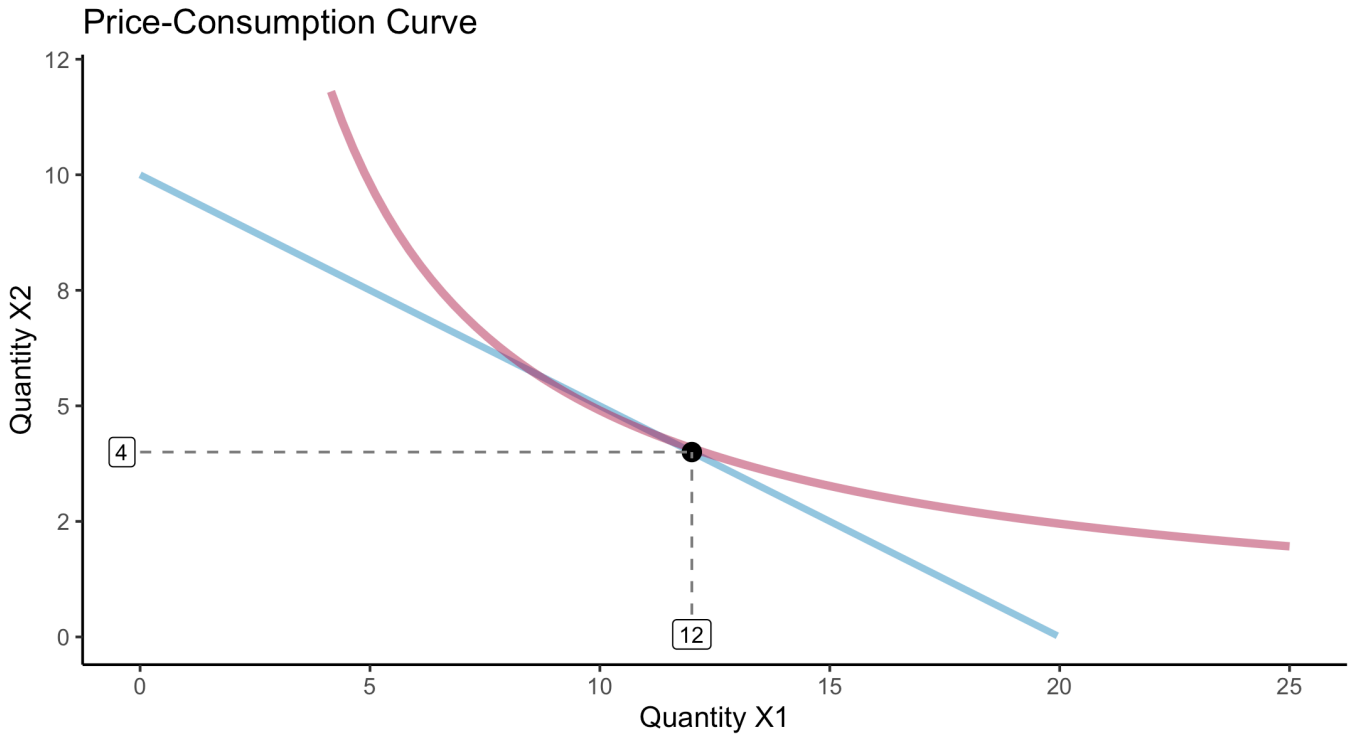

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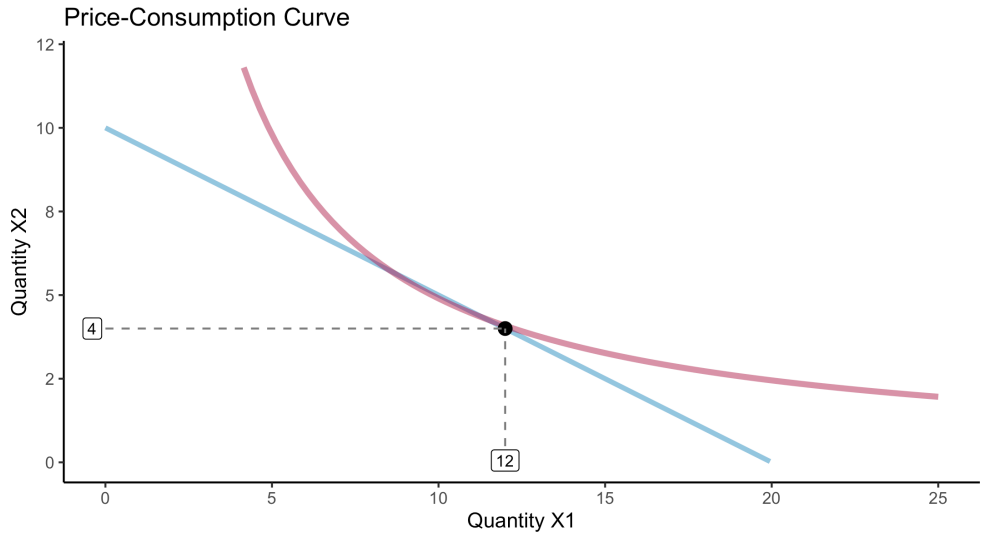
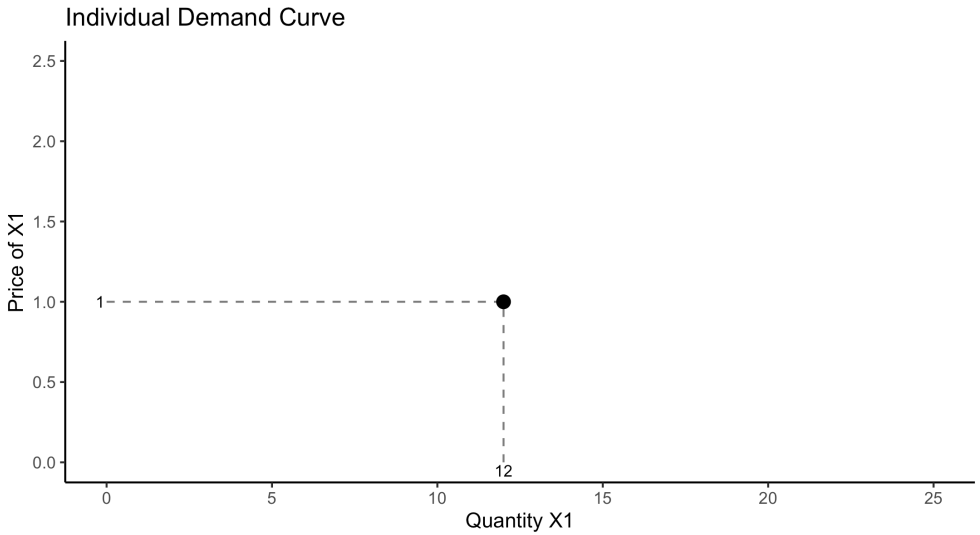
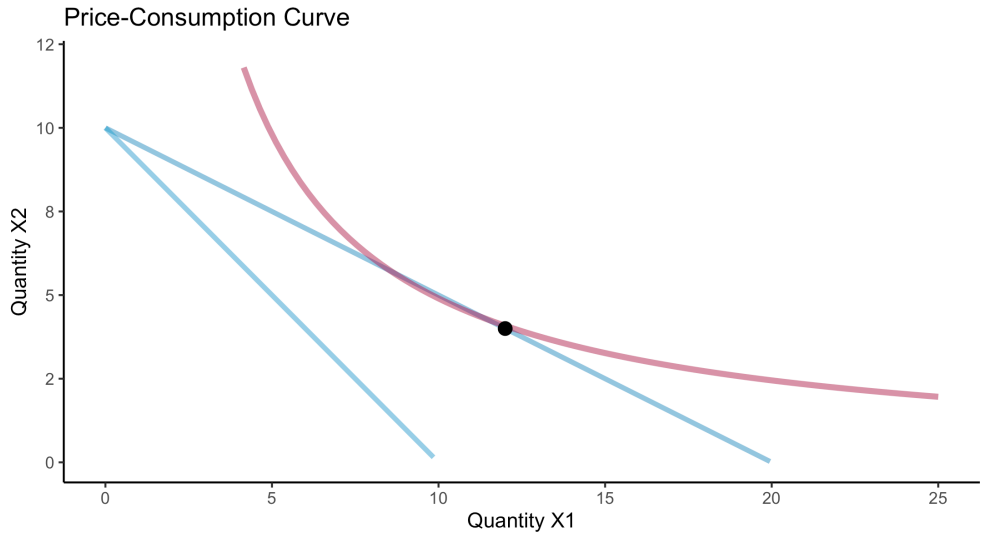
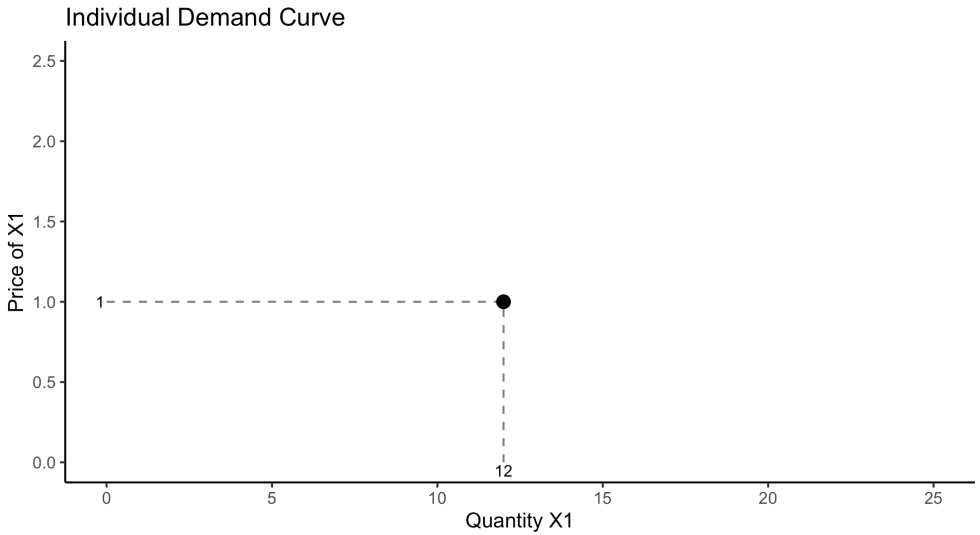




Demand

$$max\ U(x_1, x_2) \quad s.t.\ \mathbf{2} \cdot x_1 + \mathbf{2} \cdot x_2 = \mathbf{20}$$

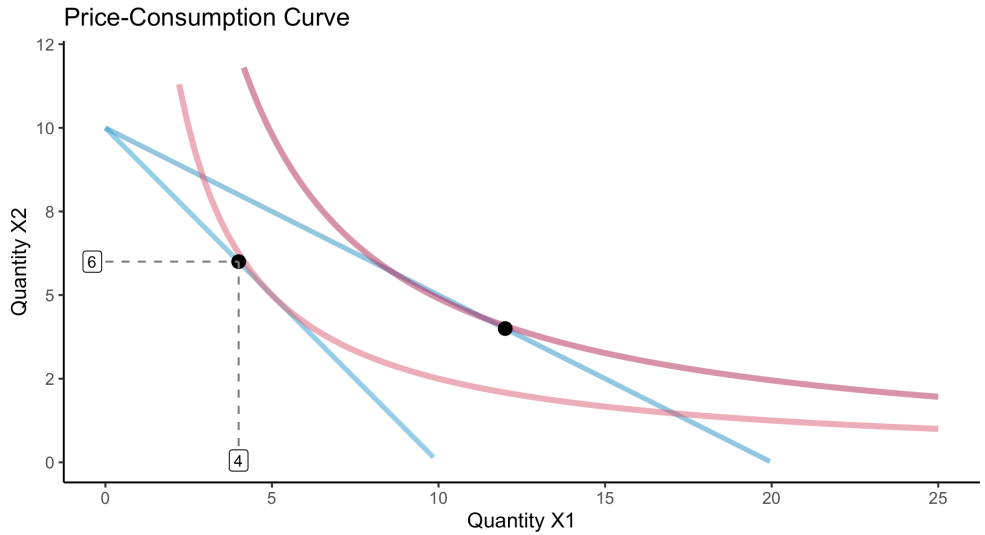


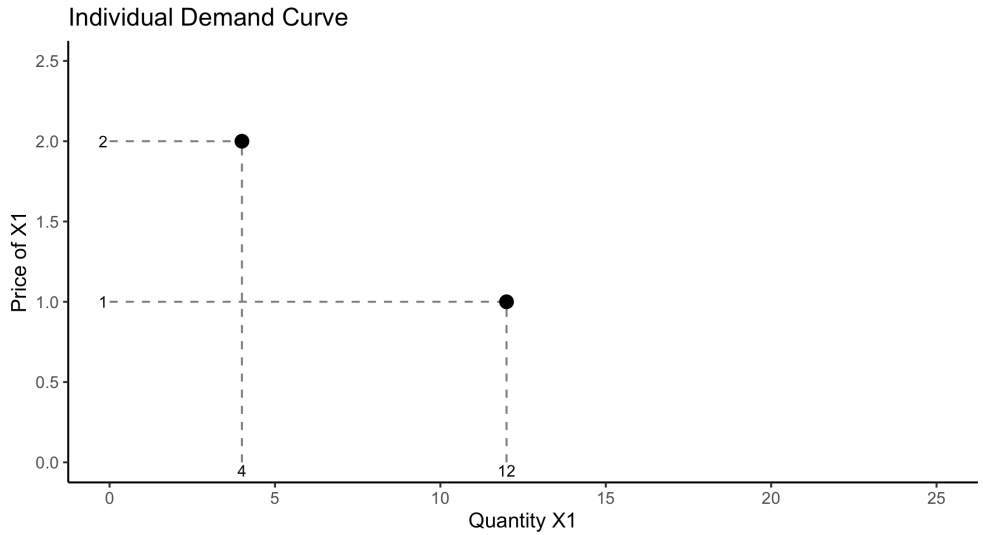


Price increase

Demand

$$max\ U(x_1, x_2) \quad s.t.\ \mathbf{2} \cdot x_1 + \mathbf{2} \cdot x_2 = \mathbf{20}$$

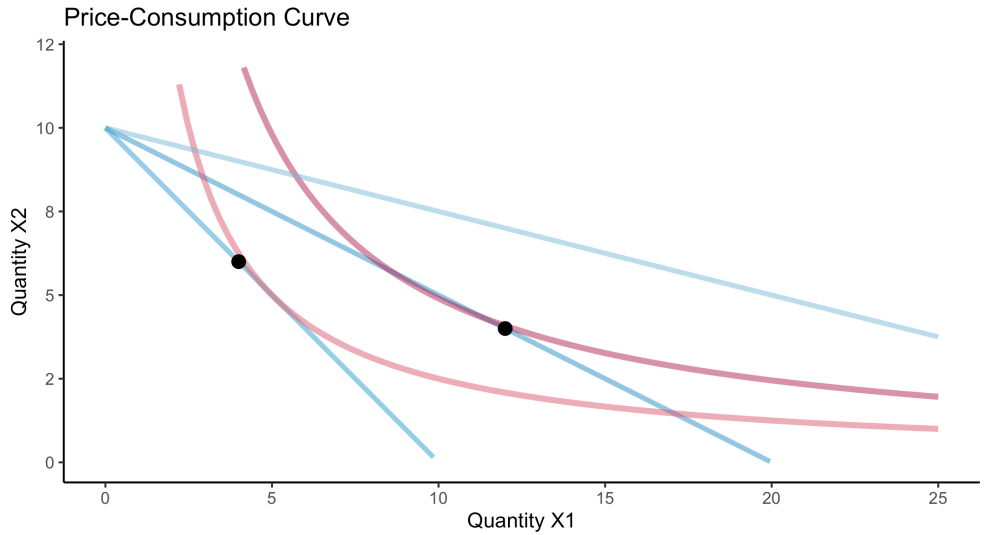


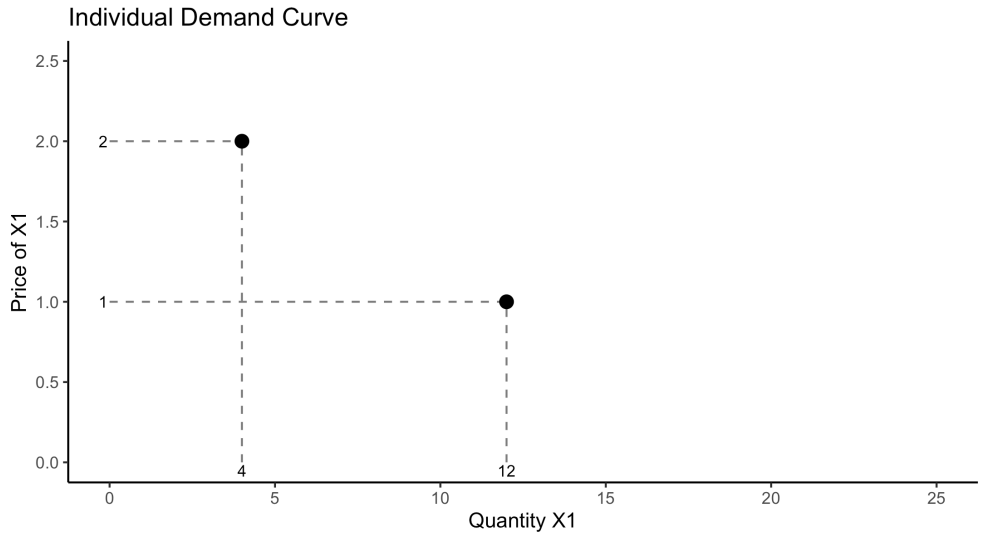


Price increase

Demand

$$max\ U(x_1, x_2) \quad s.t.\ \mathbf{0.5} \cdot x_1 + \mathbf{2} \cdot x_2 = \mathbf{20}$$





Price decrease

Demand

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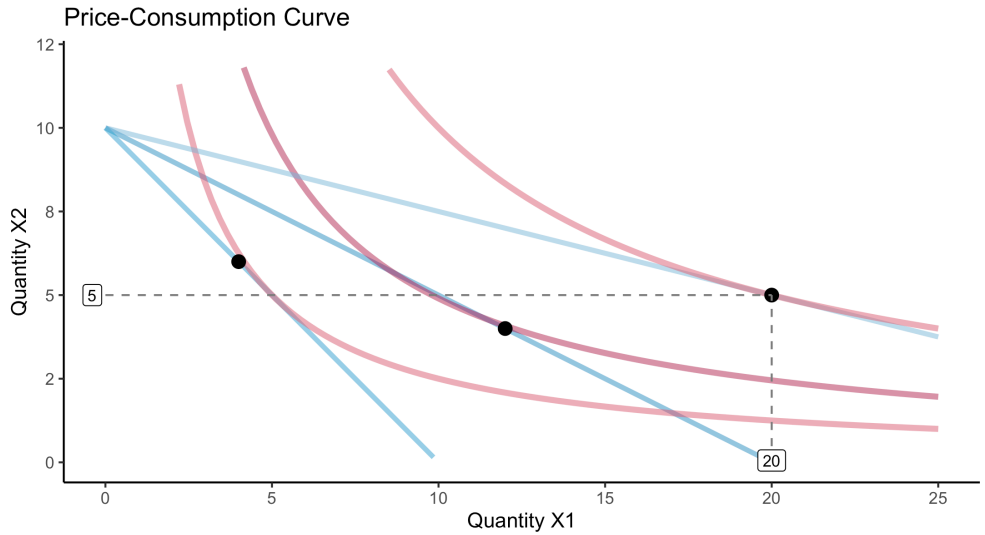
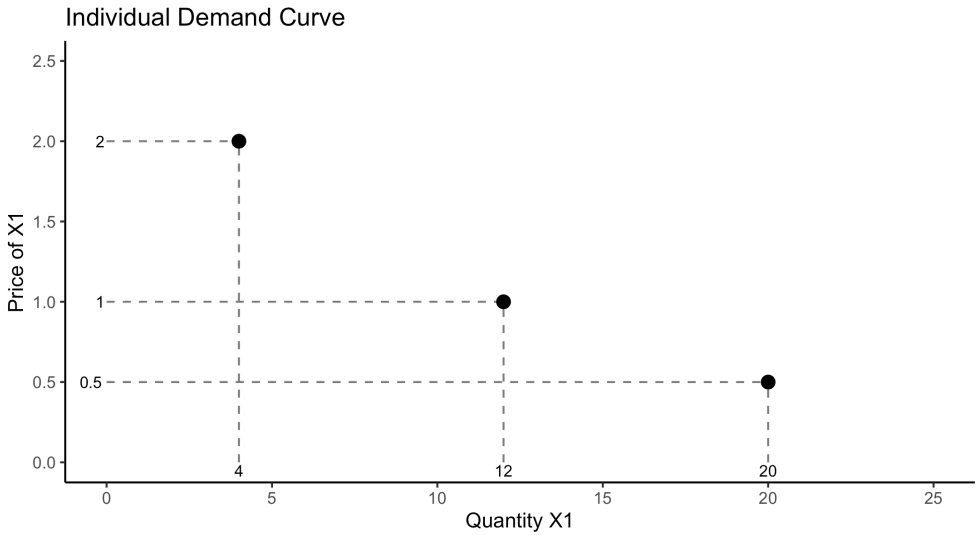
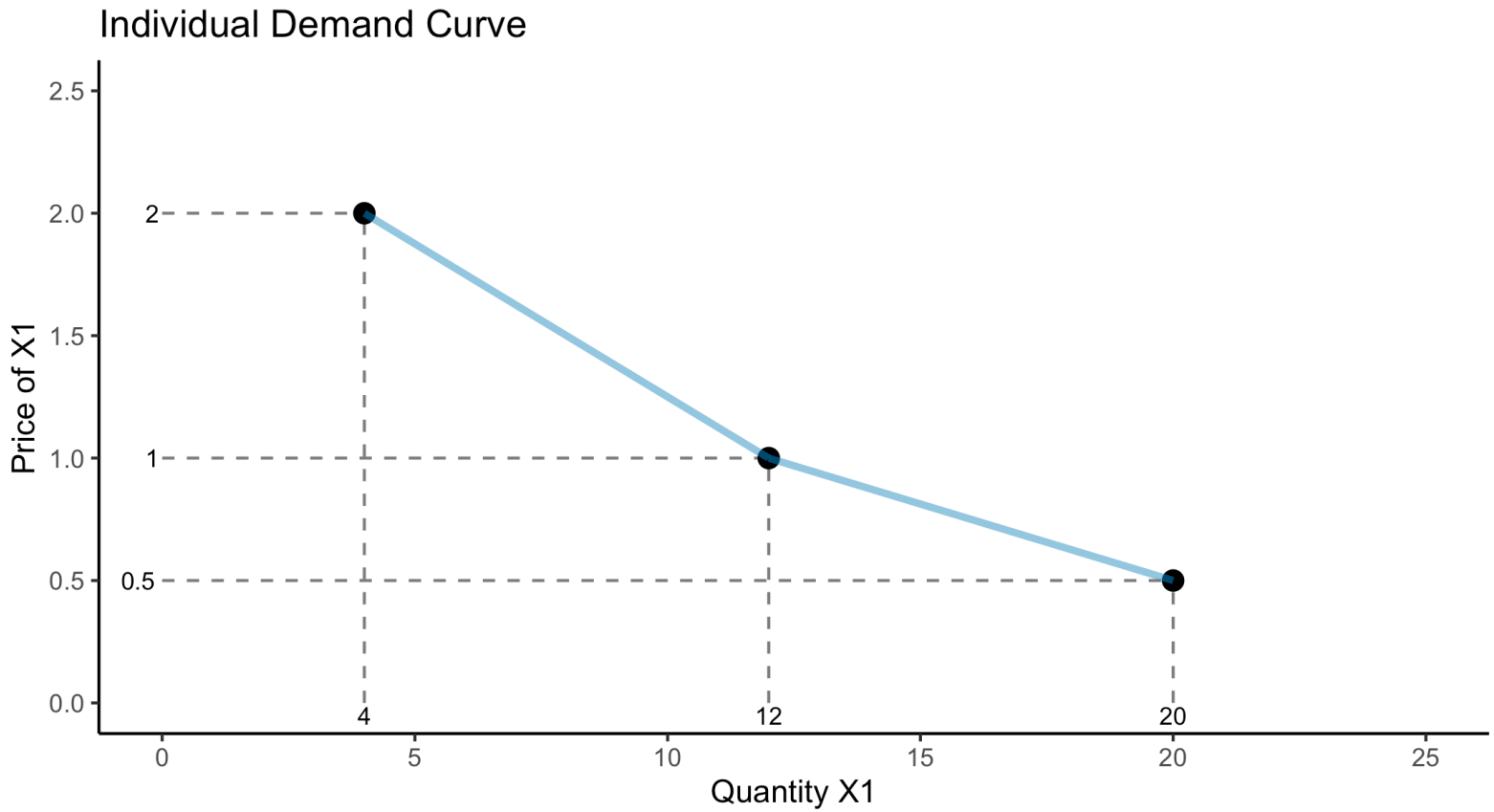




Price decrease

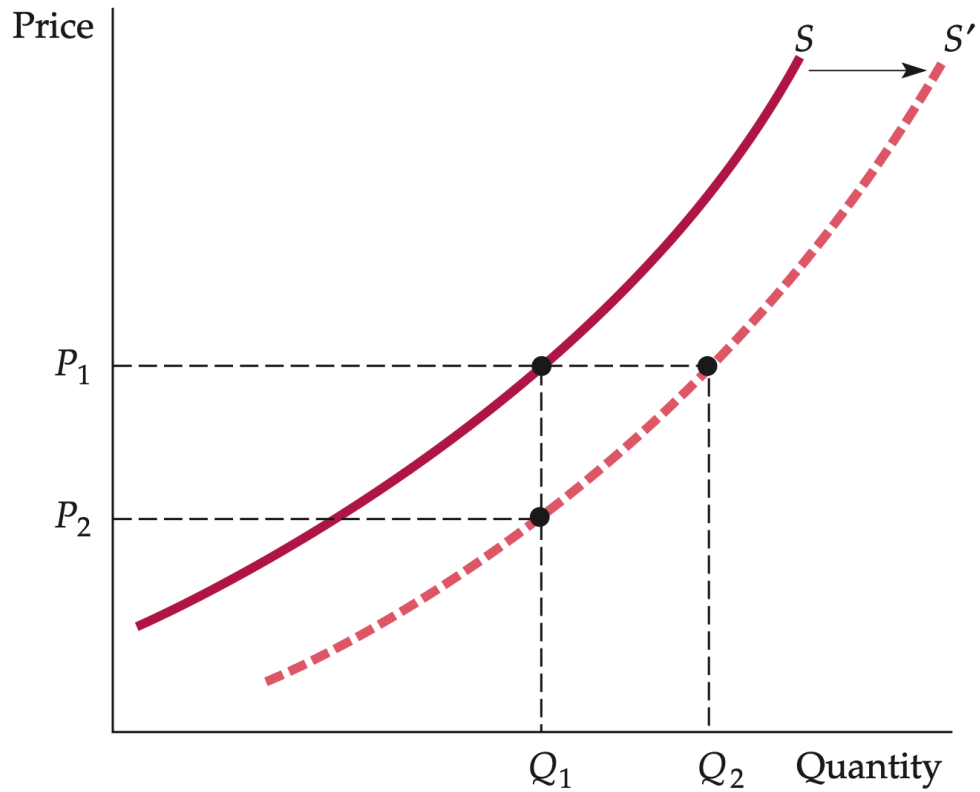
Demand

$$Q_D = Q_D(P)$$



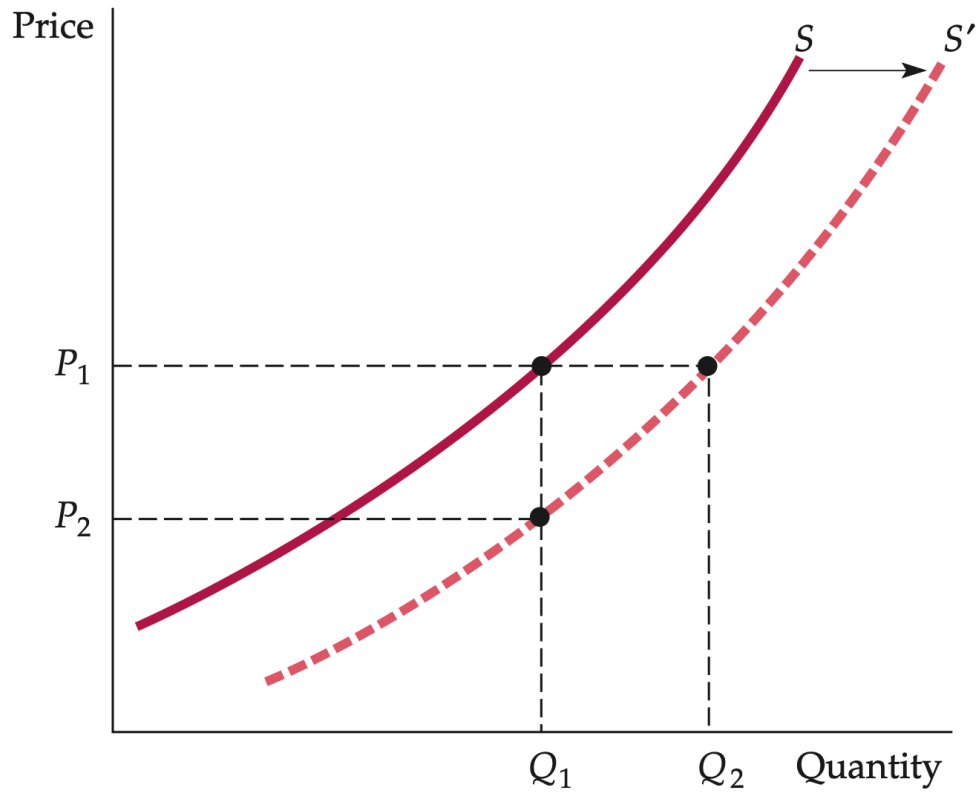
Recap: Supply

Supply



Firms can set either **Price** or **Quantity** depending on the market structure

Supply



$$max\ \Pi = P \cdot Q - C(Q) \quad s.t.\ Q = Q(P)\ or\ P = P(Q)$$

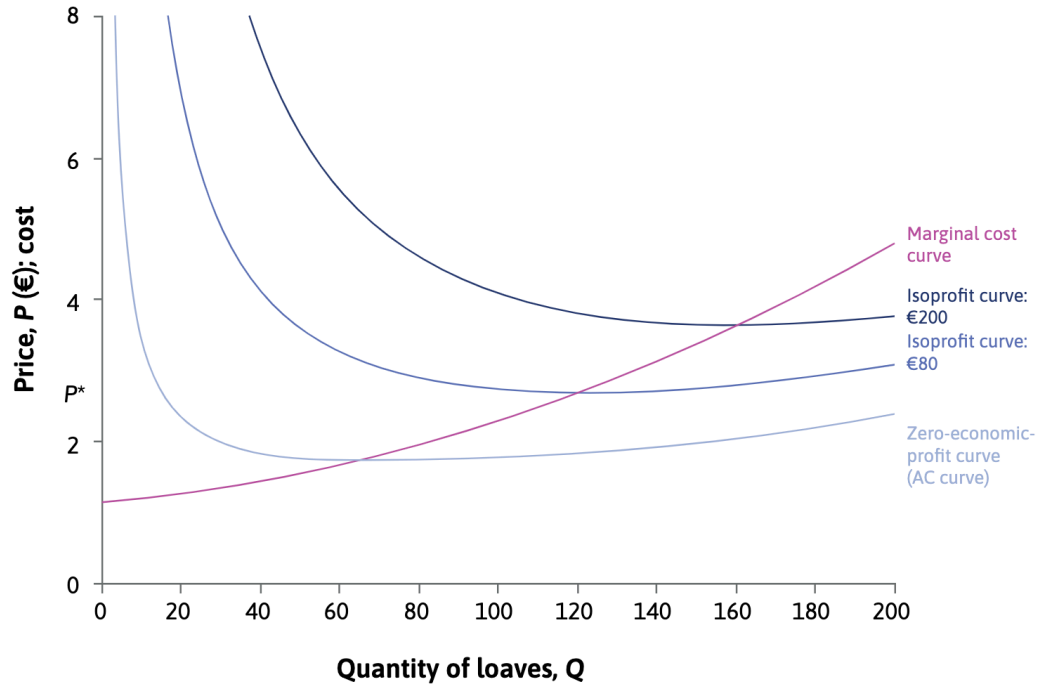
(Competitive) Supply

Firms are price takes

$$max_Q \, \Pi = P \cdot Q - C(Q) \quad s.t. \; P = P(Q)$$

(Competitive) Supply

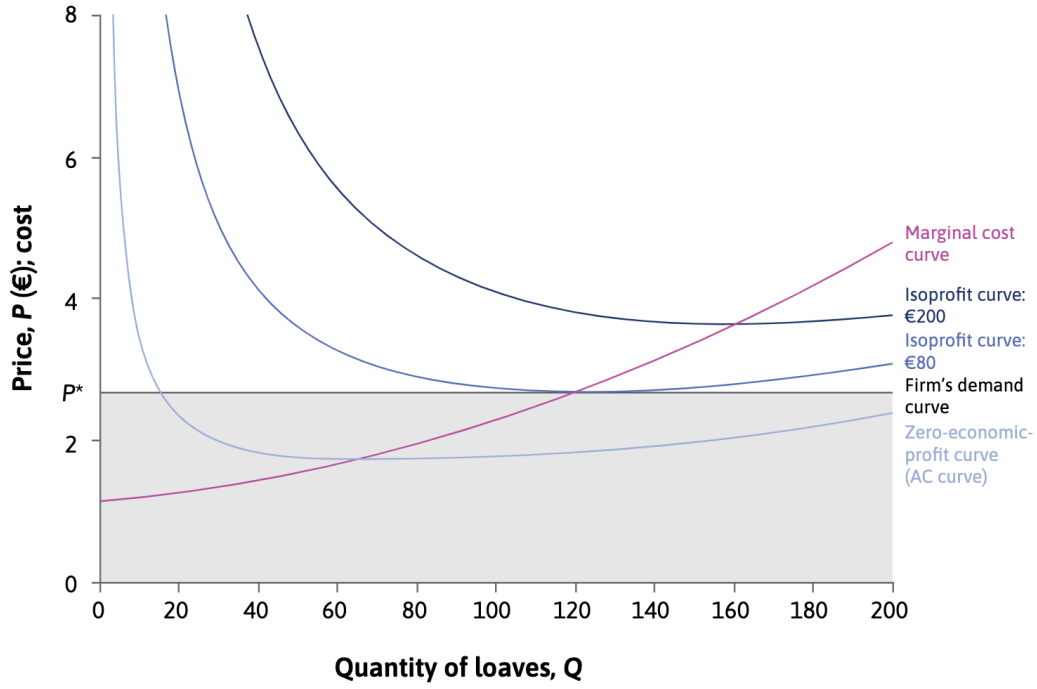
Price-taking firms cannot benefit from choosing a different price from the market price, and cannot influence the market price.



A bakery has an increasing MC curve. On the AC curve, profit is zero. When MC > AC, the AC curve slopes upward. The other isoprofit curves represent higher levels of profit, and MC passes through the lowest points of all the isoprofit curves.

(Competitive) Supply

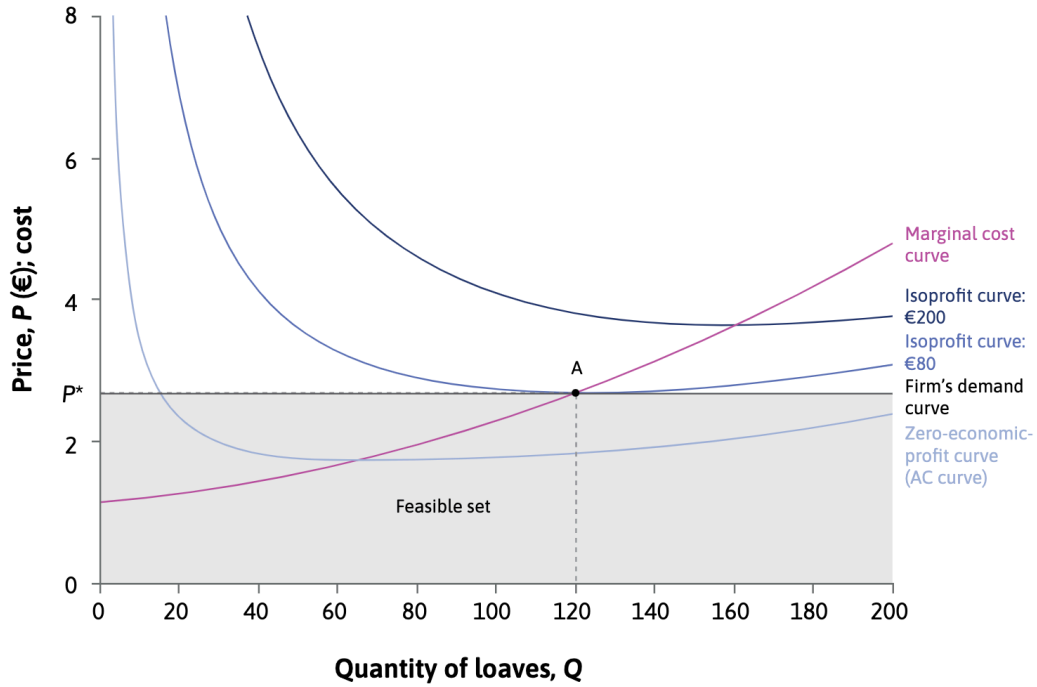
Price-taking firms cannot benefit from choosing a different price from the market price, and cannot influence the market price.



The bakery is a price-taker. The market price is P^* = 2.35. If you choose a higher price, customers will go to other bakeries. Your feasible set of prices and quantities is the area below the horizontal line at P^*.

(Competitive) Supply

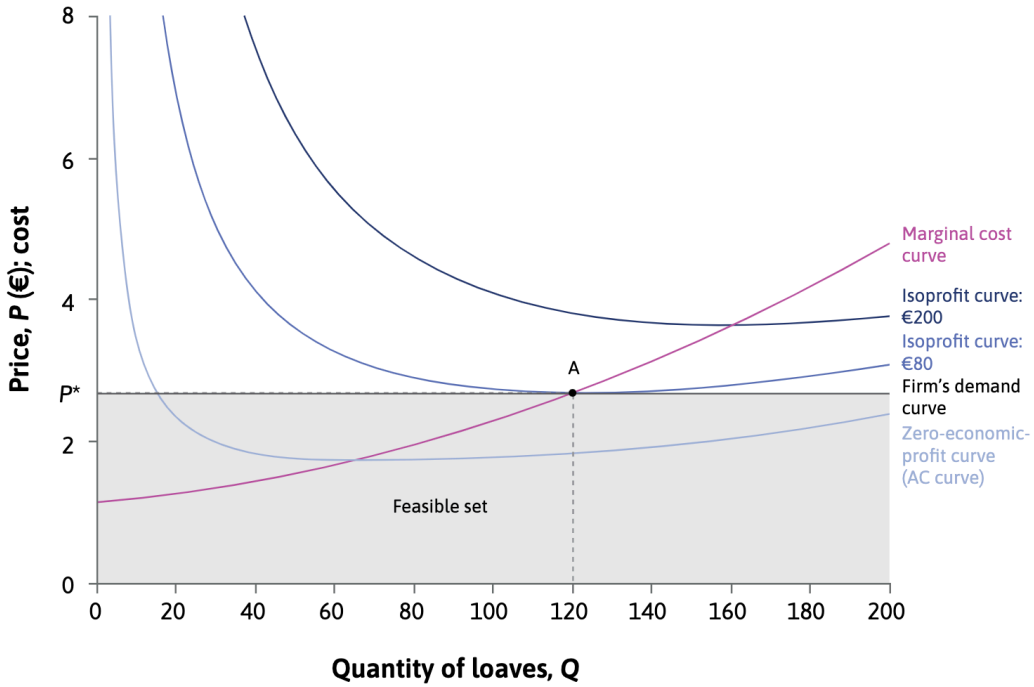
Price-taking firms cannot benefit from choosing a different price from the market price, and cannot influence the market price.



The point of highest profit in the feasible set is point A, where the 80 isoprofit curve is tangent to the feasible set. You should make 120 loaves per day, and sell them at the market price, 2.35 each.

(Competitive) Supply

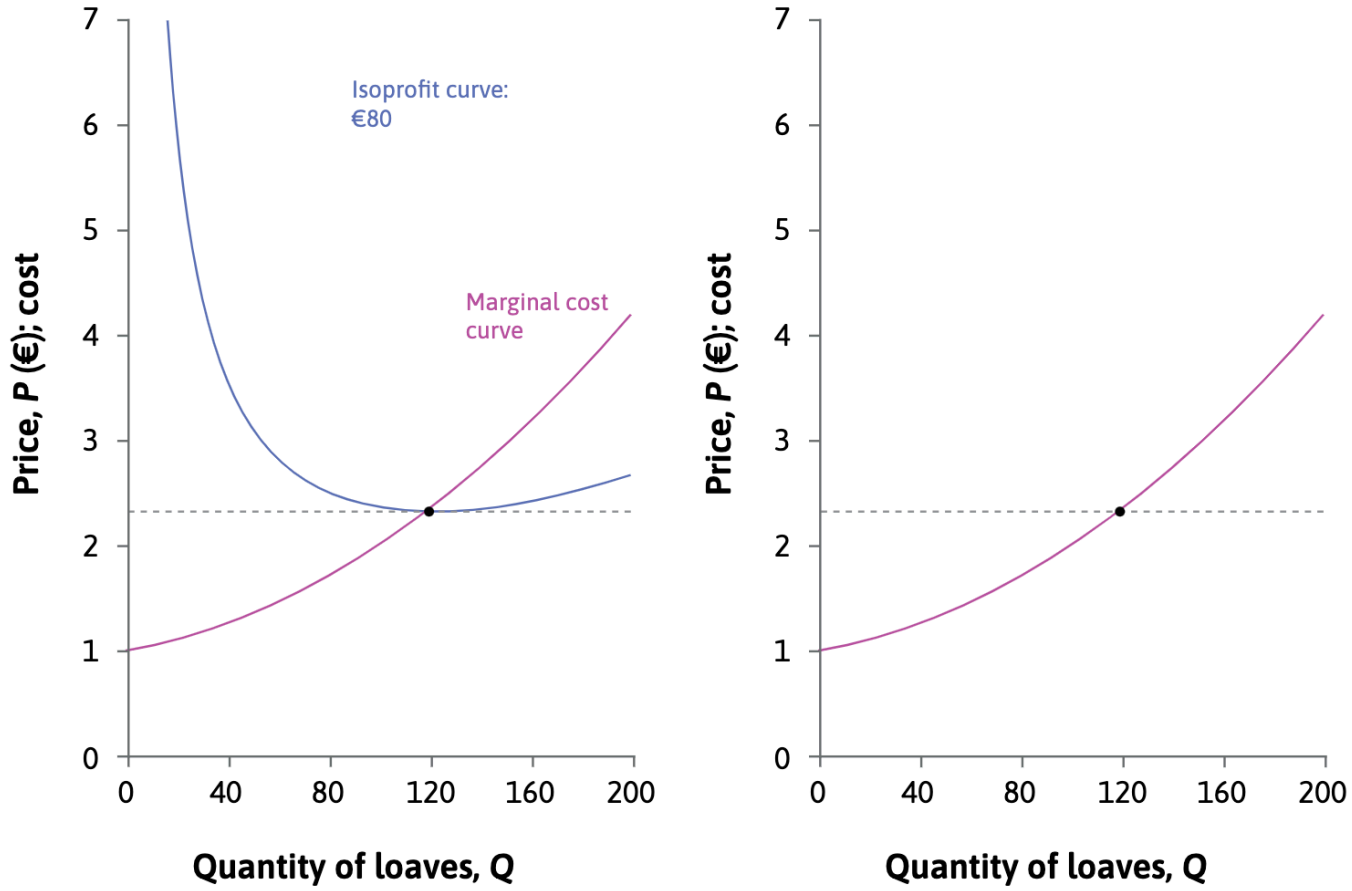
Price-taking firms cannot benefit from choosing a different price from the market price, and cannot influence the market price.



Your profit-maximizing quantity, Q^* = 120, is found at the point where P^* = MC: the marginal cost of the 120th loaf is equal to the market price.

$$MC = P \iff (slope\ of\ isoprofit = 0)$$

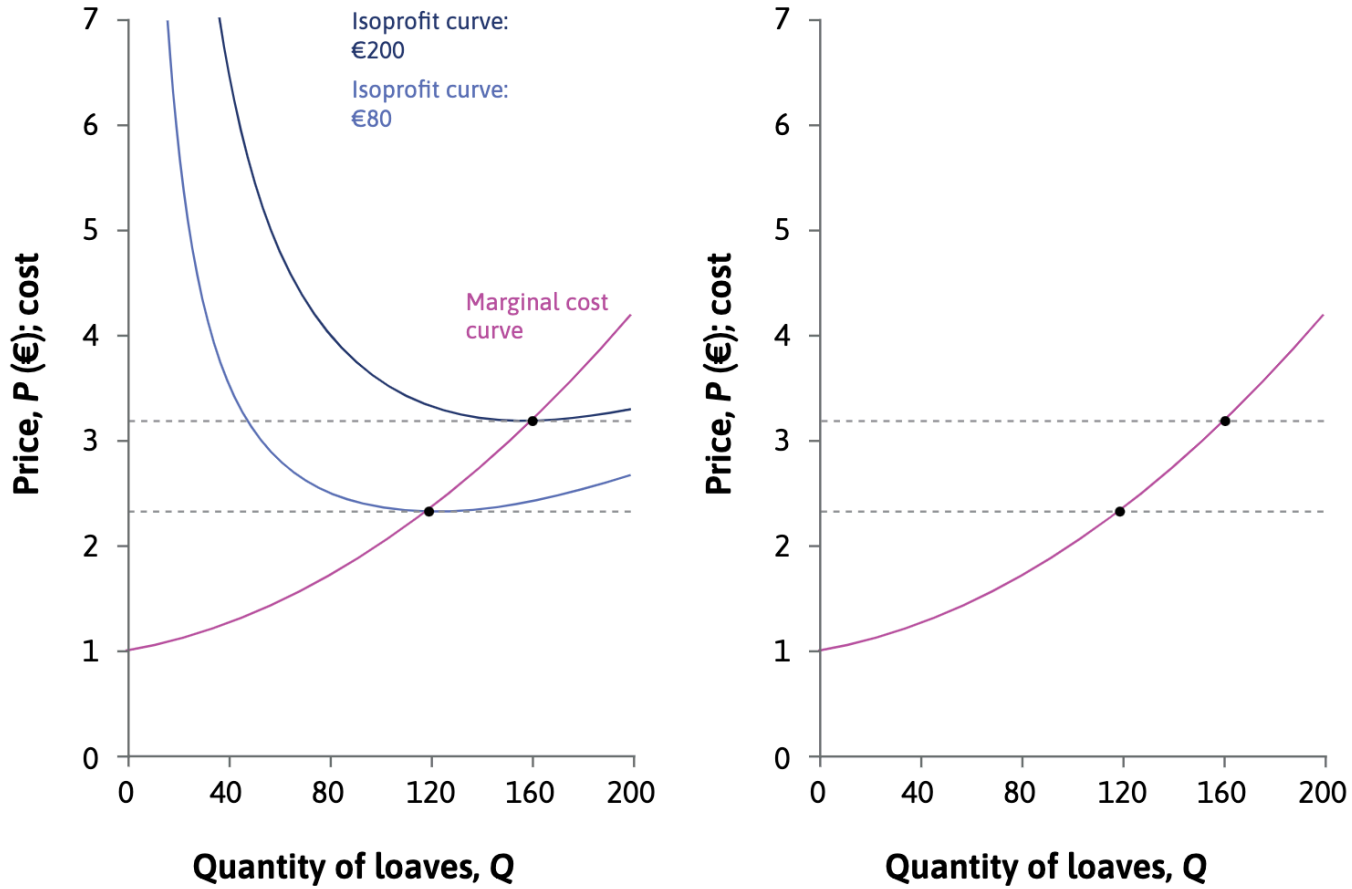
(Competitive) Supply



When the market price is 2.35, you supply 120 loaves. **Note**: Firm chooses quantity, not price.

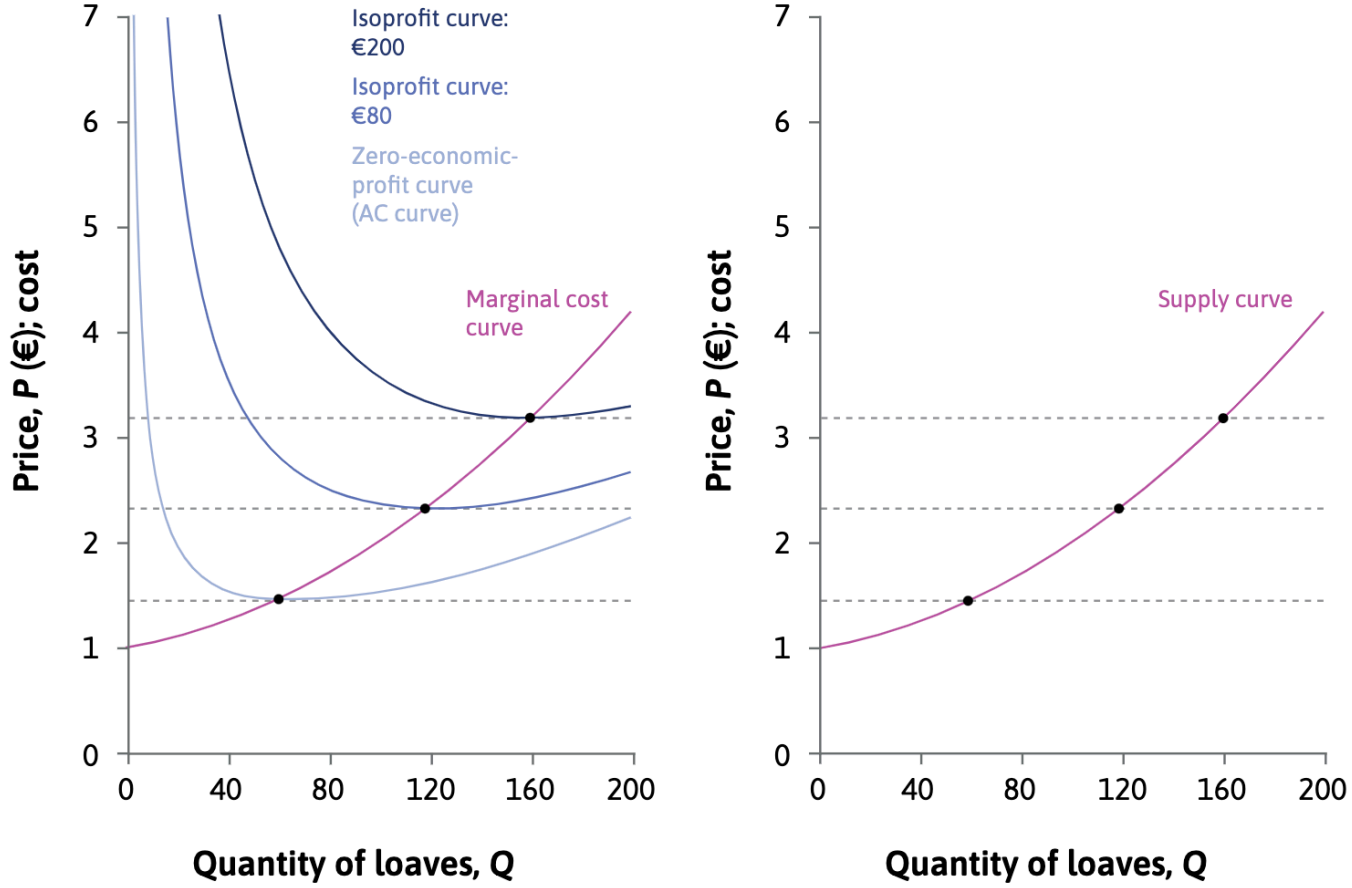
What would you do if the price changed?

(Competitive) Supply



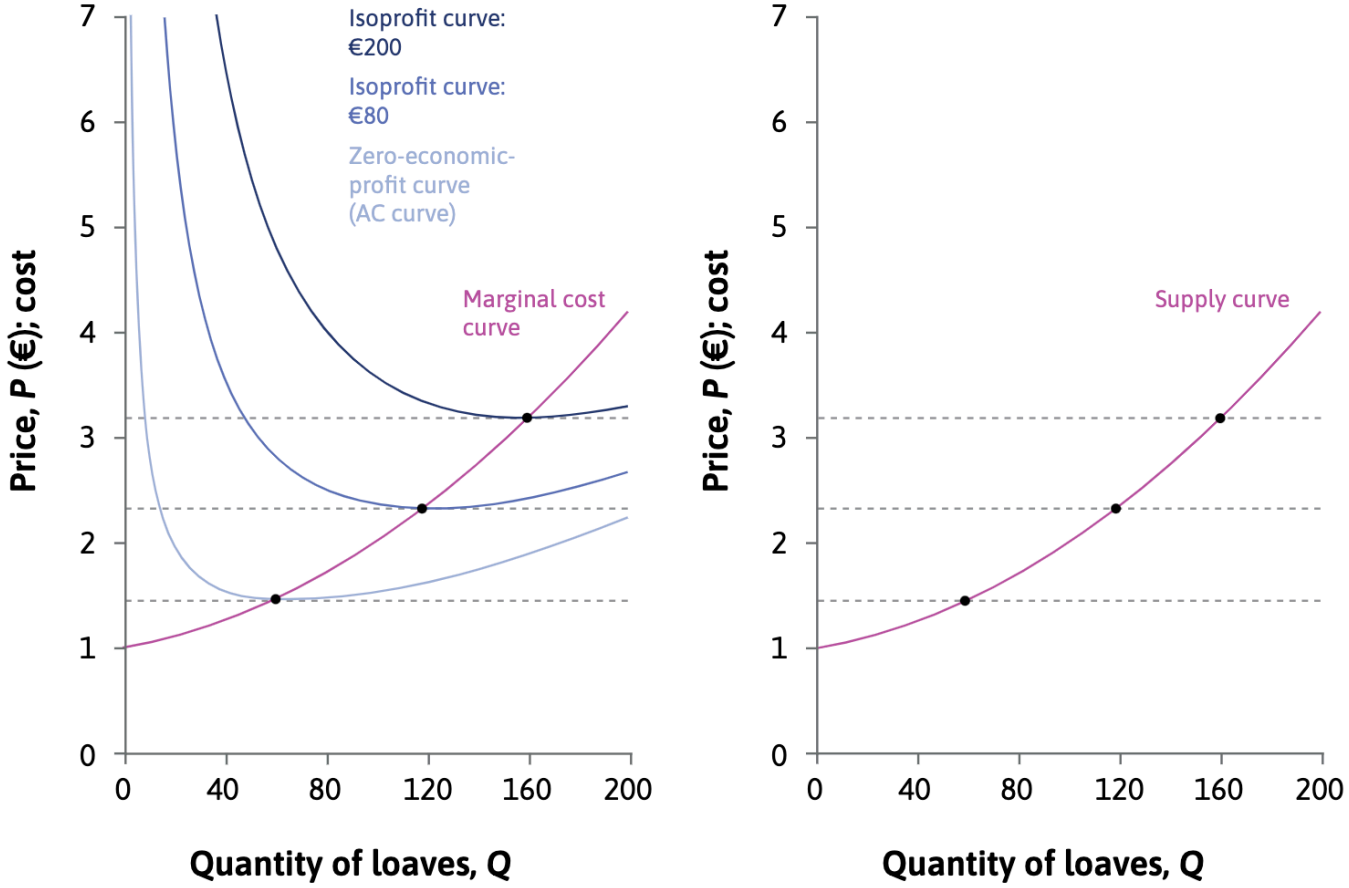
If P^* were to rise to 3.20, you could reach a higher isoprofit curve. To maximize profit you should produce 163 loaves per day.

(Competitive) Supply



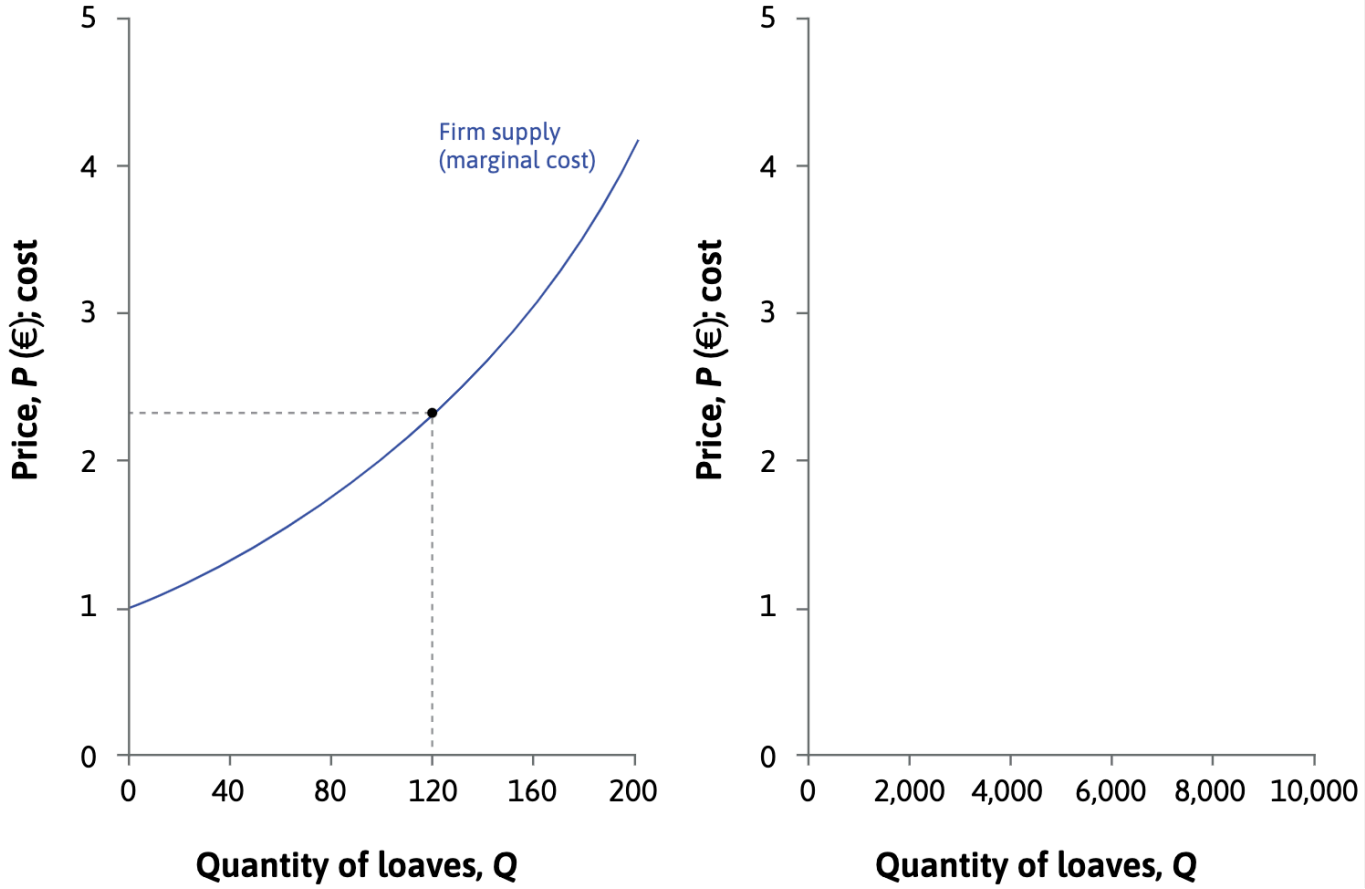
If the price falls to 1.52 you could reach only the lightest blue curve. Your best choice would be 66 loaves, and your economic profit would be zero.

(Competitive) Supply



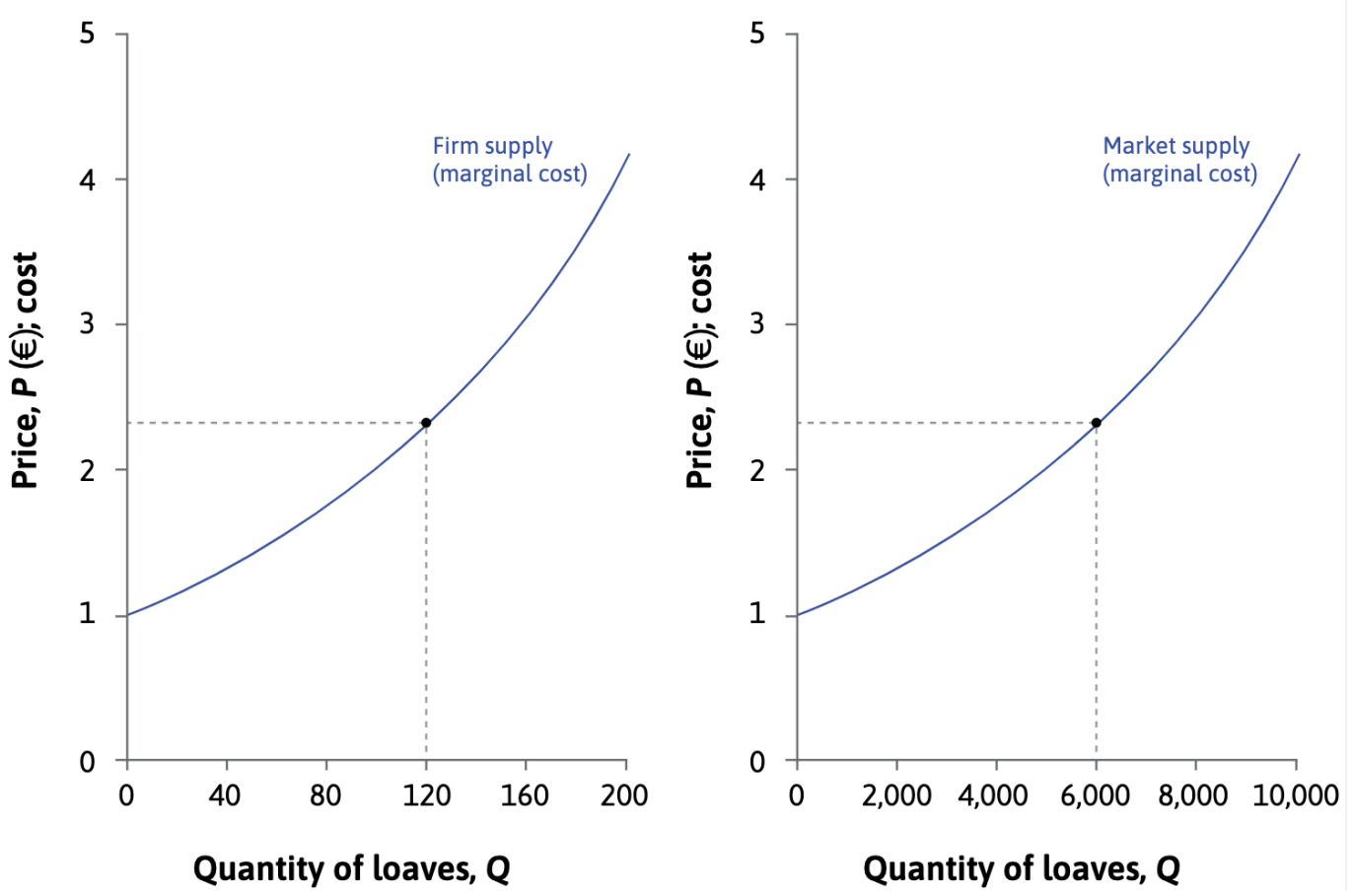
In each case, you choose the point on your marginal cost curve where **MC = market price**. Your **marginal cost curve** is your **supply curve**.

(Competitive) Supply



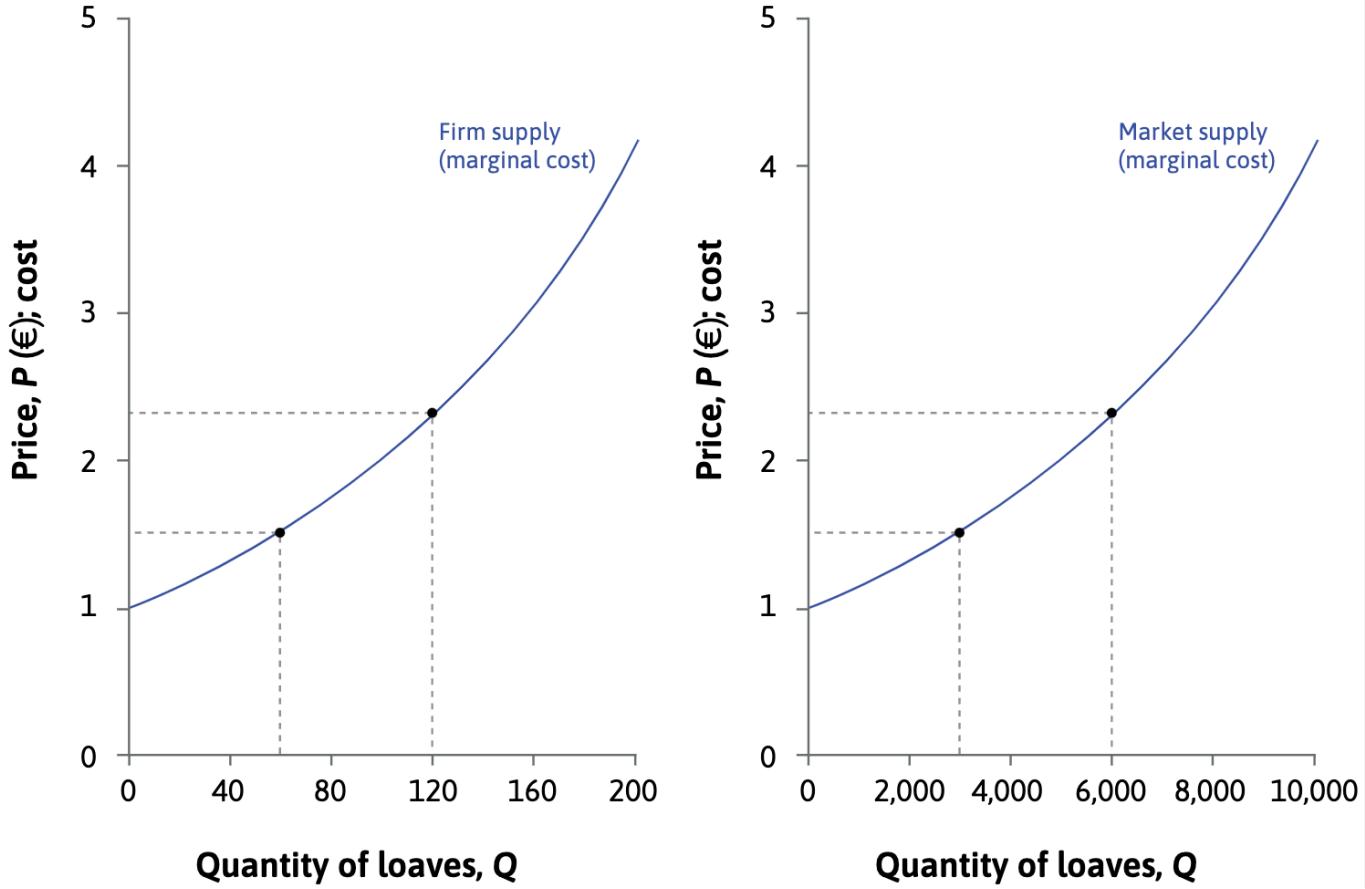
There are 50 bakeries, all with the same cost functions. If the market price is €2.35, each bakery will produce 120 loaves.

(Competitive) Supply



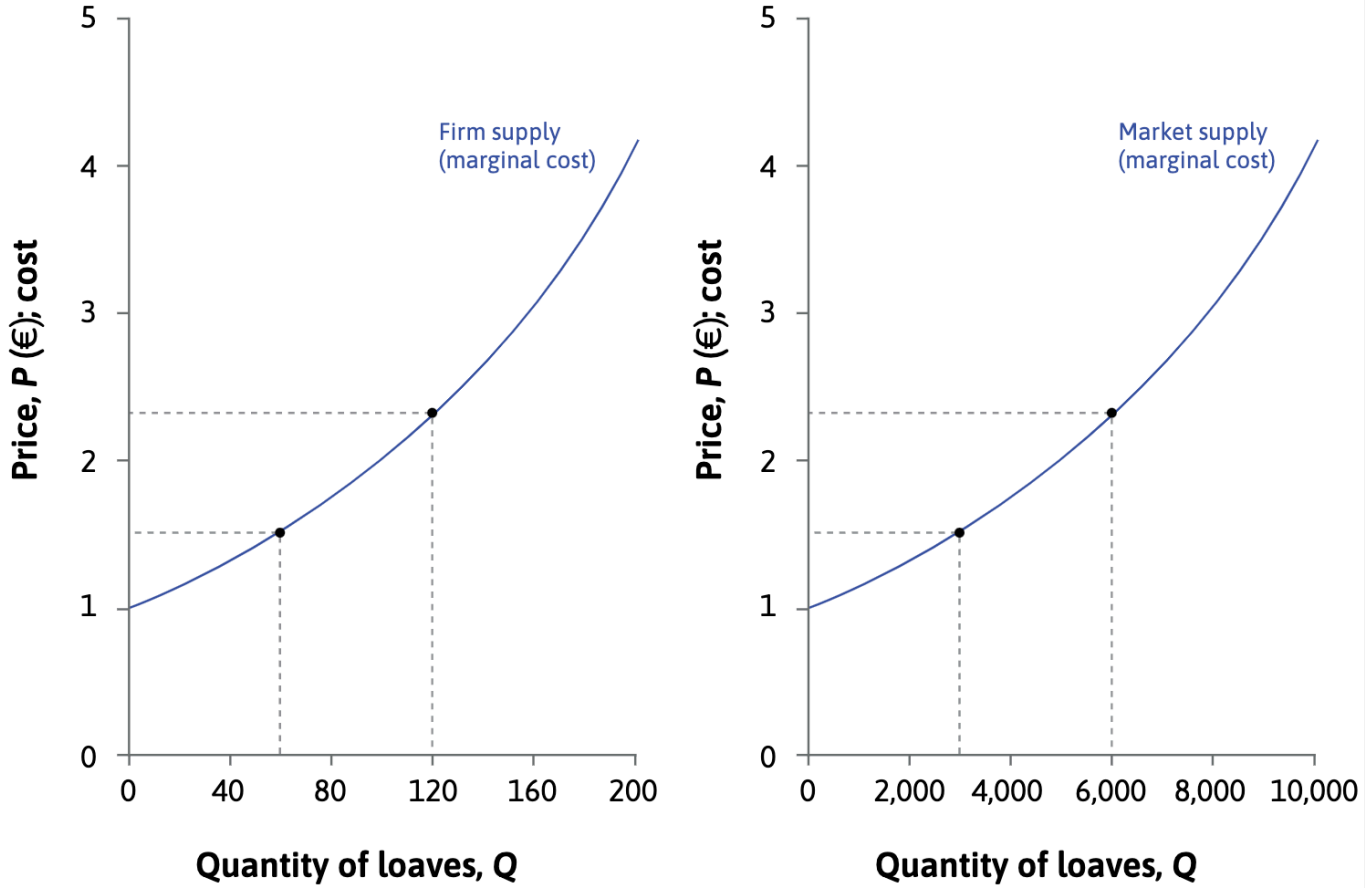
When P = 2.35, each bakery supplies 120 loaves, and the market supply is 50 × 120 = 6,000 loaves.

(Competitive) Supply



At a price of 1.52 they each supply 66 loaves, and market supply is 3,300. The market supply curve looks like the firm's supply curve, but the scale on the horizontal axis is different.

(Competitive) Supply



If the bakeries had different cost functions, then at a price of 2.35 some bakeries would produce more loaves than others, but we could still add them together to find market supply.

Recap: Competitive equilibrium

Perfectly competitive markets

A hypothetical market in which:

1. The good or service being exchanged is homogeneous
2. Very large number of potential buyers and sellers
3. Buyers and sellers all act independently of one another
4. Price information easily available to buyers and sellers

Some characteristics:

- **Law of One Price**: All transactions take place at a **single price**.
- At that price, **the market clears (supply = demand)**.
- Buyers and sellers are all **price-takers**.
- All potential **gains from trade** are realized.

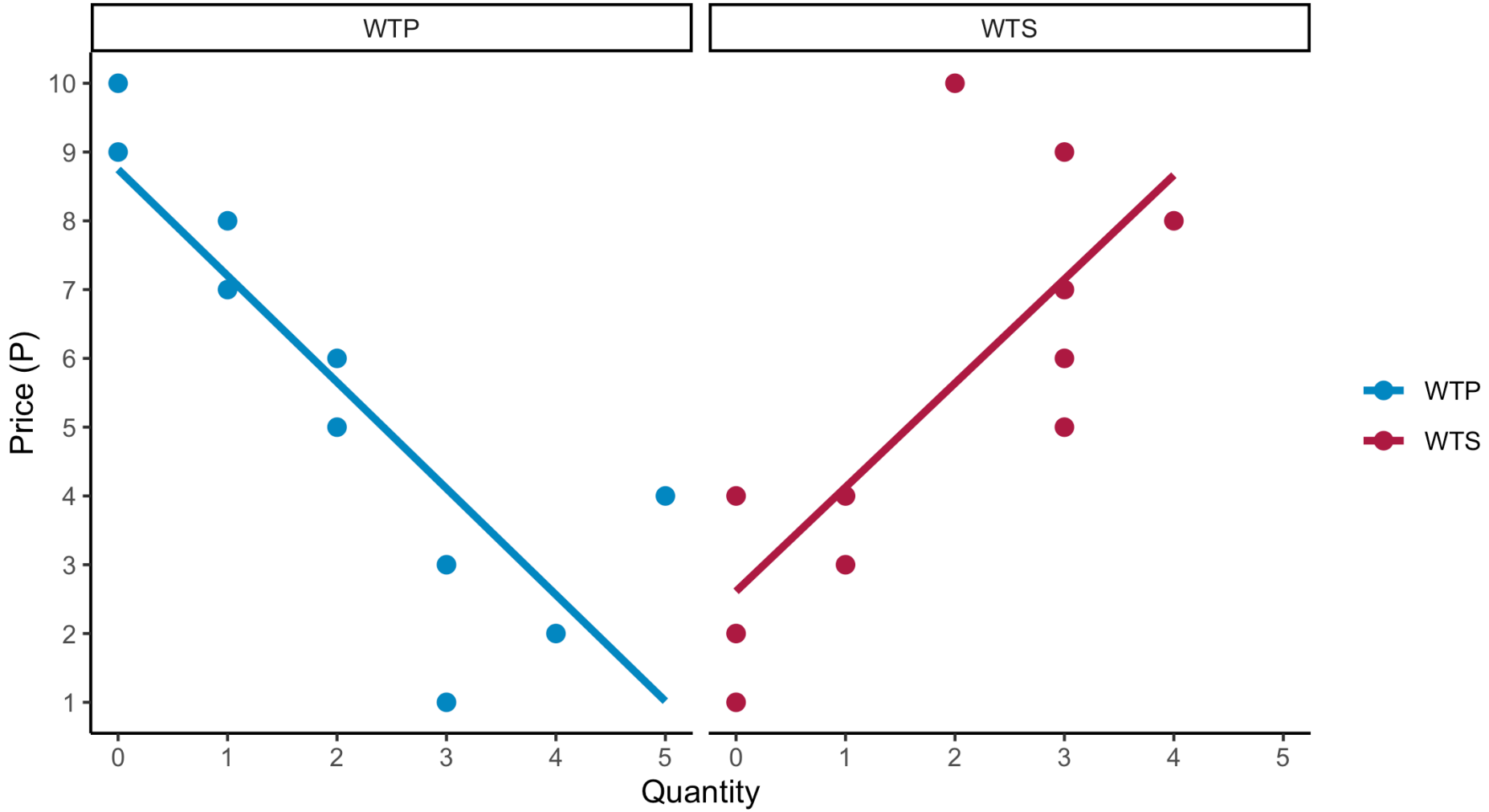
Does this model holds in reality?

Perfect competition may not hold completely in reality, but can be a good approximation to actual firm behaviour.

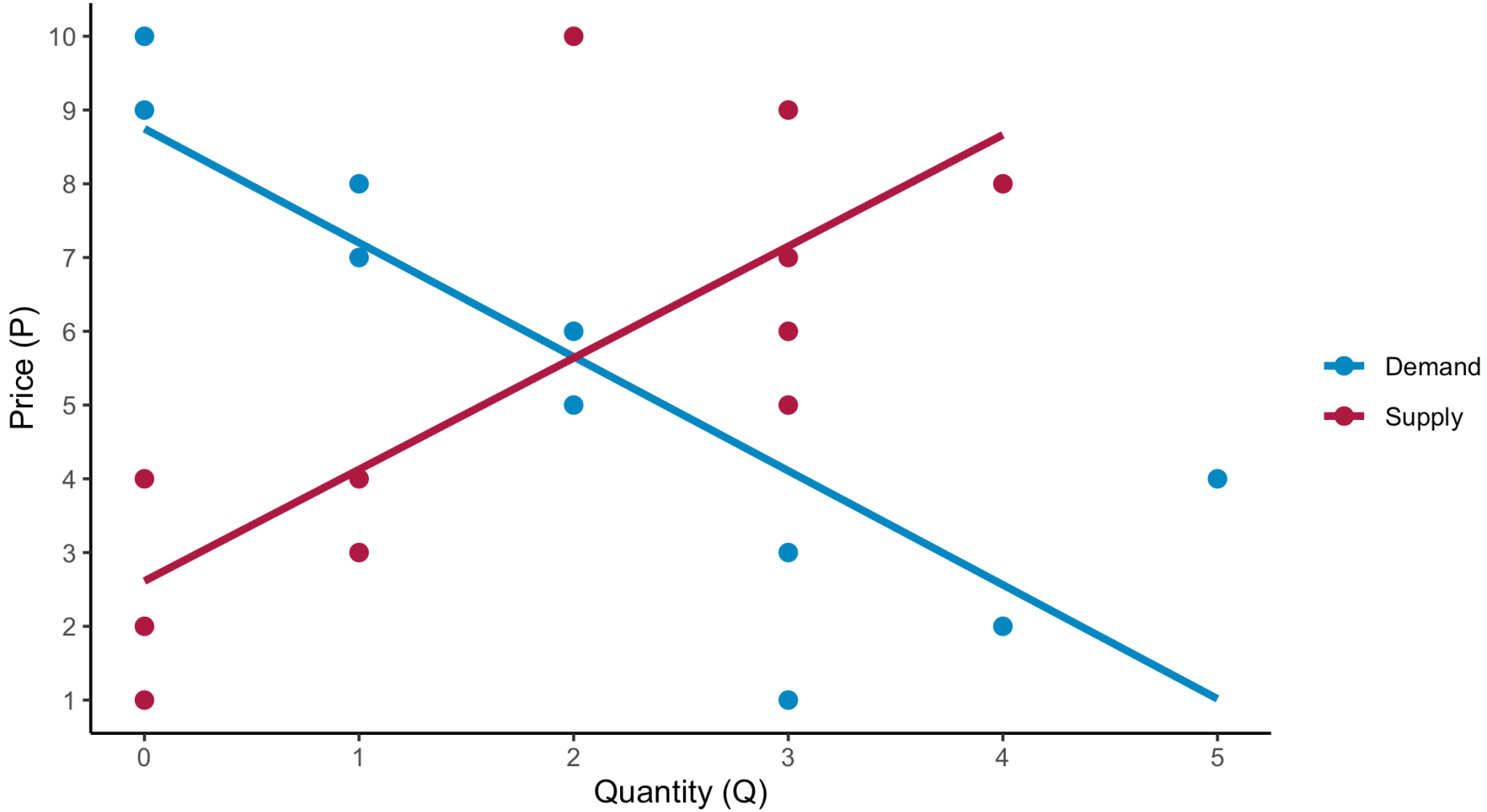
Let's falsify the theory

Hear the instructions.

See how you behaved in a perfectly competitive setting:

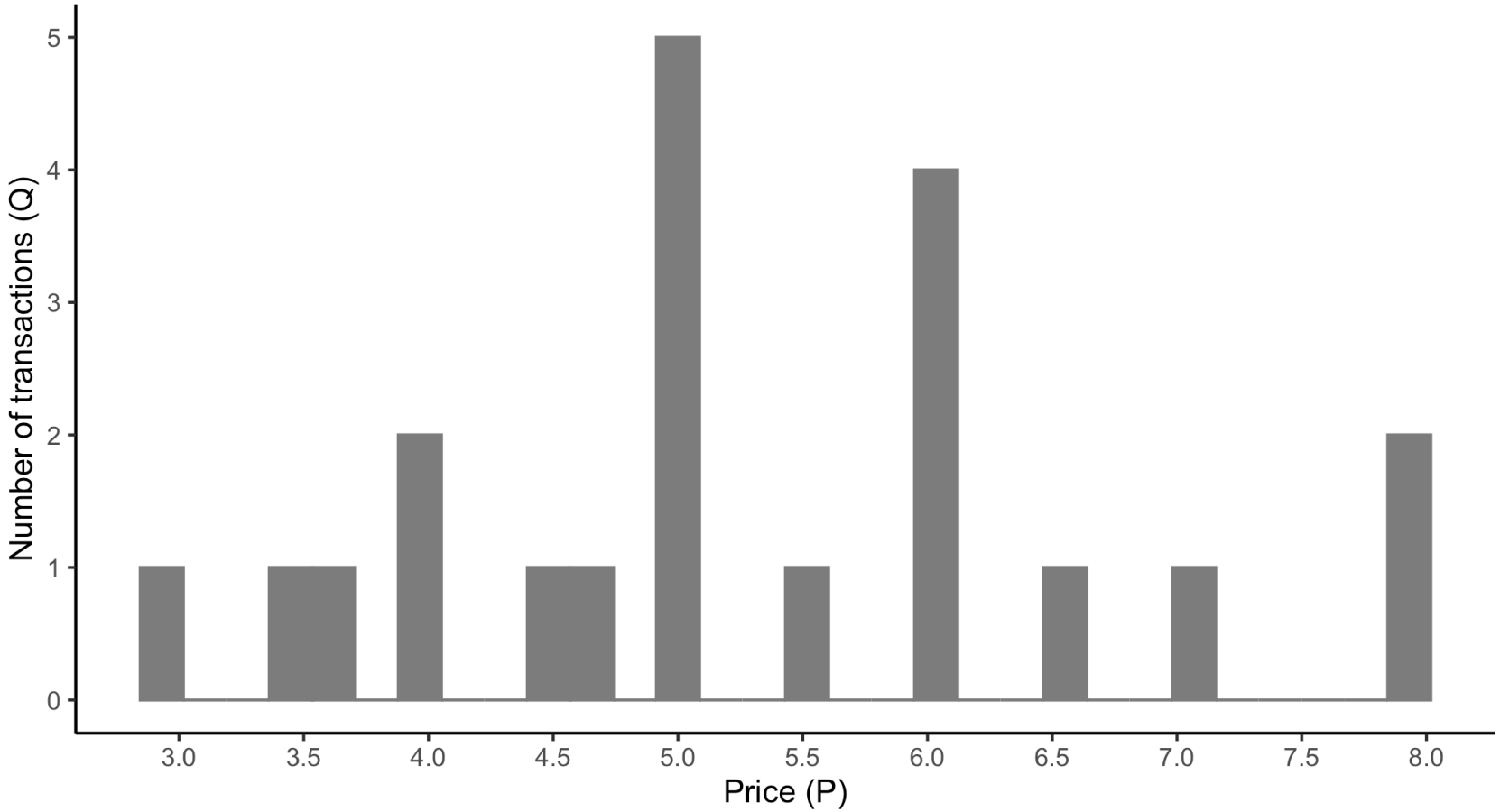


See how you behaved in a perfectly competitive setting:



Which would be the price in competitive equilibrium?

See how you behaved in a perfectly competitive setting:



Most transactions are near the predicted price in competitive equilibrium.

What happens in other contexts?

One or few suppliers

One or few buyers

What about considering some policies?

Tariffs

Trump Will Hit Mexico, Canada and China With Tariffs

The White House said it would move forward with levies on America's largest trading partners on Saturday.

Share full article 788

President Trump has promised to impose tariffs on Canada, Mexico and China beginning on Saturday. Doug Mills/The New York Times

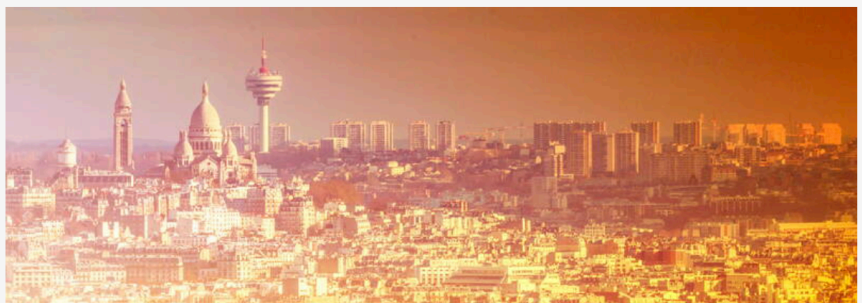
Capped prices

Haut de plafond

Encadrement des loyers : une légère amélioration partout, sauf à Paris, selon la Fondation Abbé Pierre

Crise du logement dossier

D'après le baromètre annuel de la fondation, 28% des annonces en France ne respectent pas l'encadrement des loyers, contre 30% il y a un an. En région parisienne, ce taux est en revanche à la hausse.



Summary

- Competitive markets work under a specific set of assumptions
- Firm behavior varies substantially with market structure
- Policies have implications for welfare and efficiency
- Need to understand all of the above to inform and design policy