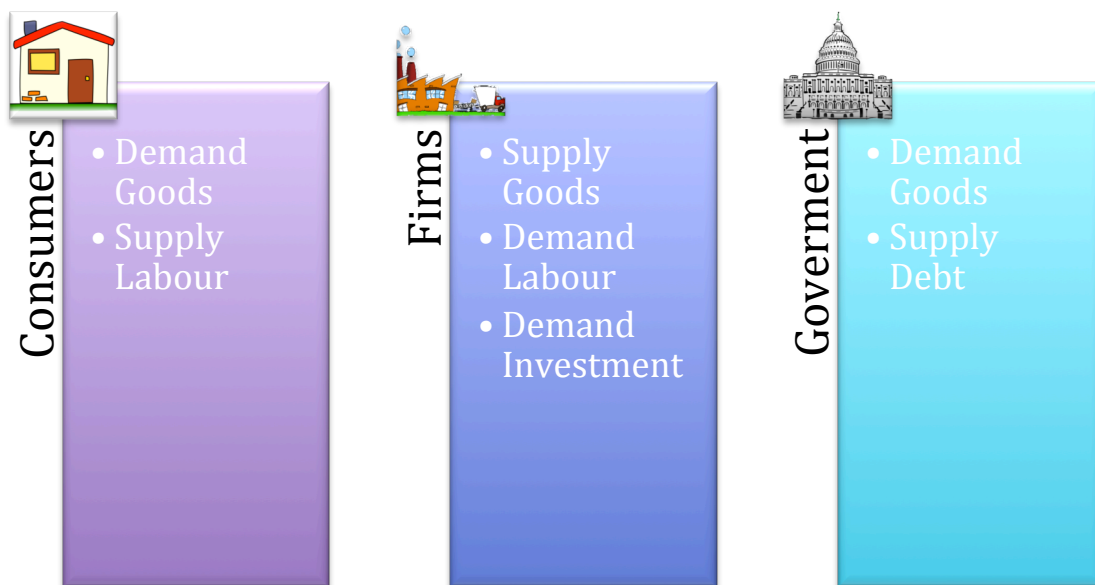


The “Simple” Dynamic Macroeconomic Model

Key Premise: We have three markets, three economic agents and two time periods. All three markets must clear to find the short run equilibrium.

Three Economic Agents



Three Markets

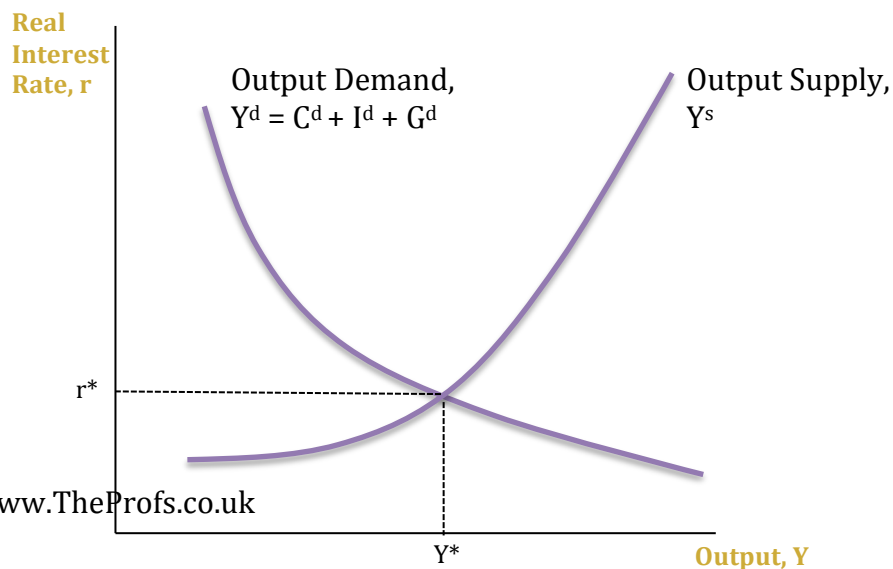
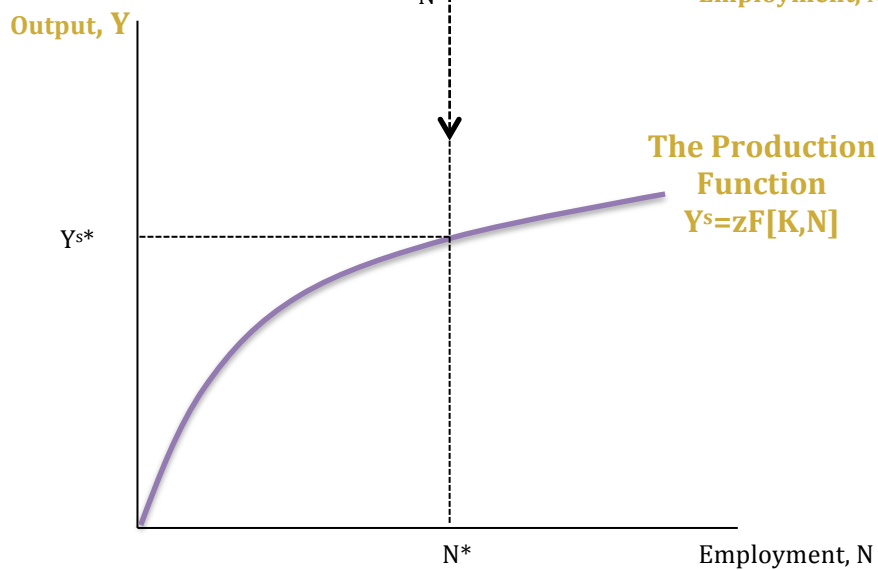
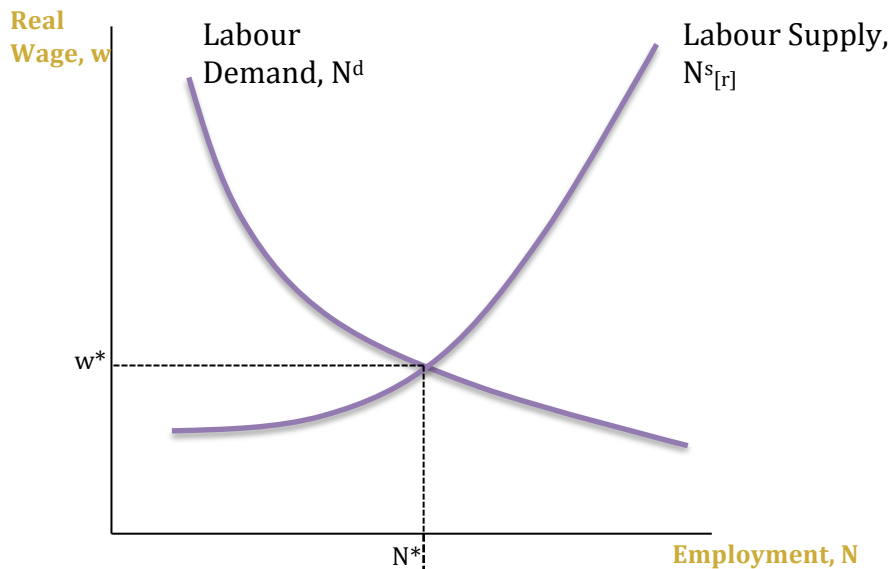


General Equilibrium

Step 1) Find the Labour Market Equilibrium Employment

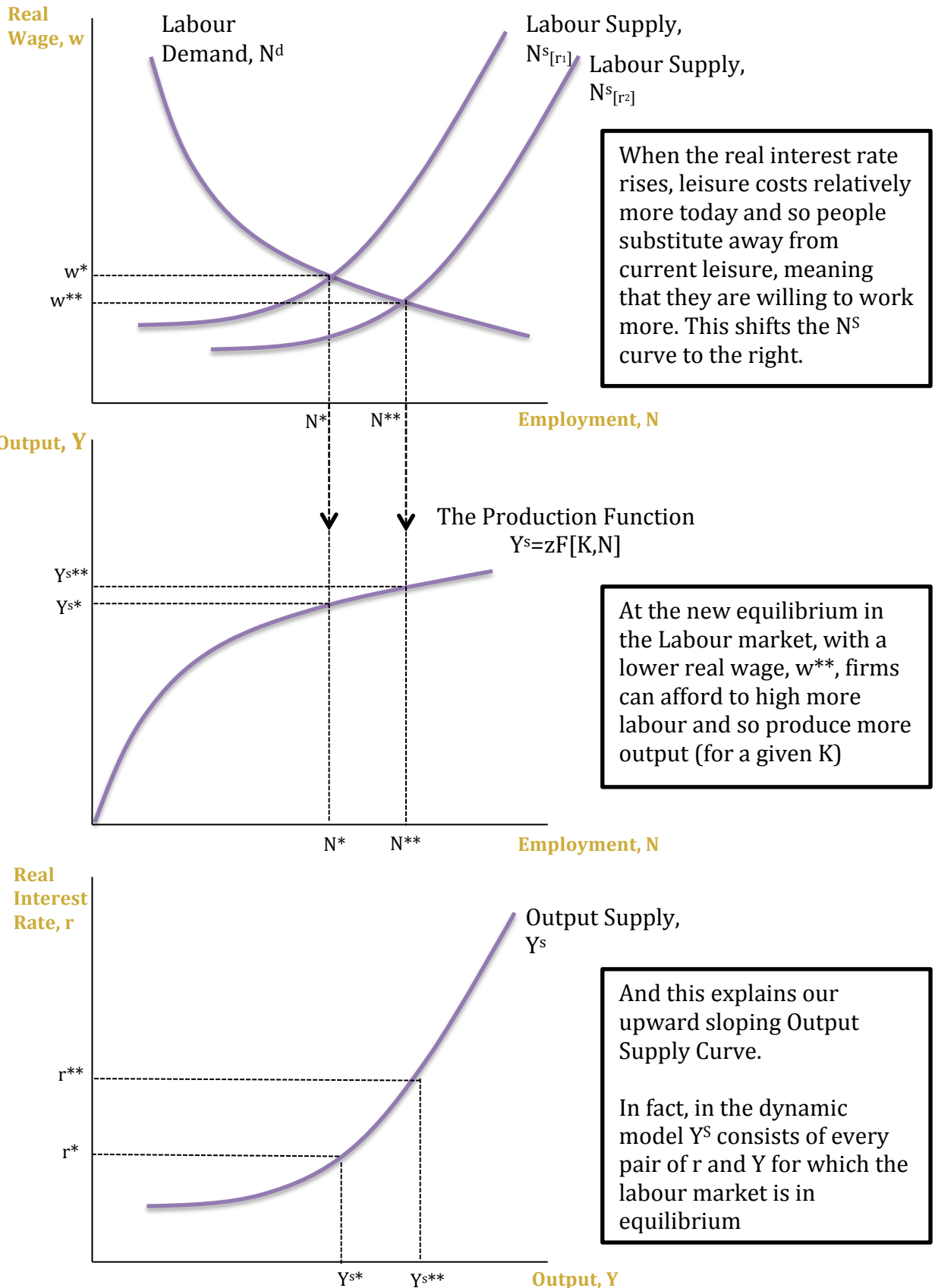
Step 2) Find the Output Supply from the Production Function

Step 3) Find the Goods Market Equilibrium



The Output Supply Curve

The Relationship Between Output and Labour Markets: The Real Interest Rate



Factors that shift the Output Supply Curve Outwards

In this model, the Output Supply Curve is completely dependent on the Labour Supply and Labour Demand Curves and the Production Function. Any shifts in these **other than a change in the interest rate** will cause a shift.

1) A Decrease in Lifetime Wealth

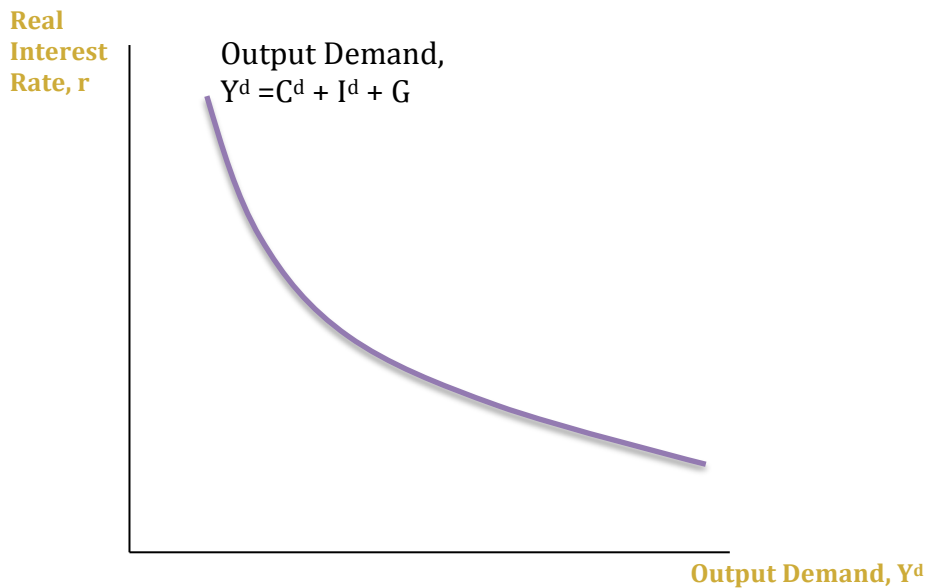
- a. An Increase in Government Spending (Leading to an increase in Taxes)
 - i. this negative wealth effect will cause consumers to substitute away from leisure and therefore supply more labour.
 - ii. N^S shifts out and at equilibrium, N^* is higher
 - iii. A higher N^* in the production function leads to higher Y^S and this is represented as a rightward shift in Y^S as output will now be higher for any given real interest rate

2) An Outward Shift of the Production Function

- a. An increase in Labour Productivity
- b. An Increase in Current TFP
- c. A Increase in the Current Capital Stock
 - i. because each worker now has more capital and so MP_N increases, shifting N^d outwards

The Output Demand Curve

A decrease in the interest rate will cause an increase in C^d due to decreased saving and an increase in I^d due to cheaper borrowing



Factors that Shift the Output Demand Curve Outwards:

$\uparrow C^d$ $\uparrow I^d$ or $\uparrow G$

- a decrease in the in the present value of taxes leading an a positive wealth effect, increasing C^d
- an increase in income that increases C^d
- an increase in Government Spending (ignoring the corresponding $\uparrow T$)
- a decrease in the current capital stock, K causing an increase in I^d
- an increase in future TFP that increases I^d

Note: an increase in current TFP doesn't shift Y^d outwards because this is already dealt with in the expenditure Multiplier