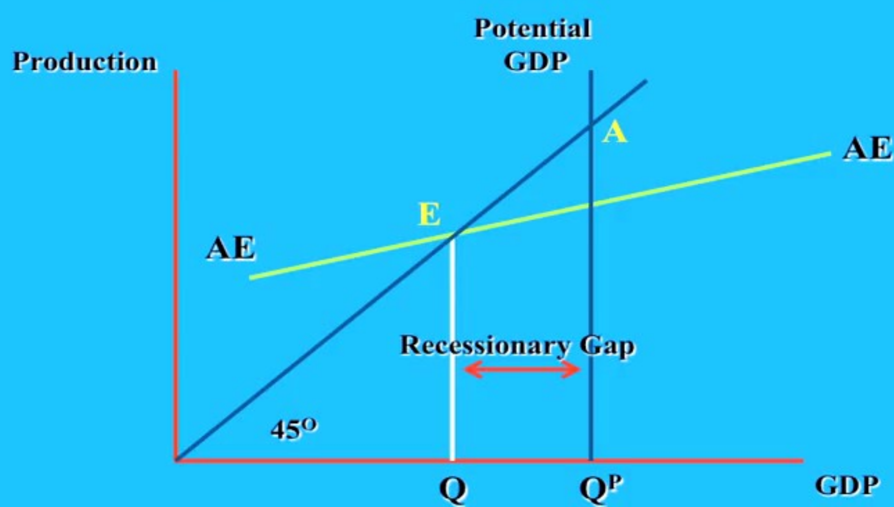
LECTURE THREE - PART TWO

ANALYSIS OF THE KEYNESIAN MODEL

Aggregate Production

- The total amount of goods and services produced in the economy.
- Production creates an equal amount of income so the aggregate production curve is a 45˚ line.

Aggregate Production



Aggregate Expenditures

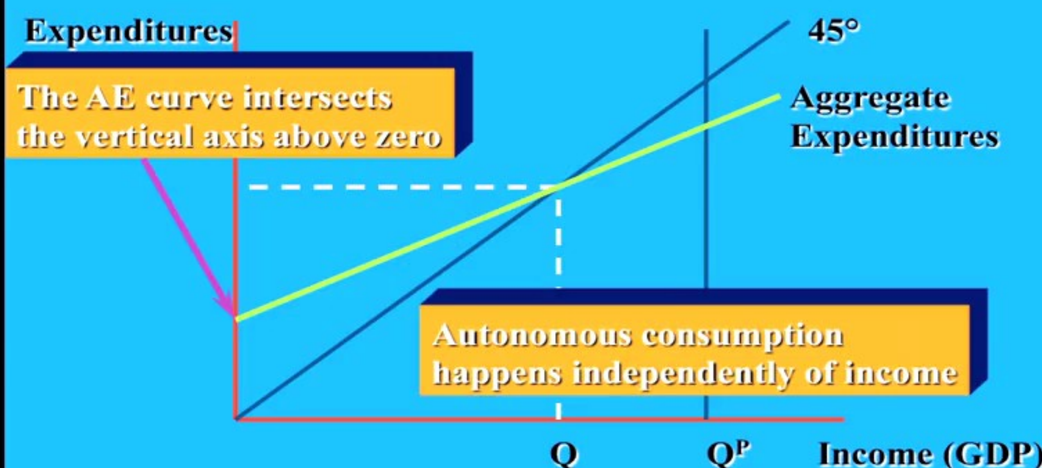
- Total spending or "aggregate expenditures" may be represented algebraically by the equation:

$$AE = C + I + G + (X - M)$$

X = Exports
M = Imports

- The aggregate expenditures curve is simply the vertical summation of these four components.

Aggregate Expenditures



The Keynesian Expenditure Function

- To understand the Keynesian model, we have to understand:
  - Autonomous consumption
  - Why the AE curve is flatter than the AP curve
- Components of the Keynesian Expenditure Function
  - Consumption, investment, government expenditures, and net exports.

Consumption

- Consumption is the largest component of aggregate expenditures.
- Consumption accounts for almost 70% of total aggregate expenditures in the U.S.

Category of consumption		Value of Category ($, billion)	Percent of total
Durable goods		538	12
Motor vehicles	222		
Household equipment	212		
Other	104		
Nondurable goods		1,350	31
Food	658		
Clothing and apparel	237		
Energy	119		
Other	336		
Services		2,504	57
Housing	628		
Household operation	251		
Transportation	170		
Medical care	681		
Other	773		
Total, personal consumption expenditures		4,392	100

The Keynesian Consumption Function

Total Consumption =

Autonomous Consumption Plus Induced Consumption

Autonomous Consumption

- Autonomous consumption is that which occurs even if a person loses his or her job.
- Unemployed people dip into their savings to consume.

AUTONOMOUS CONSUMPTION
The level of consumption that occurs regardless of changes in one's income.

Induced Consumption

- "Induced consumption" depends on an individual's disposable income.

DISPOSABLE INCOME
The amount of money left after paying taxes to the government.

Marginal Propensity To Consume (MPC)

- Keynes described this behavior in terms of a person's "*marginal propensity to consume.*"

The "MPC" is the extra amount people consume when they receive an extra dollar of disposable income.

Marginal Propensity To Save (MPS)

The MPS measures the extra amount people save when they receive an extra dollar of disposable income.

MPS = 1 - MPC

An MPC and MPS Example

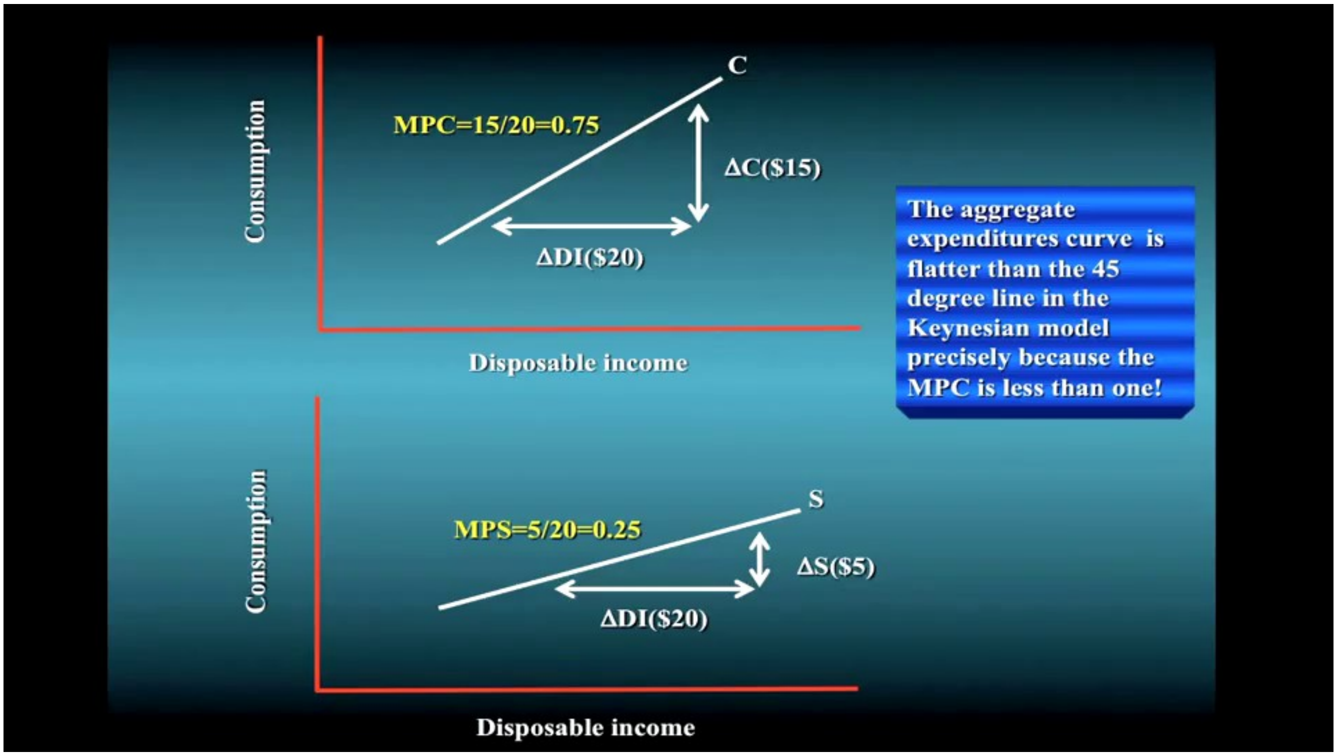
- Suppose people spend 75 cents of every dollar of their disposable income and save 25 cents.
- What is the MPC?
- What is the MPS?

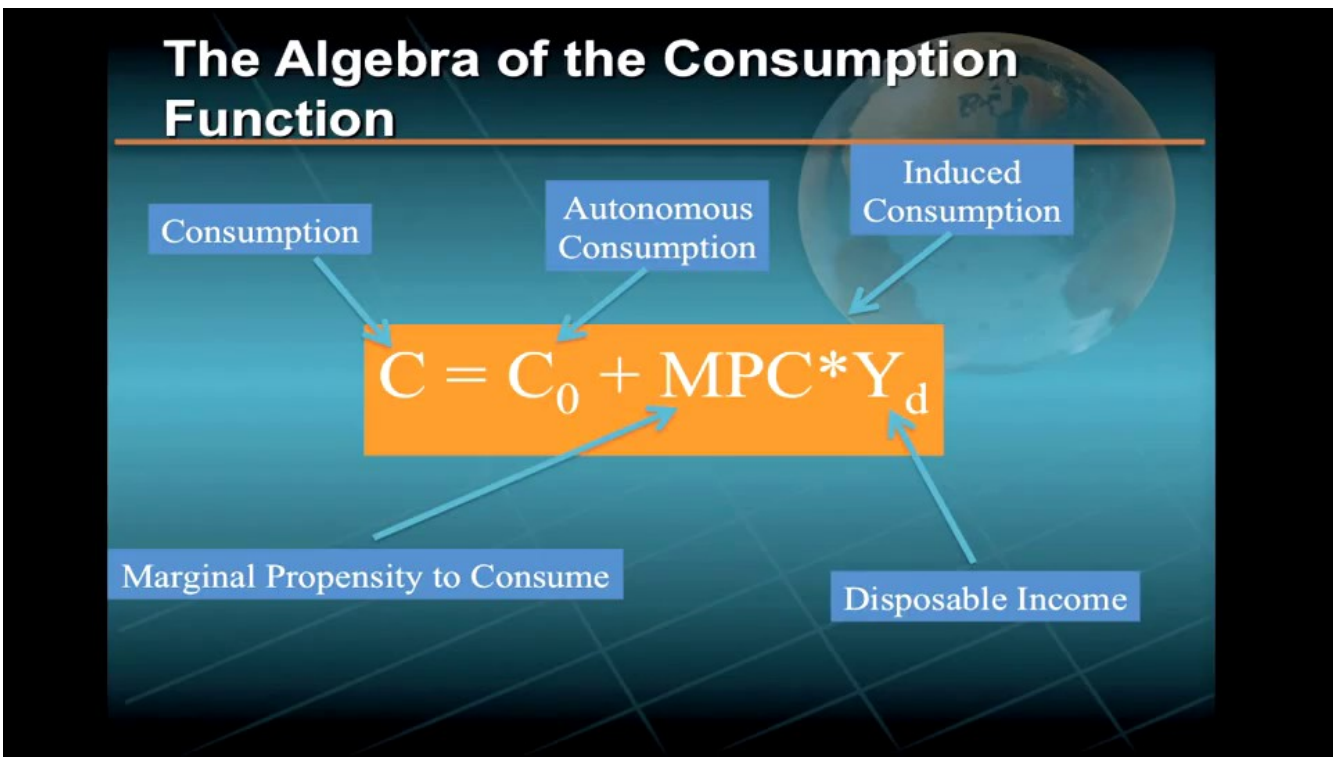
Another MPC and MPS Example

- The MPC is .75 and the MPS is .25

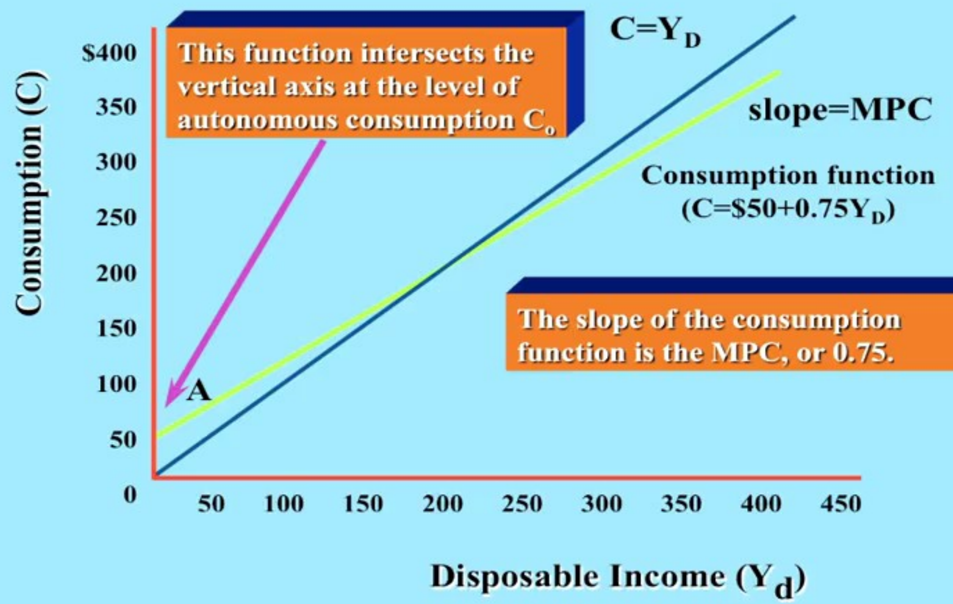
Now suppose people spend 90 cents and save only 10 cents of every dollar? What's the MPC and MPS??

- The MPC is .90 and the MPS .10


C
MPC=15/20=0.75
ΔC($15)
ΔDI($20)
Consumption
Disposable income
The aggregate expenditures curve is flatter than the 45 degree line in the Keynesian model precisely because the MPC is less than one!
S
MPS=5/20=0.25
ΔS($5)
ΔDI($20)
Consumption
Disposable income


The Algebra of the Consumption Function
Consumption
Autonomous Consumption
Induced Consumption
$C = C_0 + MPC*Y_d$
Marginal Propensity to Consume
Disposable Income

The Consumption Function



Malthus' Critique of Say's Law Redux

- You can see how this consumption function relates back to Thomas Malthus' critique of Say's Law and the Classical model.
- People won't spend everything they earn.
- Aggregate expenditures need <u>not</u> equal aggregate production, that is, <u>supply might not create its own demand</u>.