

CONCEPT: TAYLOR RULE

- **Taylor Rule** – links the Fed's target for the federal funds rate to several economic variables
 - **Federal Funds Rate** – the interest rate banks give to *other banks* on overnight loans
 - The Fed regularly makes decisions regarding the “correct” federal funds rate
 - The Fed does not use the Taylor rule to set the Federal Funds rate
 - John Taylor made a mathematical approximation of the target rate based on the following information:

$$\begin{aligned} \text{Target FF Rate} = & \text{Current Inflation Rate} \\ & + \text{Equilibrium Real FF Rate} \\ & + \left(\frac{1}{2} * \text{Inflation Gap} \right) + \left(\frac{1}{2} * \text{Output Gap} \right) \end{aligned}$$

Current Inflation Rate is equal to actual inflation

Equilibrium Real FF Rate is generally set as 2% (this is the nominal federal funds rate adjusted for inflation)

The sum of these first two terms is what the federal funds rate would be at long-run equilibrium

Inflation Gap is the difference between the Current Inflation Rate and the Target Inflation Rate (set by Fed, usually 2%)

Output Gap is the difference between current Real GDP and Potential GDP

EXAMPLE: Use the Taylor Rule to estimate the target federal funds rate. The current inflation rate in the economy is 4% and the equilibrium real federal funds rate is 2%. The target inflation rate is 2%. Real GDP is currently above potential GDP by 1%.

PRACTICE: Is it possible for the Taylor Rule to suggest a target federal funds rate to be negative? Assume the current inflation rate is 0%, the equilibrium real federal funds rate is 2%, and the target inflation rate is 2%.