Conducting Monetary Policy at Very Low Short-term Interest Rates

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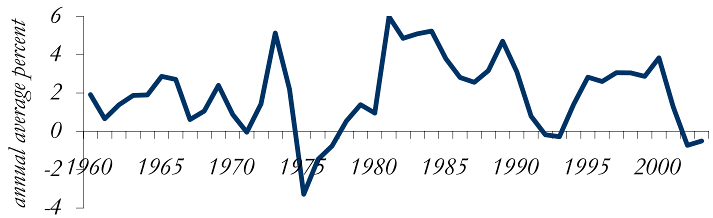
The views expressed are my own and are not necessarily shared by anyone else in the Federal Reserve System.

How can inflation ever get too low?

Low inflation limits the extent of monetary policy stimulus.

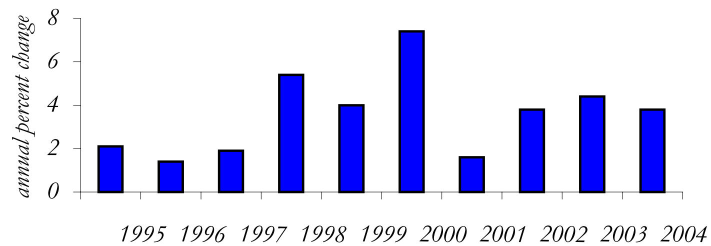
U.S. Real federal funds rate



Note: Nominal funds rate less contemporaneous core CPI inflation

Workers may be resistant to declines in wages in nominal terms.

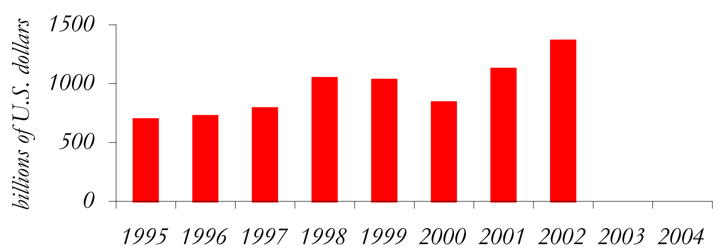
Hourly earnings in U.S. Manufacturing



Source: IMF, World Economic Outlook (April 2003)

Unanticipated declines in inflation transfer wealth from the borrower to the lender.

U.S. Domestic Nonfinancial Borrowing

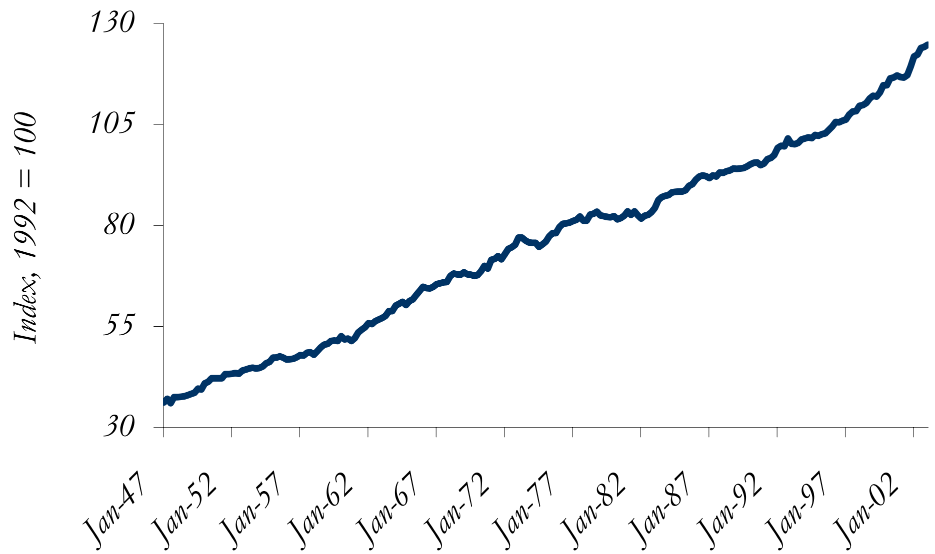


Source: Federal Reserve Flow of Funds Accounts

Rapidly growing productivity solves many problems

Output per hour

U.S. nonfarm business sector



Raises the return to capital, making it less likely that a negative real interest rate will be necessary.

Raises the growth of real wages, making it less likely nominal wages will have to fall.

Raises real incomes, making debt burdens more sustainable.

Prices could fall because . . .

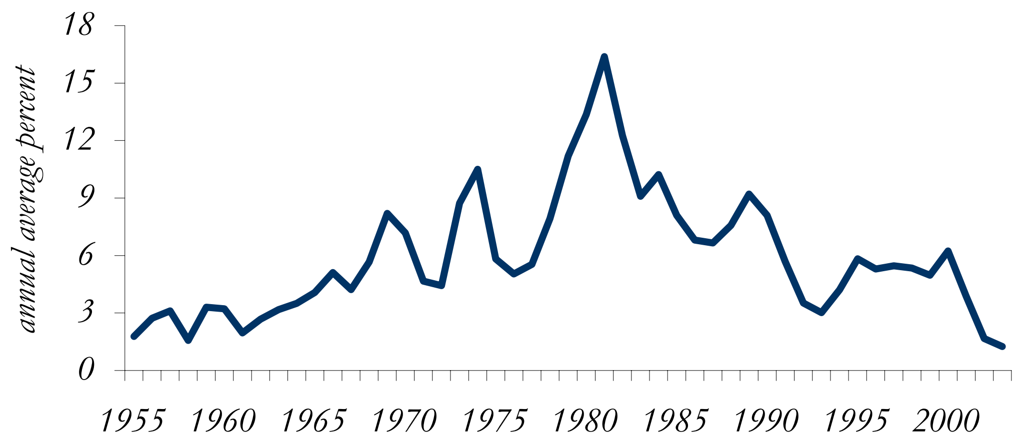
Aggregate demand is contracting, pulling it below aggregate supply.	O R	Aggregate supply is increasing at a rate faster than aggregate demand.

In either case, falling prices impose some costs because the economy operates most efficiently when it is in the zone of price stability. That is, maintaining stable prices is a symmetric responsibility.

The overall performance of the economy might be sufficiently robust in the case of rapidly rising aggregate supply that deflation would not be associated with serious economic dislocations.

U.S. federal funds rate

Considerations about Conducting Monetary Policy at Very Low Nominal Short-term Interest Rates

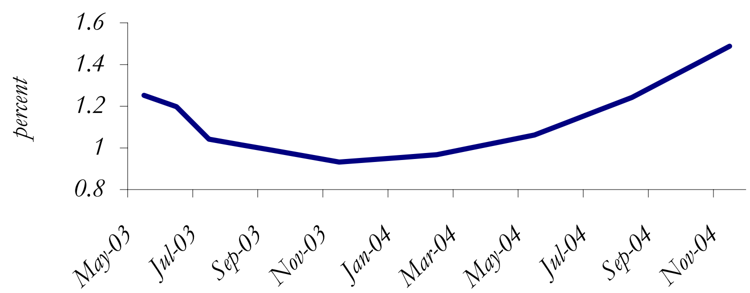


To affect the financial market prices and returns that matter for spending, a central bank can alter the size and composition of its balance sheet to influence the current short-term interest rate and its expected future path.

Shaping expectations

Asset prices embed the current short-term interest rate and its expected future path.

Expected federal funds rate



Note: Futures rates less 1 b.p. per month term premium

A central bank can provide impetus to the economy at an unchanged short-term interest rate . . .

. . . By encouraging investors to expect short rates to be lower in the future than they currently anticipate.

Commitment can take two forms

- Unconditional commitment

  The central bank pledges to hold short-term rates at a low level for x period of time.

- Conditional commitment

  The central bank pledges to hold short-term rates at a low level until y happens.

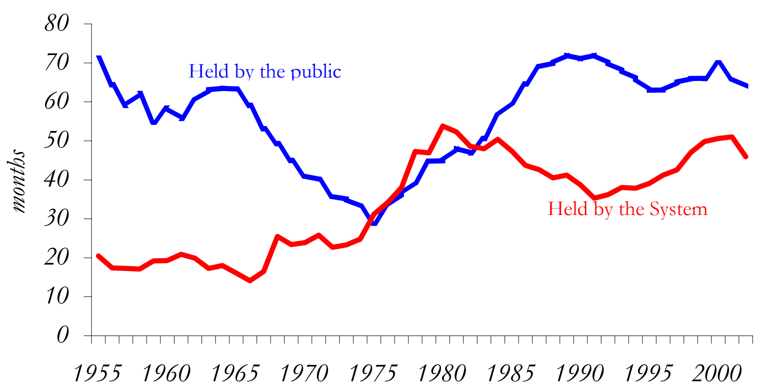
Caveat

- Words ultimately have to match deeds for the public to believe.

Altering the composition of the central bank balance sheet

- Can be used to underscore the strength of the commitment to keeping rates low.

Average Maturity of Treasury Debt



- Apart from influencing expectations, shifting the composition of the portfolio could lower term premiums on Treasury securities.

Caveats

- It is not obvious why a central bank issuing a fiat currency should care about capital gains or losses.

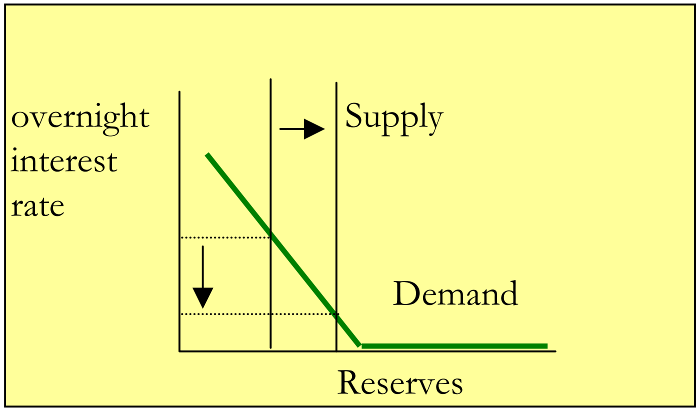
- Purchases of securities might have to be massive to enforce a ceiling if investors came to doubt that the central bank would keep rates low.

  At that point, there would be a risk that the security would become disconnected from the rest of the yield curve and private rates.

- Empirical evidence suggests that relative supplies do not influence term premiums.

Altering the size of a central bank's balance sheet

- A central bank eases monetary policy by expanding the stock of reserves.
- Currently, most central banks calibrate their easing by targeting the price of reserves.



- A central bank could switch its focus from the price of reserves to the quantity of reserves (or the growth of reserves).
- Essentially, this relies on the observation that rapidly increasing reserves ultimately leads to rising prices.

Caveat

- A long-run association does not provide much guidance about the short-run perfomance of the economy.

I haven't said the word "zero"

These forms of monetary stimulus can be used

- Once the overnight rate has already been driven to zero;
- As a way of driving the overnight rate to zero; or
- Before the overnight rate hits zero (and perhaps it never need get there).

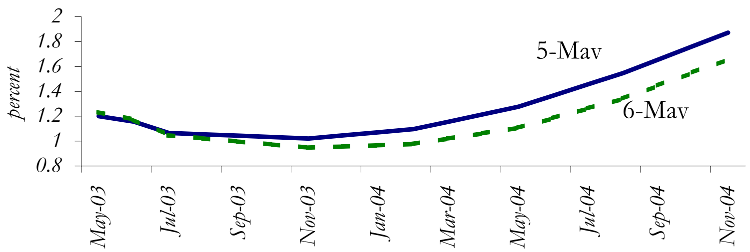
The costs associated with low overnight nominal interest rates:

- Compressing rates;
- Thinning brokering; and
- Fostering the misimpression that monetary policy is ineffective.

I haven't said the words "unconventional, unorthodox, or unusual."

- The Federal Reserve has always appreciated the importance of correctly aligning market expectations.

Expected federal funds rate

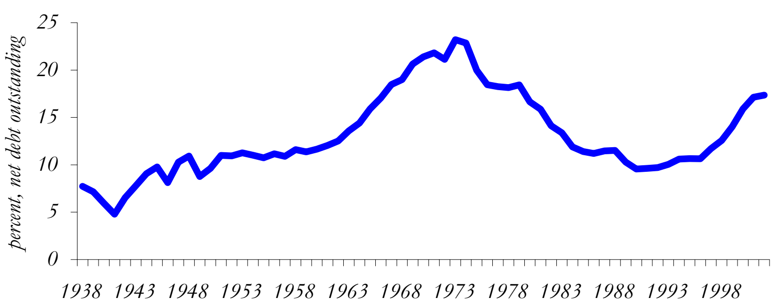


Note: Futures rates less 1 b.p. per month term premium

- The Federal Reserve operates in all segments of the Treasury market, and

from 1942 to 1951 enforced a ceiling on the yield curve.

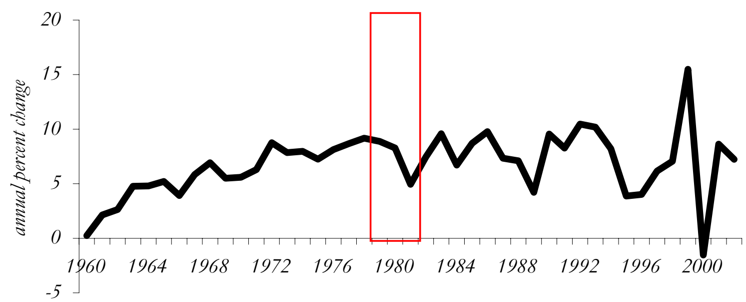
Federal Reserve Holdings of U.S. Treasury Securities



- The Federal Reserve targeted reserves from 1979 to 1982.

Monetary Base

annual percent change



What is conventional, orthodox, and usual is the Federal Reserve's willingness to deal flexibly with the economic situation.