Money and the Federal Reserve
(Mishkin ch.3 & ch.13)

What is MONEY?
**Theoretical Answer**

- Medium of exchange
- Unit of account
- Store of value

=> Money is whatever serves these functions

**Practical Answer**

- M1 = Currency + Checking Dep.
- M2 = M1 + ….
- M… = Sum of monetary aggregates

=> List of items that serve as money at a particular time

- Measurement of money should change when payment habits change.
- Related measures: Bank reserves (narrow money) and

  **Monetary base (MB) = Currency + Bank Reserves.**
**Money in the U.S. today**
(Memorize!)

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Measures of the Monetary Aggregates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Value as of August 18, 2014, ($ billions)</strong></td>
</tr>
<tr>
<td>M1 = Currency + Traveler’s checks + Demand deposits + Other checkable deposits</td>
<td>1,206.1 3.3 1,089.9 477.4</td>
</tr>
<tr>
<td>Total M1</td>
<td>2,776.7</td>
</tr>
<tr>
<td>M2 = M1 + Small-denomination time deposits + Savings deposits and money market deposit accounts + Money market mutual fund shares (retail)</td>
<td>533.0 7,338.2 642.5</td>
</tr>
<tr>
<td>Total M2</td>
<td>11,290.4</td>
</tr>
</tbody>
</table>

Questions about Money

1. Basic: Why do we care about M? (And if so, which M?)

   - Classic answer based on Quantity Theory (later see ch.19):
     
     \[ M \times V = P \times Y \]  (Money * Velocity = Price level * Real output)

   - If velocity V is stable, M controls nominal output PY.
   - If Y is given, M determines prices P \( \Rightarrow \) Money growth is inflationary.

=> If the Fed controls M, it can control the inflation rate!

2. Follow-up: Can the Fed control M?


3. Which M?

   - Unclear: Most controllable (M1 or monetary base) vs. measure with most stable velocity (M2?) \( \Rightarrow \) Follow multiple measures.

   - Does the choice matter? See…

[Notes on Mishkin Ch.3 - P.4]
Growth Rates of M1 and M2

Similar in the long run – major differences in the short run.

[Notes on Mishkin Ch.3 - P.5]
The Federal Reserve System
(Mishkin ch.13)

Questions:

• **What are the Fed’s objectives?**
  1. Price stability. Practical target: inflation rate ~ 1.5%-2% range.
  2. High employment. Practical target: unemployment rate ~ “natural rate”
     Additional goals in practice: Financial stability. Low interest rate volatility.

• **Why is the Fed important?**
  - Manages important policy tools. For now: introduction (more in ch.15).

• **How is the Fed organized?**
  - Origin and formal structure, vs. informal structure. *Main item for this class.*

• **Central bank independence:** How much? Good or bad?
Federal Reserve Policy Tools

- **Open Market Operations** = Purchase or sale of Treasury securities.
  - Impact on interest rates and on bank reserves. Measure: Fed funds rate.

- **Lending operations**: Very targeted. “Lender-of-Last Resort” function.
  - Traditional: *Discount loans* extended to *depository institutions* at the *discount rate*. Secured loans; several types.

- **Reserve requirements**: 10% on checkable deposits; rarely changed.
  - Creates demand for bank reserves. Also: contractual reserves.
  - New since 2008: Reserves pay interest. Before: effectively a tax on banks.
Formal Structure: Decentralized - 12 Districts

- Federal Reserve districts
- Board of Governors of the Federal Reserve System
- Federal Reserve bank cities
- Federal Reserve branch cities
- Boundaries of Federal Reserve districts (Alaska and Hawaii are in District 12)
Actual Operation

• Federal open market committee (FOMC): Center of decision-making

   See Minnesota Fed article (recommended; still good).

• Role of the Chairman: Does s/he run the show?

   Currently:  Janet Yellen.

                Alan Greenspan  (1987-2006)
                Ben Bernanke    (2006-2014)
Central Bank Independence

• Foundations of Fed independence: Governors have long 14-year terms. FRB Presidents have votes in FOMC. Independent budget and revenues.


• Economic argument for independence: Credibility in promising low inflation.

• International trend toward independent central banks.

• Open question:
  - How much public disclosure is desirable? How much secrecy?
  - How much “emergency” power is desirable?
  - Are “emergency” lending operations consistent with central bank independence? [Requires close coordination with governments, involves discretion, creates identifiable profits/losses]