

Mishkin ch.16: Monetary Policy Strategy

- General Goals: Price Stability. Maximum employment
- Strategy: Discretion vs. Inflation Targeting vs. Monetarism.
- Tactics: Methods of linking operating instruments to goals.
 - Taylor rule: formula for adjusting the Fed funds rate. Interpretations:
 1. Tactics of implementing inflation target (Mishkin's view).
 2. Strategy that combines employment and inflation targets, and avoids discretion.
 - Monetarism: idea that stable money growth will produce stable prices.
Hierarchy of goals (P), indicators (M1 or M2), and operating targets (NBR).
- Challenge: use limited information effectively to stay close to goals.
 - Daily information: Reserve demand, Fed funds rate, other interest rates.
Term structure provides signals about market expectations.
Reserve demand provides signals about nominal GDP, money multiplier, and velocity.
 - Macro data with delay: employment report, CPI, GDP, M1/M2.
 - Agenda: Find flaws in strategy & tactics, using historical experience & macro theory

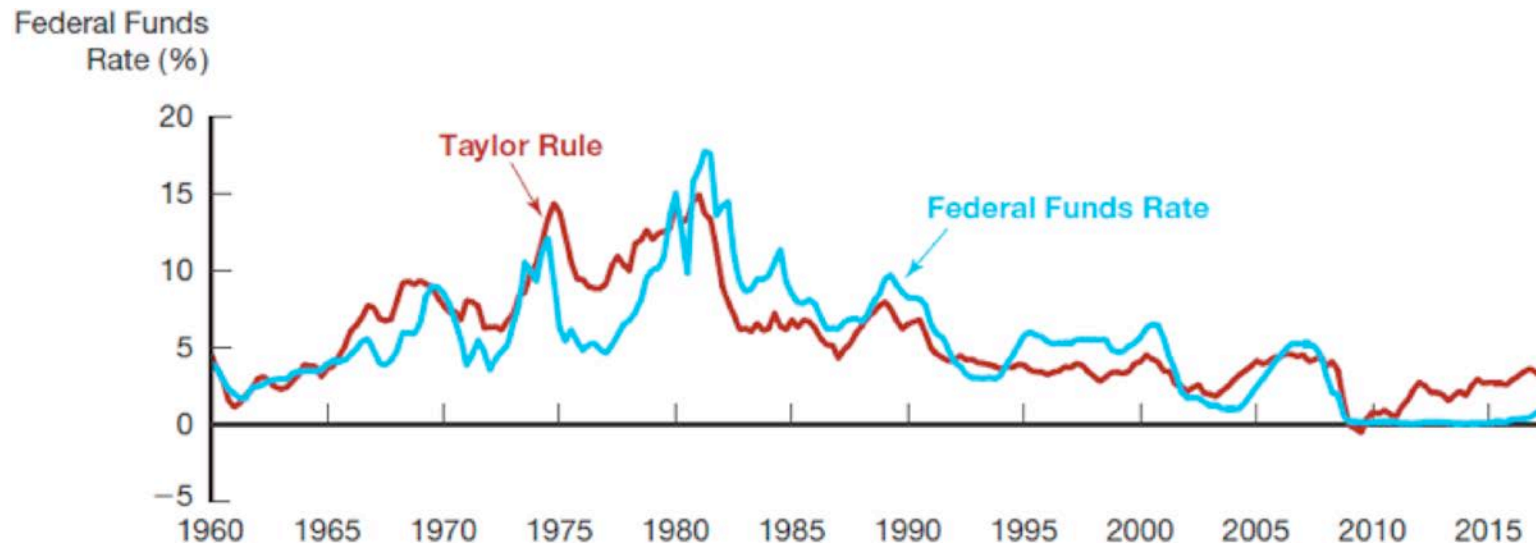
Monetary Policy Goals

- Macro theory holds central banks responsible for one “Primary Goal”: **Price stability**.
Classical notion of **Nominal Anchor**: Nominal variable that ties down the price level.
- Federal Reserve Act specifies a “Dual Mandate”: **Maximum employment & stable prices**.
Also requires **moderate long-term interest rates**.
- Fed’s interpretation of its mandate:
 - Maximum employment means unemployment close to the natural rate.
 - Price stability helps avoid deviations of unemployment from natural rate and keeps nominal interest rates low => Focus on price stability complies with Fed.Res.Act.
 - Price stability interpreted as low and stable inflation.
- Other Goals sometimes in the discussion:
 - **Stability of financial markets and/or of interest rates**. Motivates central bank practice of “smoothing” interest rates / reluctance to change operating targets quickly.
 - **Economic growth**: not a monetary goal (Claim as benefit of price & financial stability?)
 - **Stability in foreign exchange markets**. Extreme: **Fixed exchange rate** as nominal anchor.
=> Historically common in less developed countries. Monetary unions.
 - **Credibility**: Ability to influence expectations by making statements about future policy

Strategies: Discretion, Inflation Targeting, Monetarism

- **Discretion:** Set all available policy instruments as need to pursue policy goals. Explain policy changes through statements & speeches. No commitments about future policy.
- **Inflation Targeting:** Similar to discretion, but with an announced inflation target as specific numerical goal. Advantages:
 1. **Accountability** to the public: central bank performance is measurable.
 2. **Anchor for expectations:** hypothesis that with a credible inflation target, expected inflation will respond less to fluctuations in actual inflation => stabilizing.
- **Current U.S. policy:** Goal of keeping inflation at or slightly below 2%; no firm target.
- **Monetary Targeting:** Monetarist approach – influential, simple and transparent recipe:
 1. Set a target growth rate for M2 (or M1 if more closely correlated with nominal GDP).
 2. Tactics: use open market operations to stabilize the monetary base; rely on the money multiplier to control M2. Deviations are discovered quickly and can be corrected.
 3. Strategy: rely on natural rate hypothesis to keep $Y - Y^P$ small; rely on quantity theory to ensure low inflation (assumes stable velocity).
 - Exemplifies non-activist, non-discretionary policy. Problems: fluctuations if velocity shifts; incompatible with political pressure to “do something.”

Central Bank Tactics #1: The Taylor Rule



- Rule: Fed Funds rate = Equilibrium real rate + Inflation rate
+ 0.5 * Inflation Gap + 0.5 * Output Gap
- Common specification:
 - Equilibrium real rate = 2%.
 - Inflation Gap = Inflation rate – Target, with Target = 2%
 - Output Gap = 2 * (Unemployment rate – Natural rate), with Natural Rate = 5.5%
- Rule satisfies the Taylor principle:
1% higher inflation => 1.5% higher Fed Funds rate => 0.5% higher real interest rate.

Central Bank Tactics #2: Practical Perspective

- Q: How should the Open Market Desk respond to reserve market disturbances?
- Scenario: Reserve demand is strong (weak). Banks bid up the Fed-Funds rate.
Assume no identifiable causes for the strong (weak) reserve demand.
Assume traditional setting ($i_{ff} \gg i_{or}$ and $R \sim NBR$).

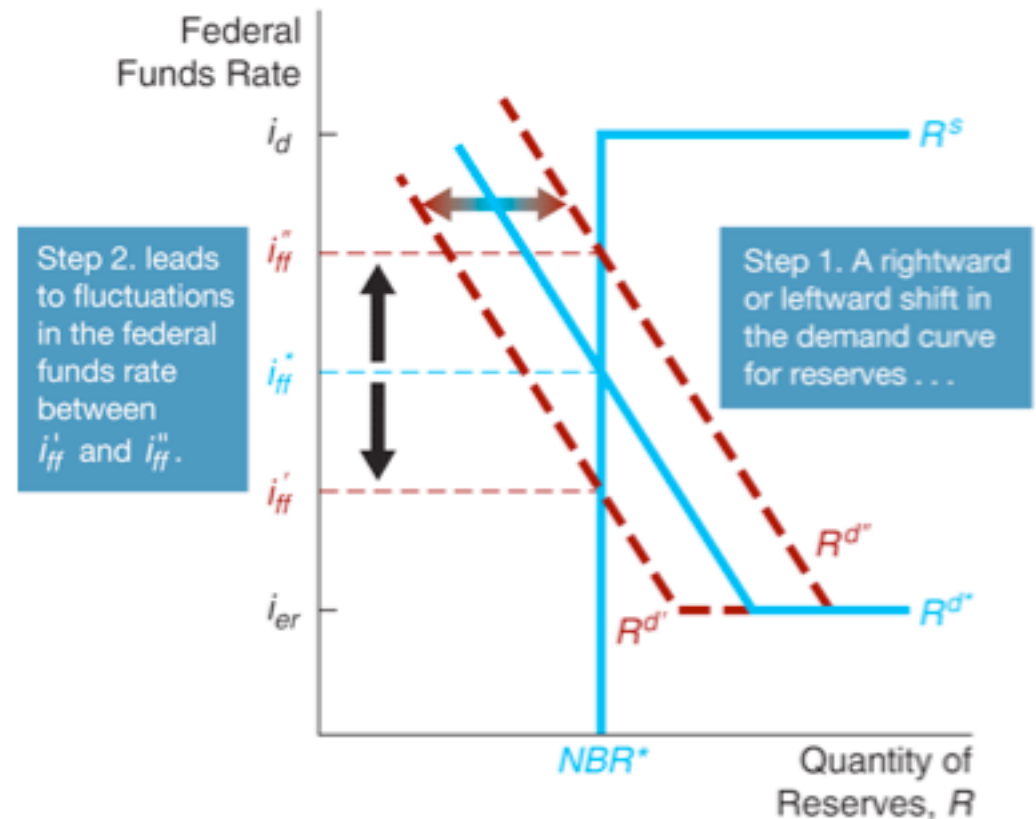
- Option #1: Do nothing

=> Unchanged NBR.

$R^d \uparrow \Rightarrow i_{FF} \uparrow \Rightarrow i \uparrow$

Result: Higher Fed funds rate

- Effects via term structure:
Higher interest rates in
throughout the economy.



- Option #2: Do open market operations to keep the Fed funds rate unchanged

$R^d \uparrow \Rightarrow NBR \uparrow$ so i_{ff} constant.

- Effects via money multiplier:

$R \uparrow \Rightarrow MB \uparrow \Rightarrow M1, M2 \uparrow$

Result: Higher money supply

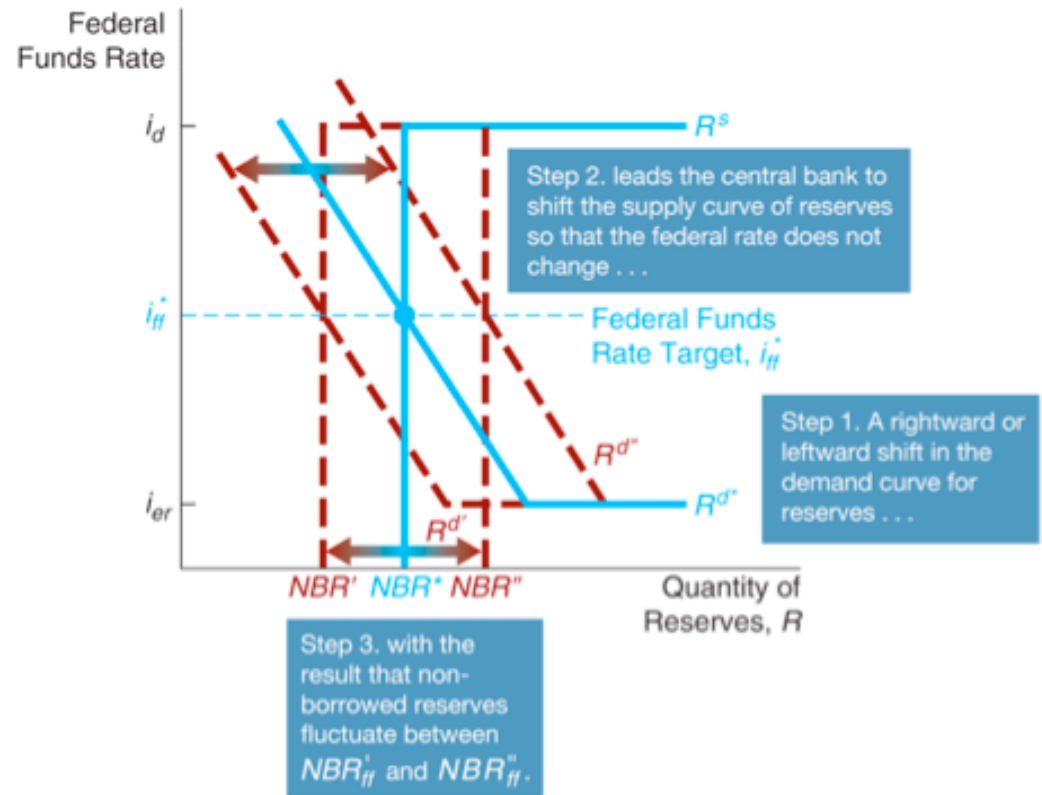
- Q: Which option should the Fed choose? And why?

FOMC meets every six weeks.

Must leave instruction with the

Open Market desk how to respond on a day-to-day basis.

- To show: Consequences depend on the shocks to reserve demand.



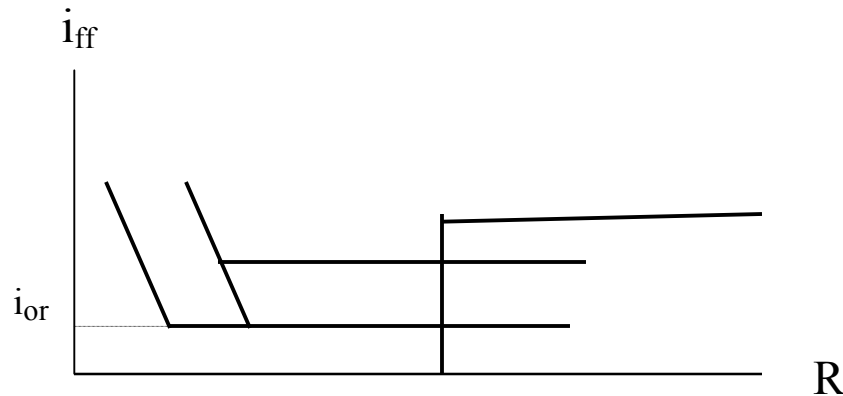
Sources of Shocks to Reserve Demand

1. **Fluctuations in the financial system:** shifts in money demand function, or in the demand for deposits subject to reserve requirements, or in desired excess reserves.
 - Critical feature: No change in IS and AS curves
 - => Stabilizing the Fed funds rate keeps MP curve unchanged. Prevents financial sector instability from causing economic fluctuations. Good.
2. **Fluctuations in the real economy:**
 - Shocks to IS curve: Higher demand => $Y \uparrow$, $\pi \uparrow$ => $M^d \uparrow$. (Rational to expect $\pi^e \uparrow$)
Because $\pi \uparrow$, positively sloped MP curve calls for higher real interest rate; but unchanged Fed funds rate implies $r = i - \pi^e$ unchanged (or down if $\pi^e \uparrow$)
[Similar for AS shock: $\pi \uparrow$ but i constant => r constant or down.]
 - => Stabilizing the Fed funds rate implies MP curve with flat or negative slope
 - => AD curve with vertical (or steep positive) slope
 - => Monetary response to demand shocks is destabilizing; explosive in the longer run unless FOMC intervenes to change the Fed funds target.
 - **Conclude: constant Fed funds rate is intrinsically unstable.** Violates the Taylor principle; requires frequent changes to prevent explosive outcomes.

Choices in the Aftermath of Quantitative Easing

(Setting with $i_{ff} \sim i_{or}$ and $R \gg NBR$)

- Options when shift $R^d \uparrow$ is suspected:



- **Do nothing** \Rightarrow Unchanged $i_{or} \Rightarrow$ Unchanged i_{ff} . \Leftrightarrow Traditional Option #2
 - (+) Prevents financial sector instability from causing economic fluctuations.
 - (-) Inherently unstable if the real economy has changed.
- **Increase the interest rate on reserves** \Rightarrow Increased i_{ff} . \Leftrightarrow Traditional Option #1
 - (+) Essential in response to real economic changes.
 - (-) Unnecessary shift in the MP curve in case of financial sector instability.
- **Conclude:** 1. New “do nothing” default. 2. New problem: Fluctuations in R^d are unobserved when $R \gg rr^*D$. Must use other signals to infer shocks.

Assessment of U.S. Monetary Policy

- Principles:
 - FOMC discretion, guided loosely by inflation targets and the Taylor rule.
 - Fed funds rate as operating target held constant between FOMC meetings.
- Findings:
 - Fed funds rate as operating target is intrinsically unstable.
 - Stability requires aggressive FOMC responses to macro shocks:
 - Responses must be strong enough that interest rates satisfy the Taylor principle.
- Cause for concern: Historically, Fed has been reluctant to change interest rates aggressively – tendency to “smooth” rates.
 - [Why? Financial stability. Interest costs to government/mortgage borrowers (voters!)]
- Explains importance of a clear strategy: inflation target and/or Taylor rule:
 - Signals commitment to vary the Fed funds rate. Stabilizes expectations.