The Business Cycle

(Mankiw ch 20 and 21)

Facts about Fluctuations

Irregular and unpredictable
Most macro quantities move together
As output falls, Unemployment Rises

Partial Equilibrium and General Equilibrium Models

Supply and Demand is a partial Equilibrium Model
Resources from elsewhere shift into or out of the model,
As prices change

Aggregate Supply and Aggregate Demand LOOKS LIKE SUPPLY AND DEMAND

But it isn't………
In Aggregate Supply and Demand (AS/AD), resources that go into one market
Have to come from somewhere else, and have to be accounted for.
Recap of Supply and Demand -- So if consumers decide they like cars more
The demand for cars shifts out
The quantity of cars produced rises, the costs of cars goes up
And we are done with the car market…
AS/AD, the cars are produce using resources FROM SOMEWHERE ELSE
So the quantitity of OTHER goods being produced goes down
It is a trade-off
So in many, many other markets, small adjustments occur

What are the components of the economy?
Typically, we identify 6 elements
$Y = C + I + G + (X – M)$ or just $Y = C + I + G$
Where….

Y Output (expenditures), all the stuff the economy produces, which is the sum of
C Consumption (stuff we use up now, like food, trips, gas)
I Investment (savings), stuff we save or invest for later, like education, factories
G Government, stuff we "given" to the Government, for all the things it buys
X Exports, stuff we sell to foreign people
M Imports, stuff we buy from foreign people

For now ASSUME NO EXPORTS OR IMPORTS (a closed economy)
In lecture 6 we will add them to our models..

The Classical economy

Prices adjust instantaneously
So nominal variables DO NOT impact the economy
Monetary Neutrality

AD = Aggregate Demand slopes downwards.

As prices fall, we demand more goods (C goes up)

As interest rates drop, we demand more investment (I goes up)

As the currency depreciates, we buy fewer foreign goods (M goes down)

AS = Aggregate Supply, vertical (Why?)

THE REAL ECONOMY….

The amount of Natural Resources

The amount of Labor

The amount of Factories

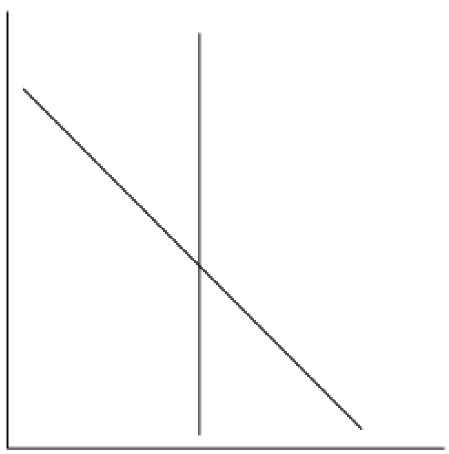
ALL of these things, in the short run, are fixed.

If everybody is working, and all resources are being used…

Then there is no waste, you can't increase production,

Only trade-off between items

So, Classical model of AS/AD (Long Run AS)



What can shift AD?

Changes in consumption, or savings

Changes in government spending

Changes in purchases of foreign goods

The Aggregate supply Curve

Vertical in the LR

So any change in AD, will lead to a change in Prices, NOT output.

Aggregate Supply, LR economic Growth, and inflation

What happens if there is more Money?

According to MV=PT (Lecture 4), prices go up, output remains the same…

But what about SR Aggregate Supply?

Can nominal variables have real effects

Sticky Prices, Misperceptions

Sticky Wages

The Keynesian Labor Market

This is an example of nominal non-neutrality, many other models exist.

Imagine that prices go up

What happens to Nominal Wages, and Real Wages

NOMINAL VARIABLES, REAL VARIABLES

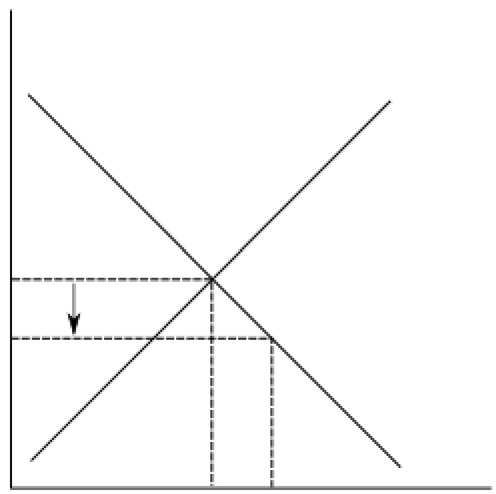
EXAMPLE: F/C

So $W^r = W^n/P$

And if P goes up, W^r also goes up…

A change in Real Wages when P goes up….

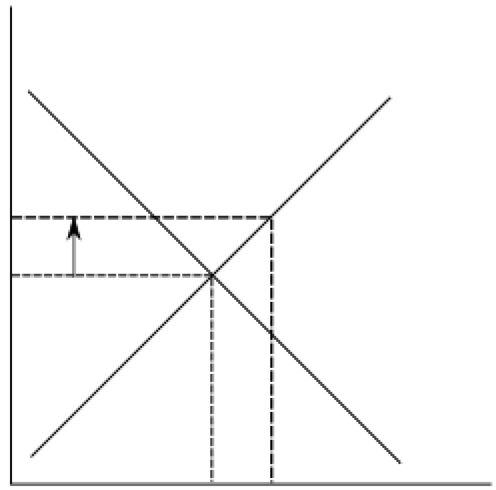
Note, the below is Supply and Demand, not AS/AD



So real wages have gone down, now what happens?

We have a shortage of labor, firms want more workers, but workers don't work at low wages….

So the price gets bid back up



But what happens when prices go down? Now, real wages go up.
So nominal wages have to be cut.

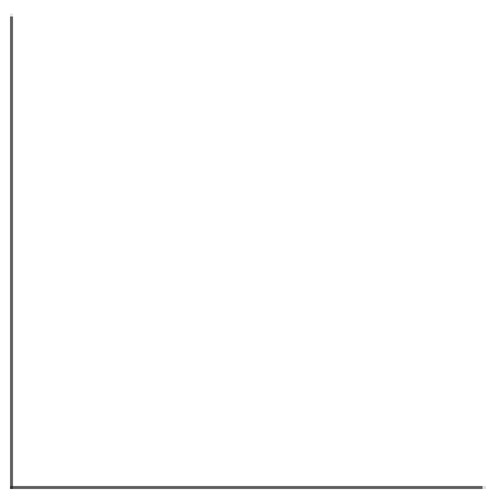
Keynes: Wages are sticky downwards

Nominal Changes can have real effects

A Decline in prices leads to a decline in employment. AS has a slope.
And thus a change in AD can lead to a decline in output.

Two Types, an aggregate supply shock, or an aggregate demand shock.

Class Exercise, Model the differences in them.



Example 1: Oil Shock

Example 2: Fear of a Chinese Economic Meltdown

What do business cycles look like?

- They all share broad similarities, but they are never identical.
- They happen every 3-8 years
- They last 6 – 18 months.
- While they economy is in a recession, if the government does nothing….
  - Prices usually fall (supply or demand shock)
  - Interest rates drop
  - Output goes down
  - Unemployment goes up
  - Nominal Wages go down
    - Real wages often rise
  - Buisness investment goes down A LOT
  - Consumer spending goes down A LITTLE

Government's have tools to deal with buisness cycles.

- This will be covered in Lecture 4, Monetary policy