Monetary Policy and the Fed

Prof. Lutz Hendricks

Econ520

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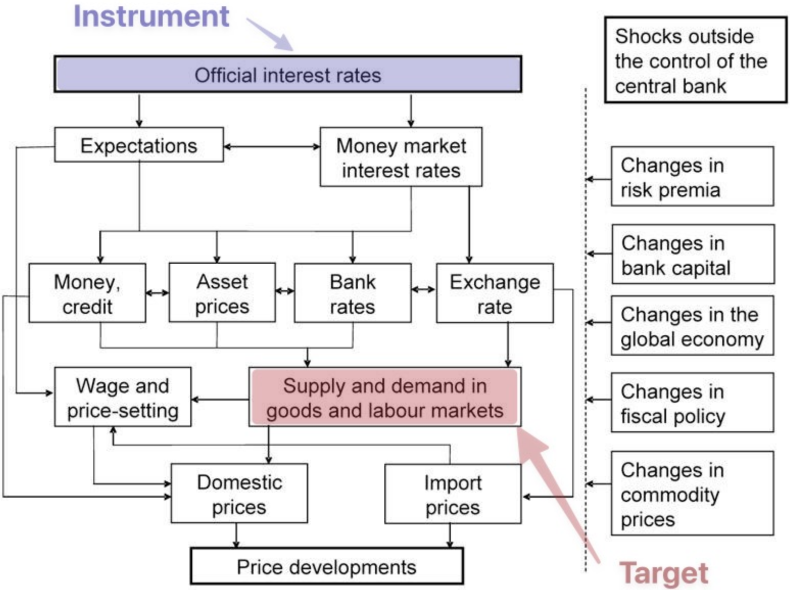
Topics

How does the Fed operate in reality?

It complicated...

Traditional Monetary Policy



Source: ECB, Transmission mechanism of monetary policy

The Fed Funds Rate

Traditionally, the Fed's main policy tool is the **Federal Funds Rate** (FFR).

- Banks borrow from each other over night
  - moving excess liquidity around
  - the FFR is the interest rate charged for this borrowing
- The Fed controls the FFR by adjusting the liquidity available to banks
  - e.g., by buying and selling bonds in exchange for reserves held with the Fed

Key point

The Fed directly only controls a very short term (overnight) interest rate.

Monetary Transmission Simplified

$$\boxed{\text{Main tool: Federal Funds Rate}}$$
$$\downarrow$$
$$\boxed{\text{Short rates: money market, etc.}}$$
$$\downarrow$$
$$\boxed{\text{Longer rates: bonds, bank loans}}$$
$$\downarrow$$
$$\boxed{\text{AD: } C+I}$$
$$\downarrow$$
$$\boxed{\text{Output } Y}$$
$$\downarrow$$
$$\boxed{\text{Price level}}$$

Monetary Transmission

Aggregate demand depends on **long-term** interest rates

- mortgages and consumer loans
- bank loans to firms

The Fed has **no direct control** over these rates.

Monetary transmission means:

- How do Fed actions (e.g., changes in the FFR) translate into changes in aggregate demand?
- There are several channels.

Monetary Transmission: Channels

1. **Interest rates**
   higher FFR $\Longrightarrow$ investors hold more short term reserves $\Longrightarrow$ investors sell long-term bonds $\Longrightarrow$ bond prices fall $\Longrightarrow$ **bond interest rates** rise
2. **Asset prices**
   lower FFR typically increases stock prices
   lower return on competing assets
   lower cost of capital $\Longrightarrow$ higher **investment**
   wealth effects stimulate consumption
3. **Credit supply**
   higher FFR $\Longrightarrow$ higher cost of funds for banks $\Longrightarrow$ less credit creation
4. **Inflation expectations**
   "loose" monetary policy $\Longrightarrow$ higher expected inflation $\Longrightarrow$ lower real interest rates

Problems

Transmission is quite indirect

- The Fed directly controls only the FFR
- Aggregate demand depends on longer interest rates
- Long rates may not move as expected

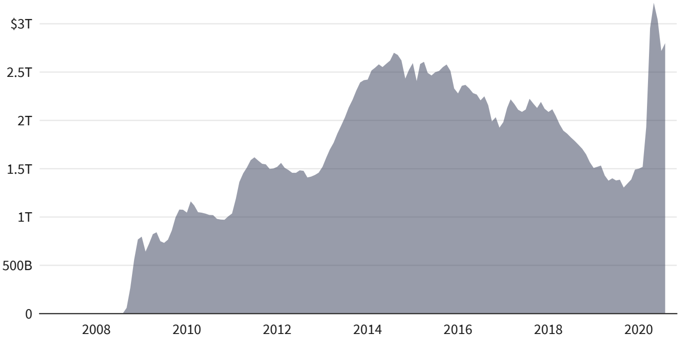
This is the key difficulty of monetary policy:

- long and variable lags
- it typically takes about **a year** for the real effects of a monetary stimulus to take full effect

Example: The Great Financial Crisis

- Banks soaked up all of the liquidity generated by the Fed as excess reserves
- Essentially no credit creation

Excess Reserves of Depository Institutions: 2007—Present



Source: St. Louis Fed

Digression: How do Banks Work?

The main function of commercial banks:

- take in deposits
- give out loans (to finance investment and consumption)

Profit: the spread between loan rates and deposit rates.

Fed reserves:

- banks must hold a certain fraction of their deposits in low interest Fed accounts
  (reserve requirement)
- when banks fear uncertainty, they hold **excess reserves** instead of giving out loans

Excess reserves indicate that banks do not lend as much.

Unconventional Monetary Policy

Conventional Monetary Policy

What we described so far is “conventional” monetary policy.

- what the Fed has been doing for decades

Recently, conventional monetary policy has stopped working.

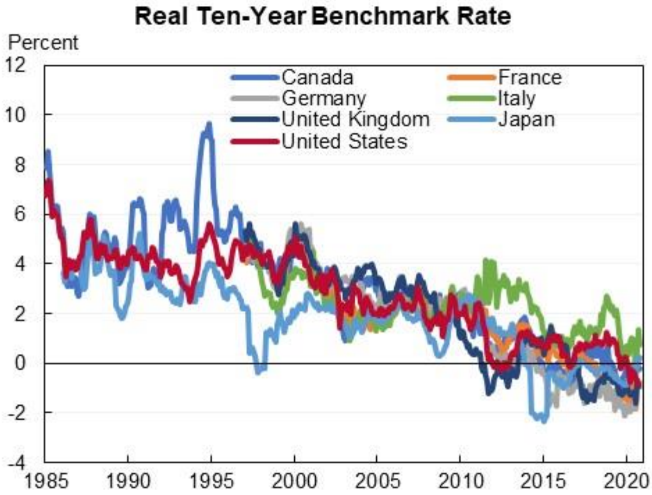
- even zero interest rates are no longer low enough

Since the Great Financial Crisis of 2009, the Fed has used “unconventional” tools

- which are, by now, pretty conventional

Falling Interest Rates

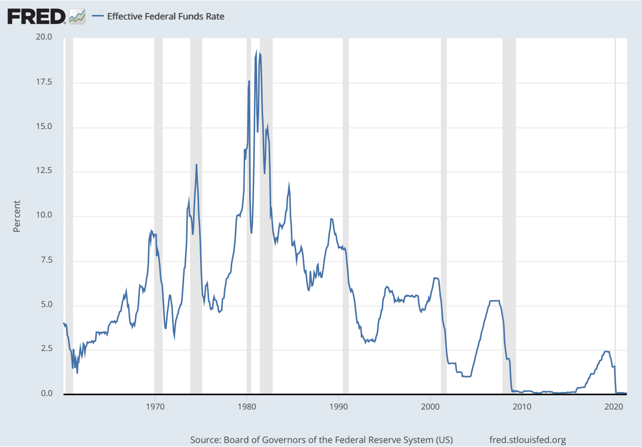
Figure 1



Source: Furman and Summers (2020)

Real interest rates have been falling (not clear why).

The Zero-Lower Bound



The FFR has trended down.

In recessions, it hits the zero lower bound – now what?

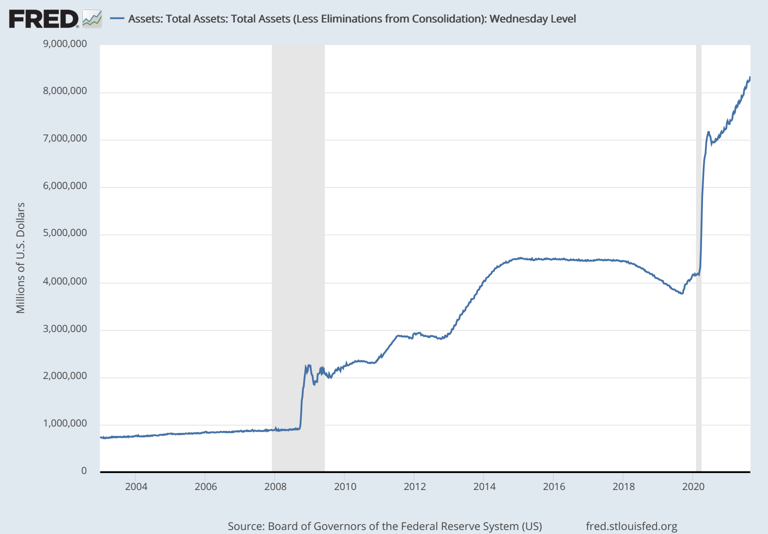
Quantitative Easing

The Fed directly changes long-term interest rate by buying **long-term bonds**.

How does it work?

1. Inflation expectations $\Longrightarrow$ lower real interest rates
2. Liquidity (similar to traditional monetary policy)
3. Policy signalling: the Fed is serious about keeping inflation low for a while

QE: How Big is it?



QE Risks

1. Inflation may rise (lots of liquidity in the system)
   This is happening right now (perhaps for different reasons)
2. At some point, the Fed has to unwind its asset positions.
   This causes demand contraction.
3. Distributional effects; see NY Times Opinion, July 12, 2021

Reading

- Investopedia article on the Federal Reserve.
- ECB article on the "Transmission Mechanism of Monetary Policy"
- Johnson, Manuel (2002). "Federal Reserve System." The Library of Economics and Liberty: a very brief overview of how the Fed operates.
- Monetary Policy Basics: a brief summary of fed operations.
- Labonte and Makinen (2017): A more detailed description (including unconventional monetary policy).

References

Furman, J. and L. H. Summers (2020): "A Reconsideration of Fiscal Policy in the Era of Low Interest Rates," .

Labonte, M. and G. E. Makinen (2017): "Monetary policy and the Federal Reserve: current policy and conditions," Congressional Research Service, Library of Congress.