

Consumer Theory:  
Demand and Changes on prices and income  
Econ 1101

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# ECON 1101 Lecture 8.3

## 1. Demand

### 2. Changes on the demand

- (a) Change in prices: substitution effect
- (b) Change in income: income effect

## ECON 1101 Lecture 8.3

# 1. Demand Curves

# Demand Curves

We just found optimal consumption for different preferences, given:

- Income
- Prices

Now we are interested in moving around income and prices and seeing how optimal consumption, **demand**, changes (so let's keep preferences be fixed)

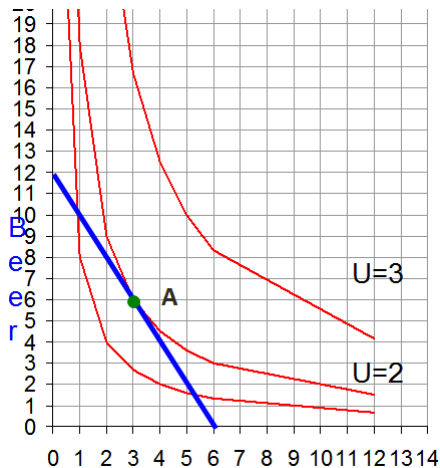
- **Demand curves** (like in EconLand but now for one person) for beer and pizza tell us how optimal quantity changes with price

Remember at the beginning of the semester we said in demand we kept prices of other goods, income and preferences constant so lets do that and derive demand curves...

# Constructing Demand

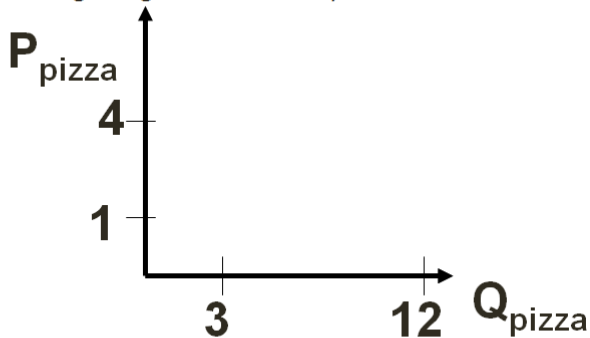
Recall how goldys preferences and optimal choice looked like

- We will focus on pizza, take optimal choice and let prices vary



# Constructing Demand

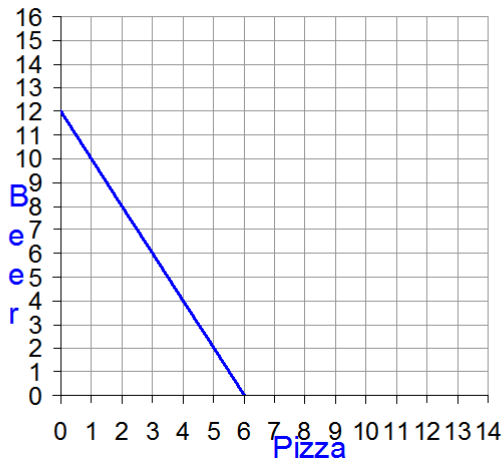
We will use the new graph to determine our old graph  
(Demand Curve from the beginning of the semester)



- Lower price to \$1 move **along** demand
- Change income, **shift** demand

# Demand: Changes in Income

Suppose income increases to \$40... what happens?



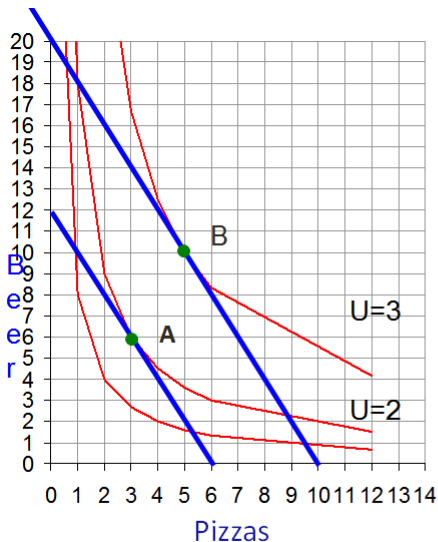
## Changes in Income: the BC

Quick “see if you understand” question: What changed/didn't change?





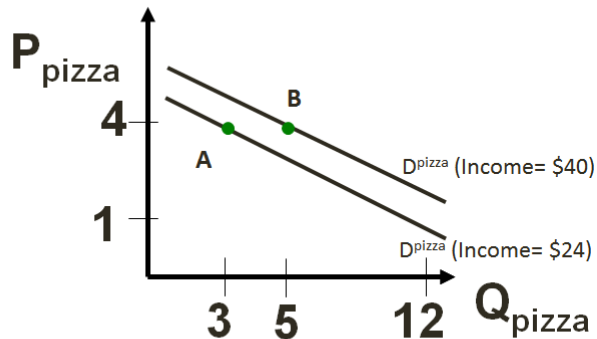
## Changes in Income: what happens with OC\*



At Income = \$40:  
Pick optimal consumption  
bundle and label it B

## Changes in Income: mapping this to the demand

Change income, shift demand

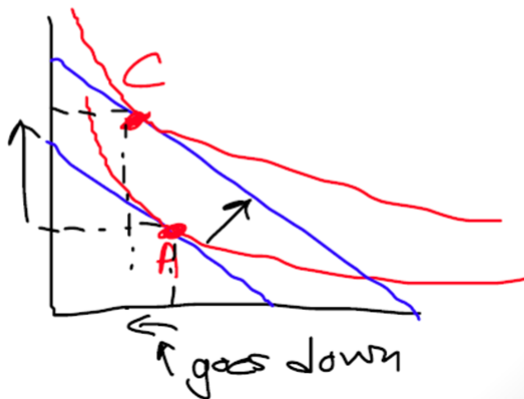


At Income = \$40:

- Pick optimal consumption bundle and label it **B**

## Changes in Income: Inferior good

What if one good was an inferior good? (note, we can't have the case where both goods are inferior goods in this diagram)



## Effects of the price change

If the price of one good decreases we have two effects:

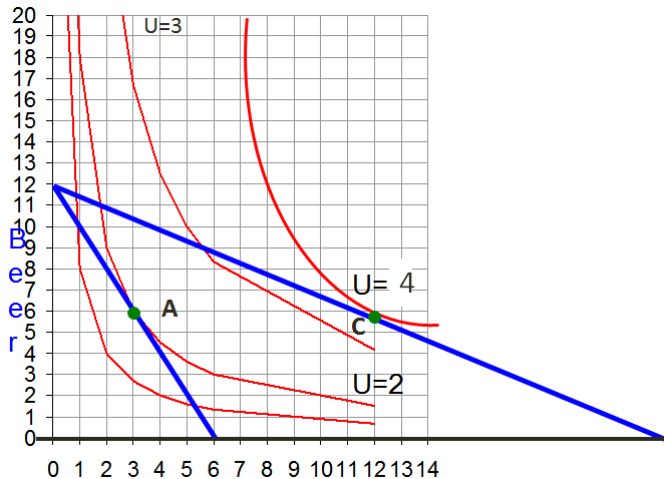
- 1 The opportunity cost of “pizza” is now lower (recall BC)
- 2 It is also like I have more money now

We have special names for those 2 effects from price changes on demand:

- 1 Substitution effect
- 2 Income effect

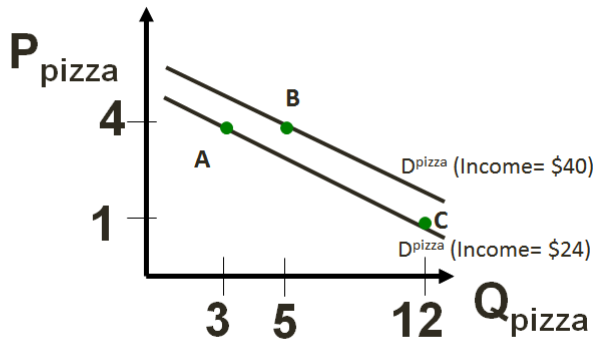
Total effect = Substitution effect + income effect

## Total Effect



# Total Effect of price change on Demand

Change price, move along demand curve

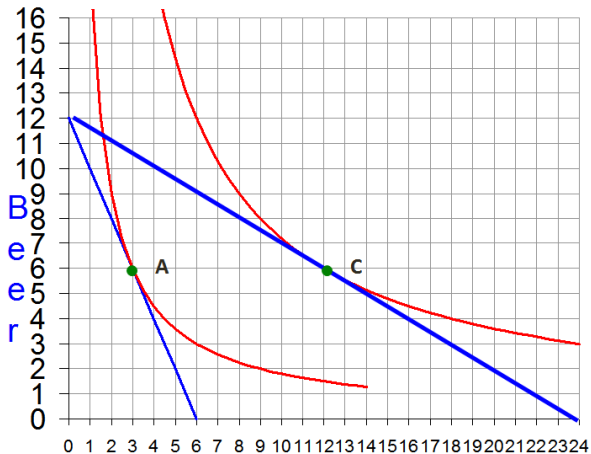


## Substitution and Income Effects

$I = \$24$  and  $P_{\text{Beer}} = \$2$  fixed

$P_{\text{Pizza}} = \$4$ : Label OCB A

$P_{\text{Pizza}} = \$1$ : Label OCB C



## Substitution and Income Effects

