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.
## Money in the U.S. today

(Memorize!)

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>Measures of the Monetary Aggregates</th>
<th>Value as of August 18, 2014, ($ billions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1 = Currency + Traveler’s checks + Demand deposits + Other checkable deposits</td>
<td>1,206.1</td>
<td>3.3</td>
</tr>
<tr>
<td>Total M1</td>
<td>2,776.7</td>
<td></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</td>
<td>7,338.2</td>
</tr>
<tr>
<td>Total M2</td>
<td>11,290.4</td>
<td></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 (see later: 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 => Money growth is inflationary.
   => If the Fed controls M, it can control the inflation rate!

2. Follow-up: Can the Fed control M?
   - M1 or M2: only indirectly (see later: ch.14)
   - Related measures: Bank reserves; Monetary base = Currency + Reserves

3. Which M?
   - Unclear: most controllable (reserves, monetary base, or M1) vs. measure with most stable velocity (M2) => Follow multiple measures.
   - Does the choice matter? See…
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 – preview on next slide.

• **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**: Targeted. Serves “Lender-of-Last Resort” function.
  - Traditional: *Discount loans* extended to *depository institutions* at the *discount rate*. Secured loans – several types, mostly 1-day maturity.
  - Expanded since 2007. See www.federalreserve.gov/monetarypolicy/bst.htm

- **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.

- Economic analysis later (see ch.15).
Formal Structure: Decentralized - 12 Districts

1 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)
Decision Making the Federal Reserve System

Board of Governors
Seven members, including the chairman, appointed by the president of the United States and confirmed by the Senate

Appoints three directors to each FRB

Twelve Federal Reserve Banks (FRBs)
Each with nine directors who appoint president and other officers of the FRB

Elect six directors to each FRB

Member Banks
Around 2,900 member commercial banks

Federal Open Market Committee (FOMC)
Seven members of Board of Governors plus presidents of FRB of New York and four other FRBs

Sets (within limits)
Reviews and determines

Establish
Select

Federal Advisory Council
Twelve members (bankers), one from each district

Reserve requirements
Open market operations
Discount rate

[Notes on Mishkin Ch.13 - P.4]
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:  Jerome Powell  (2018—)

Previously: Janet Yellen  (2014-2018)

Ben Bernanke  (2006-2014)

Alan Greenspan  (1987-2006)

Paul Volcker  (1979-1987)
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.
  (ECB 1999; Bank of England 1997.)
- 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]