

LECTURE 28: SHORT-RUN AGGREGATE SUPPLY

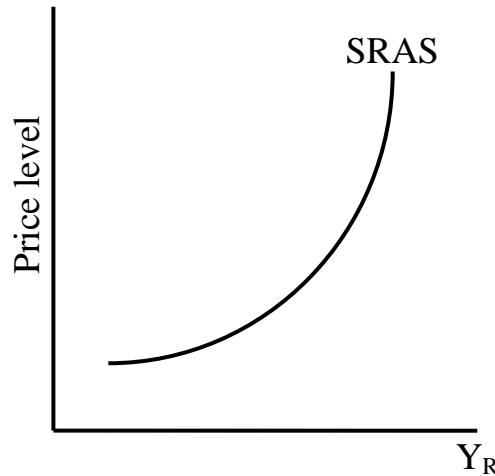
I. A Sticky Situation

- a. It's now that things get sticky...literally! Well, kind of literally.
- b. Economists typically assume immediate adjustments. If the government prints a bunch of money, wages will automatically compensate. Prices will instantly increase. Really?
- c. In reality, prices and wages are "sticky." They don't immediately adjust to changes in the money supply or money velocity.
 - i. Contracts inhibit price and wage movement. Billy the farmer has a contract with Andrea the restaurateur where Andrea will buy 1,000 pounds of lettuce per month at \$0.50 a pound. This contract lasts a year, which allows both Billy to plan his crop and Andrea to plan her menu. That price is locked in.
 - ii. Menu costs inhibit price movement. At Andrea's restaurant, a Big Salad cost \$5. If the price of tomatoes increases, it would be costly to change the menu to reflect the new cost. She probably won't bother, especially if she thinks this is a temporary change in cost.
 - iii. Consumer expectations inhibit price movement. Customers expect many prices to be consistent even if costs are not. They hate it if, say, their daily intake of Starbucks costs a few nickels more today than it did yesterday. They hate it more than they like it when prices unexpected fall because, in general, consumers like consistency. It helps them plan their budget, enabling comfortable routine and consumption smoothing. So firms often opt to absorb higher costs and reap the benefits of lower costs—which in theory will even out profit-wise—rather than constantly change prices.

II. The Shape of Things

- a. In the *long-run*, both input and output prices are flexible.
 - i. This is a completely vertical line, as we discussed.
- b. In the *immediate short-run* both input and output prices are sticky.
 - i. This is a completely flat line because the price level can't change. This is pretty boring, though, and limiting our analysis to just the very near future doesn't happen much. We will ignore any further details on this subject.

- c. In the *short-run*, input prices are sticky but output prices are flexible.
 - i. This is the first curve that actually looks like a curve. It's upward sloping and convex.



- ii. SRAS slopes up because changes in the price level will change what something is sold for (output prices) but not what it costs to produce (input prices). This causes profits to increase and additional productivity to follow. (In this way, it is very similar to our micro-supply curve...greater profits to the supplier induce greater output.)
- iii. SRAS is convex because at GDP levels below full employment (left of LRAS), the economy's not at full capacity. As idle people and equipment are put to work (increase in GDP), there is little upward pressure on price. But above full employment (right of LRAS), further expansion creates disproportionately more inflation.

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. LRAS should shift in the same direction (assuming this is a permanent increase in productivity) at the same time.
- 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 the real shock affects the short-run, too (which it usually does).
 - i. Note that the last two effect (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.