Consumer Theory

- How do consumers make choices about which goods to buy
- How do consumers react to changes in the world around them?

Rational choice model

- standard model that economists use to describe decision making
- Decisions are made based on
  1. Preferences
     - What do people want?
  2. Budgets
     - What can people afford to buy?

What is a model?

- A collection of assumptions

- assumptions are combined to make predictions about what will happen in the "real world"
- Predictions are only as good as our assumptions

Problem

- All assumptions are false!
- The accuracy of a model is a function of how "good" the assumptions are
- There is no scientific way to test assumptions

We have to think very deeply about what our assumptions are

Budget constraints

- 2 goods in the economy
  tacos and beer
  b: quantity of beer consumed (in glasses)
  t: quantity of tacos

Price of tacos: $2

price of beer: $5

Total expenditures:

$2t+5b$

- Suppose you have $40 in your pocket at the beginning of the night
- Total expenditures must be less than (or equal to) 40

$2t+5b \leq 40$

Example

- Suppose I buy 5 tacos. How much beer can I purchase?

$2t+5b=40$

$t=5$

$2\cdot 5+5b=40$

$10+5b=40$

$5b=30$

$b=6$

We can have at most 6 beers

Note: we will always assume that consumers can purchase fractions of goods

In general

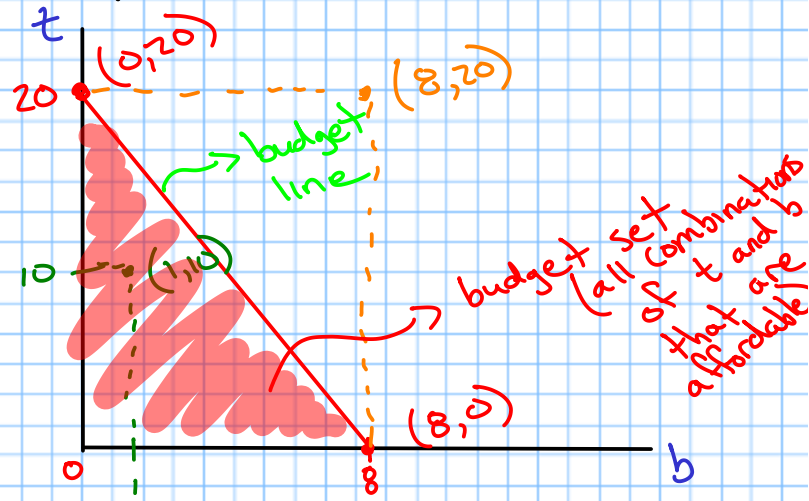
x_1: quantity of good 1
x_2: quantity of good 2
p_1: price of good 1
p_2: price of good 2
m: income

Define (x_1, x_2) as a consumption bundle

- We say that the bundle (x_1, x_2) is affordable if:

$$p_1 x_1 + p_2 x_2 \leq m$$

Example: $5b + 2t \leq 40$



- Suppose we consume only tacos. How many can we buy?

$b = 0 \rightarrow 40 = 2t$

$t = \frac{40}{2}$

$t = 20$

- Suppose we consume only beer. How much?

$t = 0 \rightarrow 40 = 5b$

$\frac{40}{5} = b$

$8 = b$

- Is $(1, 10)$ affordable?

$1 \cdot 5 + 10 \cdot 2 = 25 \leq 40$

- Is $(8, 20)$ affordable?

$8 \cdot 5 + 20 \cdot 2 = 40 + 40 = 80$

$80 \geq 40$

$\rightarrow$ no

- Budget line

$P_1 X_1 + P_2 X_2 = m$

total expenditure = income

$\rightarrow$ bundles on the budget line can be consumed but the require us to spend all of our income