Monetary policy and the economy

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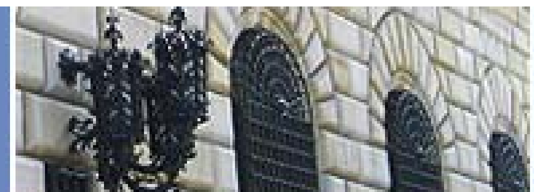

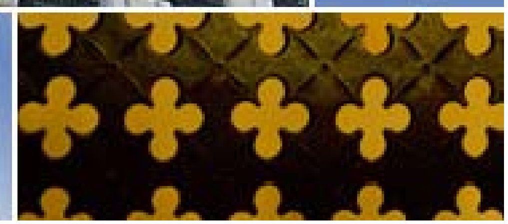

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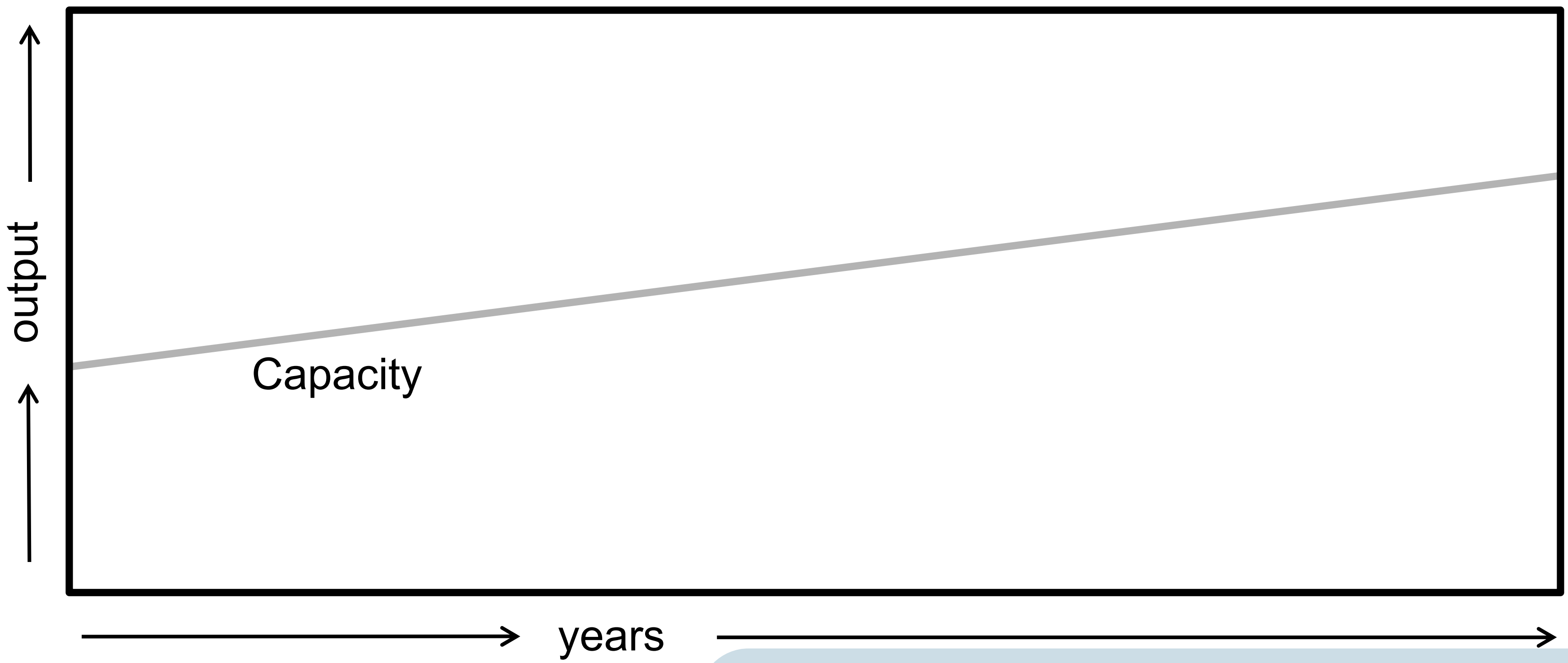
Overview

- Monetary policy in theory . . .
- . . . and reality
- Life at the zero bound
- Lender of last resort

MONETARY POLICY IN THEORY

The sustainable output of the economy grows

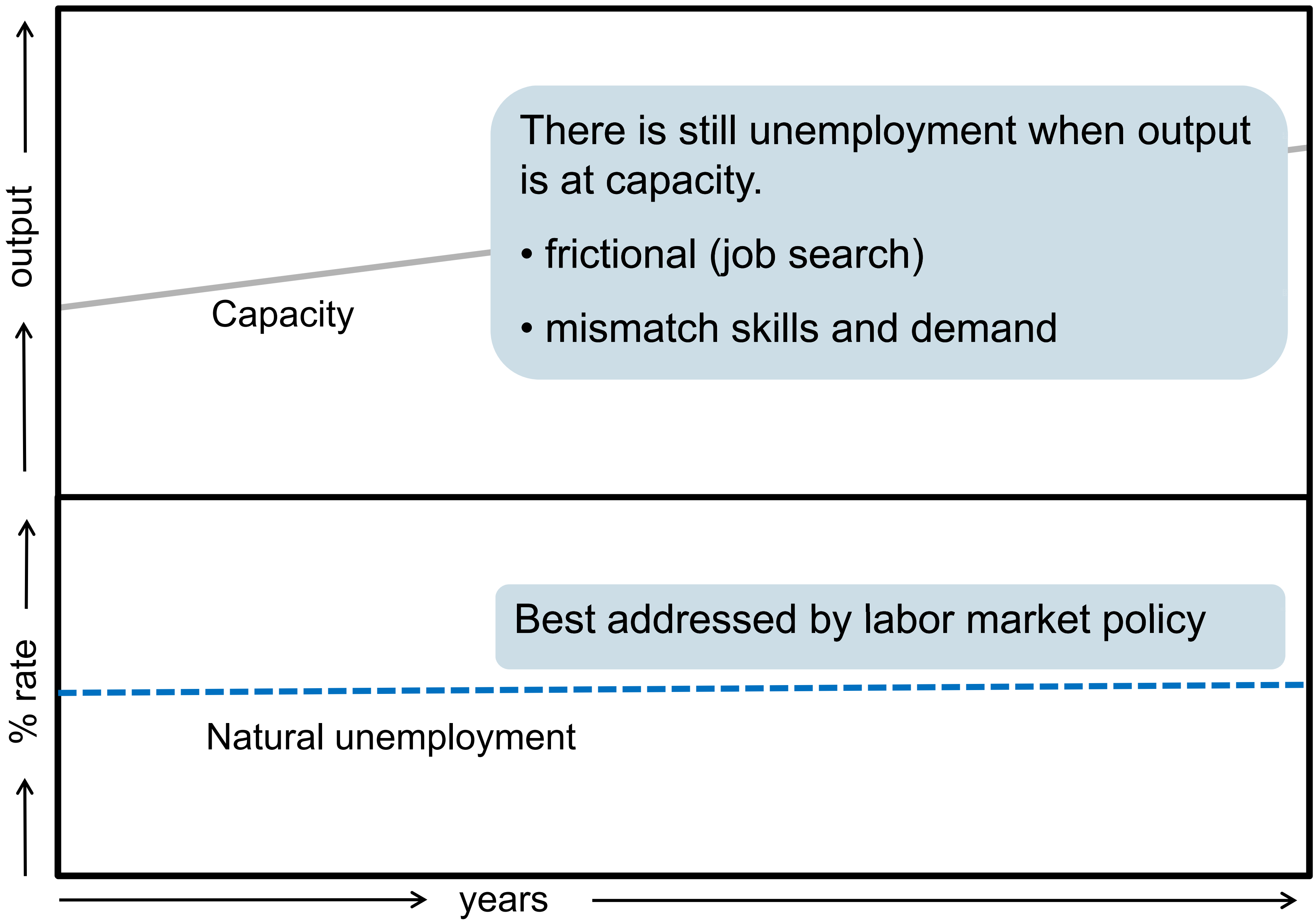


Long run capacity growth stems from

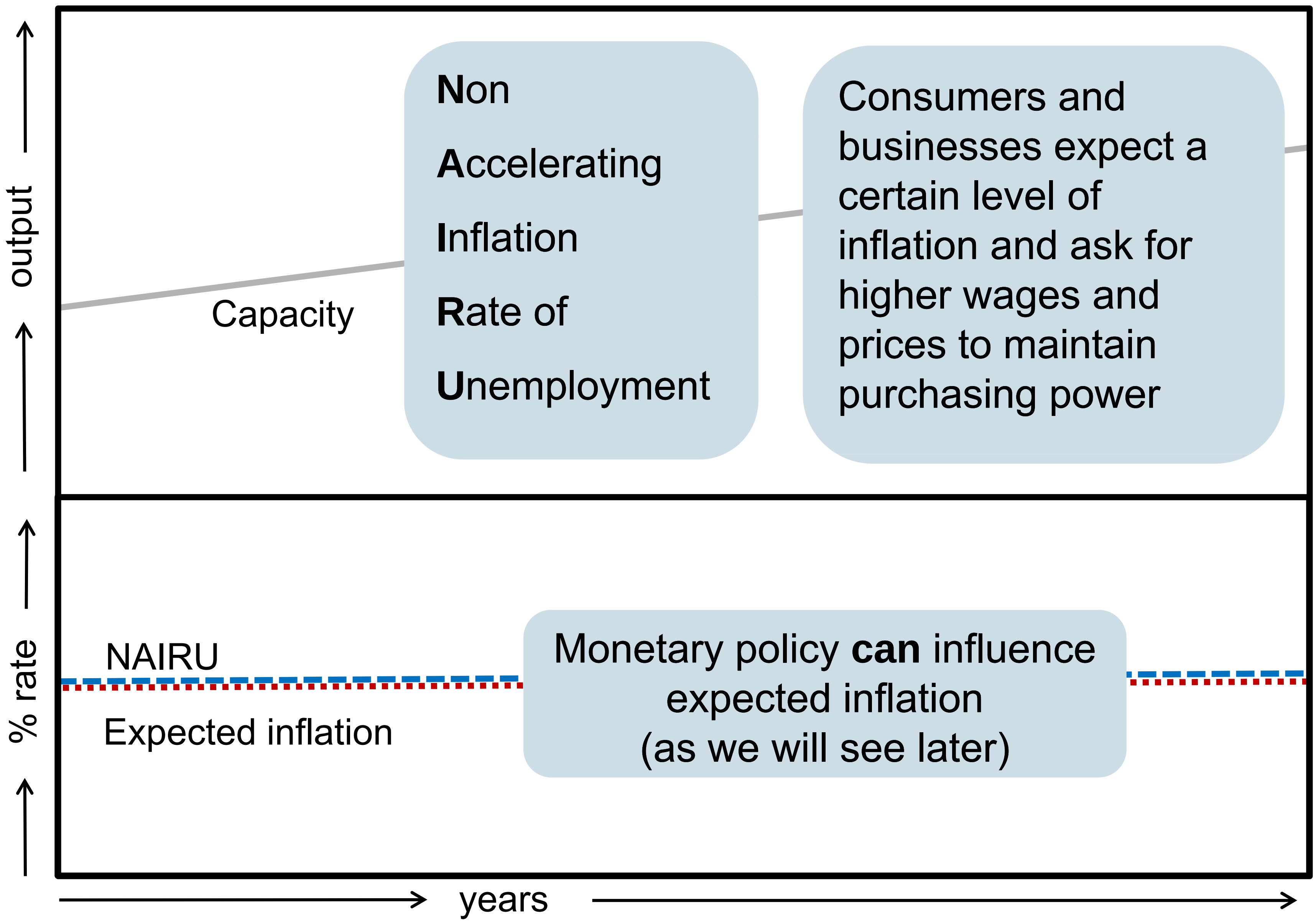
- labor supply growth
- labor productivity growth (technology)

Best addressed by fiscal or regulatory policy

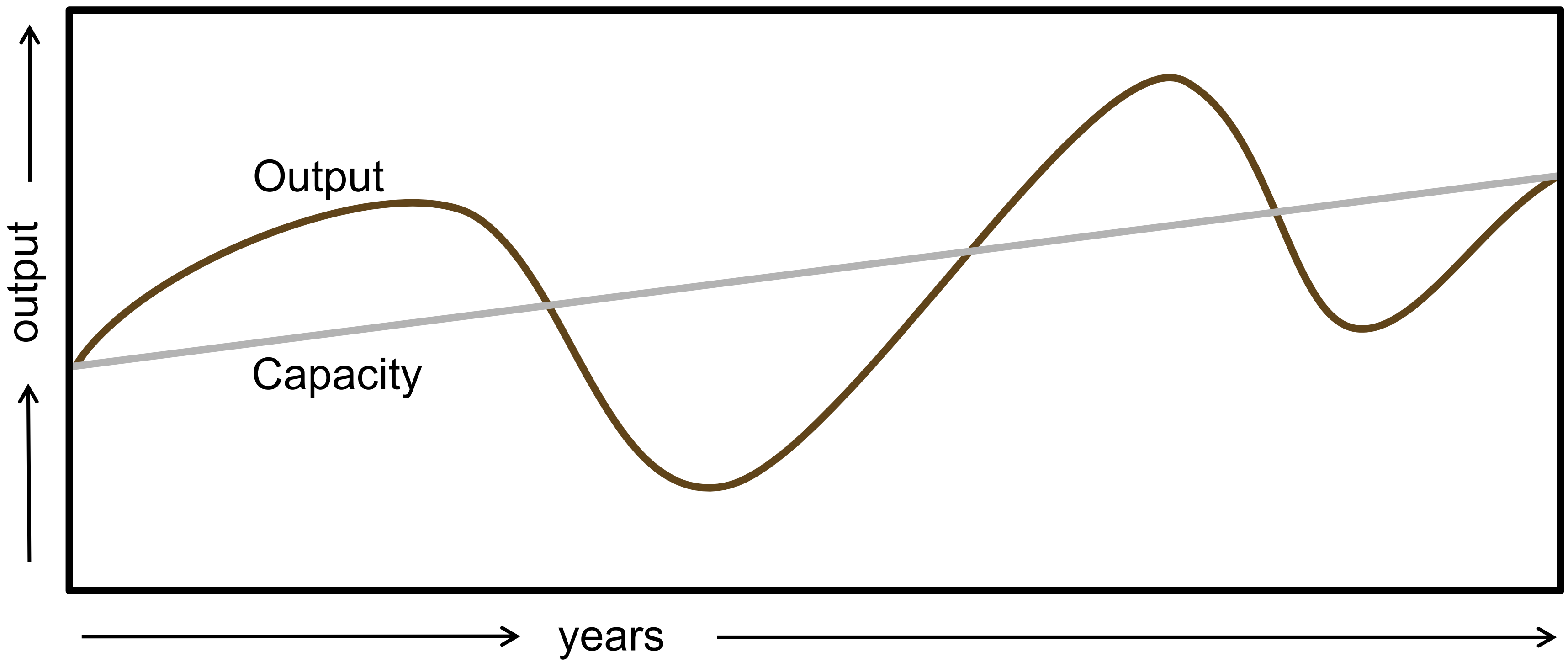
Unemployment when output is at capacity is "natural"



Inflation at capacity is “expected”



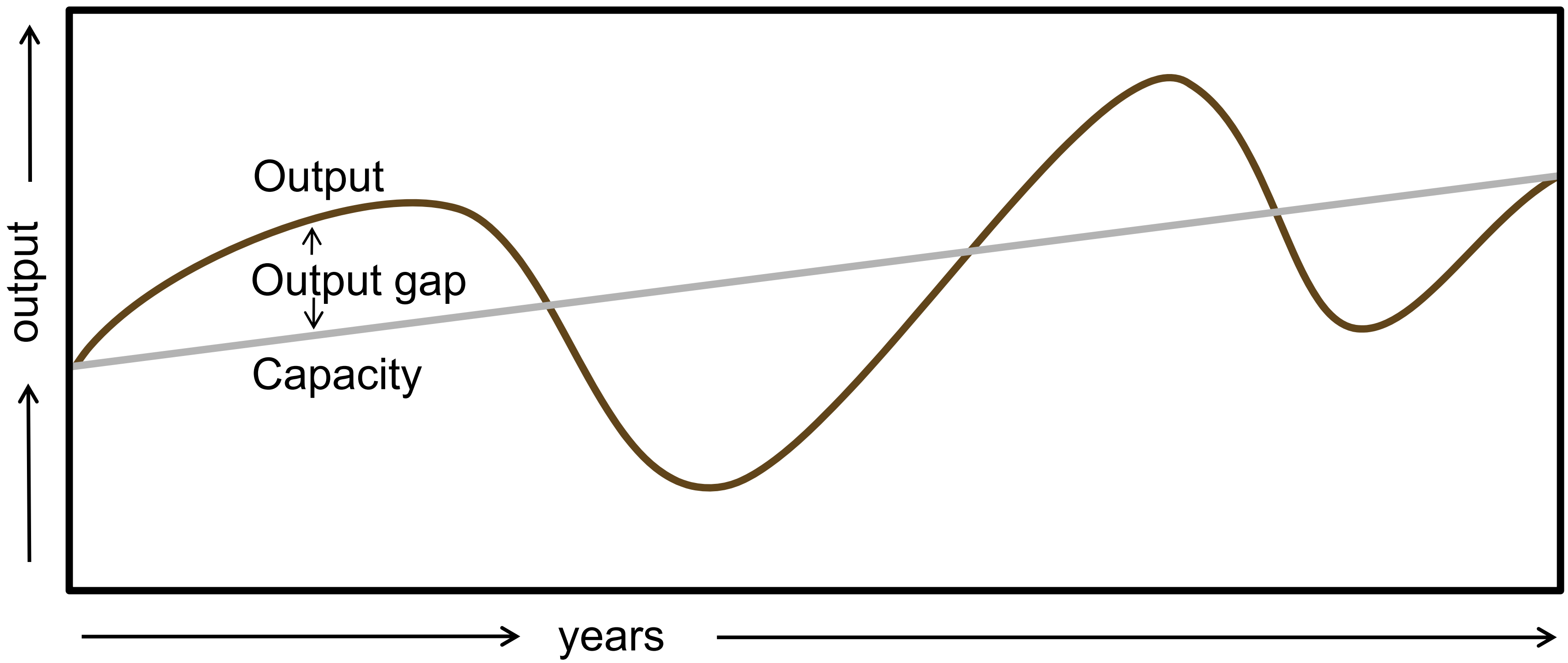
Output exhibits fluctuations



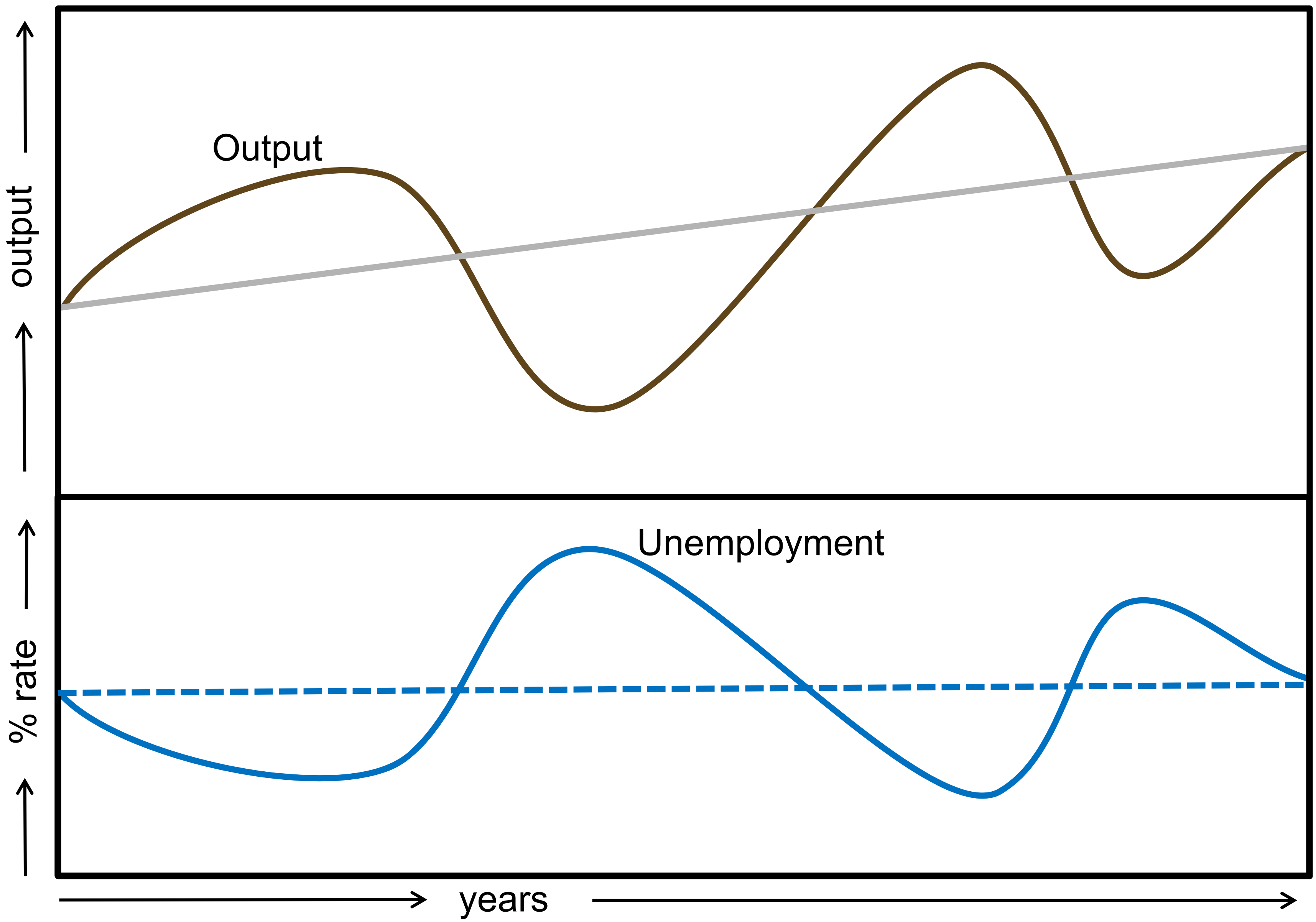
Output can deviate in short run

Changes in demand cause persistent output deviations due to “sticky” prices and wages

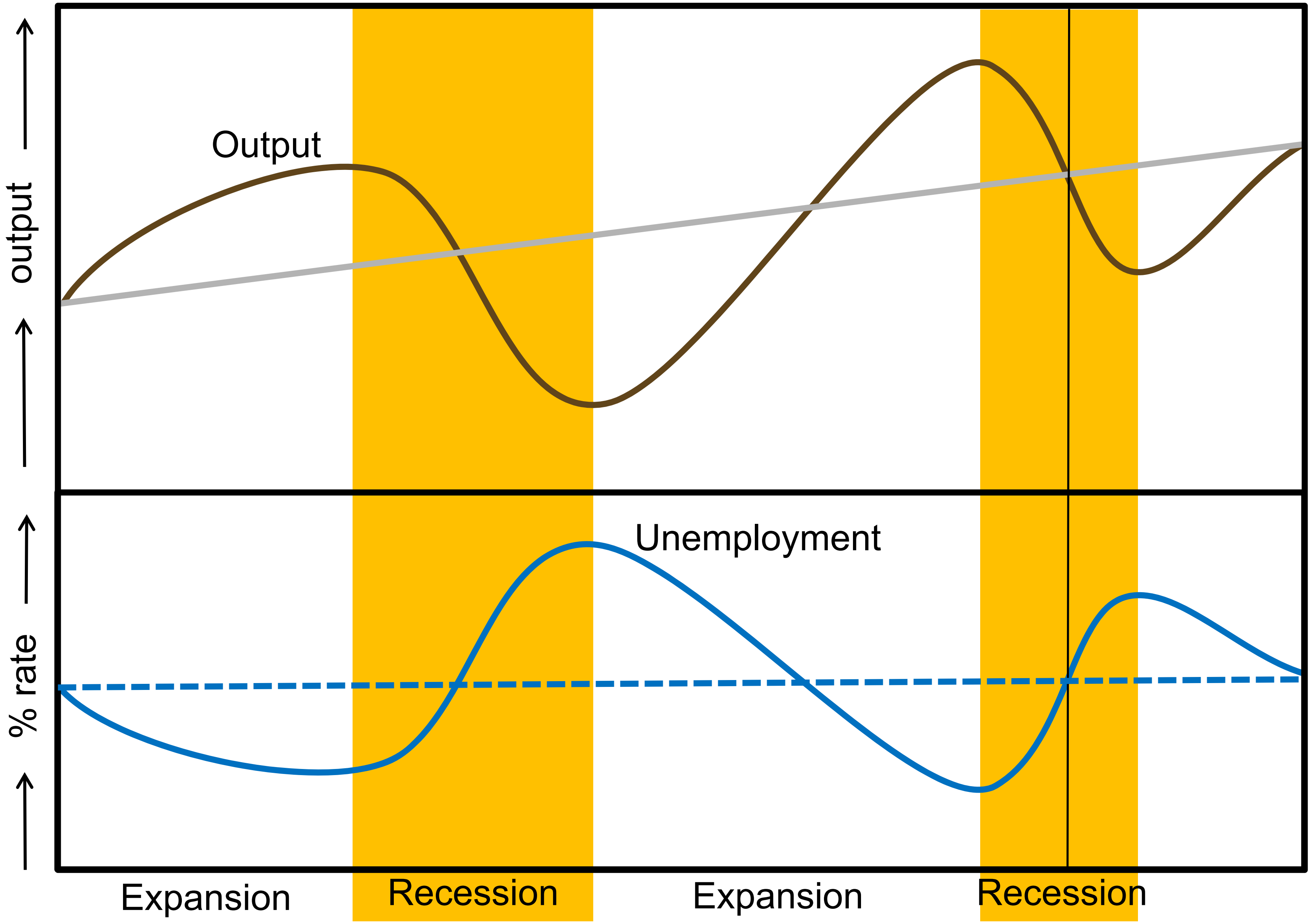
The output gap = output - capacity



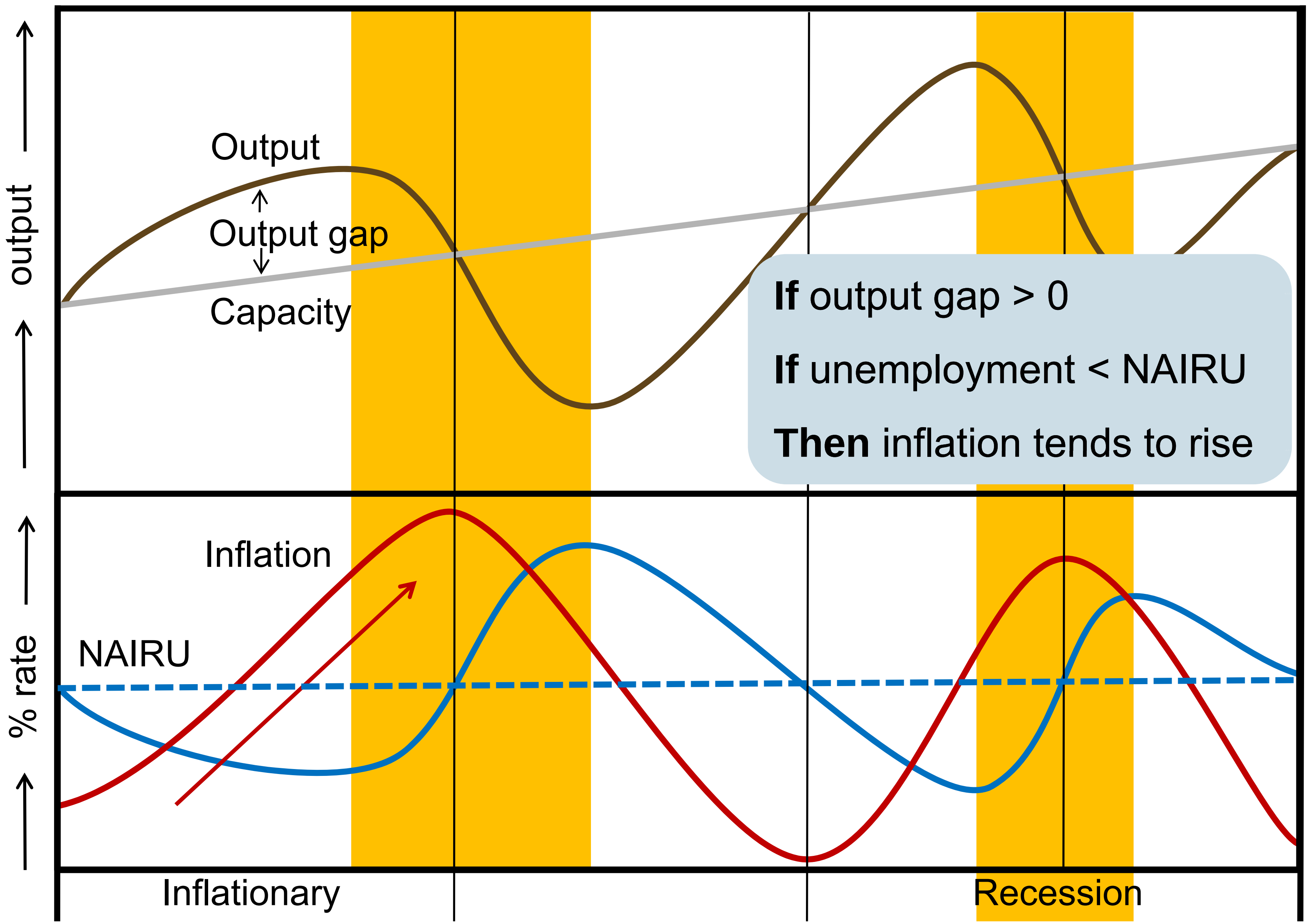
Unemployment fluctuates with output



Declining output and rising unemployment: recession



Periods of excess demand push up inflation

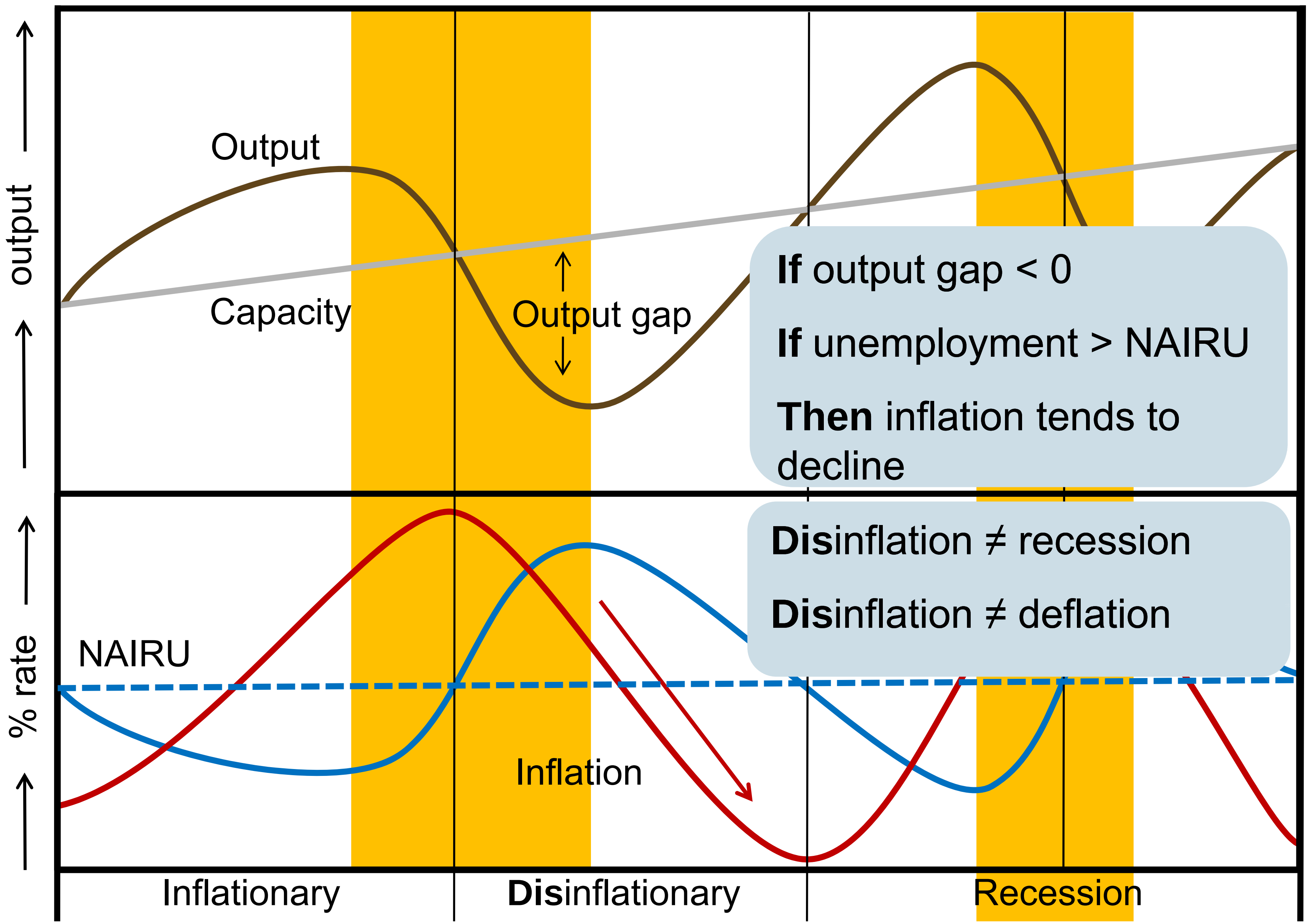


If output gap > 0

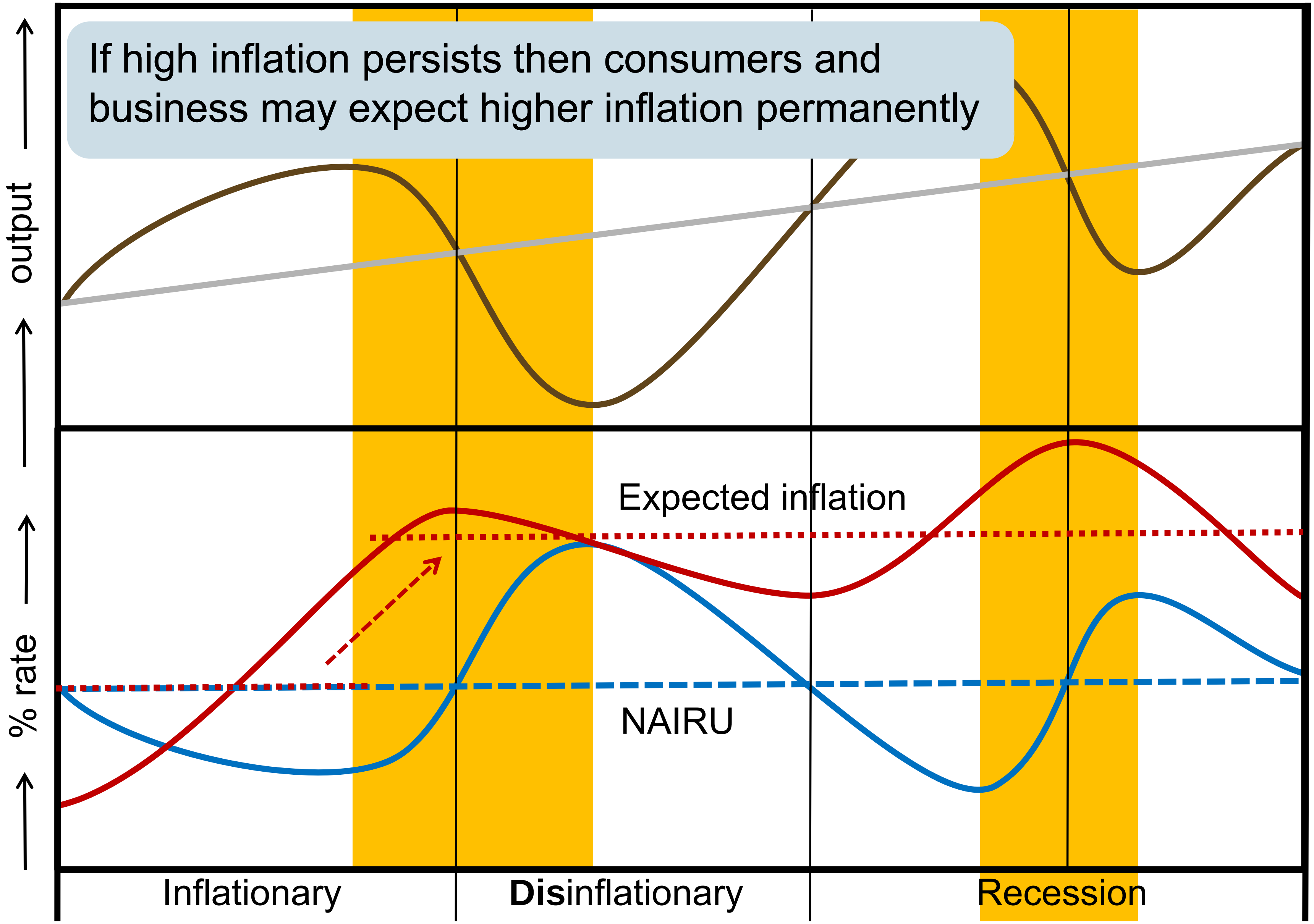
If unemployment < NAIRU

Then inflation tends to rise

Periods of low demand push down inflation



Inflation can become "unanchored"

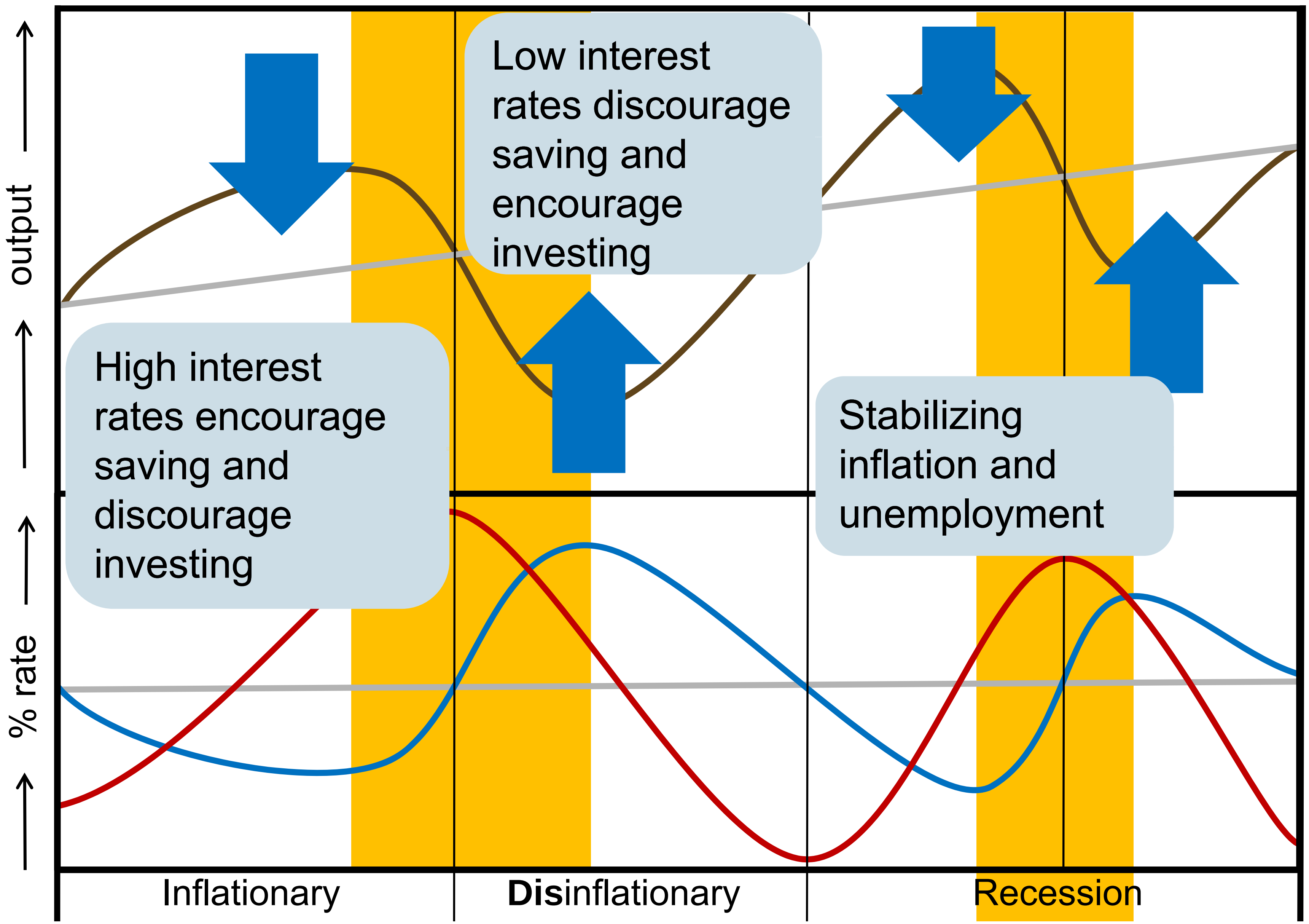


Congress has delegated monetary authority to Fed

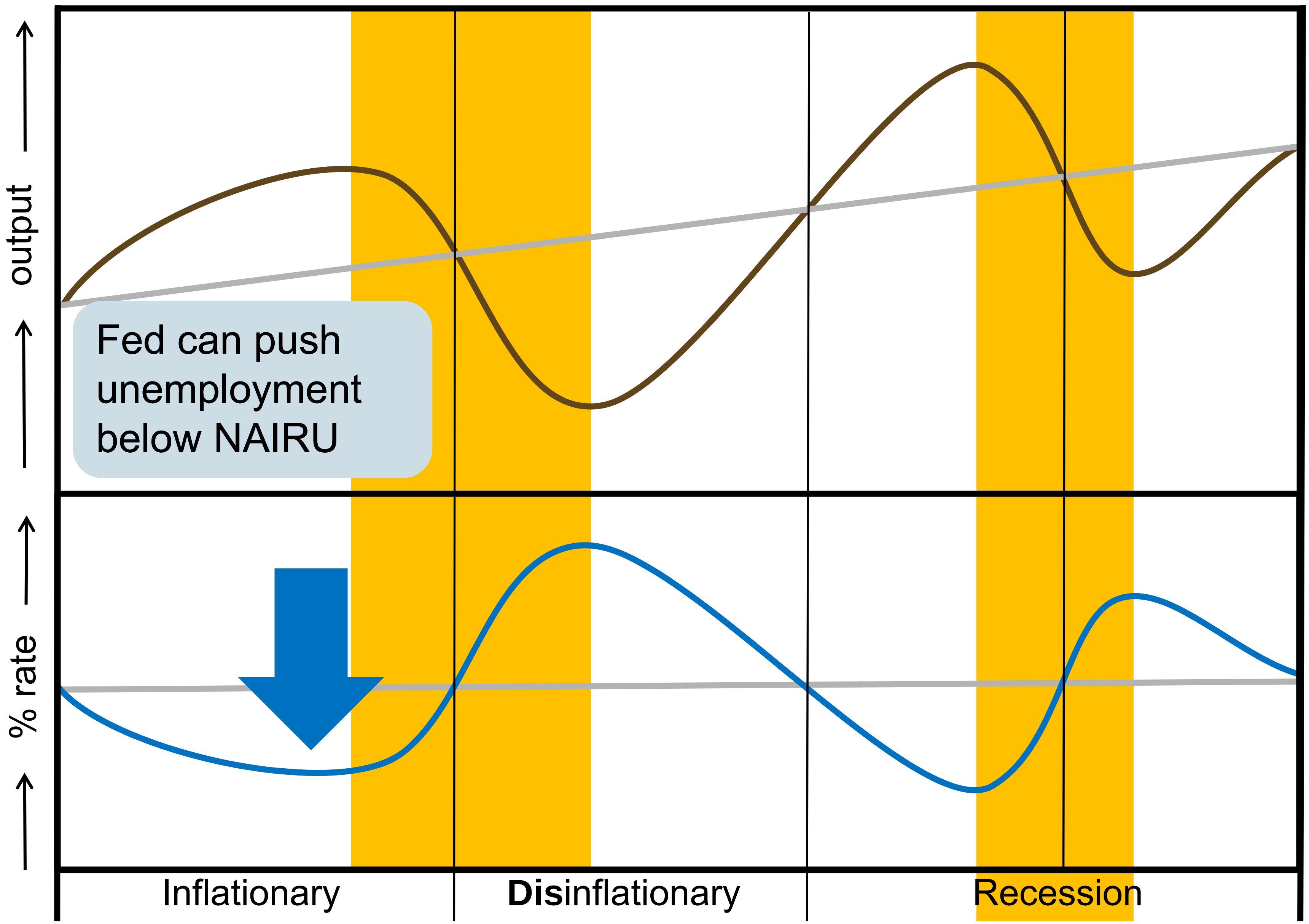
The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall **maintain long run growth of the monetary and credit aggregates** commensurate with the **economy's long run potential** to increase production, so as to promote effectively the goals of **maximum employment**, **stable prices**, and moderate long-term interest rates.

Section 2a, Monetary Policy Objectives, Federal Reserve Act

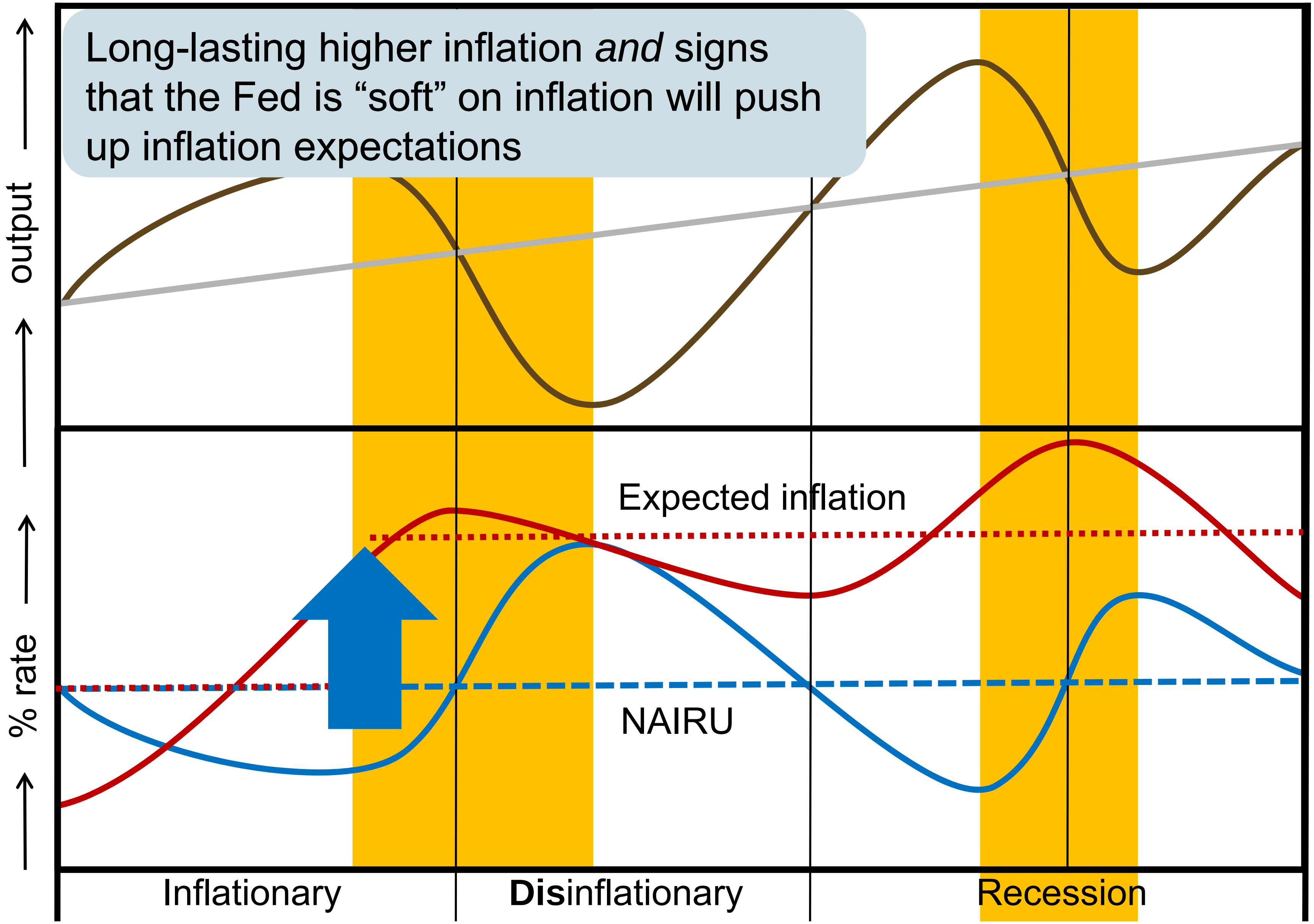
Fed can dampen the cycle to fulfill its dual mandate



Fed can create "unnaturally" low unemployment . . .

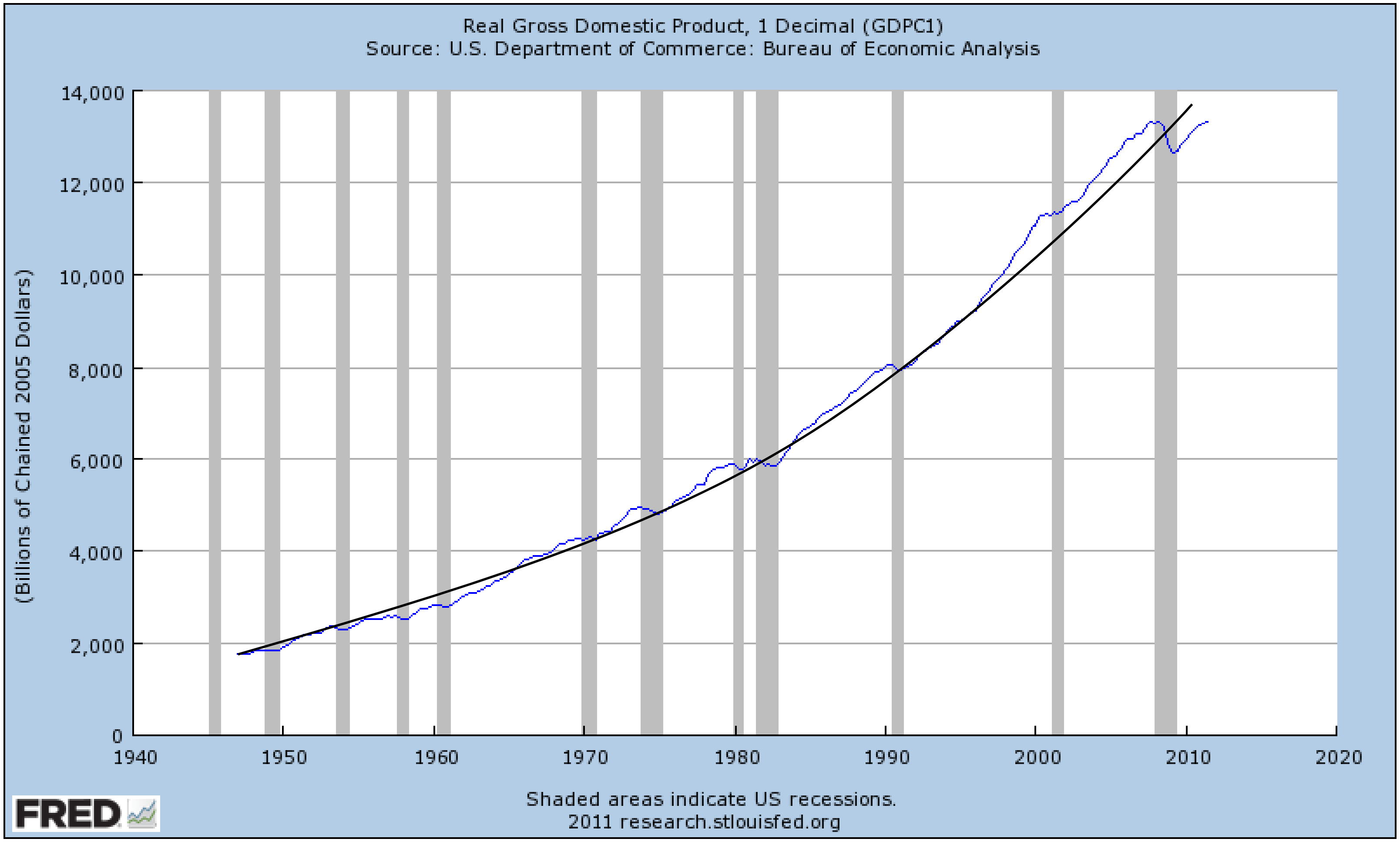


. . . but this will permanently raise inflation



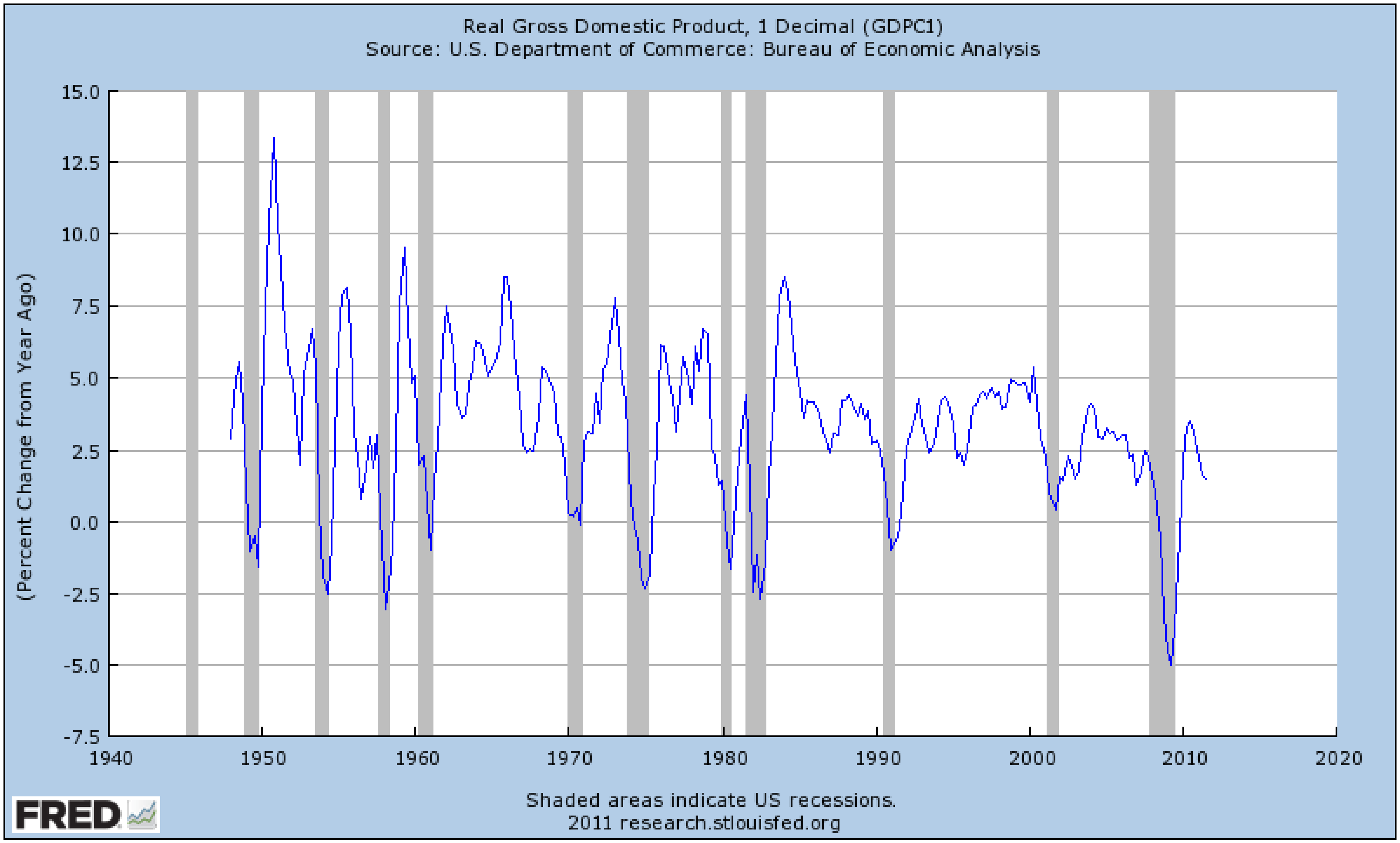
MONETARY POLICY IN REALITY

The sustainable output of the economy grows



http://research.stlouisfed.org/fred2/

Output exhibits fluctuations



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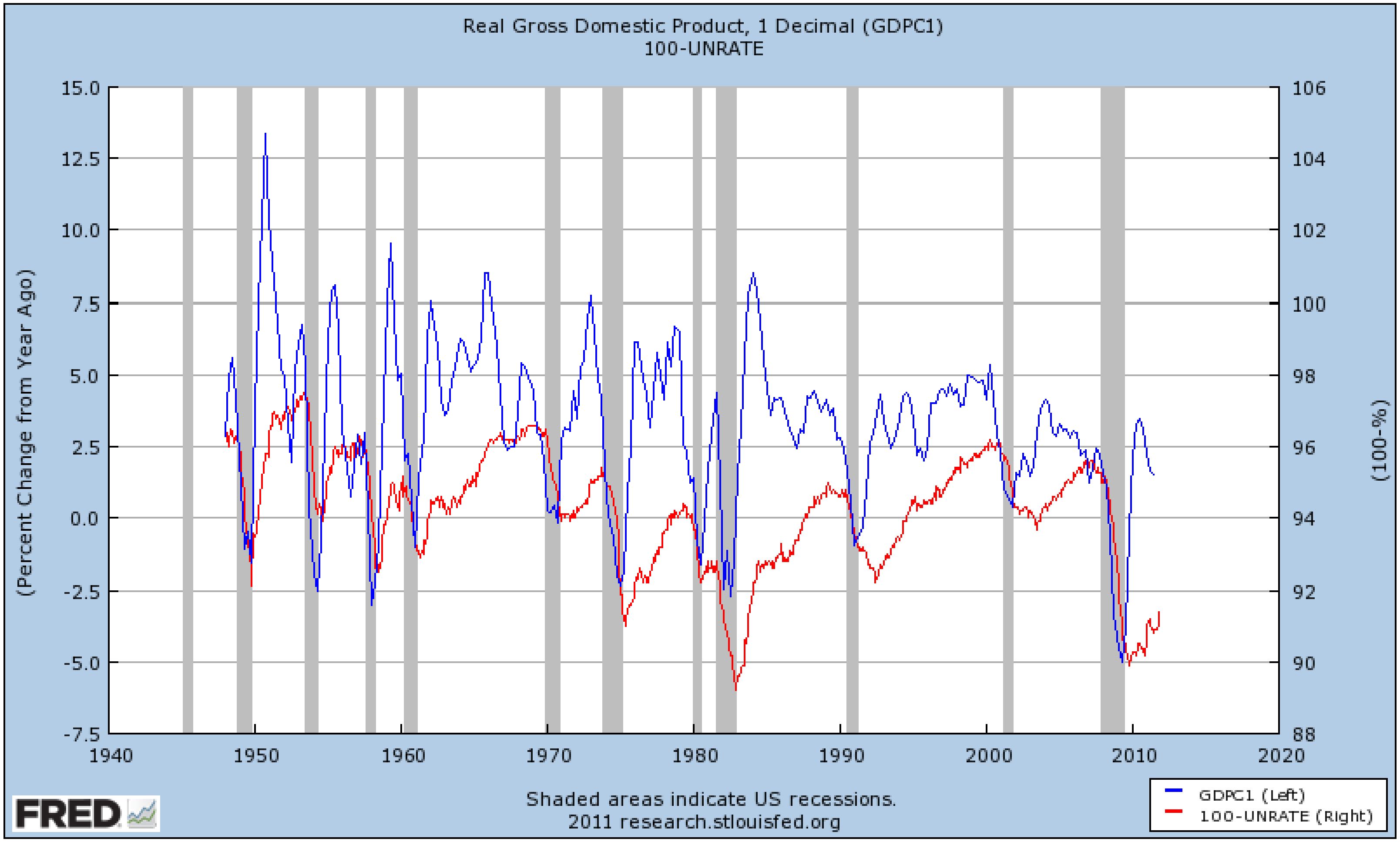
Unemployment fluctuates with output



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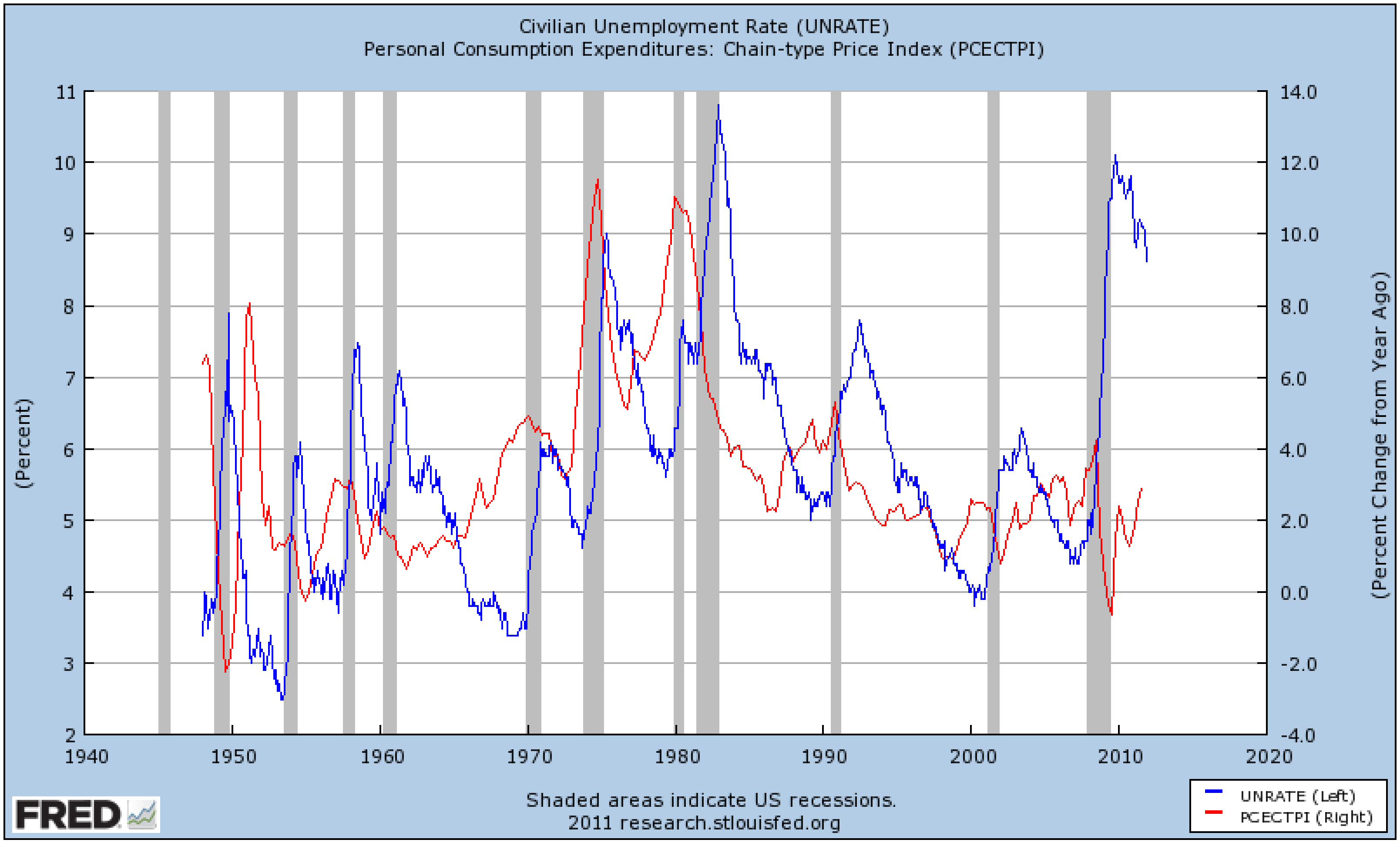
Excess (low) demand pushes up (down) inflation



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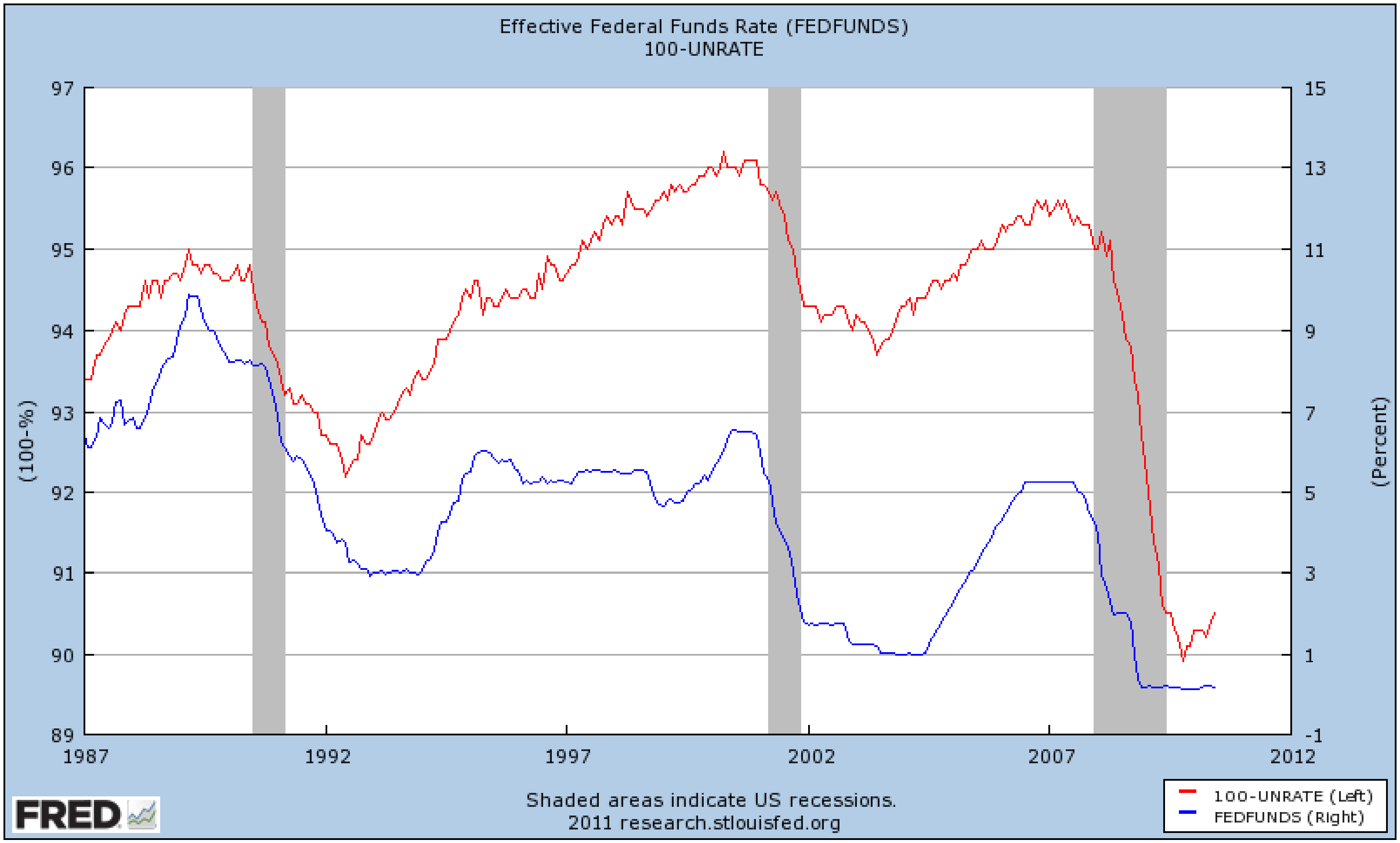
Fed can dampen the cycle to fulfill its dual mandate



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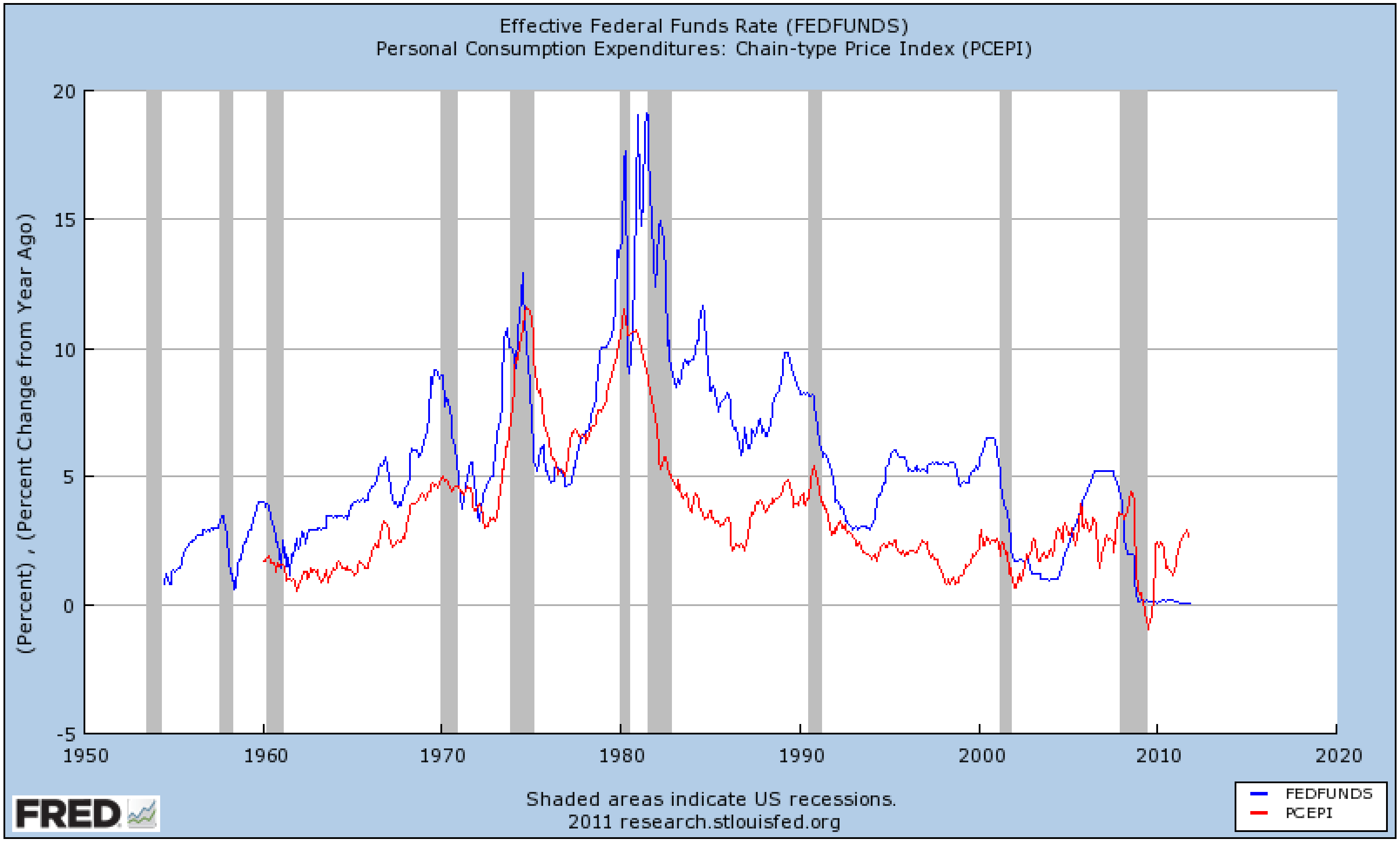

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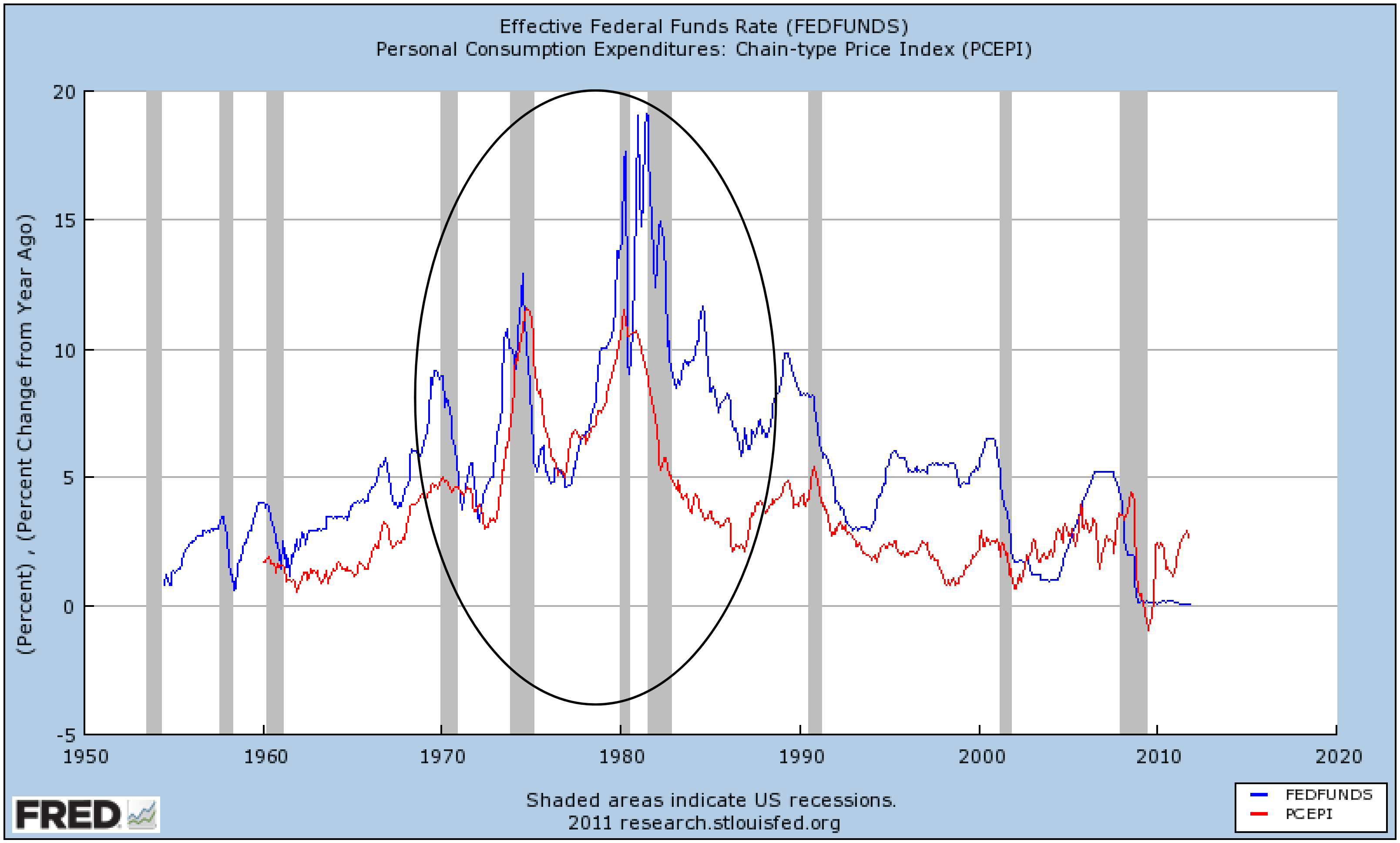
Inflation can become "unanchored"



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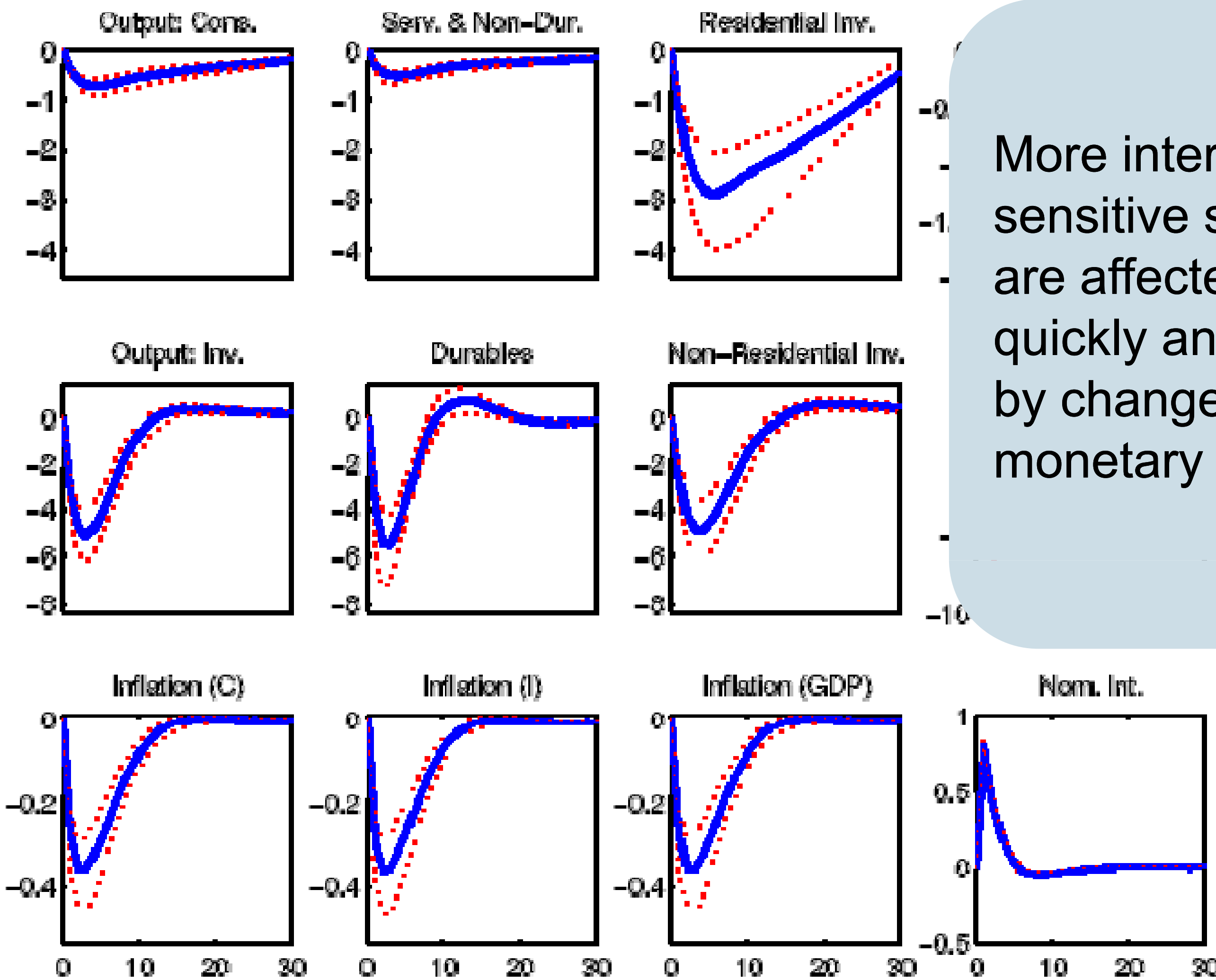
Interest rates have diverse and lagged impacts



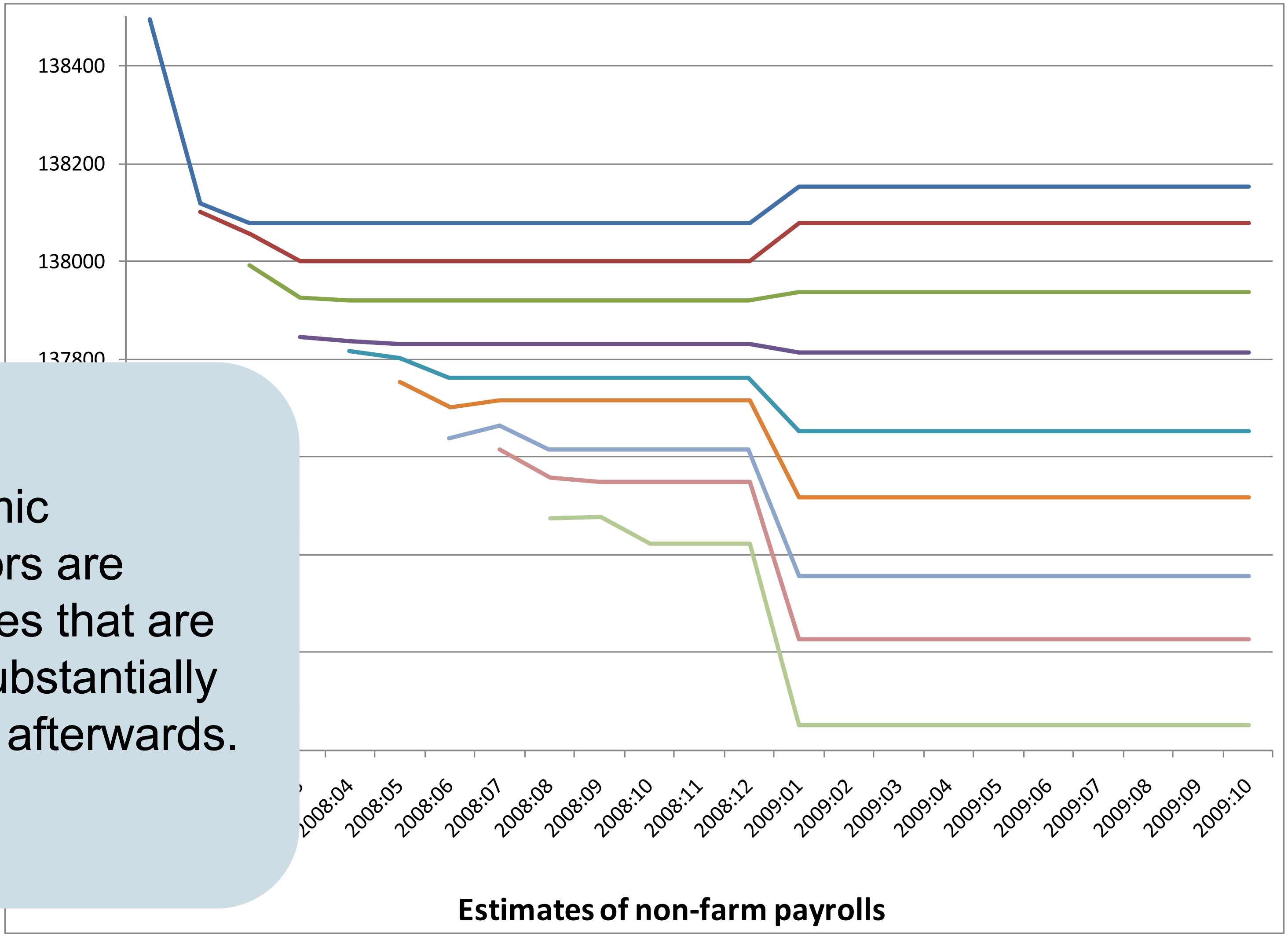
More interest-rate-sensitive sectors are affected more quickly and sharply by changes in monetary policy

Source:

Documentation of the Research and Statistics Division's Estimated DSGE Model of the U.S. Economy: 2006 Version

Rochelle M. Edge, Michael T. Kiley, and Jean-Philippe Laforte

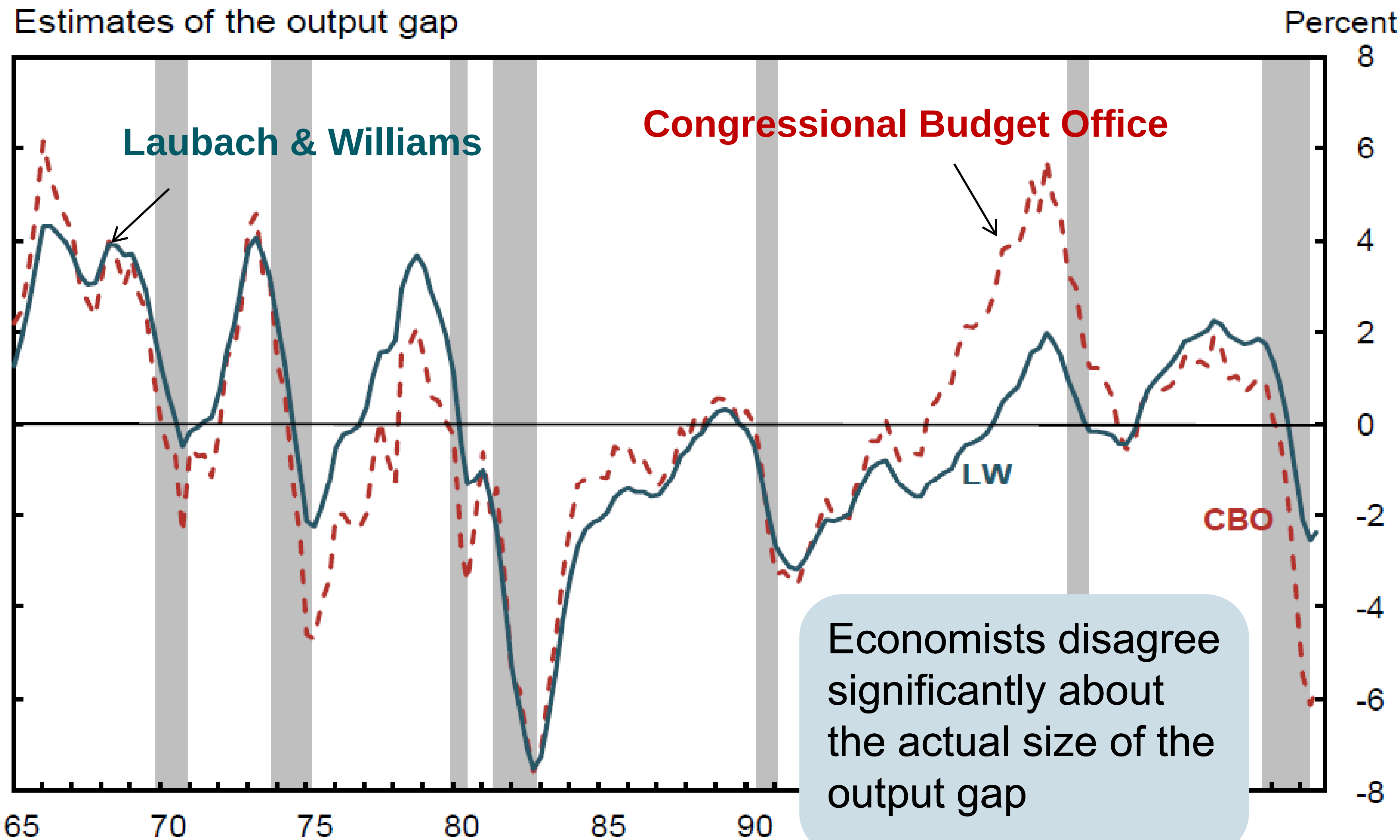
Measuring the present is difficult



Economic indicators are estimates that are often substantially revised afterwards.

Source: Federal Reserve Bank of Philadelphia

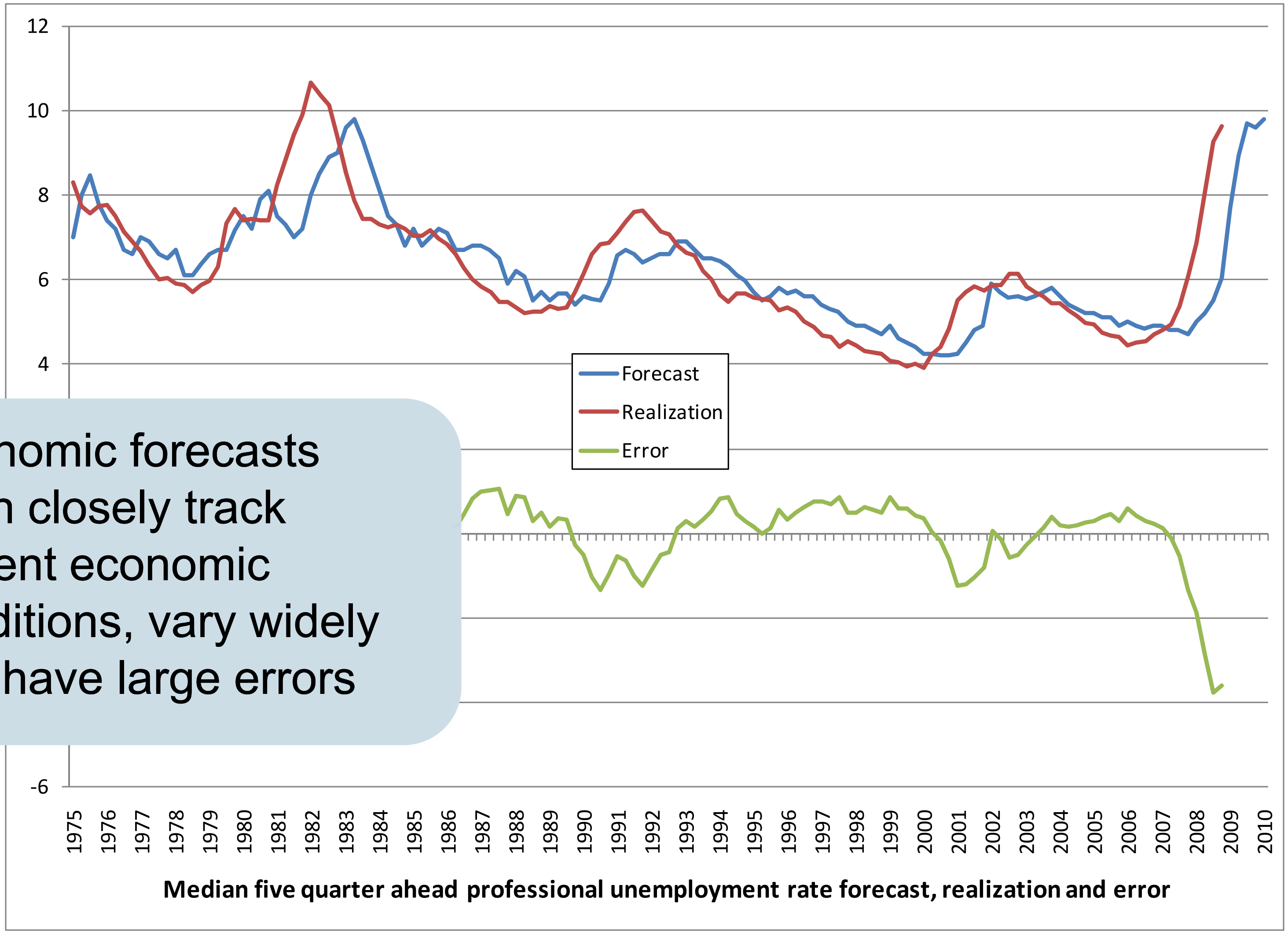
The output gap is particularly difficult to estimate



Economists disagree significantly about the actual size of the output gap

Source: Update of "How big is the output gap" by Justin Weidner and John Williams, San Francisco Federal Reserve Bank

The future is even more difficult to forecast

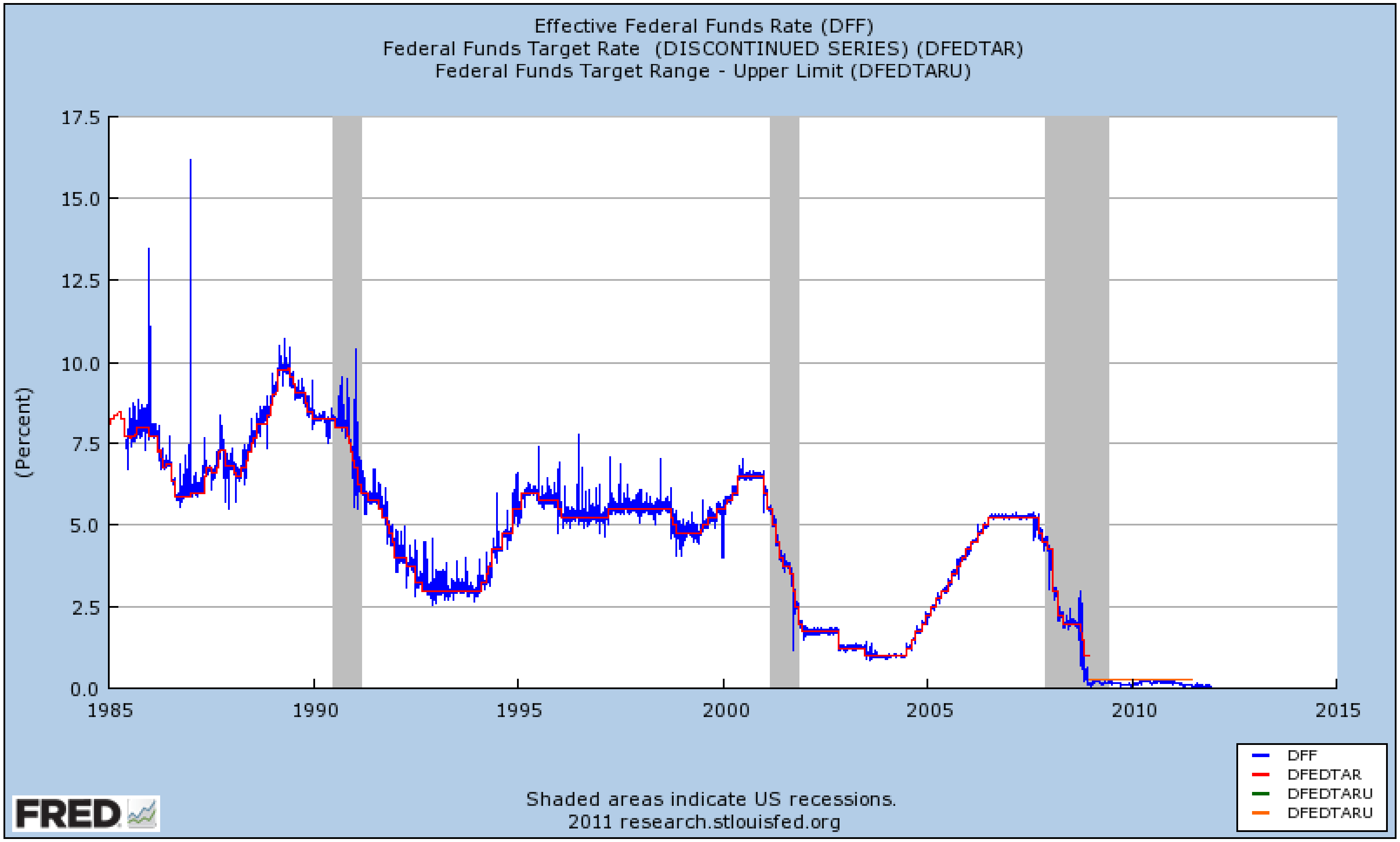


Economic forecasts often closely track current economic conditions, vary widely and have large errors

Source: Federal Reserve Bank of Philadelphia

LIFE AT THE ZERO BOUND

Cutting rates to the bone



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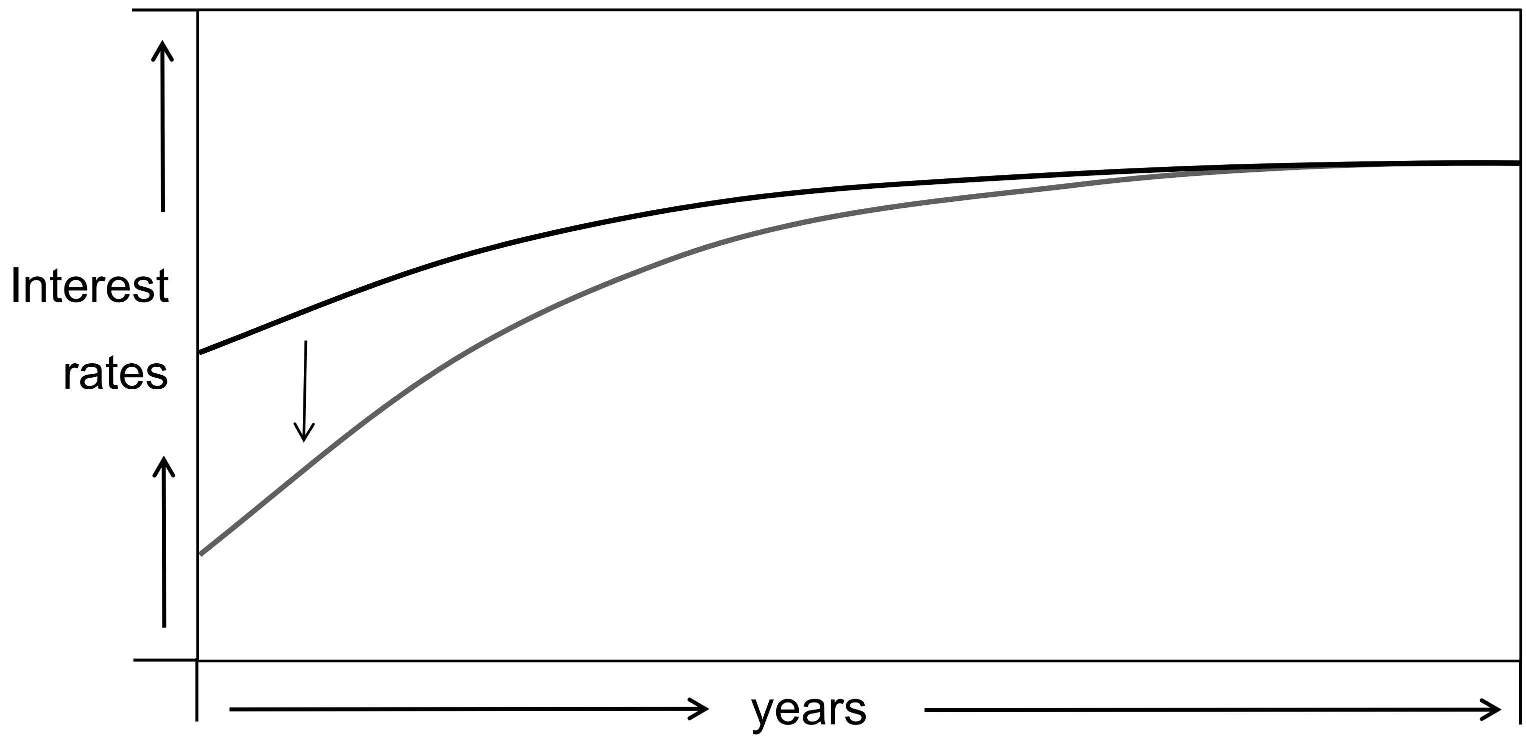
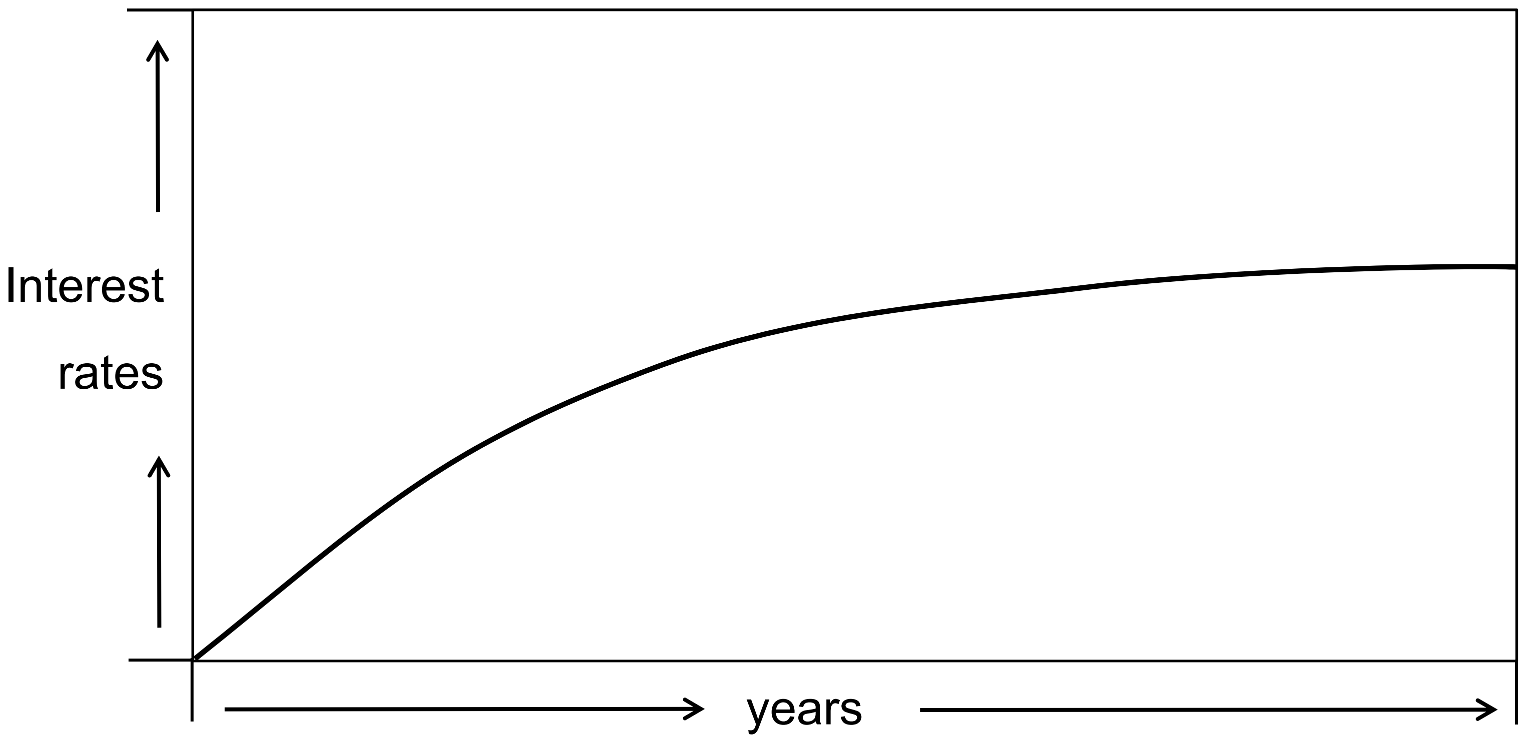
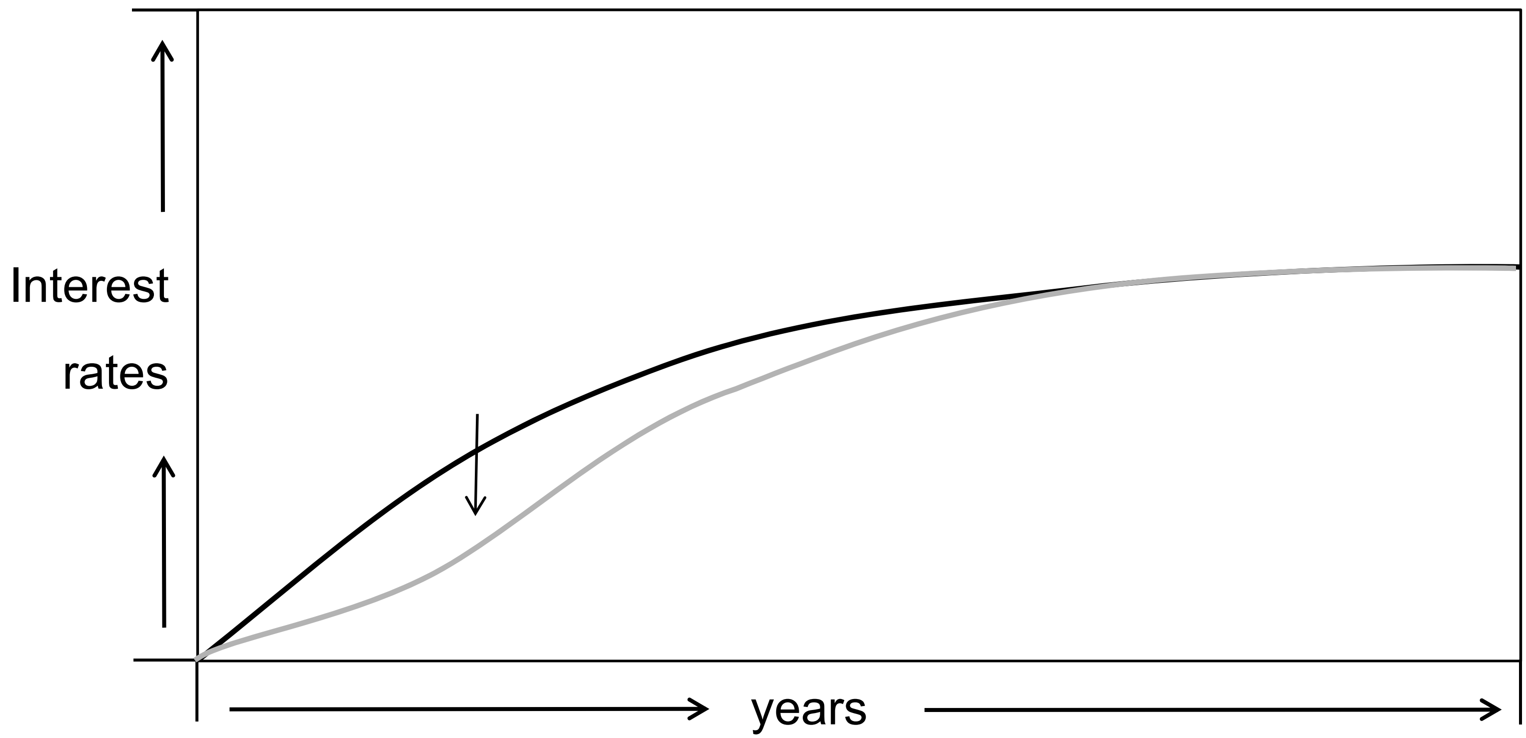
Fed funds rate cuts influence longer term rates



What to do when the Fed funds rate is already zero?



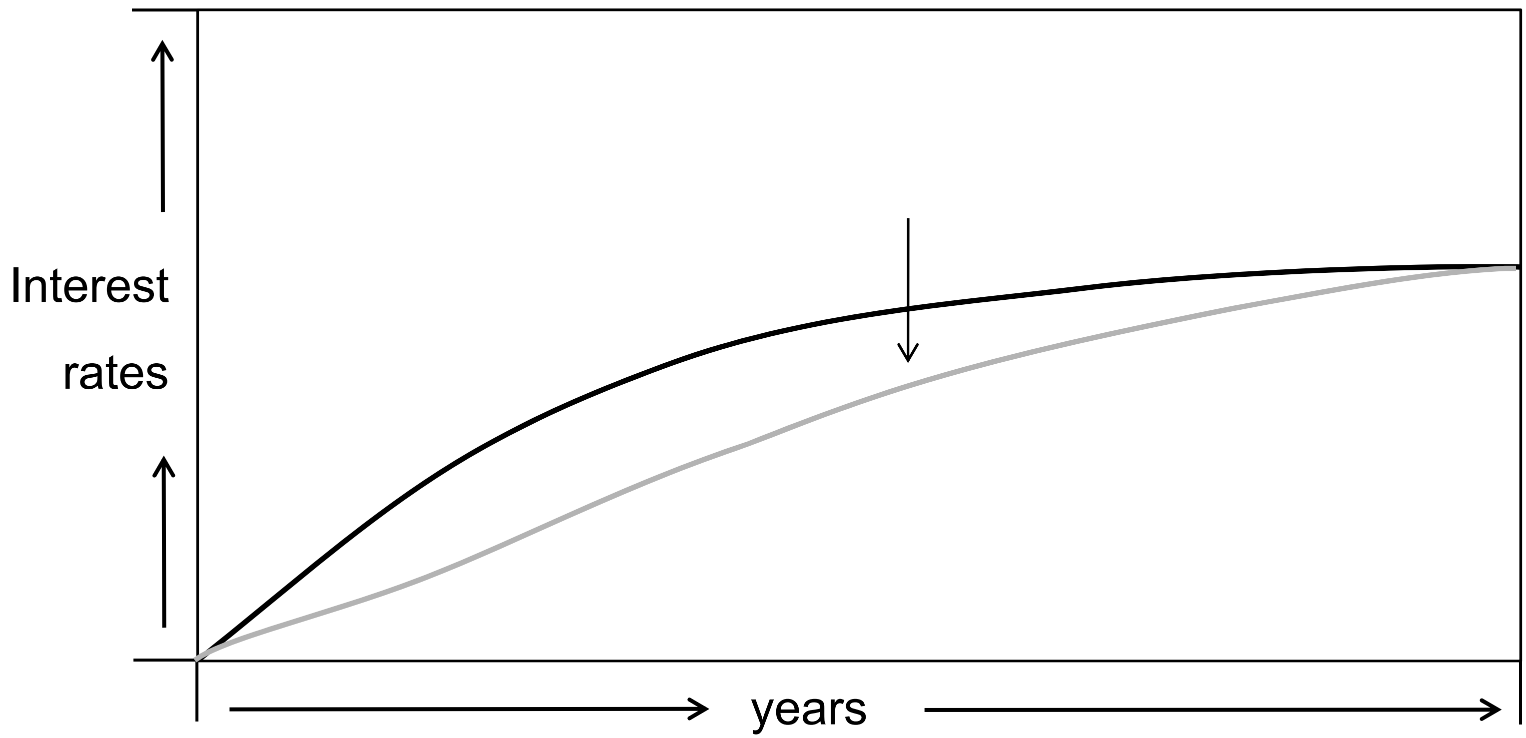
Say you will keep rates low as long as needed



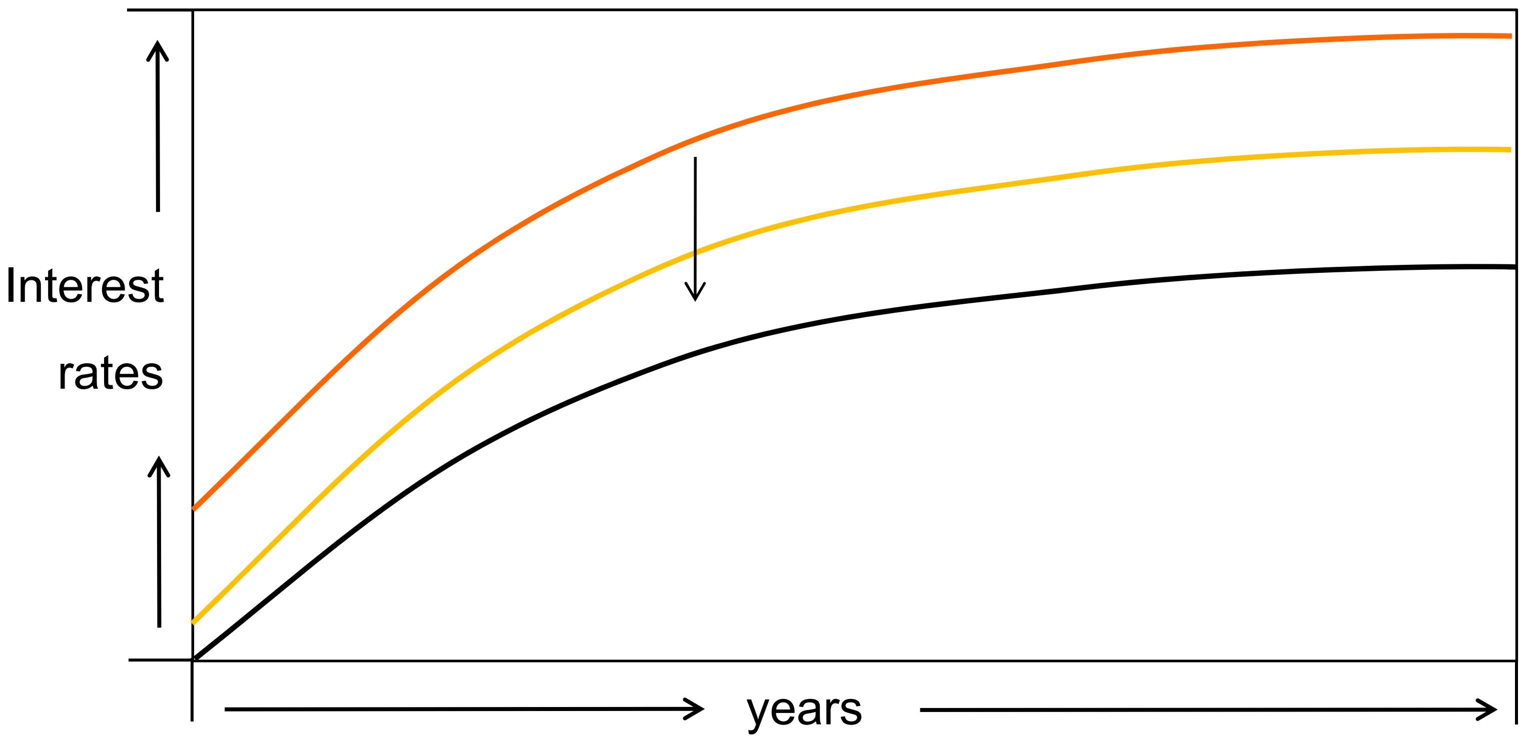
“2013” text in FOMC statement

“To promote the ongoing economic recovery and to help ensure that inflation, over time, is at levels consistent with its mandate, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent. The Committee currently anticipates that economic conditions--including low rates of resource utilization and a subdued outlook for inflation over the medium run--**are likely to warrant exceptionally low levels for the federal funds rate at least through mid-2013**”

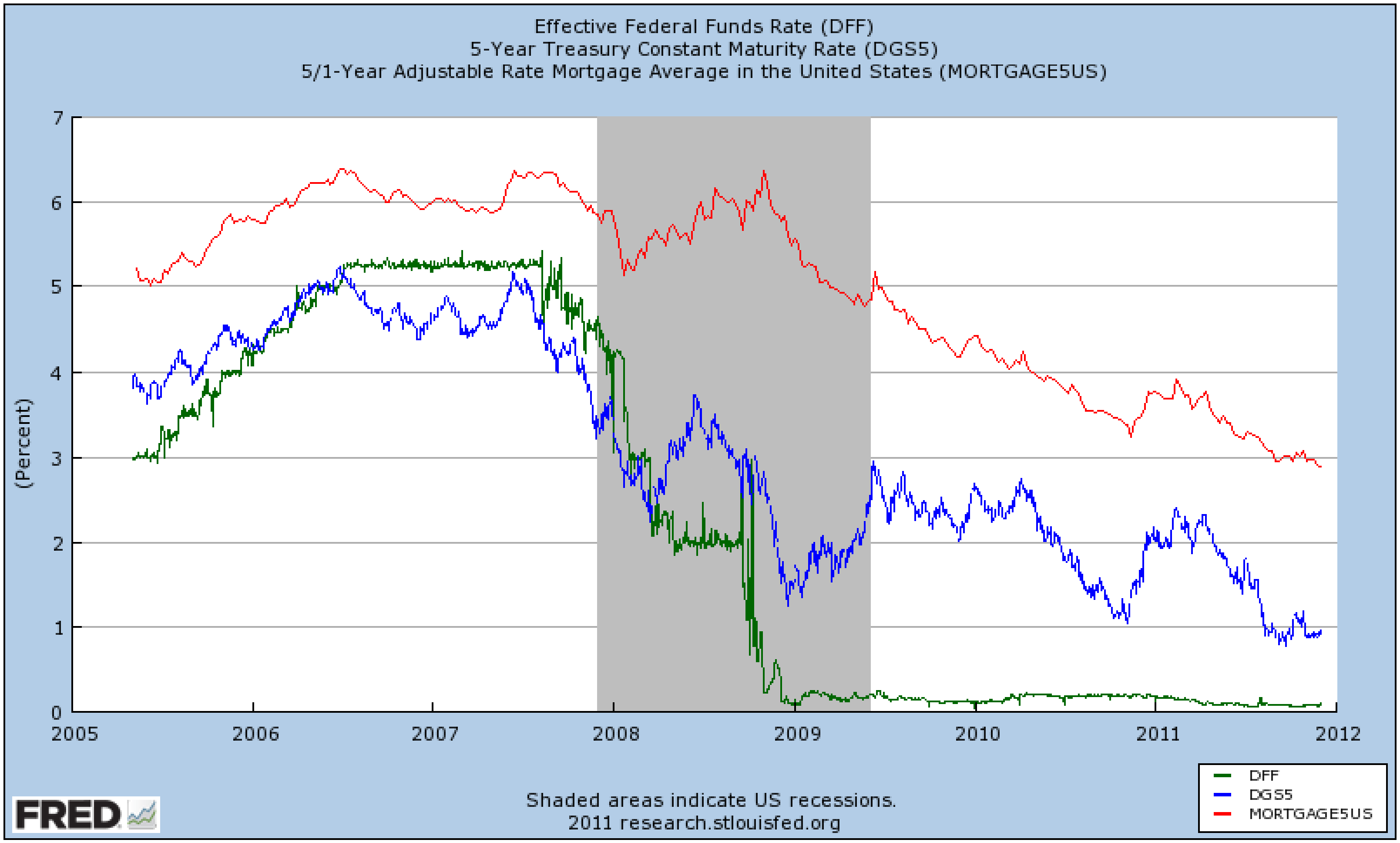
Buy long term (government) bonds



Buy mortgage backed bonds



Fed funds rate and 5-year interest rates



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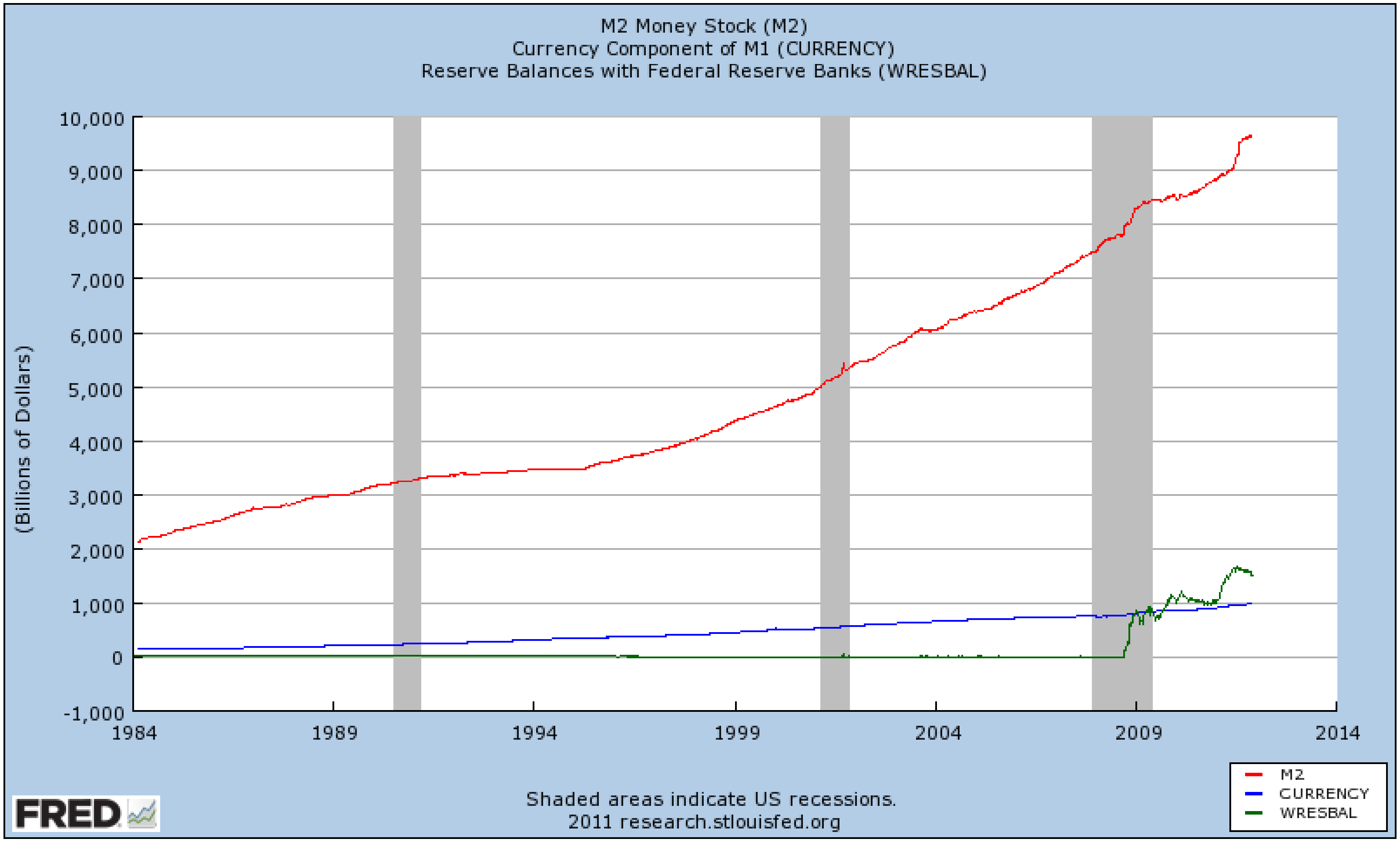
Effect on money supply



LENDER OF LAST RESORT

Lender of last resort facilities and actions

- Discount Window – *lend funds to banks*
- **T**erm **A**uction **F**acility – *lend funds to banks through auction*
- **T**erm **S**ecurities **L**ending **F**acility – *lending securities to dealers*
- **P**rimary **D**ealer **C**redit **F**acility – *lend funds to dealers*
- **A**sset-Backed Commercial Paper **M**oney Market Mutual Fund **L**iquidity **F**acility – *help banks finance CP purchases*
- **C**ommercial **P**aper **F**unding **F**acility – *buying CP from issuers*
- **T**erm **A**sset-Backed Securities **L**oan **F**acility – *lending to ABS market*

- Fed facilitated take over of Bear Stearns by JP Morgan Chase
- Fed lent to AIG