

OUTLINE — October 28, 2019

- Consumption Spending & Its Determinants
 - Saving
 - Consumption Spending Depends upon . . .
- Multiplier
- Closing an Output Gap

bCourses quiz due (last night) Sunday 10/27 at 11:59 pm
Midterm 2 on Wednesday, Nov 6, 7 - 8:30 pm

Unemployment Equilibrium

Before Keynes, "unemployment means economy-wide labor market is out of equilibrium"

Keynes: nope. Not so.

Y_E (equilibrium output)

Y_{FE} (full employment output)

Unemployment Equilibrium =

When the economy is in equilibrium ($Y = Y_E$) but there is an unemployment problem ($Y_E < Y_{FE}$)

$$\text{Output Gap} = Y_{FE} - Y_E$$

Unemployment Inflation **Macro Equilibrium** Consumption

Moving to A New Equilibrium

- Why would businesses change how much output they are producing?
 - Because there's an actual or anticipated change in demand for their goods and services
 - **Increase** in aggregate demand? Produce **more** output
 - **Decrease** in aggregate demand? Produce **less** output

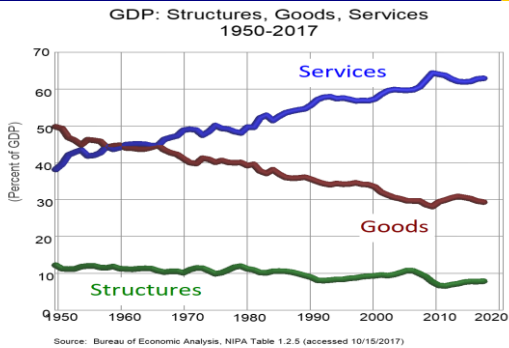
Unemployment Inflation **Macro Equilibrium** Consumption

Movement along AD vs Shift of AD



Unemployment Inflation **Macro Equilibrium** Consumption

Services dominate Goods



Unemployment Inflation **Macro Equilibrium** Consumption

Service-based economy=slower recovery

- Only goods can be produced ahead of demand
 - Think about economy at the trough of business cycle
 - Optimistic that economy will recover soon?
 - Produce more goods now, in anticipation of demand
BUT can't produce services ahead of demand
 - More services?
 - more need to wait for actual increase in demand → slower recovery
- Thus: More services? Slower recovery

Unemployment Inflation **Macro Equilibrium** Consumption

Marginal Propensity to Consume

- $mpc =$
- For the economy as a whole, $mpc < 1$
- $\Delta C =$

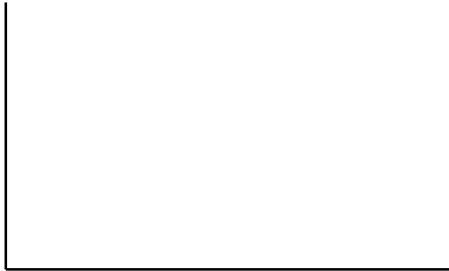
Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Consumption Spending

- C depends upon
 - YD
 - wealth
 - interest rates (i)
 - credit availability
 - expectations

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Macro Equilibrium ($Y=AD$)



Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Changes in Equilibrium

What happens to equilibrium output (Y_E) if planned spending increases initially by 100?

Any initial Δ spending results in a much larger ΔY_E because

- 1) Δ spending \rightarrow Δ output
- 2) Δ output \rightarrow ΔY
- 3) $\Delta Y \rightarrow \Delta YD \rightarrow \Delta C$

Definition of size of multiplier:

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Change of Equilibrium



Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Closing an Output Gap

- Suppose
 - $Y_{FE} = \$15$ trillion / year
 - $Y_E = \$14$ trillion / year
 How big is the output gap?
- Closing an output gap requires an increase in AD
 To close the gap, how big must the initial increase in AD be?

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Multiplier Process

- On your B&G sheet
 - Your occupation & industry
 - Monthly Disposable Income (Y+TR-TA) & Consumption

Step 1: Calculate your monthly Saving

Step 2: Allocate your monthly Consumption across spending categories

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Step 2: Allocate your monthly C

	Category	Spending
1	Housing (rent or mortgage)	
2	Food (prepared/eaten at home)	
3	Eating out & travel	
4	Car / bus / Bart (including gas & insurance)	
5	Other durable goods (electronics, appliances)	
6	Shopping! (big box stores, department stores, etc)	
7	Health care (including health insurance premium)	
8	Education	
9	Bank fees, brokerage fees, lawyers, fees, etc	
Total = \$ for consumption spending on your B&G		

Which items are likely to be imports?

Put an asterisk next to or circle those amounts

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Multiplier Process

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 - Your occupation & industry
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Step 1: Calculate your monthly Saving

Step 2: Allocate your monthly Consumption across spending categories

Step 3: Listen . . . Be ready to think about how your consumption changes

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

When someone is unemployed...

- Their income (Y) drops to 0
- They *may* receive unemployment benefits (part of TR)
 - Construction workers – probably not
 - Religious workers – almost surely not
 - Self-employed workers – definitely not
- Unemployment benefits replace < ½ of income
 - Max weekly benefit varies by state (\$450 in CA, \$240 in AZ, etc)
 - Number of weeks varies by state (26 in CA & AZ, 12 in FL)
- Therefore, to keep C constant requires dis-saving
 - Drawing down savings (how much were you saving per month?)
 - Going into debt (but remember . . . you have to pay that back)
- Alternative: cut C when lose your job

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Unemployment Insurance (a TR)

- Replacement rate (benefits as % of usual wage)
 - U.S. average: 46% replacement rate
 - Most generous (52-57% replacement): HI, PA, ND, KS, NJ
 - California: right at national average
 - Least generous (31-42% replacement): AK, LA, IL, TN, MO
- Length:
 - Standard = 26 weeks
 - Some states fewer weeks
 - Federal extensions to 99 weeks post-2009 but that bill has expired
- Data: calendar year 2016
- Original source: https://ows.doleta.gov/unemploy/repl_ratio/repl_ratio_rpt.asp

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula

Step 3: An event!

- Listen for the event
 - Does the event affect you?
 - What's your occupation & industry?
 - How will you react?
 - Is your income rising or falling?
 - Will you increase your C? Decrease C? Keep it the same?
 - Which components of spending will you change?
 - Be ready with your answer!

Consumption Spending Multiplier Process Closing an Output Gap Multiplier Formula