

LECTURE 20: SHIFTING AD-AS

- I. Shifting AD
 - a. Like our microeconomics demand curve, our aggregate demand curve can shift. These changes are all unexpected changes.
 - b. Consumer spending
 - i. *Real interest rates*. The interest rate is the cost of borrowing. Unexpected higher interest rates not only encourage savings, they discourage investment spending. Decrease the real interest rate and AD will shift right/up.
 - ii. *Expectations*. Similarly, changes in expectations can change spending habits. If people think the economy will pick up, spending will increase.
 - iii. *Wealth*. If consumers' assets suddenly become more valuable, AD shifts right/up.
 - iv. *Personal Taxes*. Lower taxes means more disposable income and thus more spending and a rightward/upward shift in AD.
 - c. Investment spending
 - i. *Real interest rates*. Same story for demand.
 - ii. *Expected returns*. If interest rates are the cost of investment, this is the benefit. Whether the returns are higher because of lower taxes, better technology, better business conditions, or something else, higher expected returns shifts AD right/up.
 - d. *Government spending*. Not much nuance to this one. As government spends more, AD shifts right/up. Again, remember *ceteris paribus*: we assume taxes and interest rates are not changing because of this government spending.
 - e. Net Export spending
 - i. *National income abroad*. If other countries are suddenly wealthier, AD shifts right/up because they will buy more U.S. goods.
 - ii. *Exchange rates*. Suppose the dollar suddenly becomes less valuable (for some reason other than the price level). For our purposes that's effectively the same thing as incomes abroad increasing. In both cases, foreigners will buy more U.S. goods. AD will shift right/up.

- f. *Money supply*. Like government spending, this is pretty straightforward. More money means AD shifts right; less money means it shifts left.
- II. Shifting LRAS
- a. When LRAS curve shifts, something fundamental just happened in the economy. We call these *real shocks* (because they have a real effect: an effect that's adjusted for inflation).
 - i. A positive shock increases real GDP. Examples include technology, increases in the capital stock, higher levels of education, and increases in the population.
 - ii. A negative shock decreases real GDP. Examples include disasters and wars (which reduce both the capital stock and the population), and a fall in education levels.
- III. Shifting SRAS
- a. *Productivity*. If an economy can produce more output with the same number of inputs, that's effectively the same as reducing input prices. In both cases, by spending the same amount of money on inputs, the economy will be able to create more output. Increases in productivity shift AS right/down.
 - b. *Legal Environment*. Changes in regulations shift the AS curve in the same way changes in input prices shift AS. Complying with regulations are costly.
 - c. *Taxes/Subsidies*. Paying taxes are costly, too. Subsidies, on the other hand, reduce cost-per-unit of production.
 - d. *Input prices*. While input prices are sticky, they are not set in stone. If wages fall (say, because of an increase in immigration) or the dollar appreciates (thus importing inputs are cheaper), the SRAS shifts right/down.
 - i. Cheaper dollars thus have two effects; one for input prices and one for greater exports/fewer imports.
 - ii. Here we can relax my rule from Unit 1: it's now okay to shift more than one curve. In this case, AD would shift right/up *and* AS would shift left/up.
 - e. When LRAS shifts, SRAS shifts with it, as long as the real shock affects the short-run, too (which it usually does).
 - i. Note that the last two effects (taxes/subsidies and input prices) are all various kinds of prices. They don't have a real effect and thus they don't reflect economic fundamentals so these changes don't shift LRAS.
- IV. Understanding Shifts

- a. Time becomes an important factor in this analysis. Whatever happens, we must make all three curves eventually intersect at one point. The economy trends towards equilibrium
 - i. The question you must consistently ask yourself is: in the long-run, what should happen? Should real GDP change or only the price level?
- b. If you shift just one curve, the economy shows an imbalance. Rather than three lines intersecting on the same point, three lines will intersect at two different points. Three different scenarios can't be happening at the same time: the price level can only be one result; real GDP can only be one value. The imbalance must correct itself.
- c. The correction occurs when another curve shifts so all lines meet at the same point.
- d. For example, consider demand-pull inflation:
 - i. AD shifts out after the money supply increases.
 - ii. This shift puts upward pressure on prices and wages. In the short-run, output increases. This creates an "inflationary gap."
 - iii. But operating beyond full employment can only happen for so long. Inputs are in high demand; input prices and wages will rise.
 - iv. This cutting into profits causes SRAS to shift up to LRAS. The gap closes.
 - v. In the long-run, output won't change but we'll get a lot of inflation.

