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

[Notes on Ch.16]
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 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.

  - 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: \( \text{Fed Funds rate} = \text{Equilibrium real rate} + \text{Inflation rate} + 0.5 \times \text{Inflation Gap} + 0.5 \times \text{Output Gap} \)

- Common specification:
  - Equilibrium real rate = 2\%.
  - Inflation Gap = Inflation rate – Target, with Target = 2\%
  - Output Gap = 2 \times (\text{Unemployment rate} – \text{Natural rate}), with Natural Rate = 5.5\%

- Rule satisfies the Taylor principle:
  1\% higher inflation \(\Rightarrow\) 1.5\% higher Fed Funds rate \(\Rightarrow\) 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
  \[ R^d \uparrow \Rightarrow NBR \uparrow \text{ so } i_f \text{ constant.} \]

• 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↑, π↑ => M^d↑. (Rational to expect π^e↑)
     Because π↑, positively sloped MP curve calls for higher real interest rate; but unchanged Fed funds rate implies r = i - π^e unchanged (or down if π^e↑)
     [Similar for AS shock: π↑ 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.

[Notes on Ch.16]
**Choices in the Aftermath of Quantitative Easing**

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

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

  ![Graph](https://via.placeholder.com/150)

  - Do nothing $\Rightarrow$ Unchanged $i_{or}$ $\Rightarrow$ Unchanged $i_{fr}$. $\Leftrightarrow$ 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 $i_{fr}$. $\Leftrightarrow$ 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 $R \gg r\times D$. 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.