

Instrument Conflict – Targeting the Federal Funds Rate.

(Reserves must be allowed to fluctuate)

- The Fed has to choose a reserve target or on an interest rate target.
- If the Fed follows a reserve target it will lose control over interest rates.
- If the Fed follows an interest rate target it will lose control over reserves.

Guide to Central Bank Interest Rates – The Taylor Rule

The Taylor Rule says that the target nominal federal funds rate should be set equal to the current rate of inflation: (1) plus a target real interest rate; and (2) plus adjustment factors.

- When inflation rises above its target level, respond by raising the interest rate.
- When output falls below the target level, respond by lowering the interest rate.

Example:

$$i_{ff} = 2.0 + \pi + 0.5(\pi - 2.0) + 0.5((Y - Y^*)/Y^*)$$

If the economy is at full employment and inflation on target:

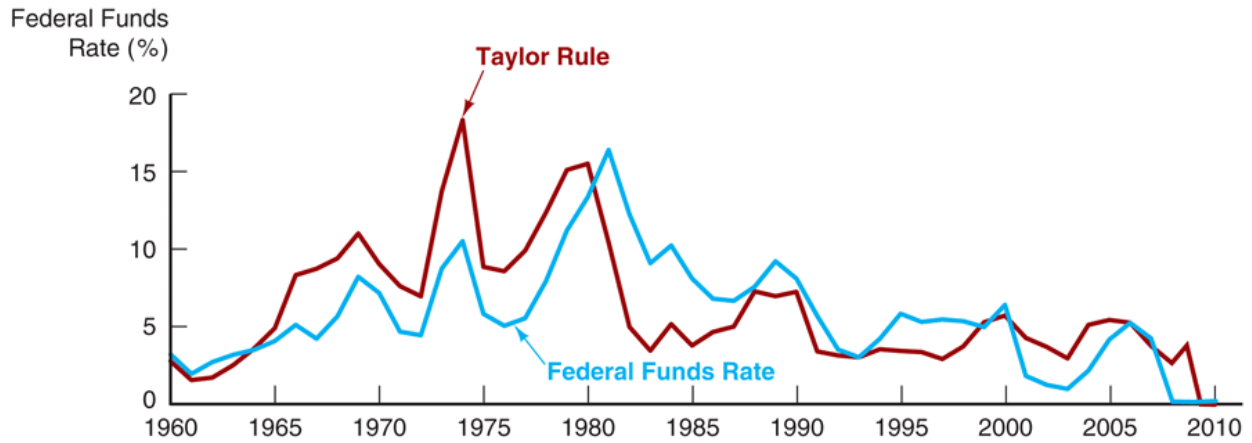
Economy at full employment, but inflation above target at 3%:

Inflation on target, but economy 3% less than full employment:

Inflation below target (1%) and economy 3% below full employment:

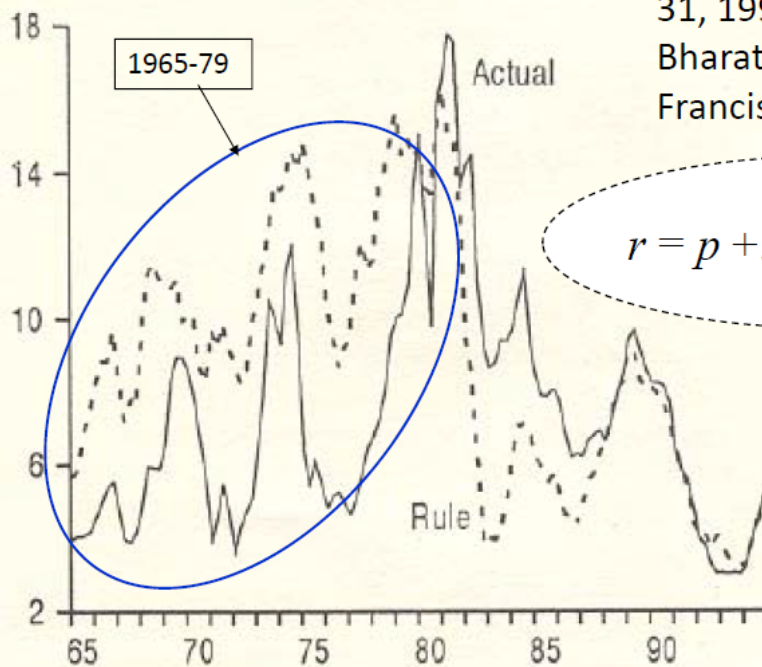
Question: If inflation rises 1% above target, the FFR increases by 1.5%. WHY?

The Taylor Rule for the Federal Funds Rate 1960-2011



1965-1980: monetary policy not well described by good rules-based policy

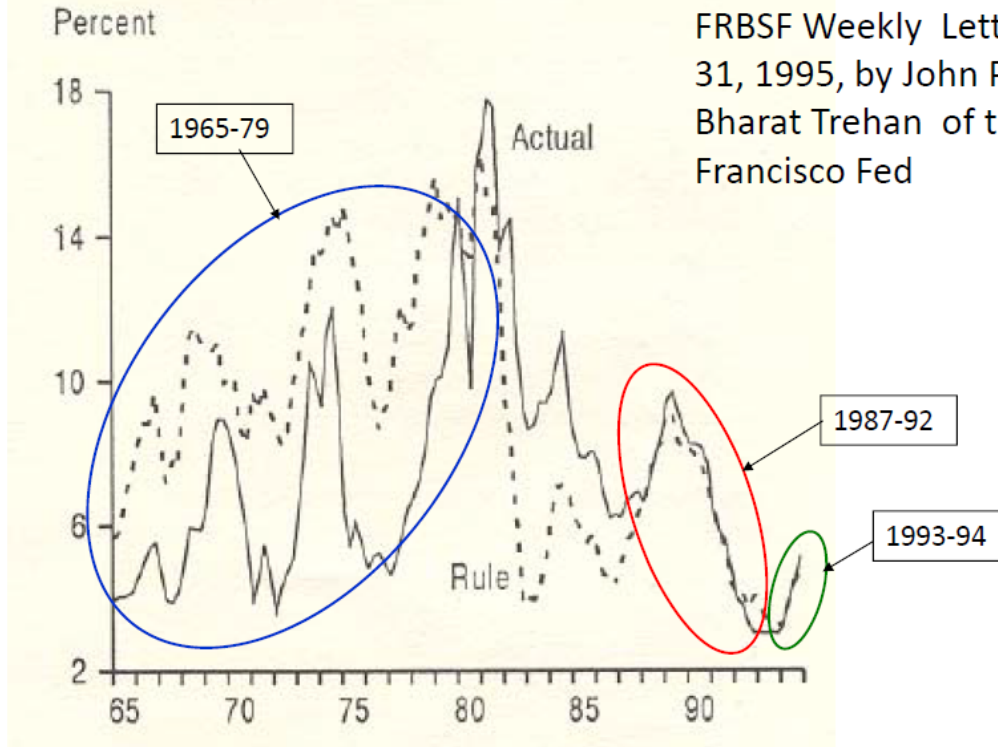
From "Has the Fed Gotten Tougher on Inflation?" The FRBSF Weekly Letter, March 31, 1995, by John P Judd and Bharat Trehan of the San Francisco Fed



$$r = p + .5y + .5(p-2) + 2$$

Monetary policy gets more rules-based

From “Has the Fed Gotten Tougher on Inflation?” The FRBSF Weekly Letter, March 31, 1995, by John P Judd and Bharat Trehan of the San Francisco Fed



Criticisms of the Taylor Rule

- Several alternatives measure inflation and the output gap:
 - The Taylor Rule differs considerably, depending on the price index and output gap measure used.
- The impact lag of monetary policy means that the ideal active policy rule should not use *current* observations for inflation, real GDP and potential real GDP, but rather should use *expected rates* 9-12 months in the future.
- The *weights* or *response coefficients* used in the Taylor Rule have no theoretical basis.
- The Taylor Rule is too simple.

How well the Fed has done in shooting at its target.

