Econ 201: Introduction to Economic Analysis

September 23 Lecture: Consumer Choice and Demand

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Daily Far Side

www.thefarside.com

"Harold! The dog's trying to blow up the house again! Catch him in the act or he'll never learn!"

Preview of this class session

- In the last two classes, we have analyzed how consumers choose the amounts of goods to buy
- In this session we use that model to derive an individual demand curve for a good
- We then aggregate that demand curves of everyone in the market to get the market demand curve
- Finally, we think about some possible anomalies and how they would affect demand theory

From consumer equilibrium to individual demand curve

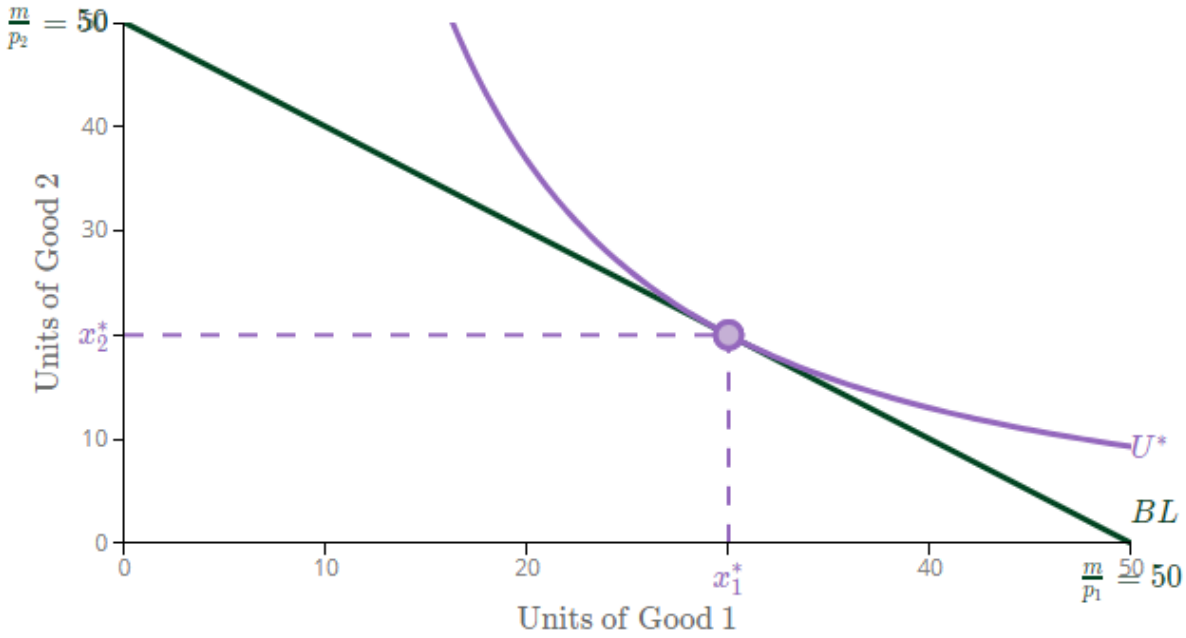
What is an individual's demand curve?

- **Demand curve** for X shows the amount of X a consumer purchases:
  - at each level of the price of X
  - holding income, preferences, and all other prices constant

- We use the consumer-equilibrium diagram with indifference curves to derive this
  - Changing the price of X rotates the budget constraint
  - We observe and plot how consumption of X changes as this happens

Consumer equilibrium

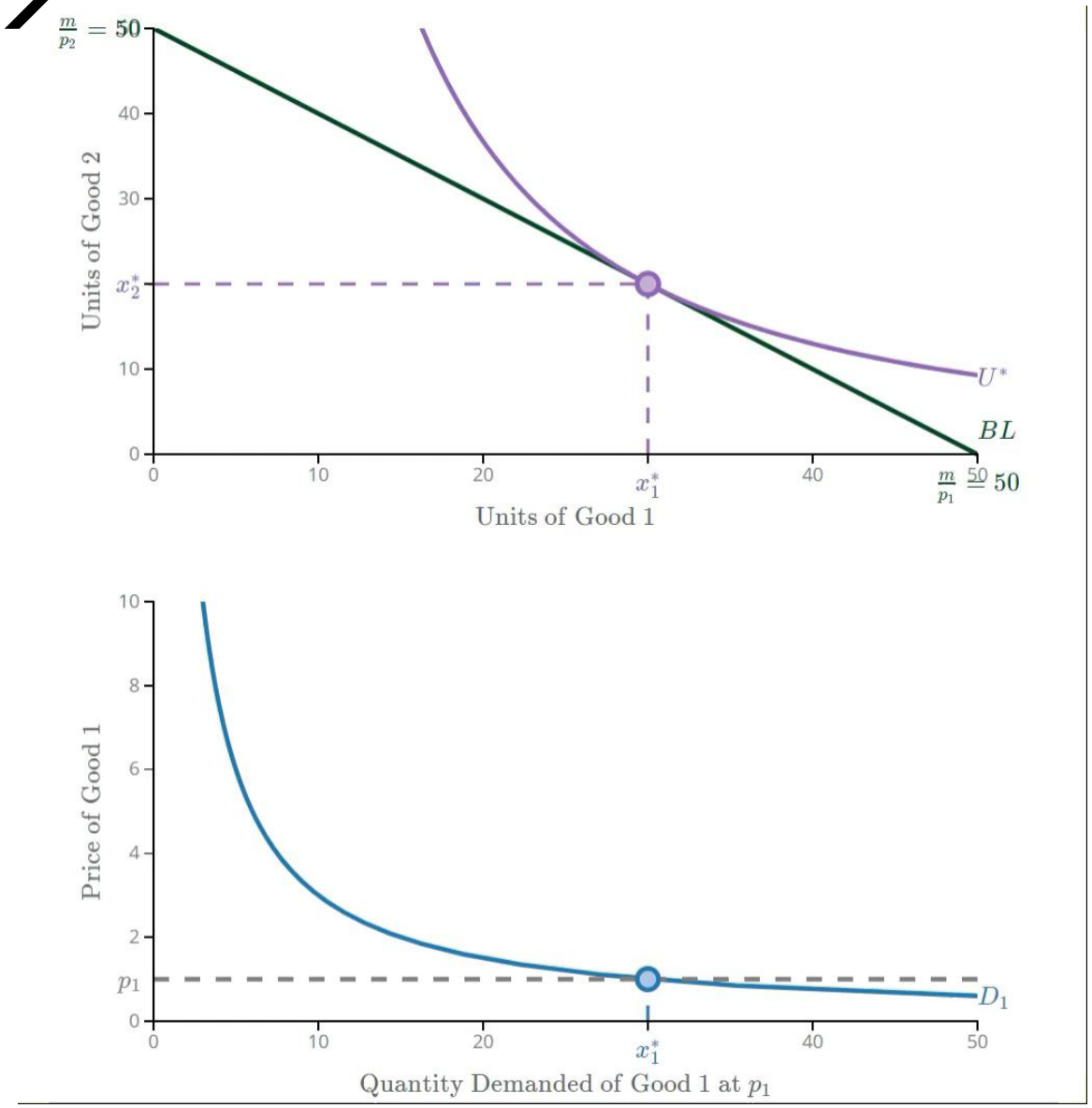
- Plot consumption of X on the horizontal axis
- Let good on vertical axis be a "composite commodity" of all other goods
  - Normalize the price of this composite as equal to 1
  - Slope of budget constraint = $-P_X$
  - Vertical intercept = income I
- Initial values: $I = 50$, $P_X = 1$, ($P_Y = 1$)



https://www.econgraphs.org/graphs/micro/consumer_theory/utility_and_demand?textbook=varian

Consumer equilibrium → demand curve

- What happens as price of X increases gradually from 1 to 5?
- Quantity demanded falls from 30
- We move up to the left in (Q_X, P_X) space, tracing out a downward-sloping demand curve



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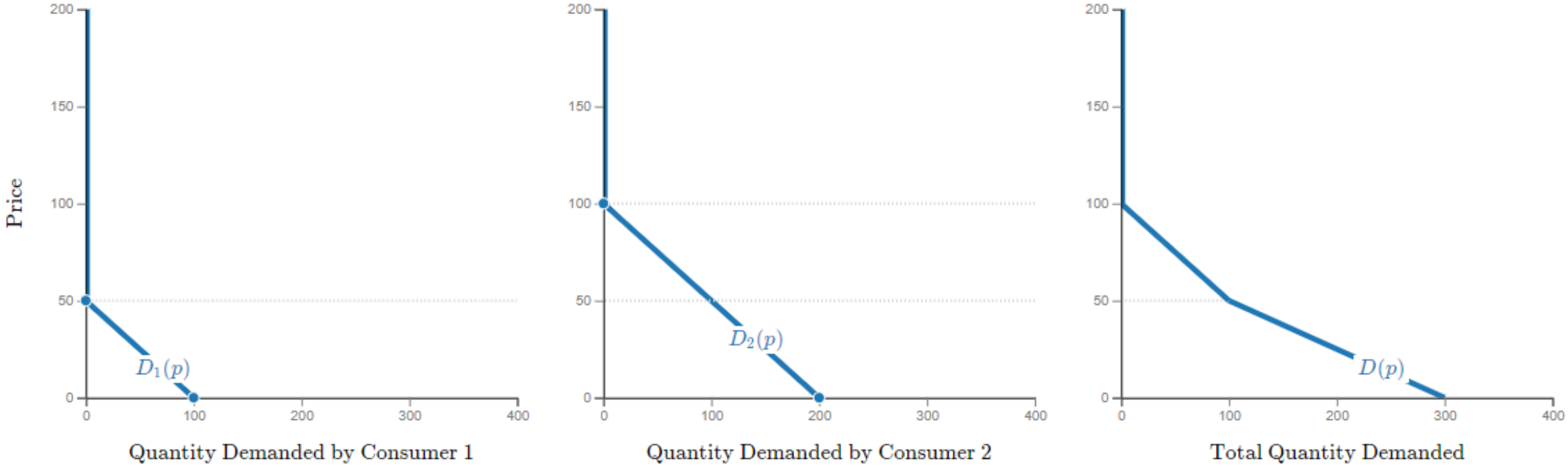
From individual to market demand curve

Aggregating demand for two consumers



- Consumers 1 and 2 have linear demand curves
- Market demand curve is horizontal aggregation

https://www.econgraphs.org/graphs/micro/equilibrium/partial_equilibrium/summing_two_individuals_linear_demands

What changes individual demand curve?

- Anything *except the price of X* that changes consumer equilibrium:
  - Change in **income**
  - Change in **price of other goods** (Y)
    - But note the absence of money illusion: proportional changes in all prices and income leave quantity demanded unchanged
  - Change in **preferences**

- Changes in the price of X move us **along the demand curve** rather than shifting the curve

Anomalous phenomena

- Bandwagon effects?
  - Consumer wants to do what others are doing
  - Increase in aggregate Q raises each individual's preference for good
  - Network externalities may cause increase in Q to raise utility of good
    - Telephones and email are not useful unless others use them
- Snob effects?
  - Consumer does not want to do what everyone else is doing
  - Increase in aggregate Q lowers individual's preference for good

Review

- We use the consumer equilibrium graph to derive an individual's demand curve by observing how a change in a good's price affects optimal consumption
- Individual demand curves are aggregated horizontally (in the quantity direction) to get the market demand curve

Daily Diversion

Another bad economist joke…

A man was sent to Hell for his sins. As he was being processed, he passed a room where an economist he knew was having an intimate conversation with a beautiful woman.

“What a crummy deal!” the man complained. “I have to burn for all eternity and that economist spends it with that gorgeous woman.”

An escorting demon jabs the man with his pitchfork and shouts, “Who are you to question that woman's punishment?”

Taken from Jeff Thredgold, *On the One Hand: The Economist's Joke Book.*

What comes next?

- We next turn to the underpinnings of the supply curve under perfect competition, starting with production theory
- Case studies for 9/25 and 9/28 are not handed in; they combine to be Problem Set #4, due on Wednesday, September 30