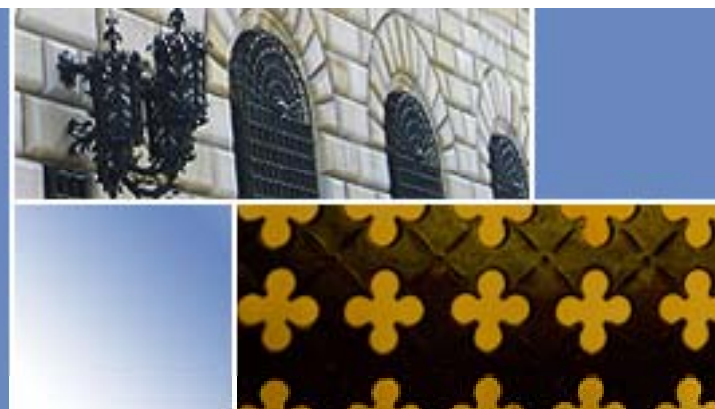


Monetary policy and the economy

Menno Middeldorp

Financial / Economic Specialist – Markets Group



Disclaimer

- All views expressed are those of the author only and not necessarily those of the Federal Reserve Bank of New York or the Federal Reserve System.



Overview

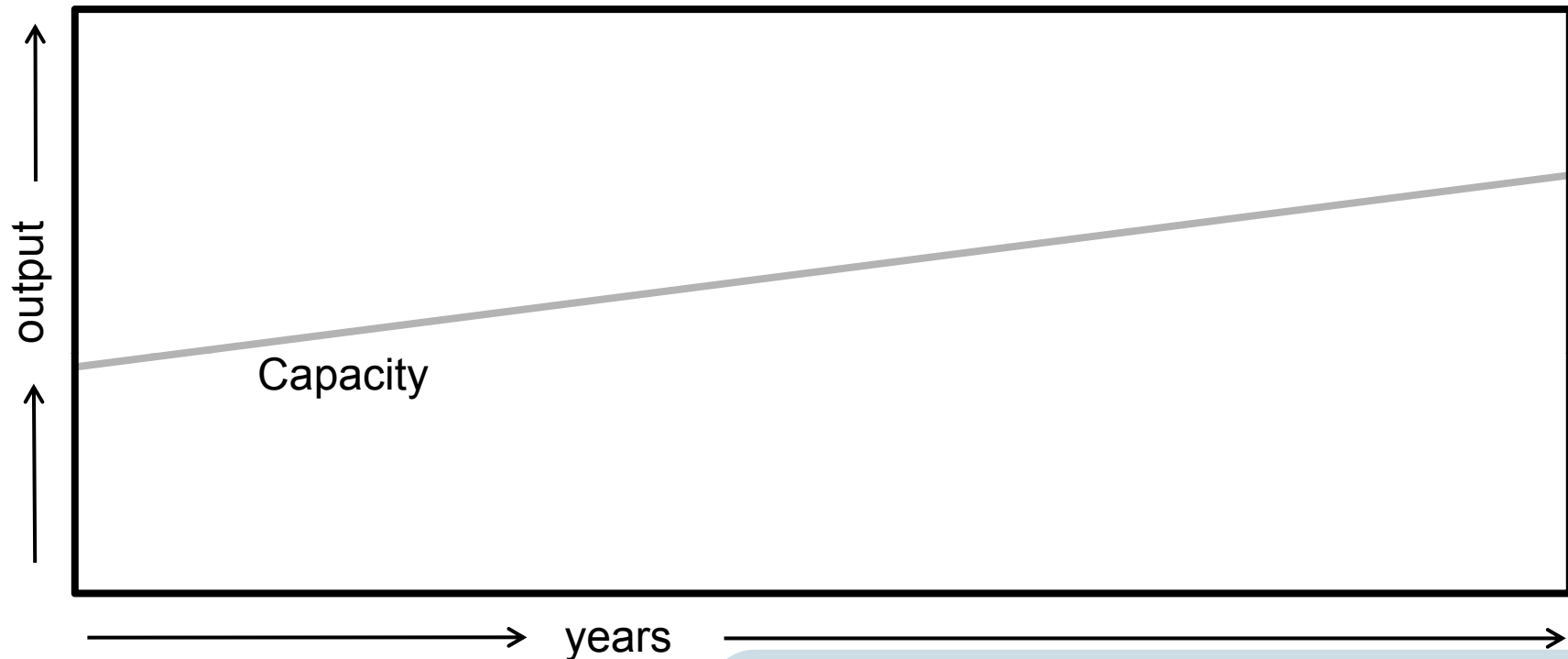
- Monetary policy in theory . . .
- . . . and reality
- Life at the zero bound
- Lender of last resort



MONETARY POLICY IN THEORY



The sustainable output of the economy grows

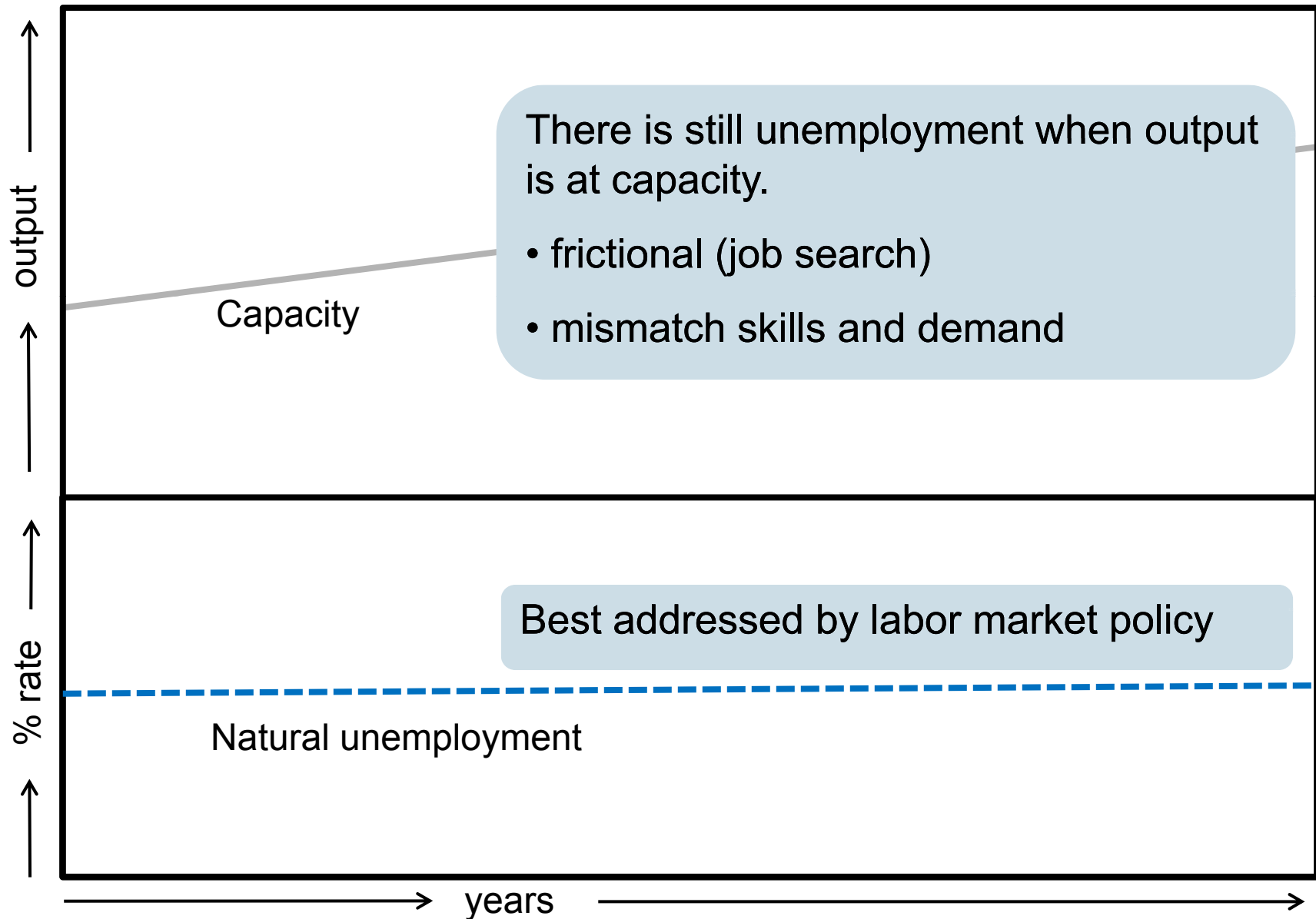


Long run capacity growth stems from

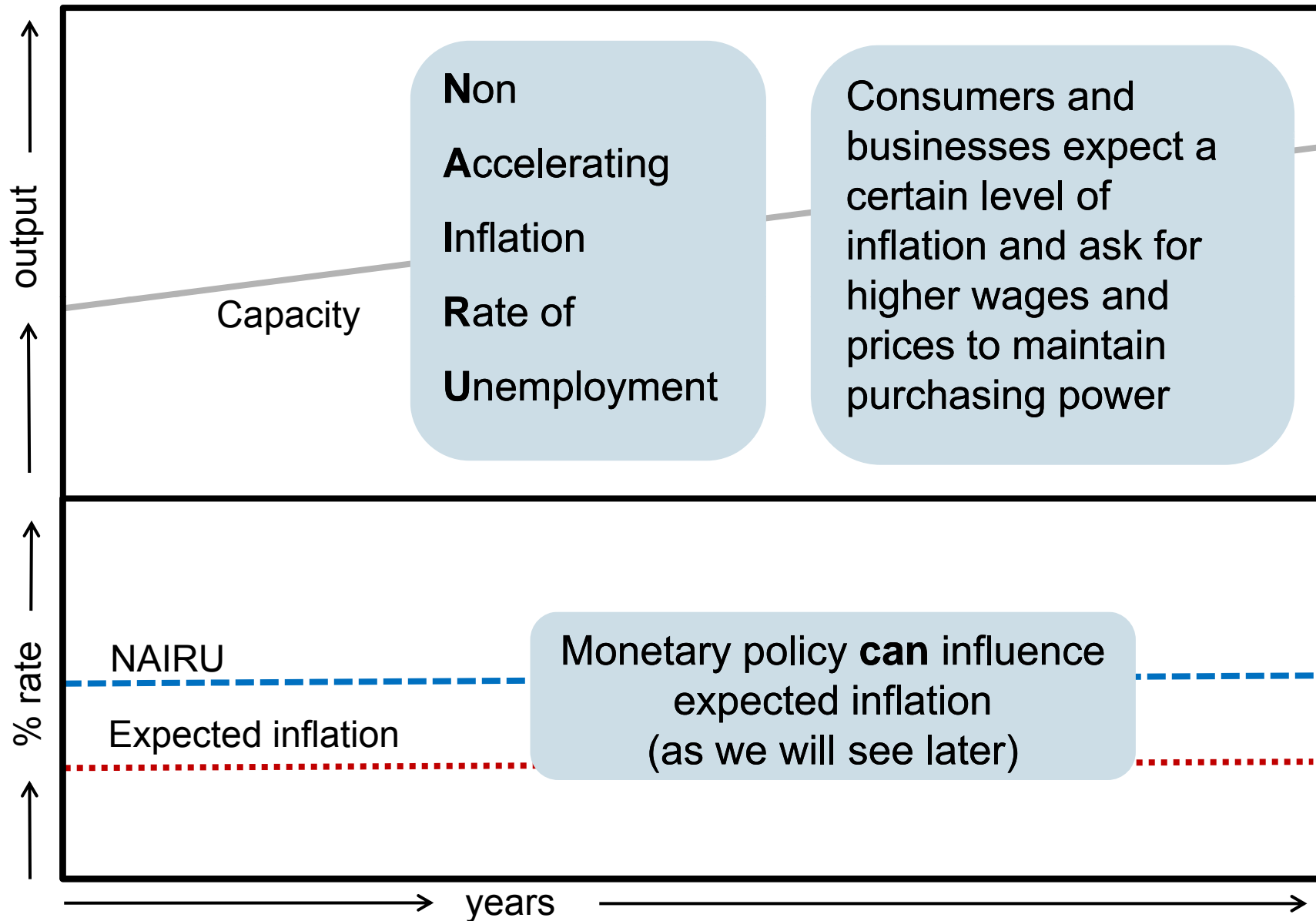
- labor supply growth
- labor productivity growth (technology)

Best addressed by fiscal or regulatory policy, credible commitment to price stability

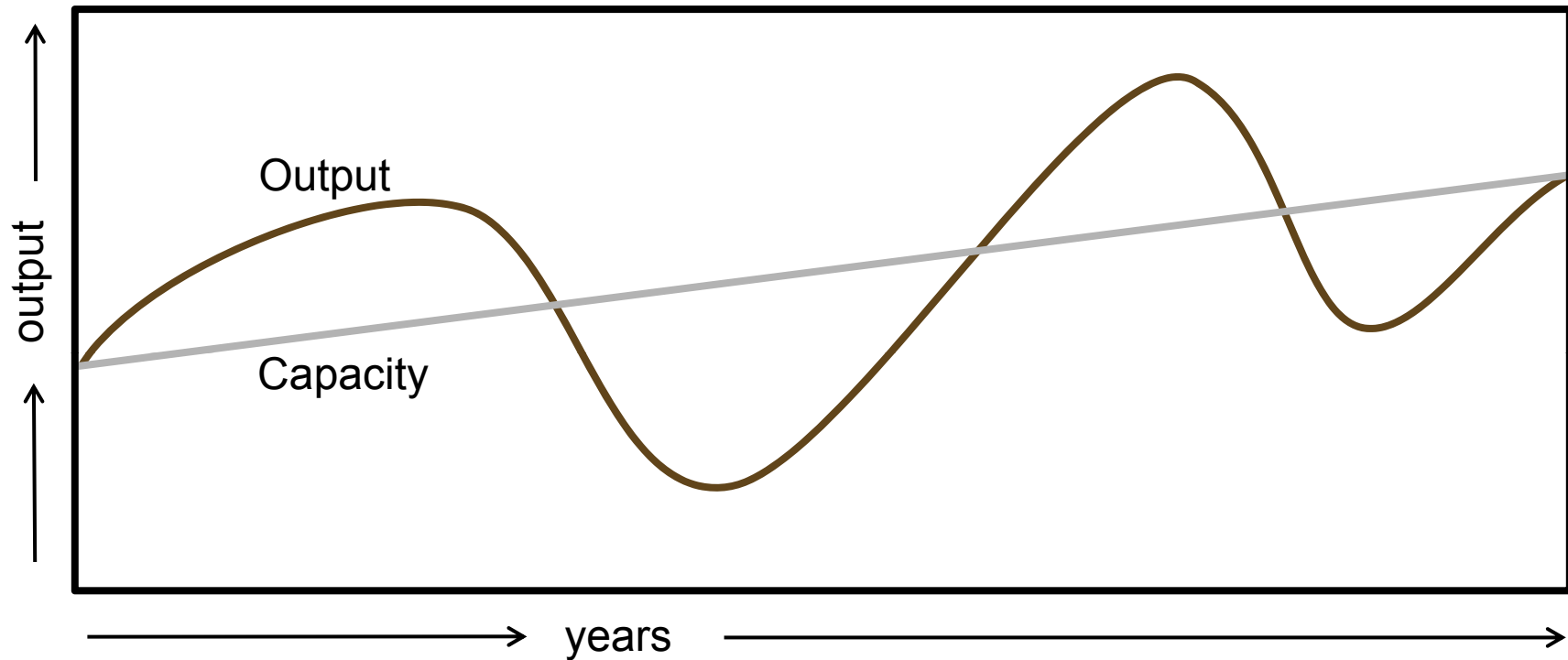
Unemployment when output is at capacity is “natural”



Inflation at capacity is “expected”

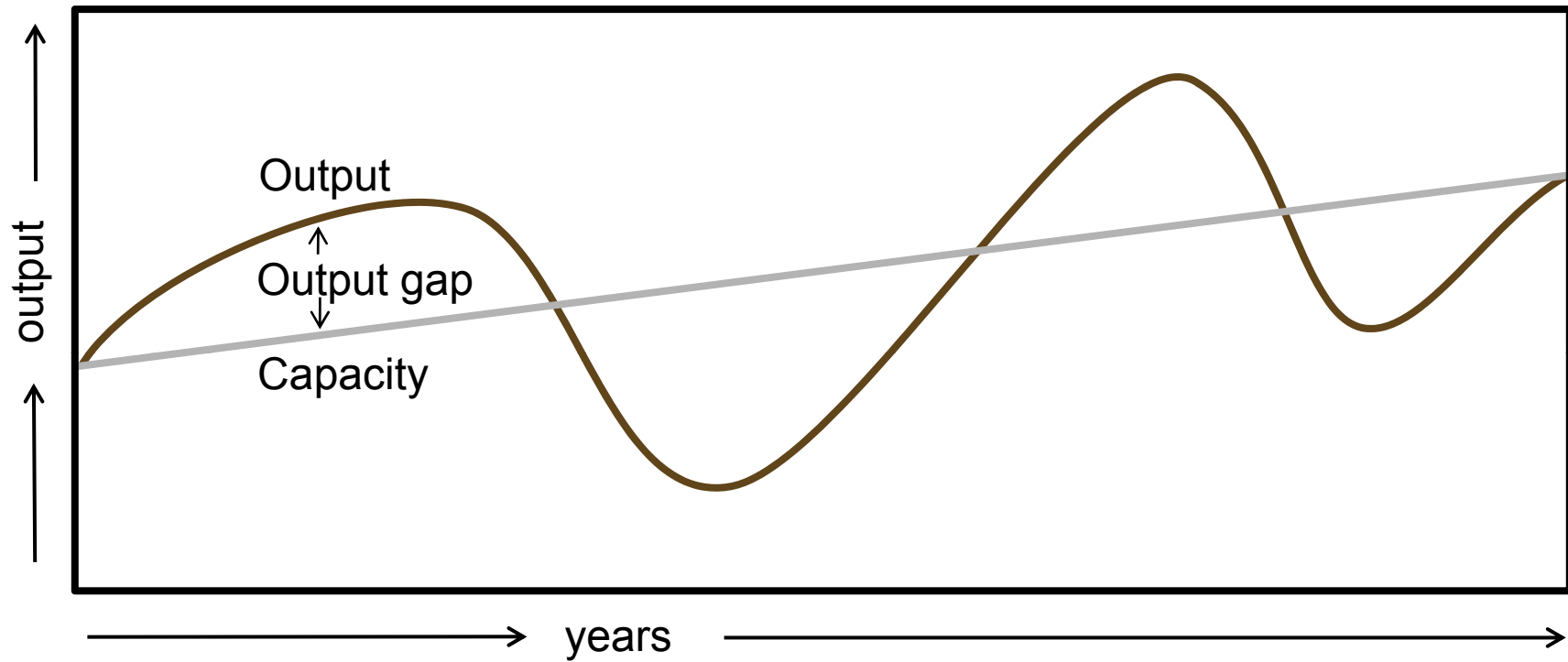


Output exhibits fluctuations – “Business cycles”

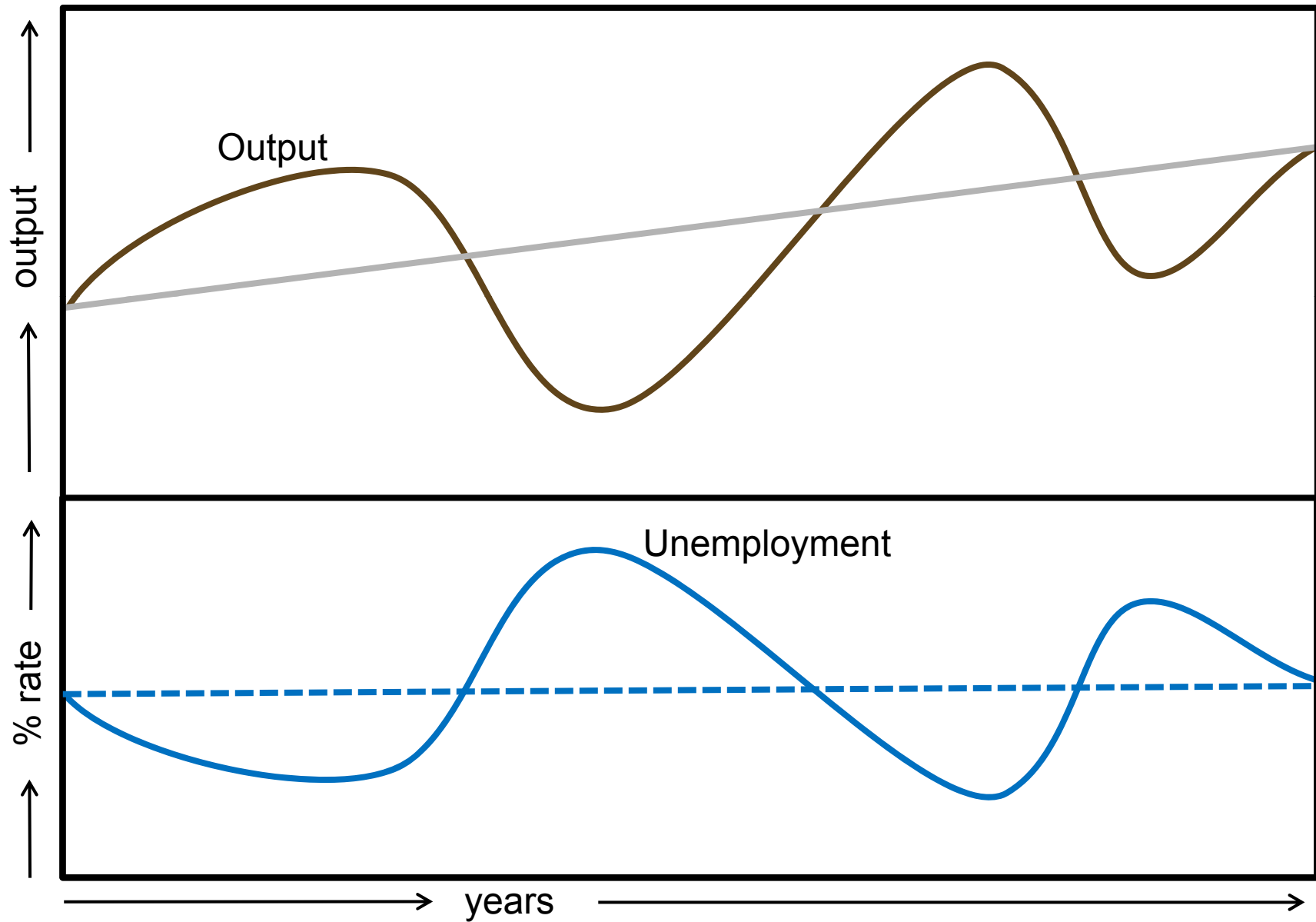


Output can deviate in short run
Changes in demand cause
persistent output deviations
due to “sticky” prices and
wages

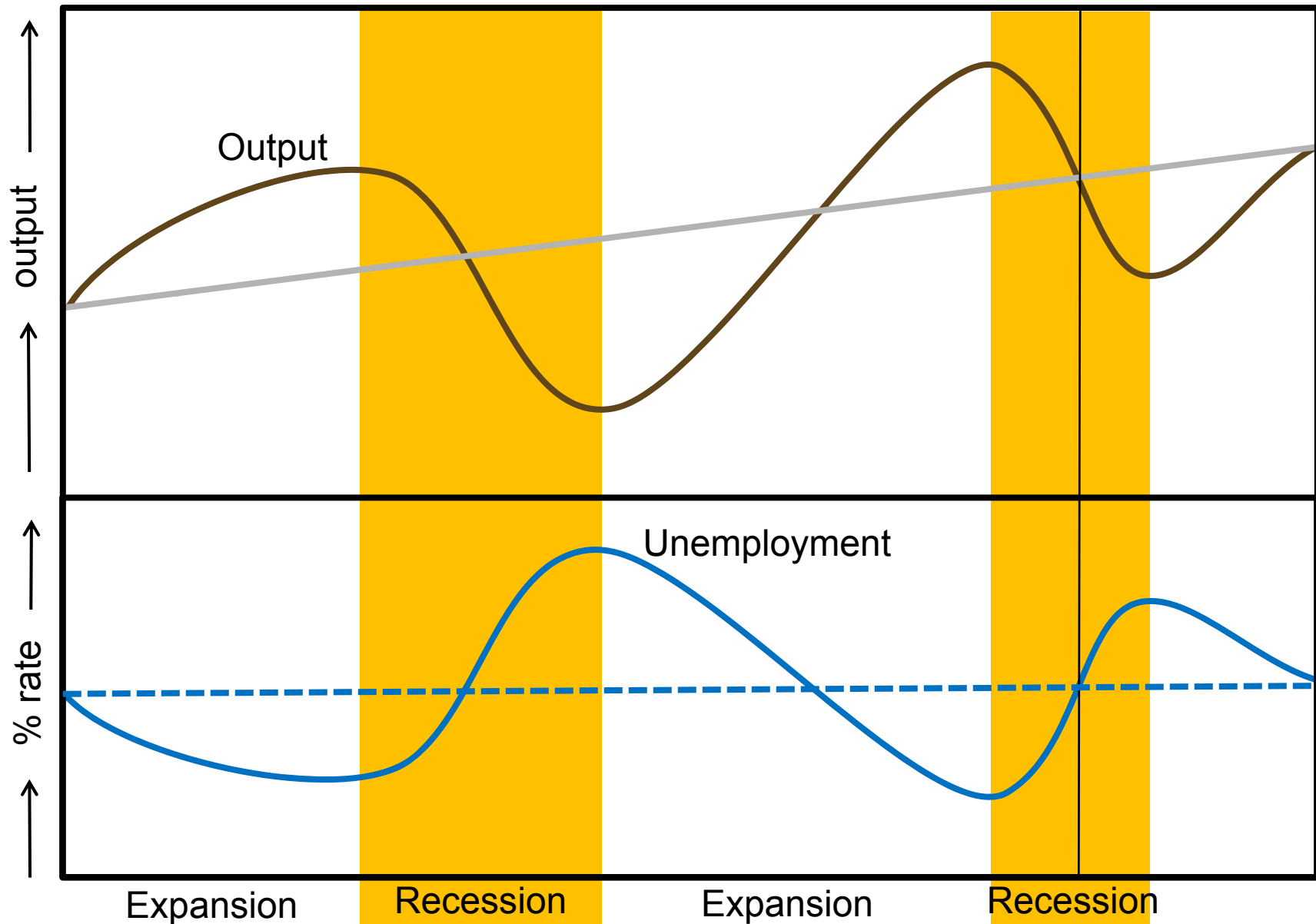
The output gap = output - capacity



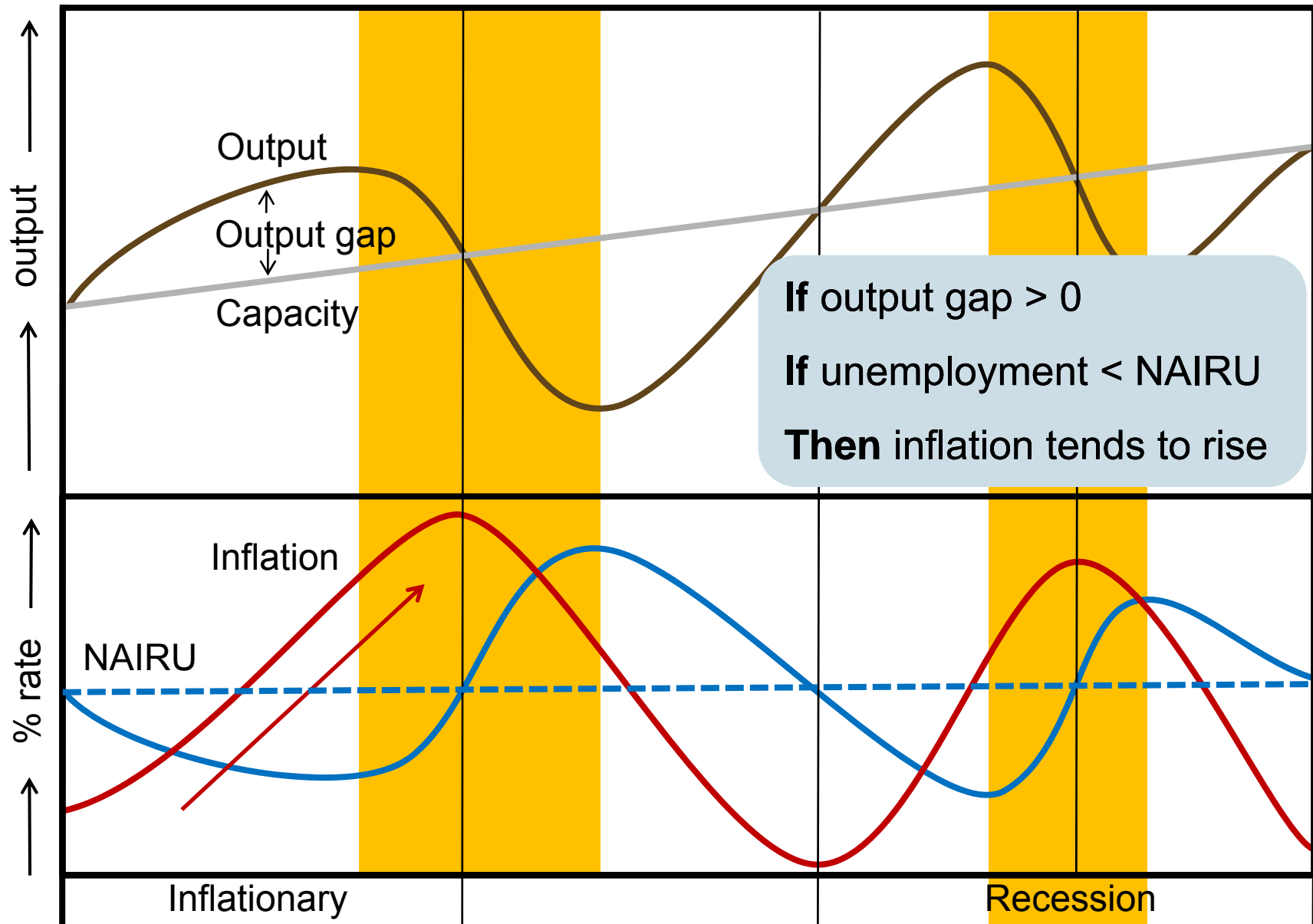
Unemployment fluctuates with output



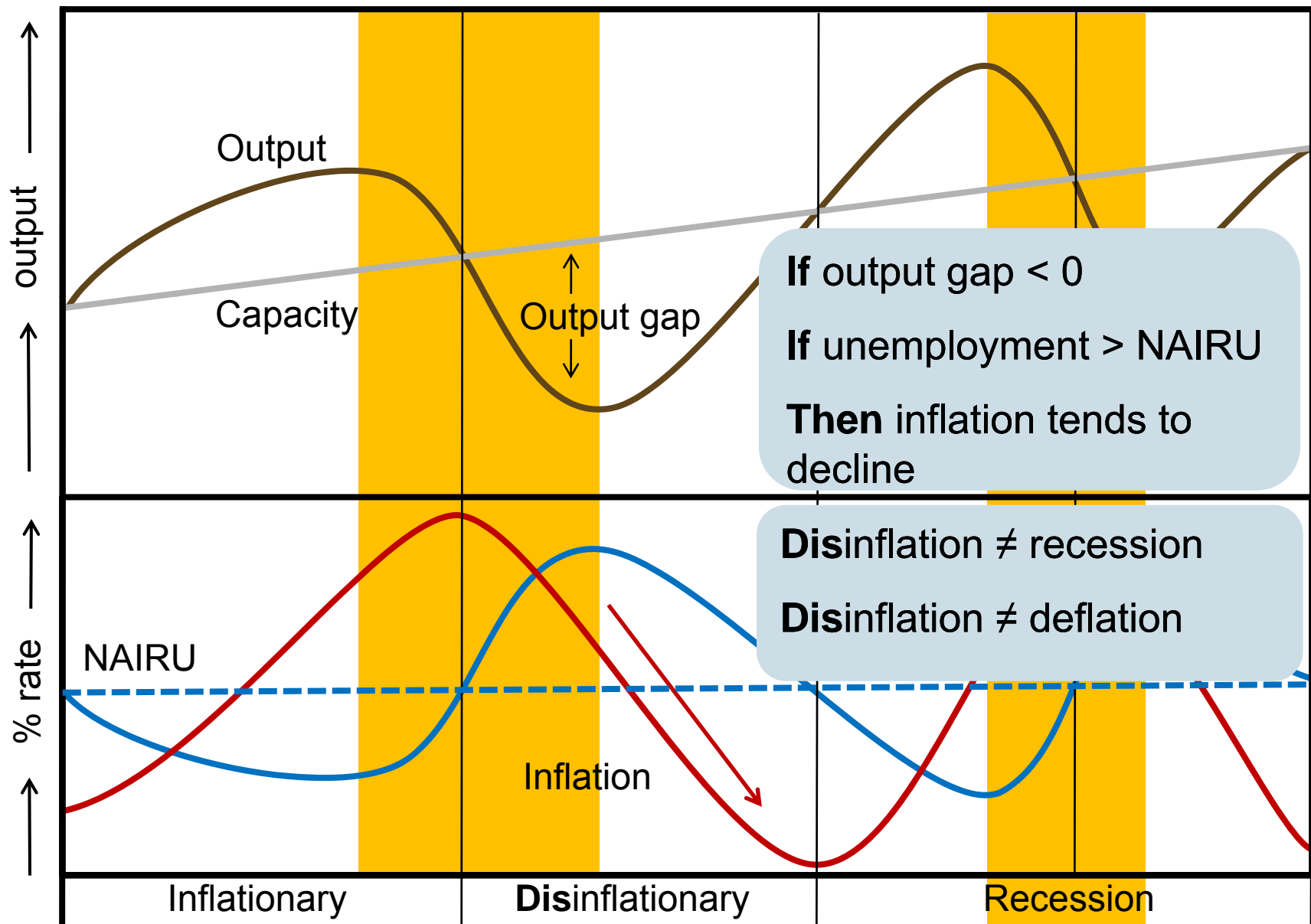
Declining output and rising unemployment: recession



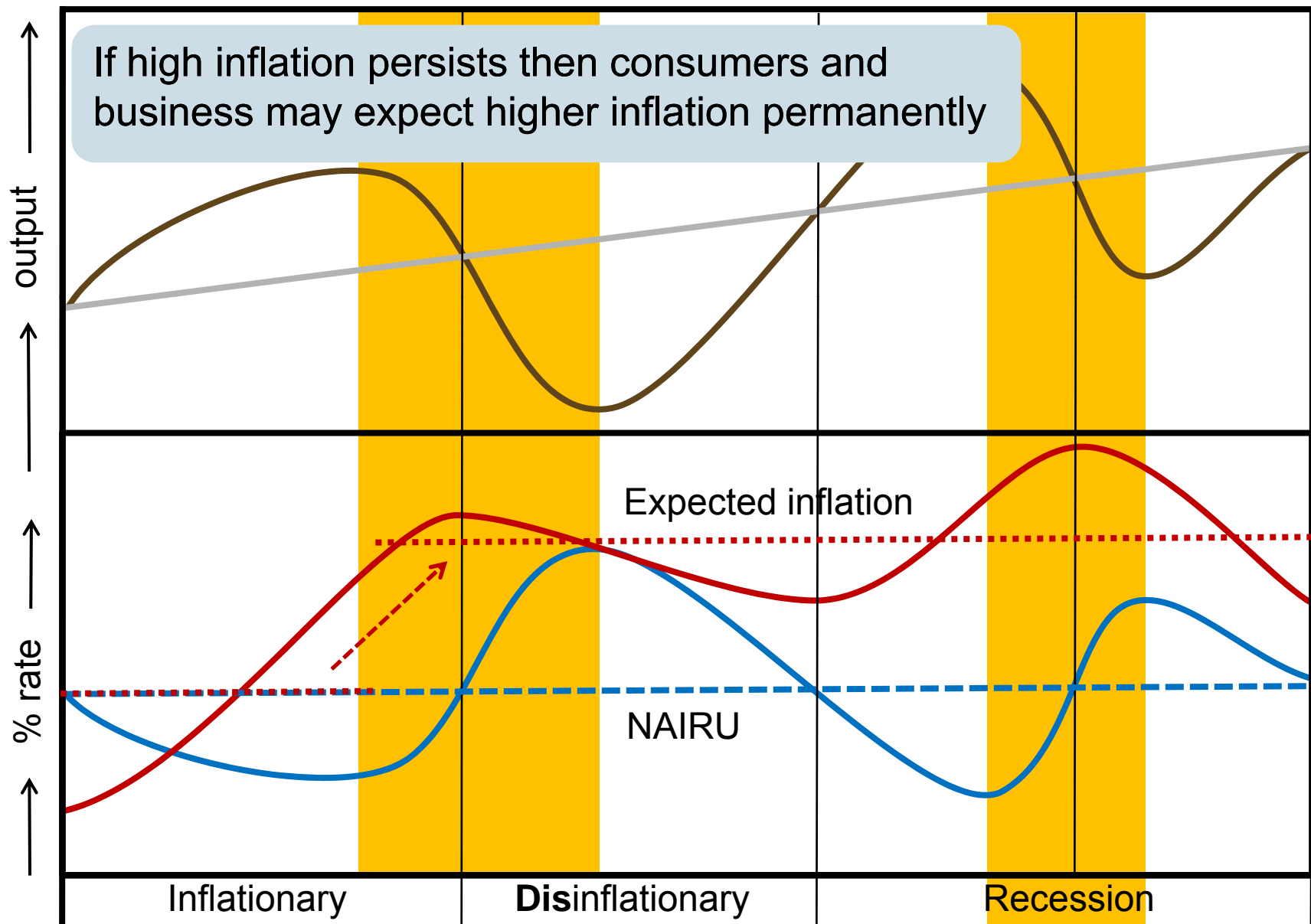
Periods of excess demand push up inflation



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

“Dual mandate”

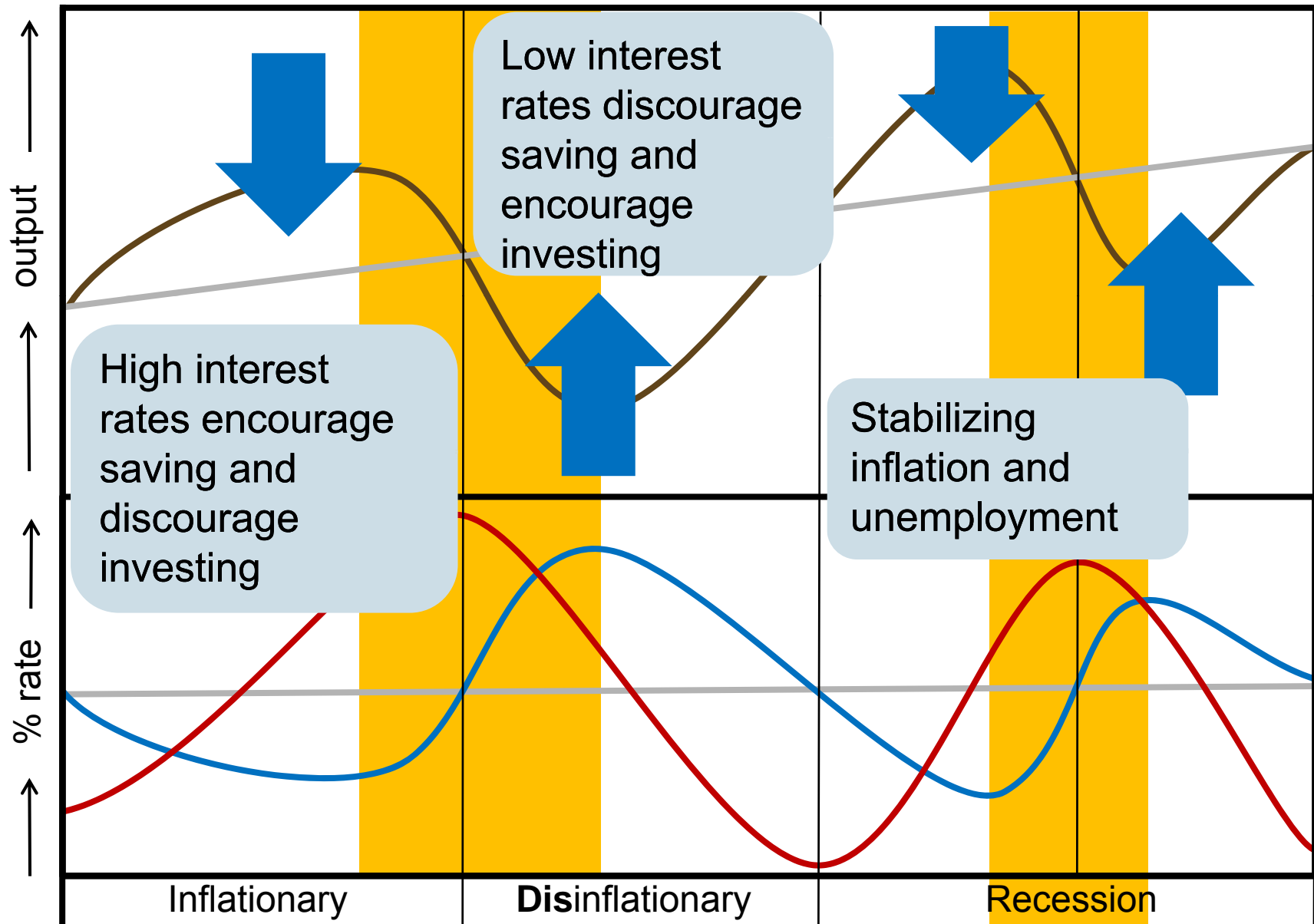
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Section 2a, Monetary Policy Objectives, Federal Reserve Act

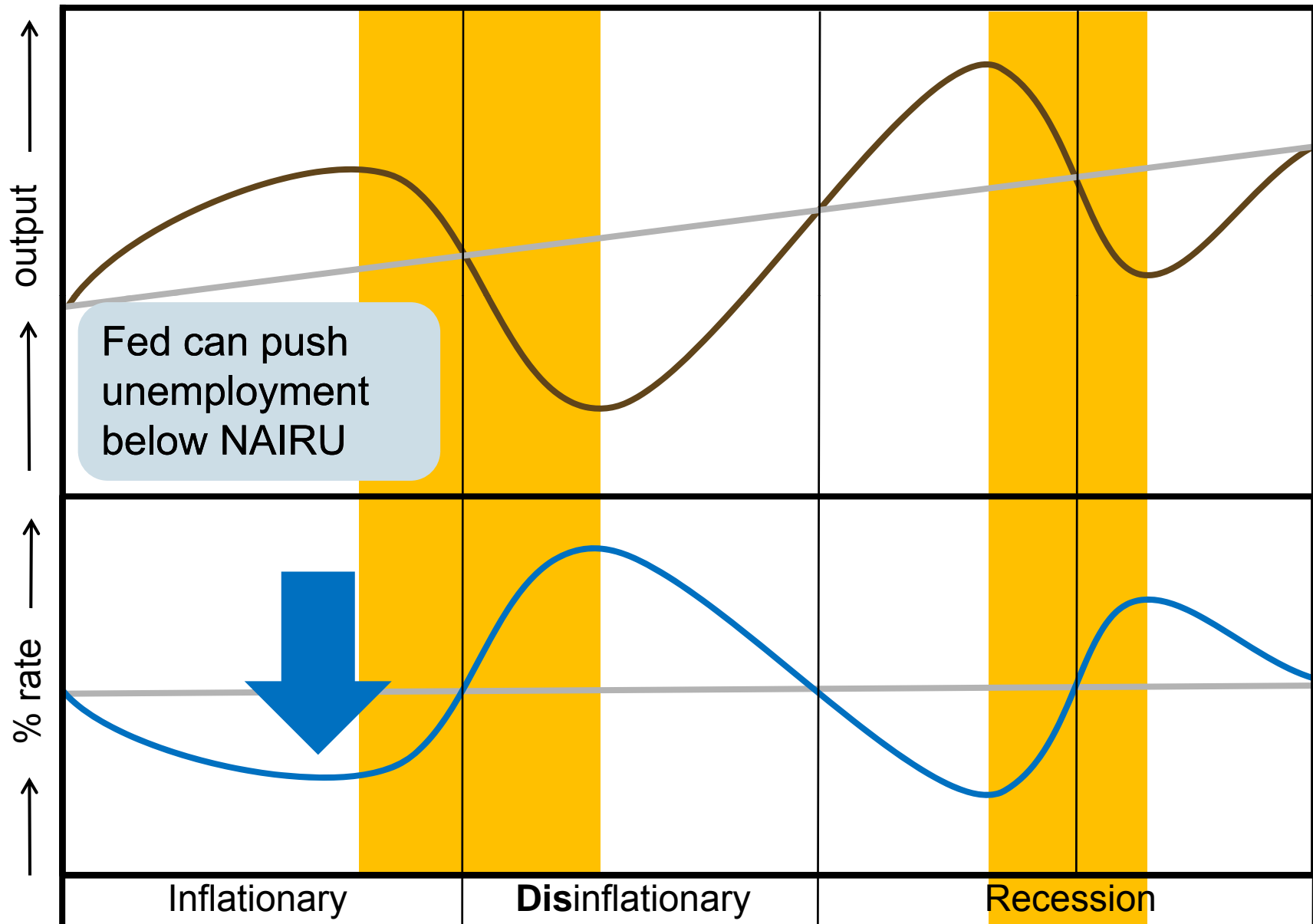
Interpreting the dual mandate

The inflation rate over the longer run is primarily determined by monetary policy, and hence the Committee has the ability to specify a longer-run goal for inflation. The Committee judges that **inflation at the rate of 2 percent**, as measured by the annual change in the price index for personal consumption expenditures, is most consistent over the longer run with the Federal Reserve's statutory mandate . . . **The maximum level of employment is largely determined by nonmonetary factors** that affect the structure and dynamics of the labor market. These factors may change over time and may not be directly measurable. Consequently, it would not be appropriate to specify a fixed goal for employment; rather, the Committee's policy decisions must be informed by assessments of the maximum level of employment, recognizing that such assessments are necessarily uncertain and subject to revision.

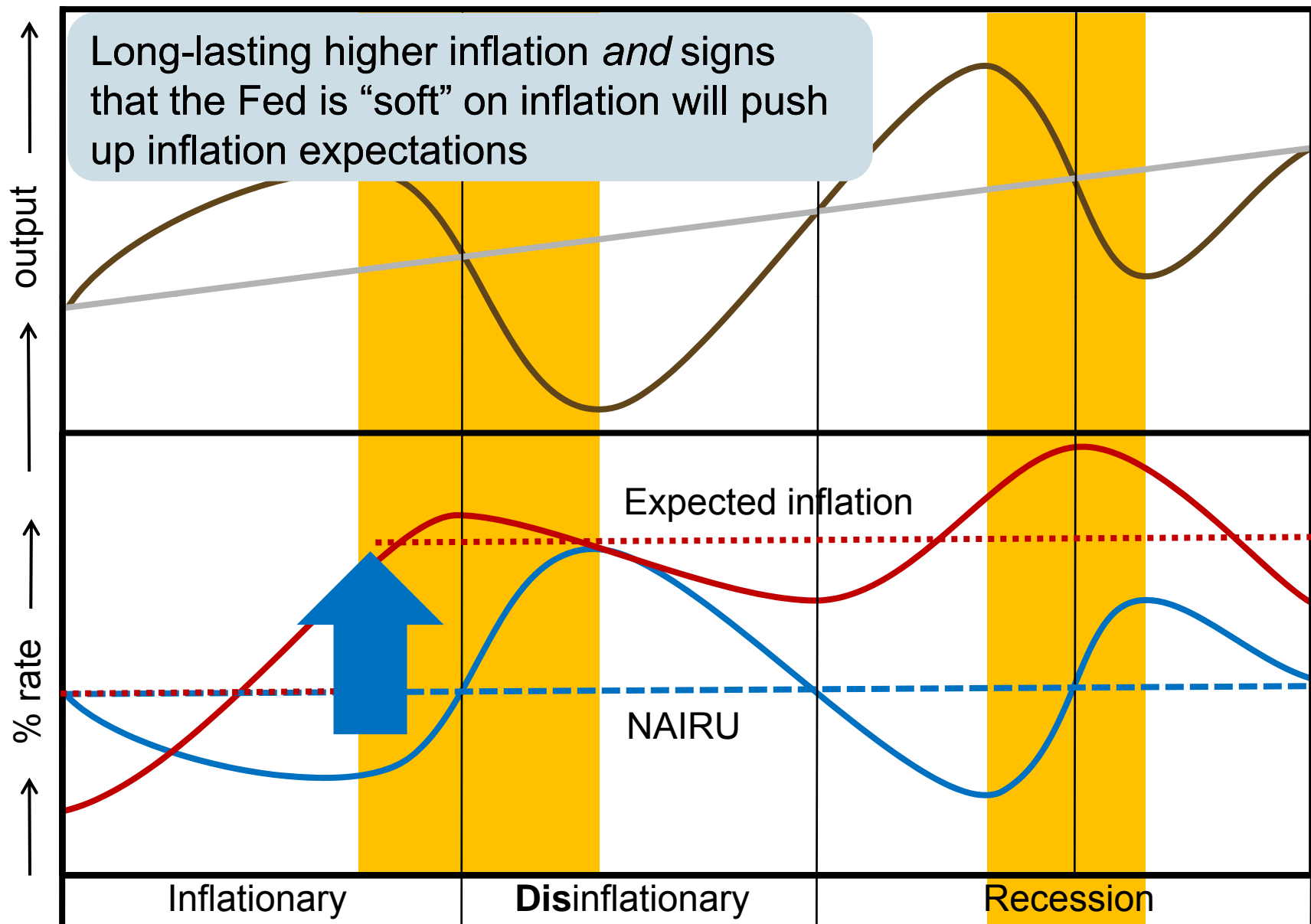
Fed can dampen the cycle to fulfill its dual mandate



Fed can create “unnaturally” low unemployment . . .



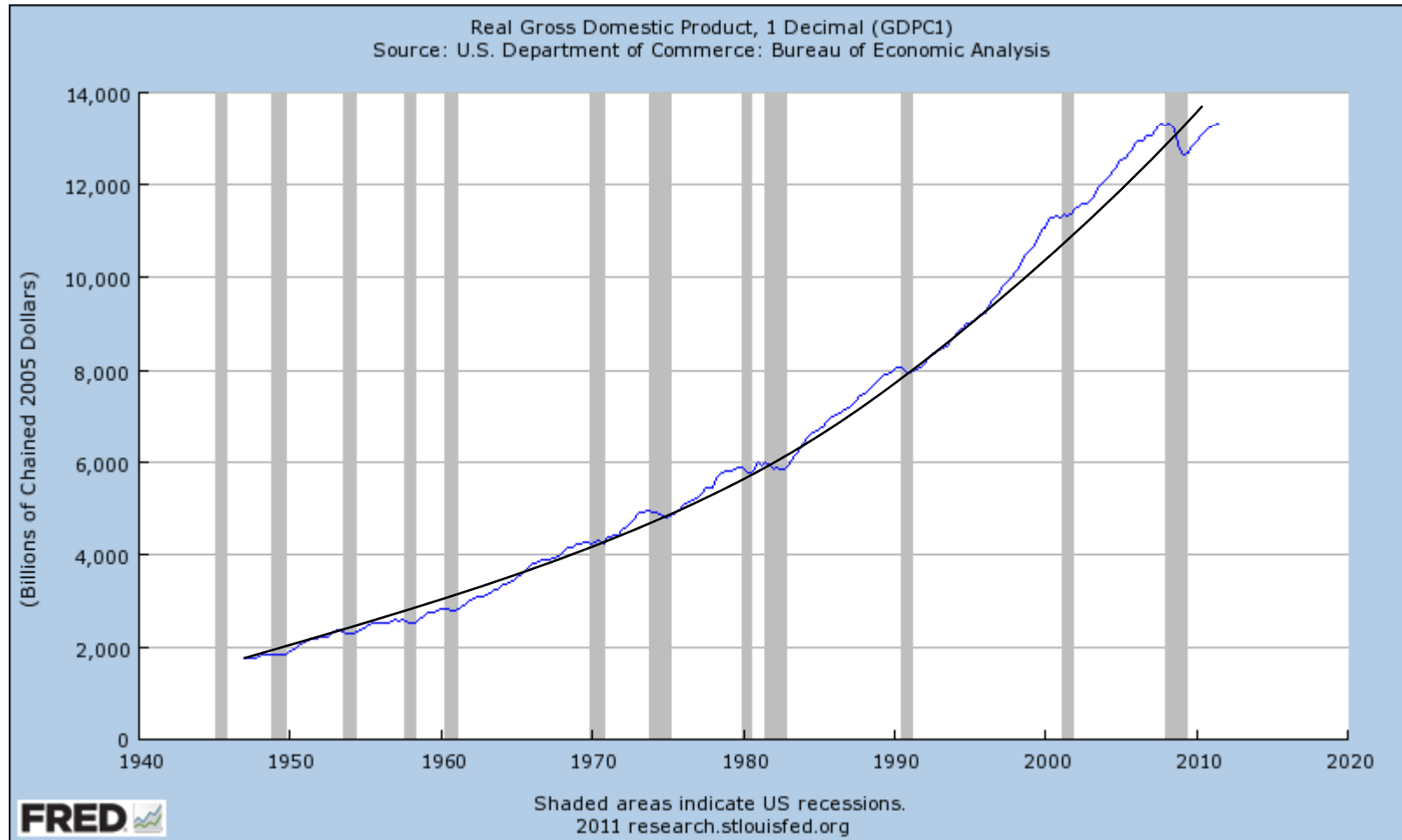
... but this will permanently raise inflation



BREAK!

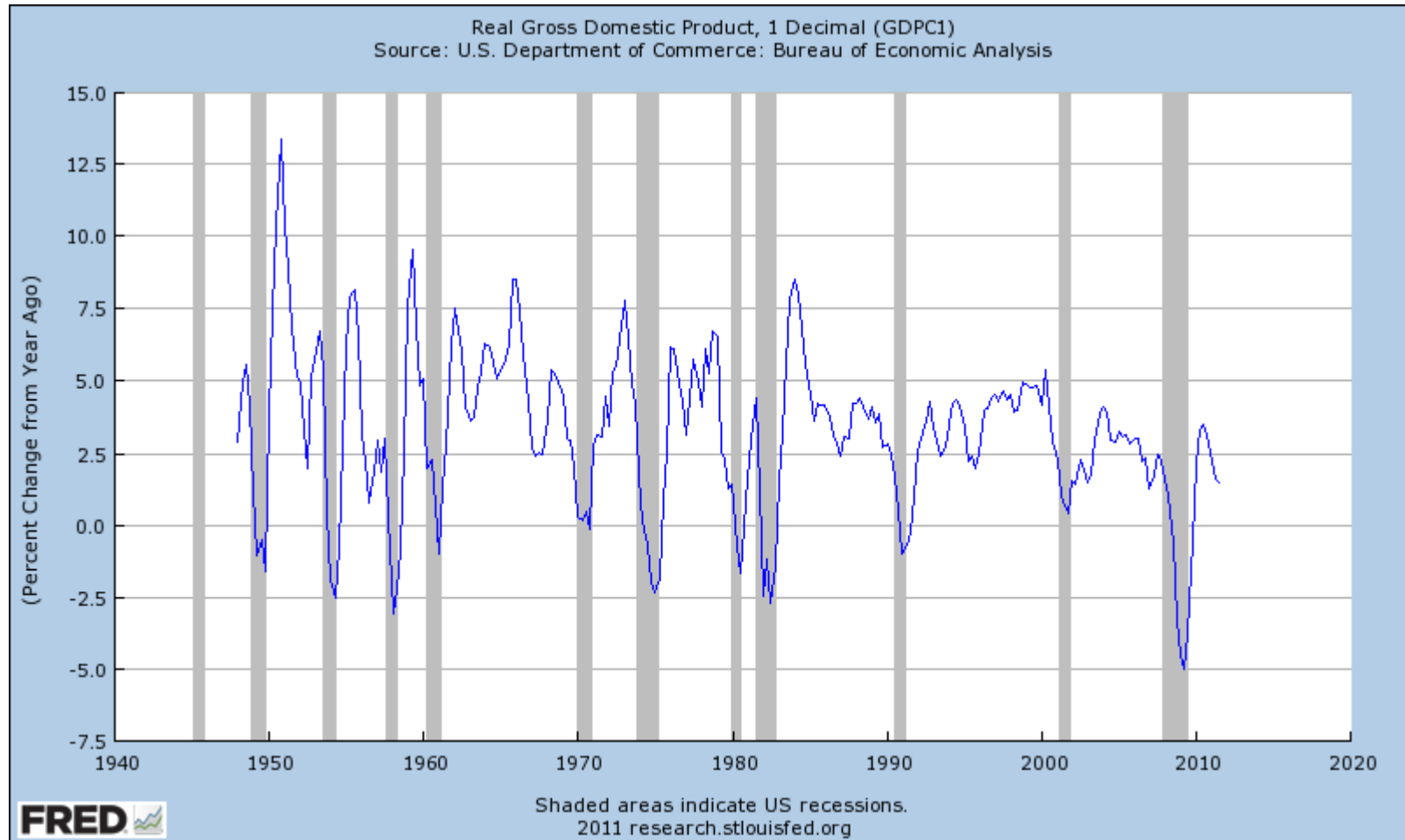
MONETARY POLICY IN REALITY

The sustainable output of the economy grows



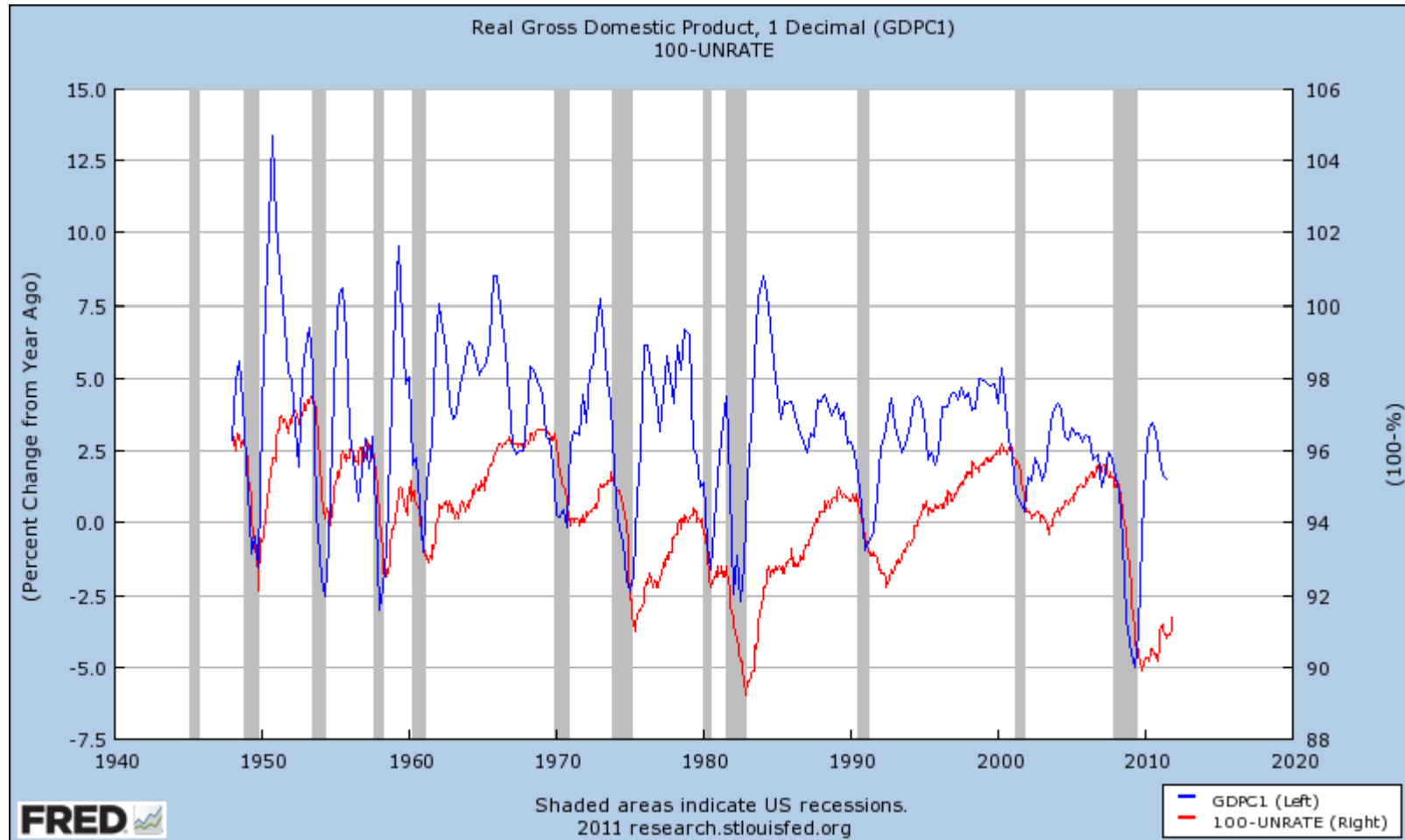
<http://research.stlouisfed.org/fred2/>

Output exhibits fluctuations



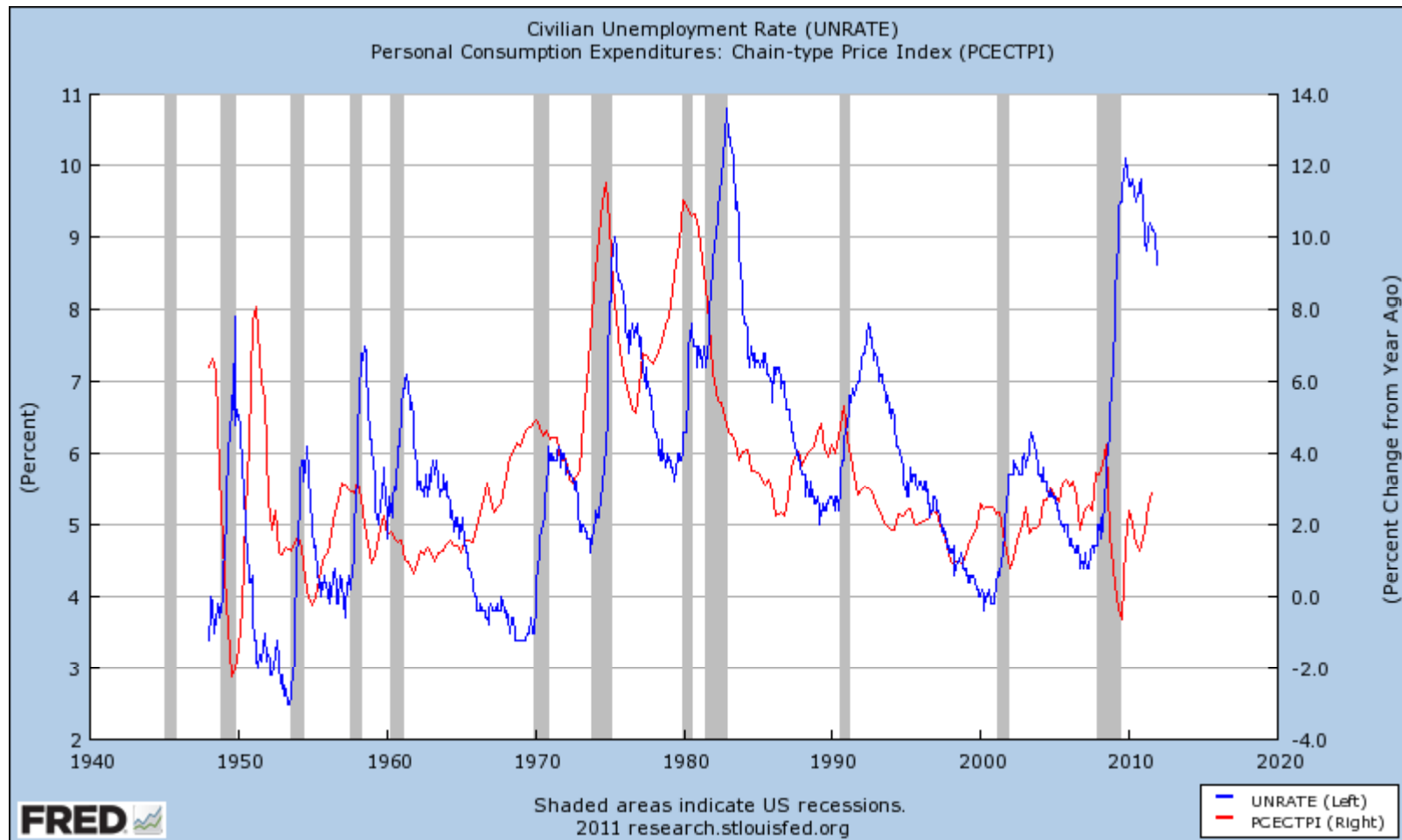
<http://research.stlouisfed.org/fred2/>

Unemployment fluctuates with output



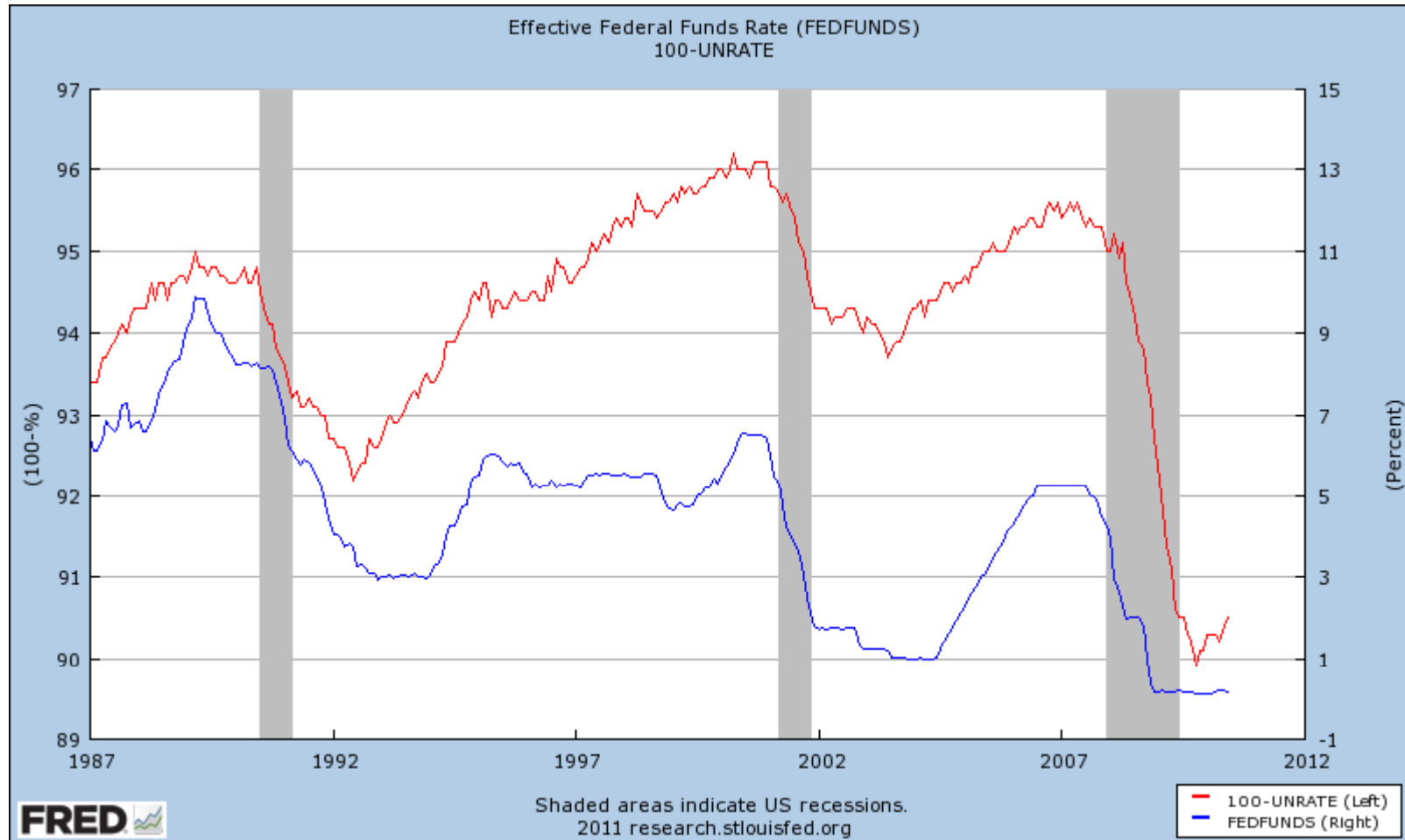
<http://research.stlouisfed.org/fred2/>

Excess (low) demand pushes up (down) inflation



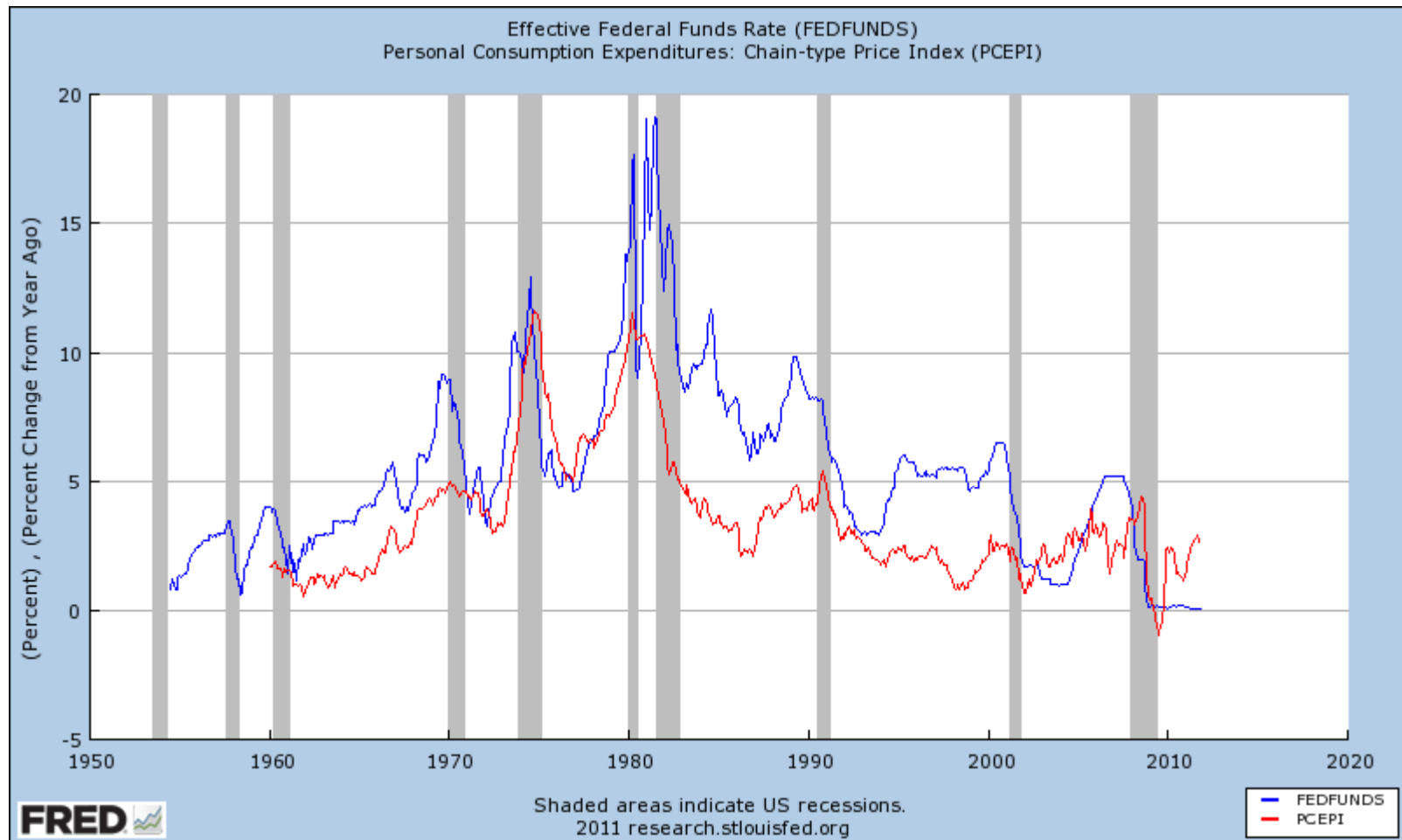
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Fed can dampen the cycle to fulfill its dual mandate



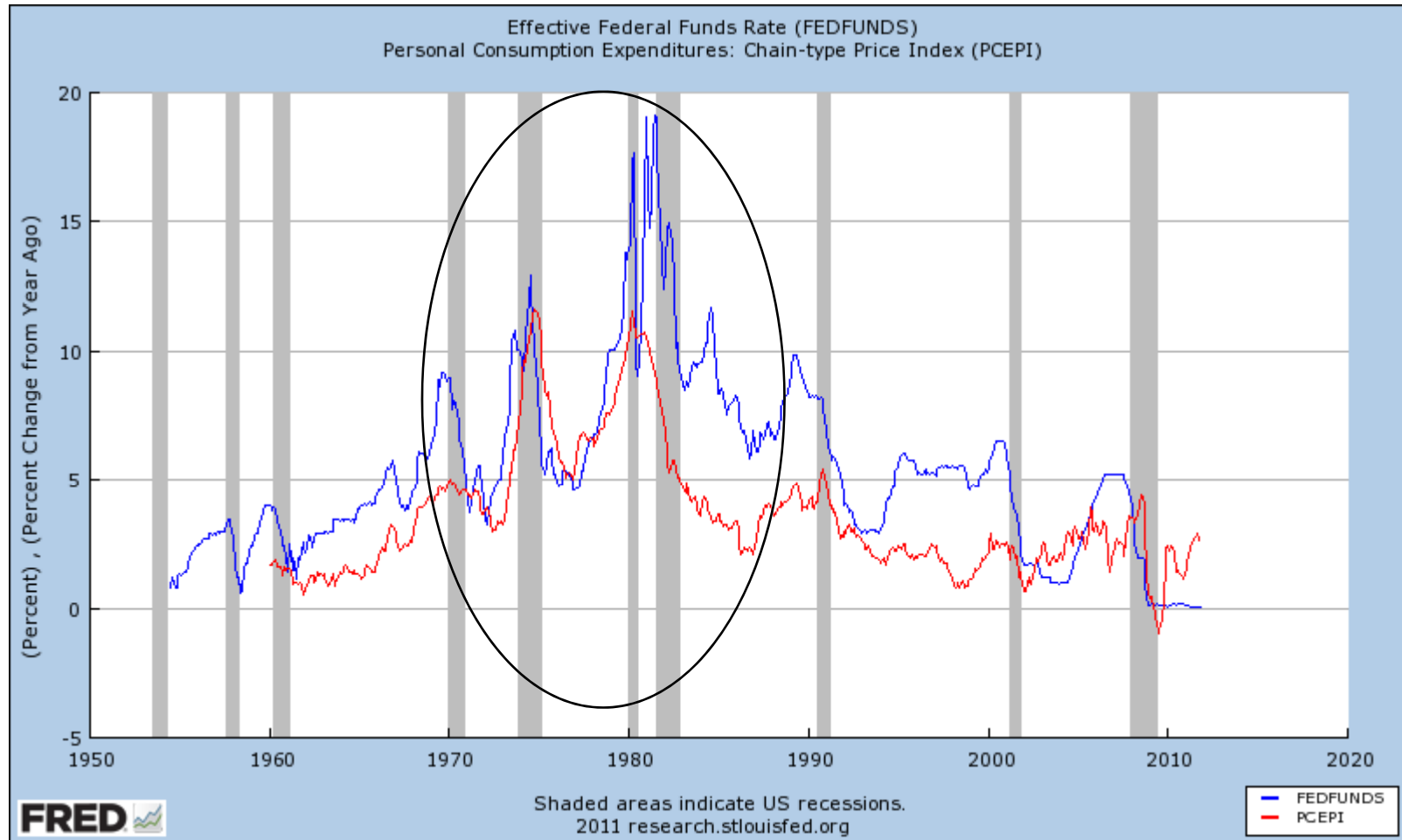
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Fed can dampen the cycle to fulfill its dual mandate



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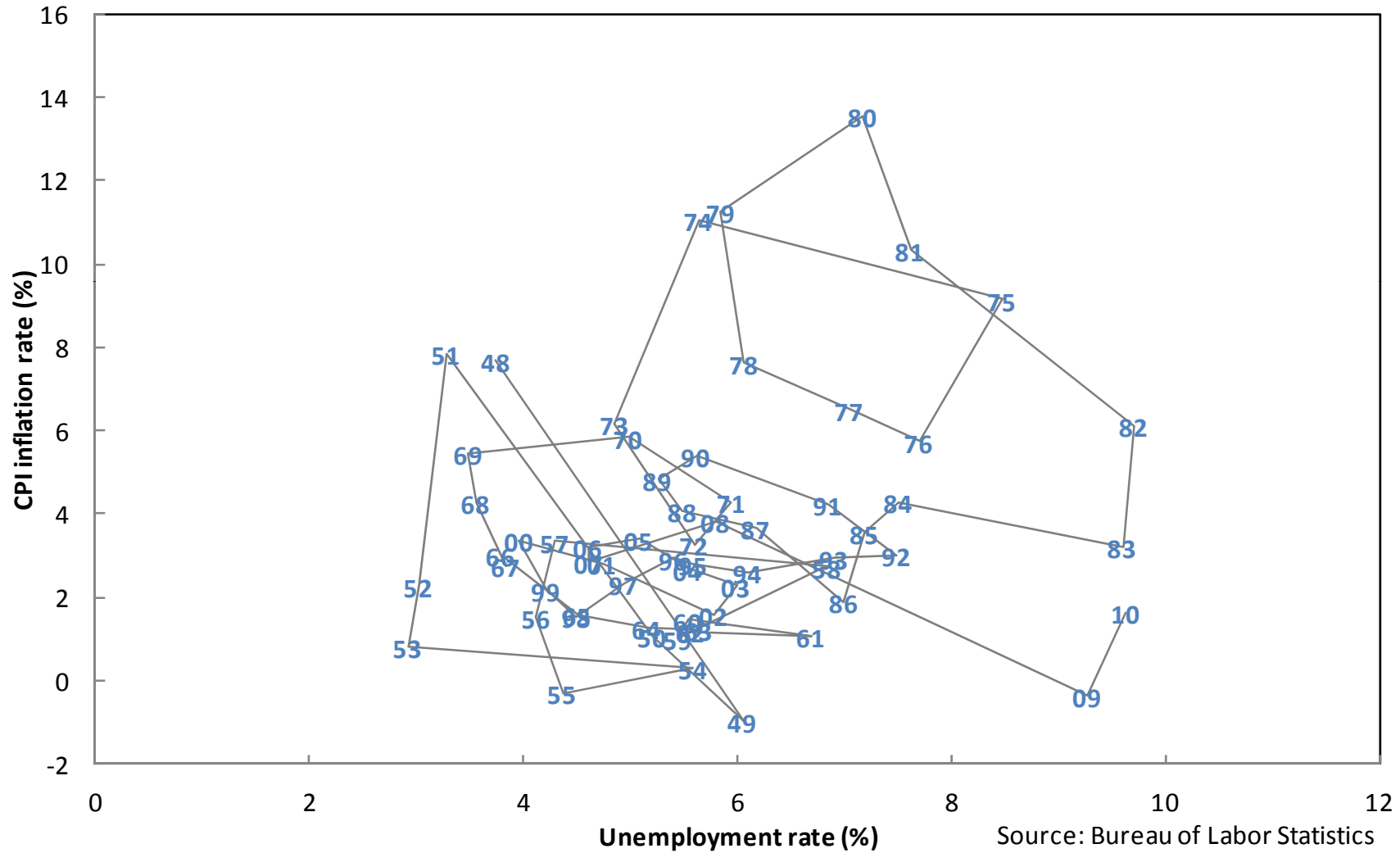
Inflation can become “unanchored”



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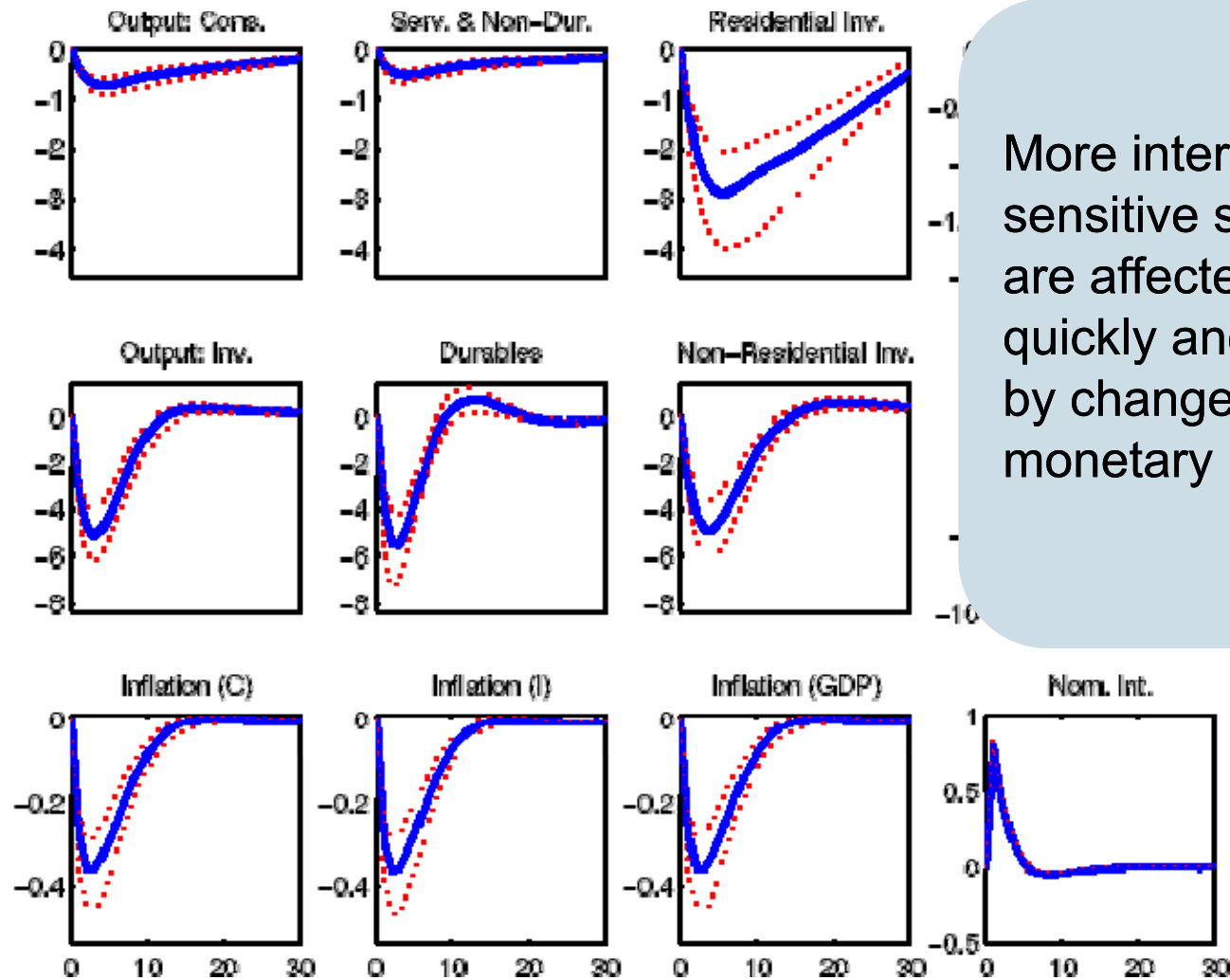
Excess (low) demand pushes up (down) inflation

Phillips curve (1945 - 2010)



Source: Bureau of Labor Statistics

Interest rates have diverse and lagged impacts



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

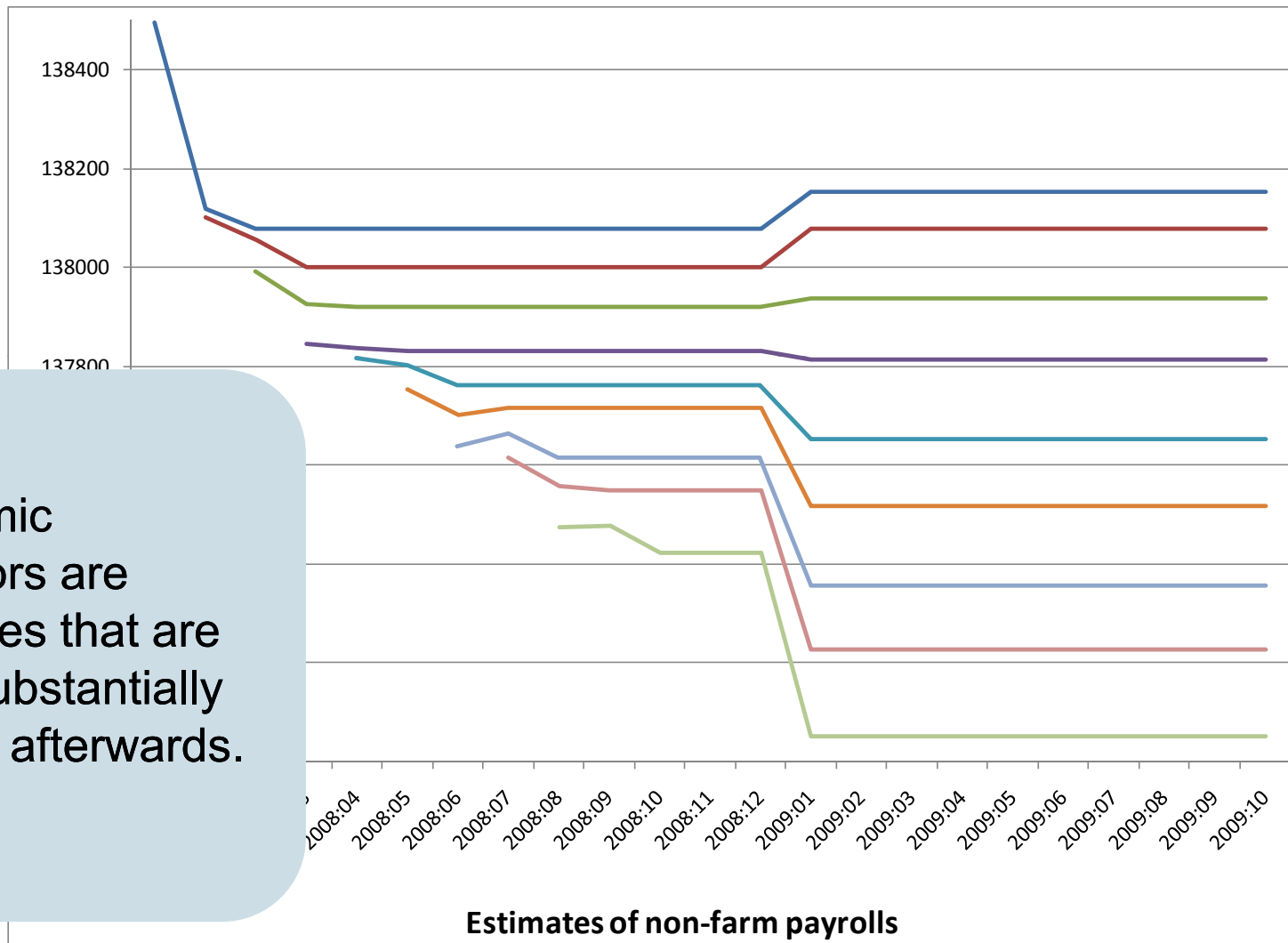
Source:

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

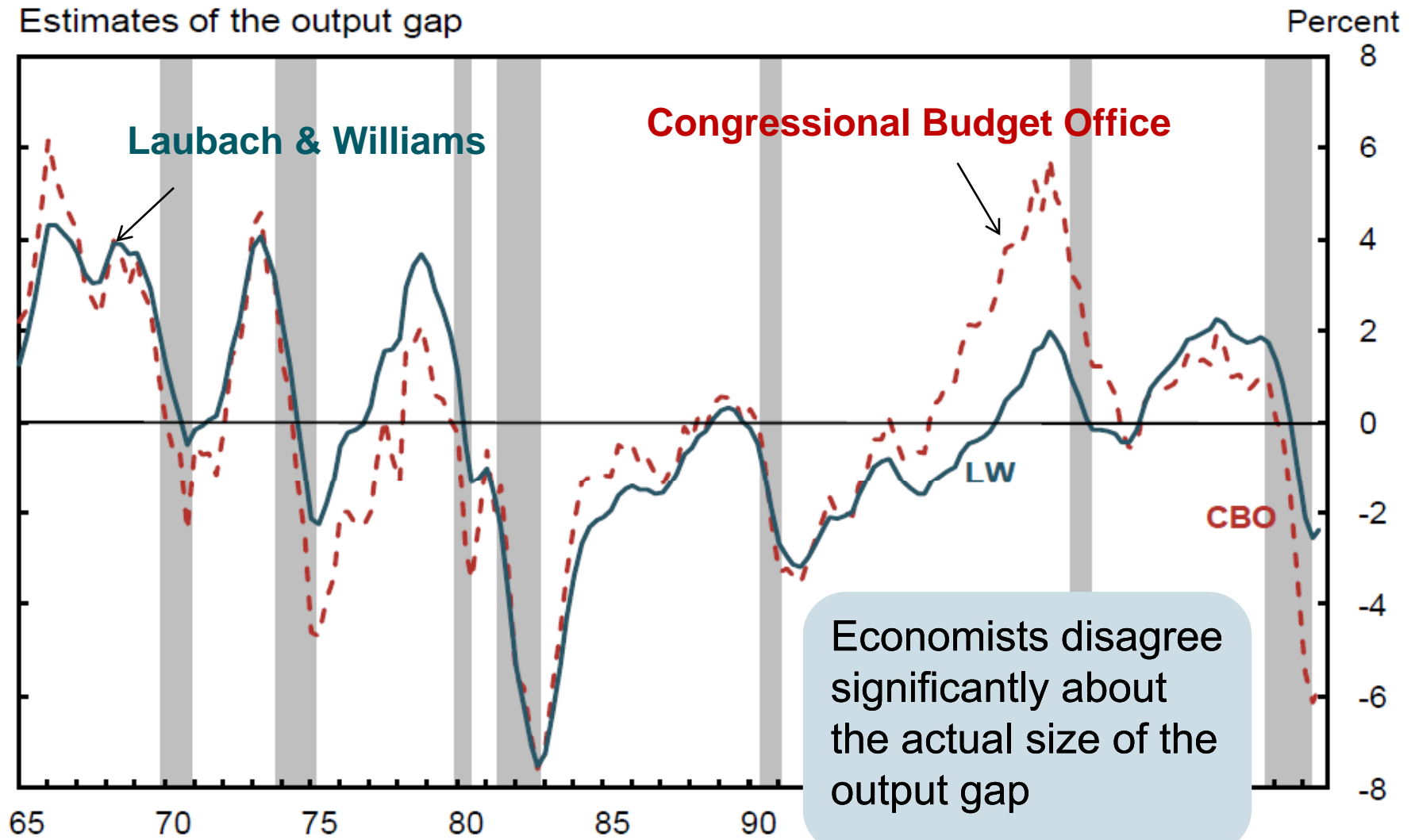
Economic indicators are estimates that are often substantially revised afterwards.



Source: Federal Reserve Bank of Philadelphia

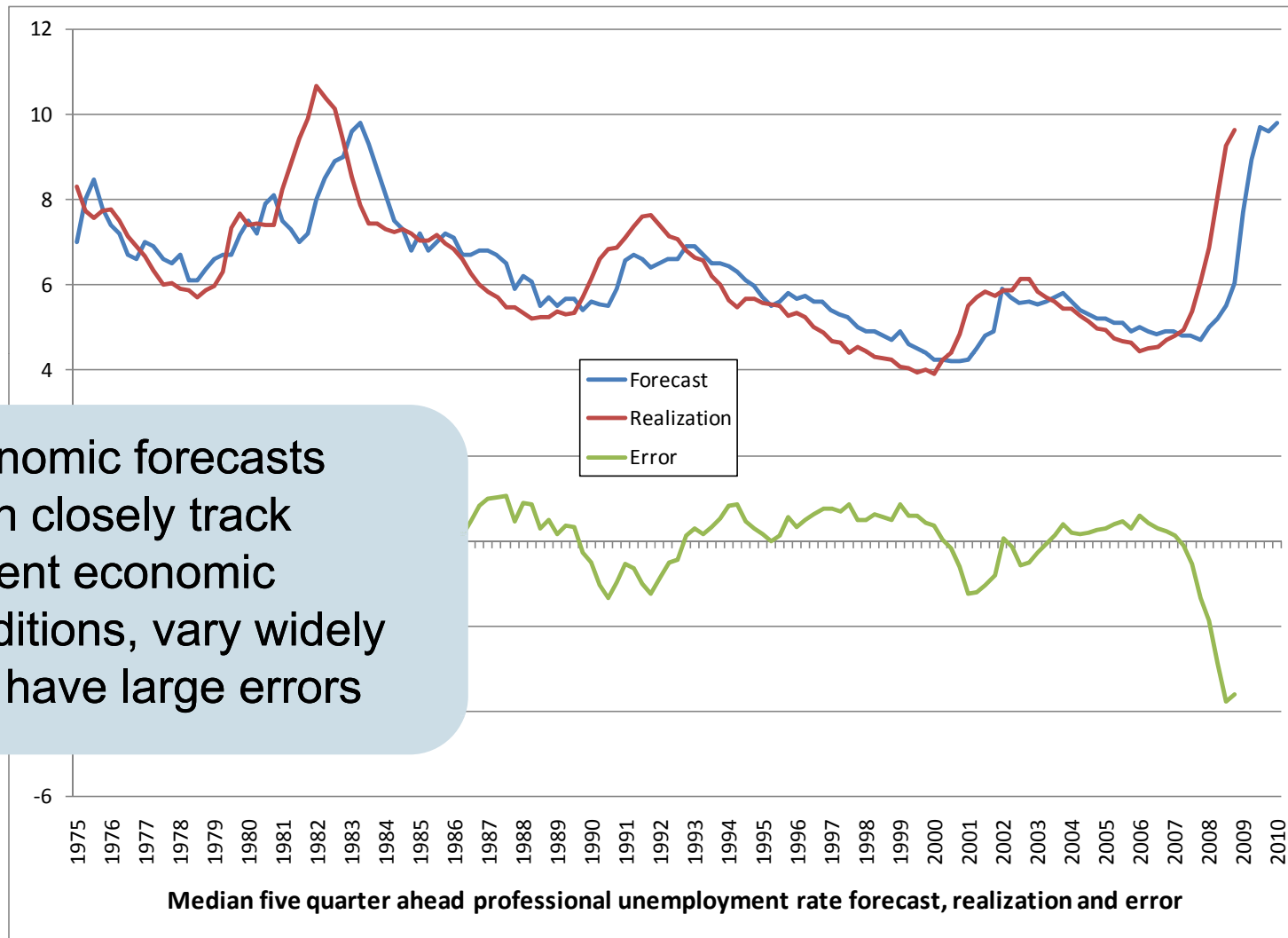
The output gap is particularly difficult to estimate

Estimates of the output gap



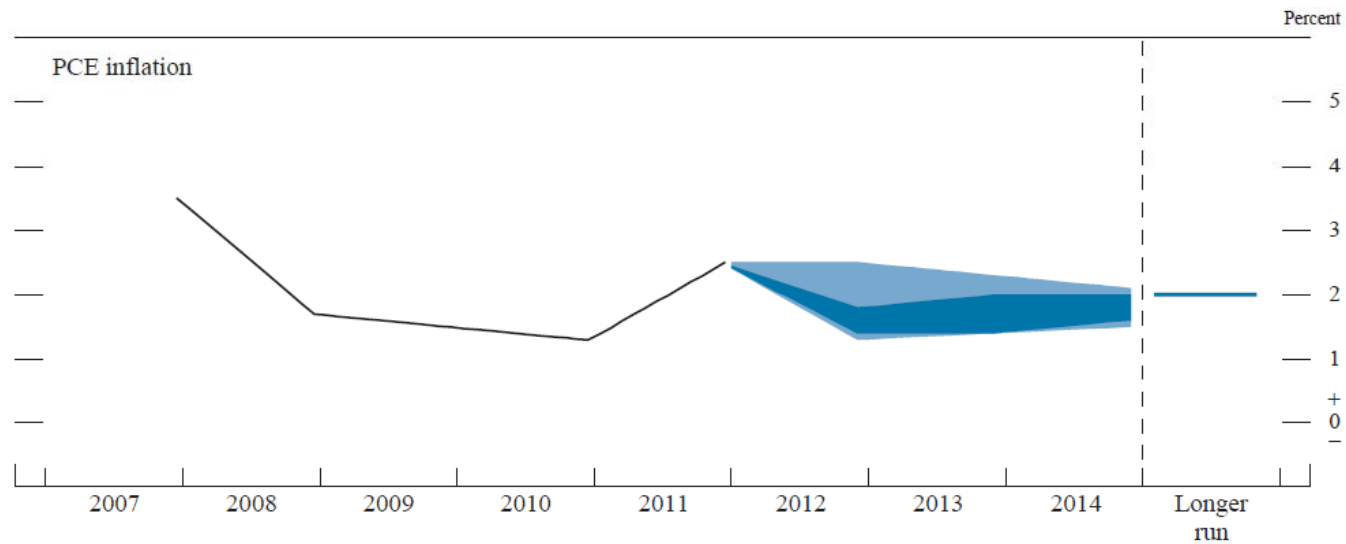
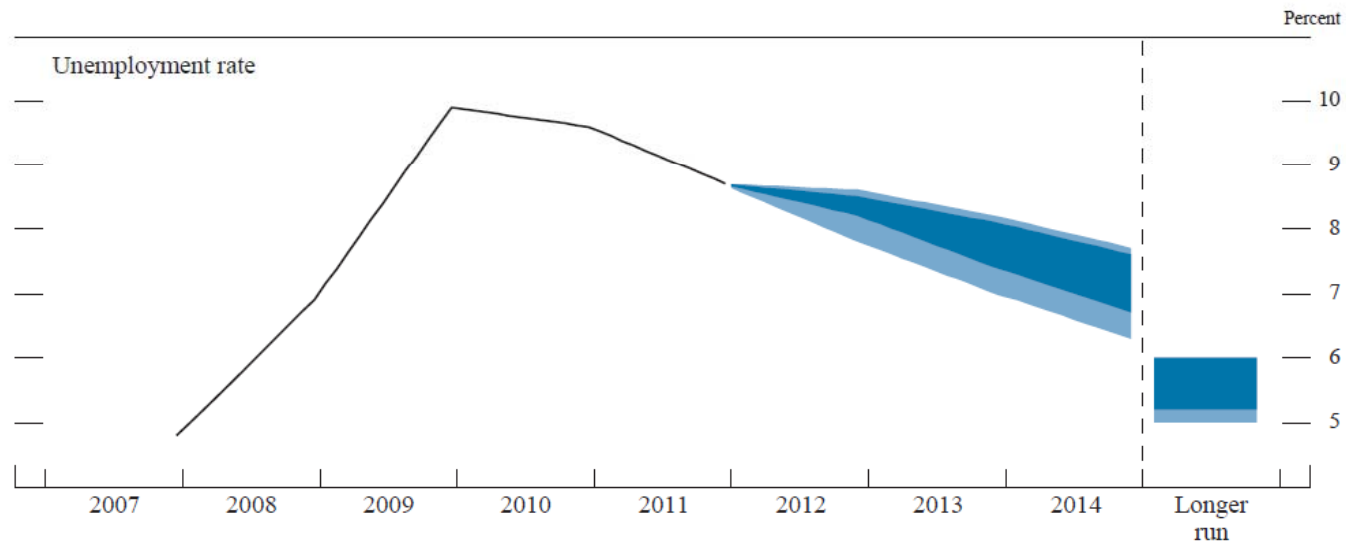
Source: Update of "How big is the output gap" by Justin Weidner and John Williams, San Francisco Federal Reserve Bank

The future is even more difficult to forecast



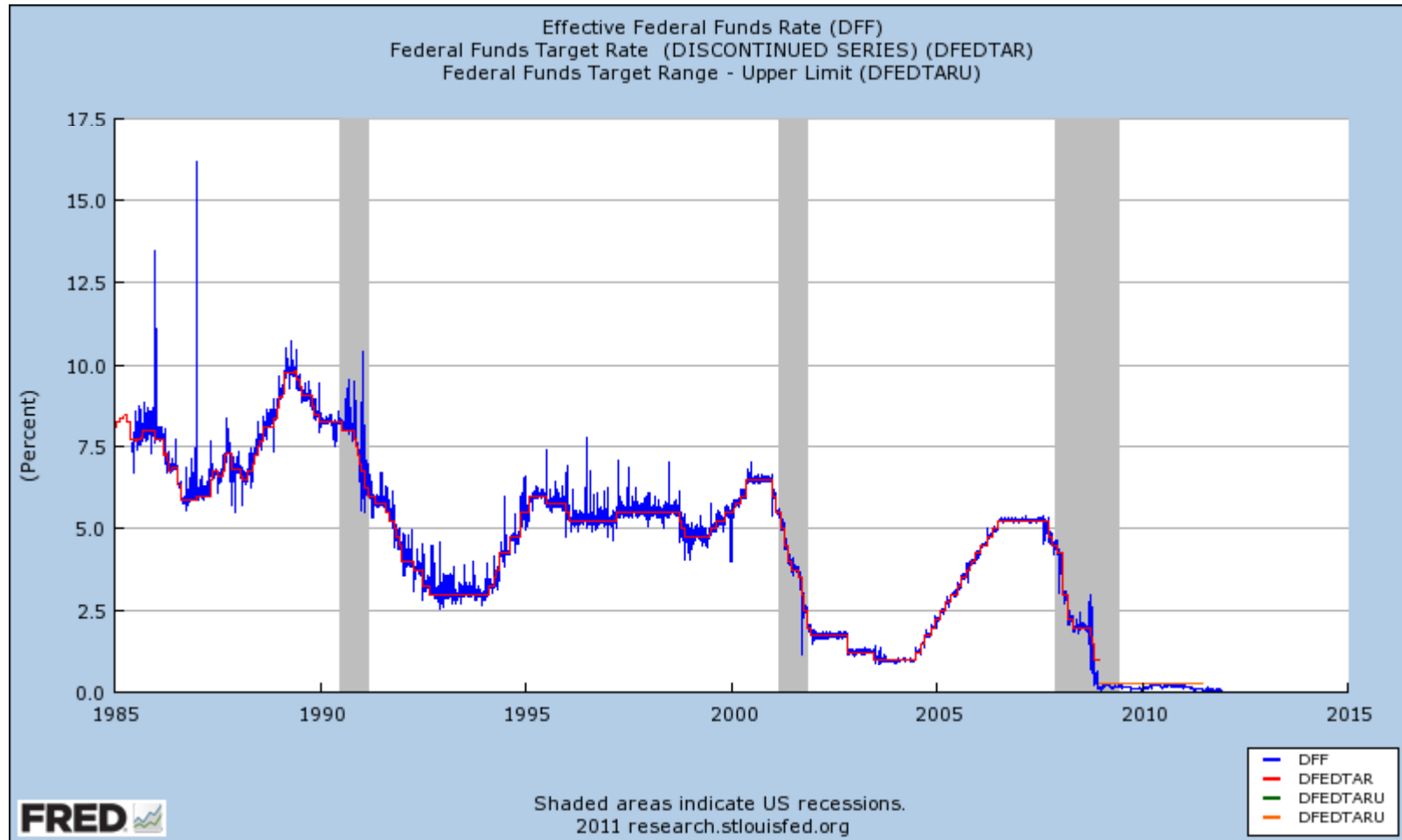
Source: Federal Reserve Bank of Philadelphia

FOMC unemployment and inflation forecast



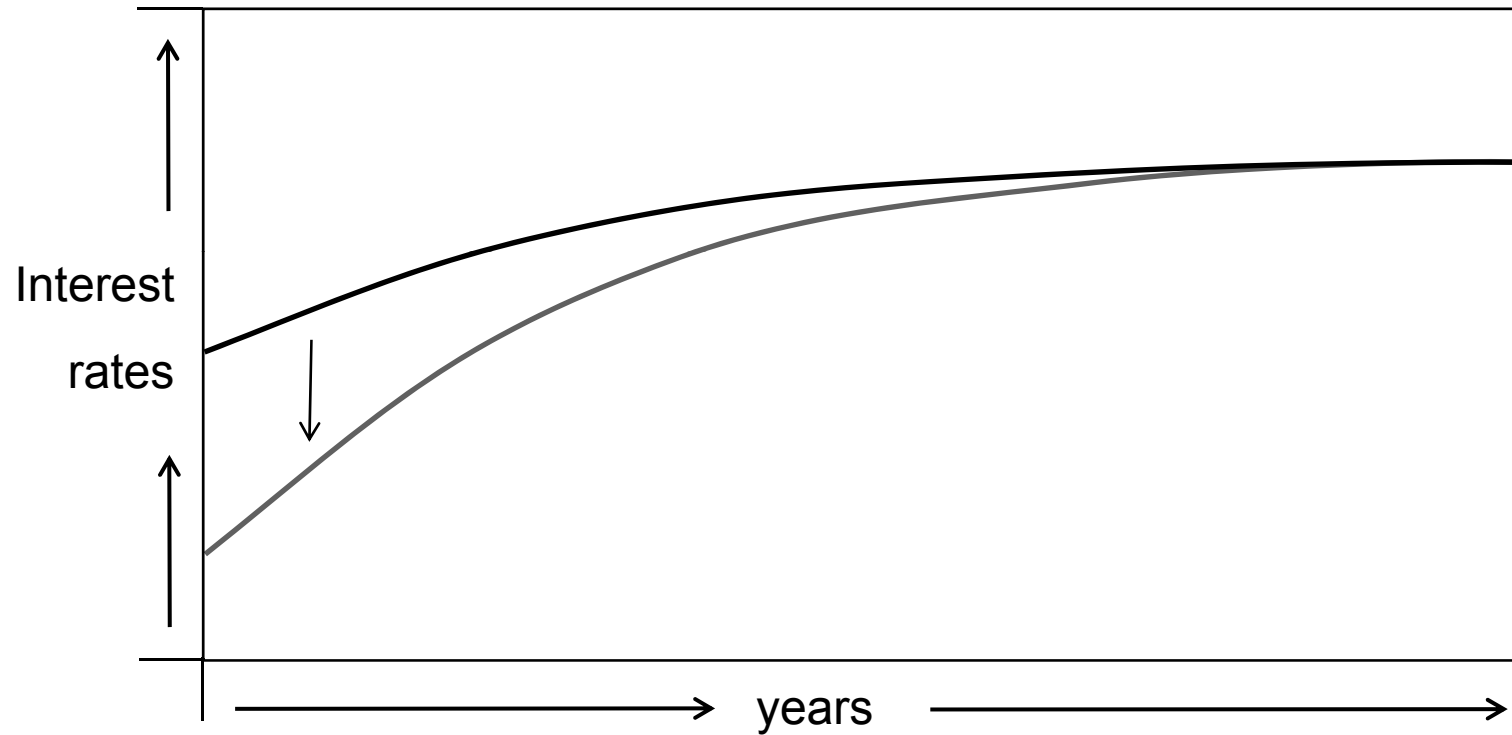
LIFE AT THE ZERO BOUND

Cutting rates to the bone

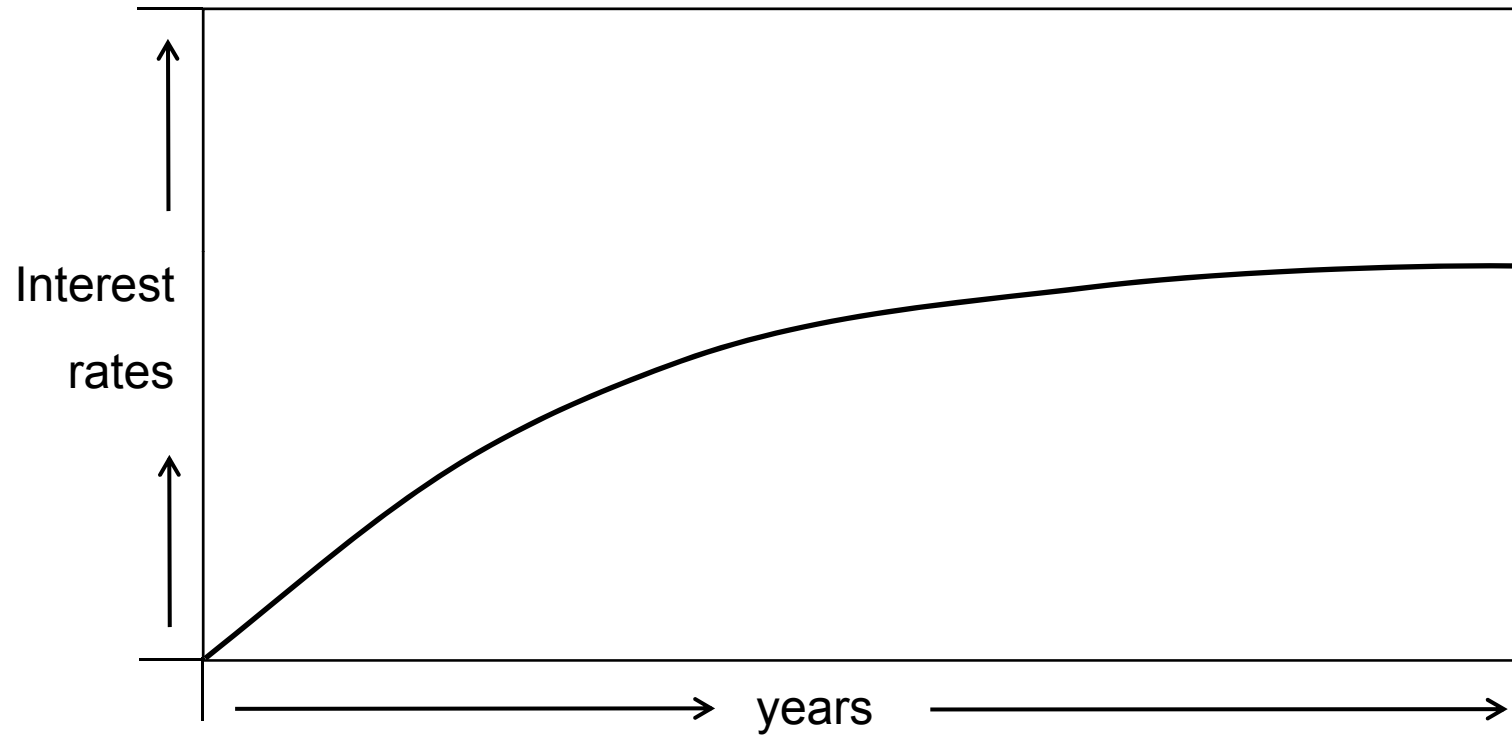


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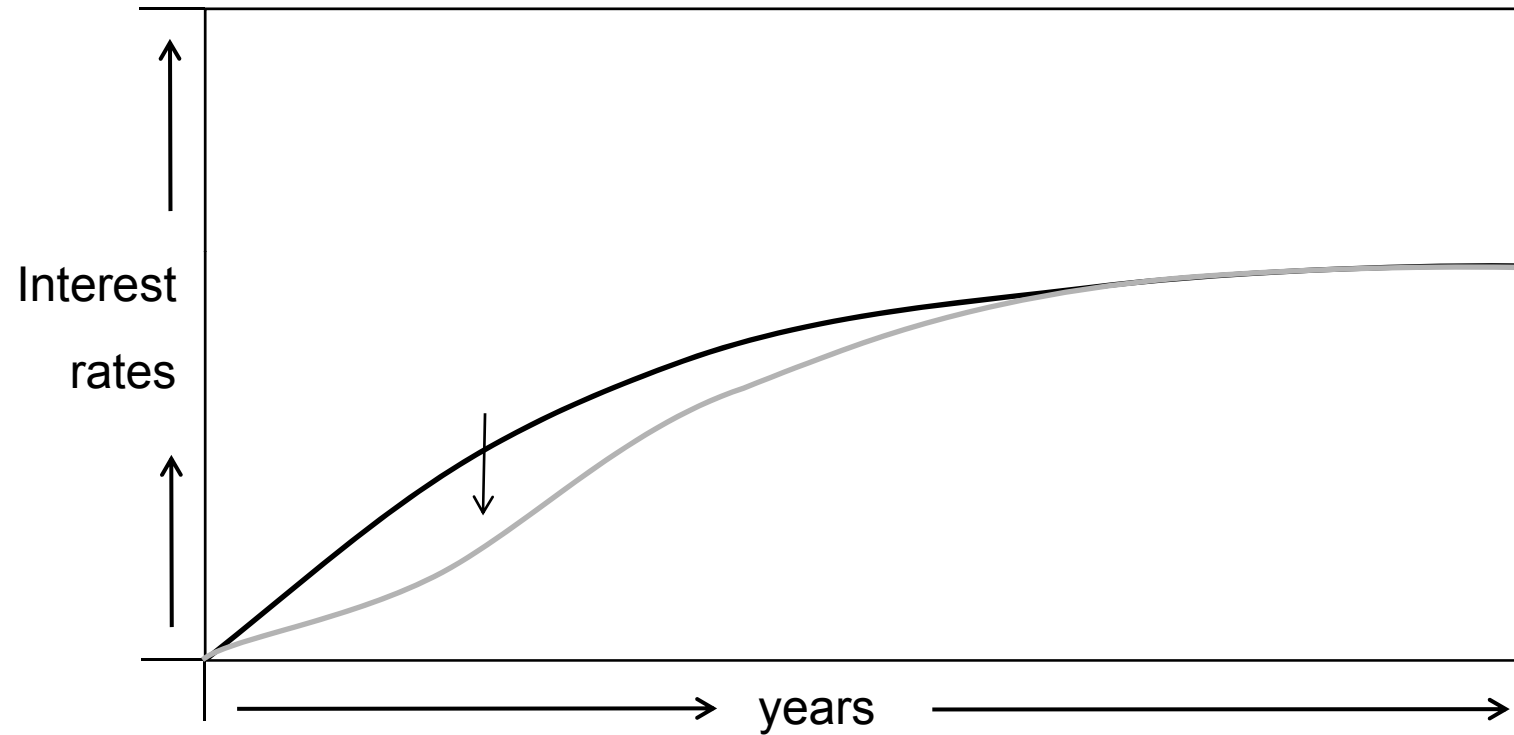
Fed funds rate cuts influence longer term rates



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



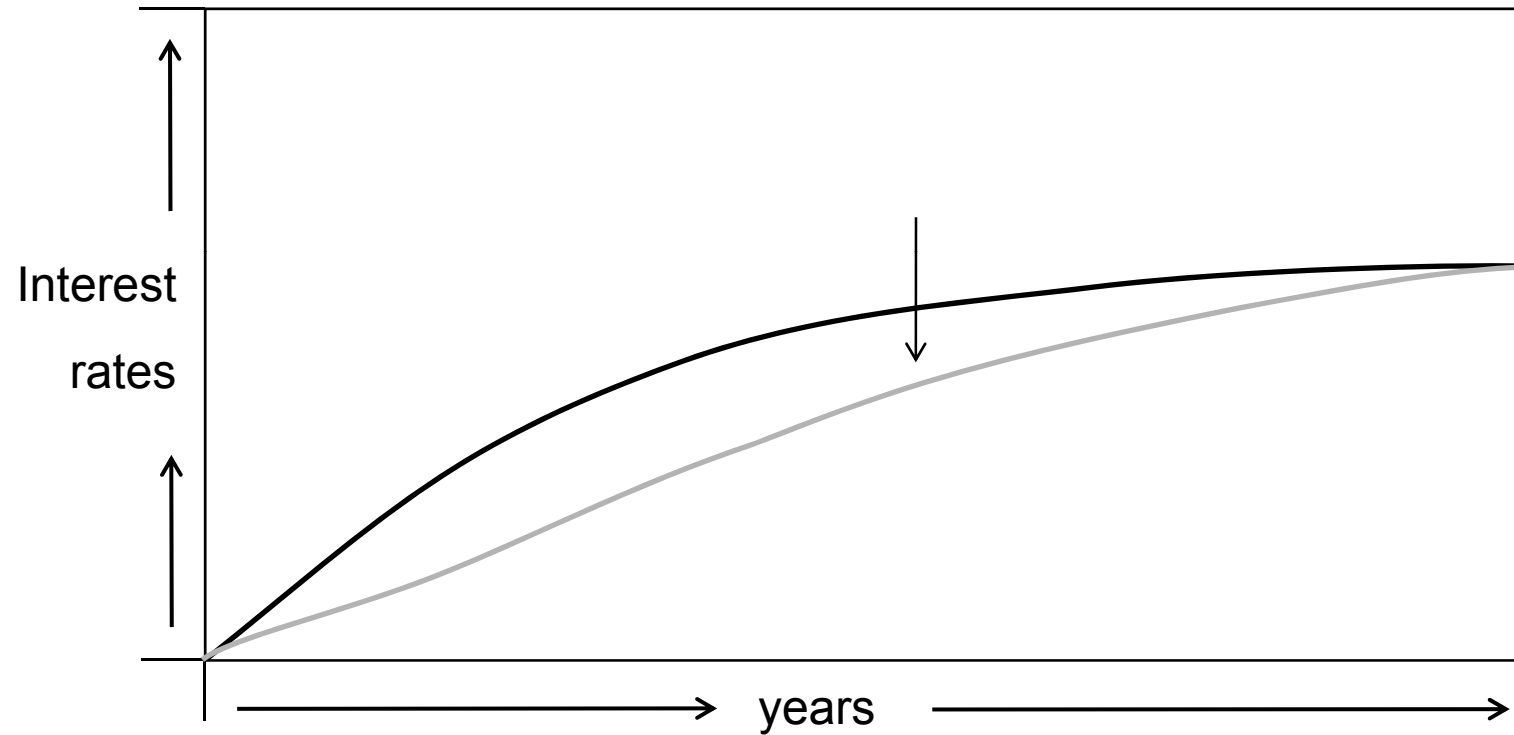
Say you will keep rates low as long as needed



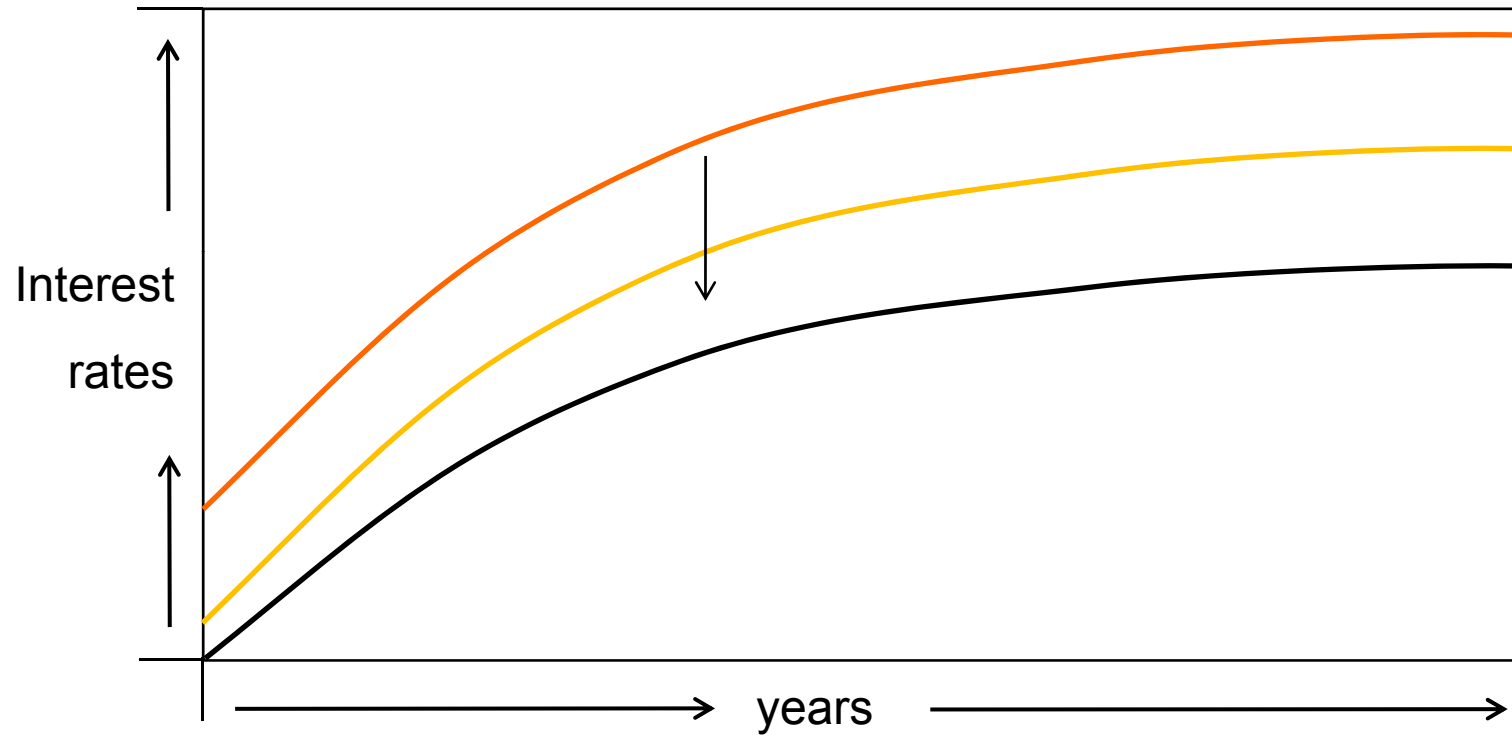
“late 2014” text in FOMC statement

To support a stronger economic recovery and to help ensure that inflation, over time, is at levels consistent with the dual mandate, the Committee expects to maintain a highly accommodative stance for monetary policy. In particular, the Committee decided today to keep the target range for the federal funds rate at 0 to 1/4 percent and 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 late 2014.**

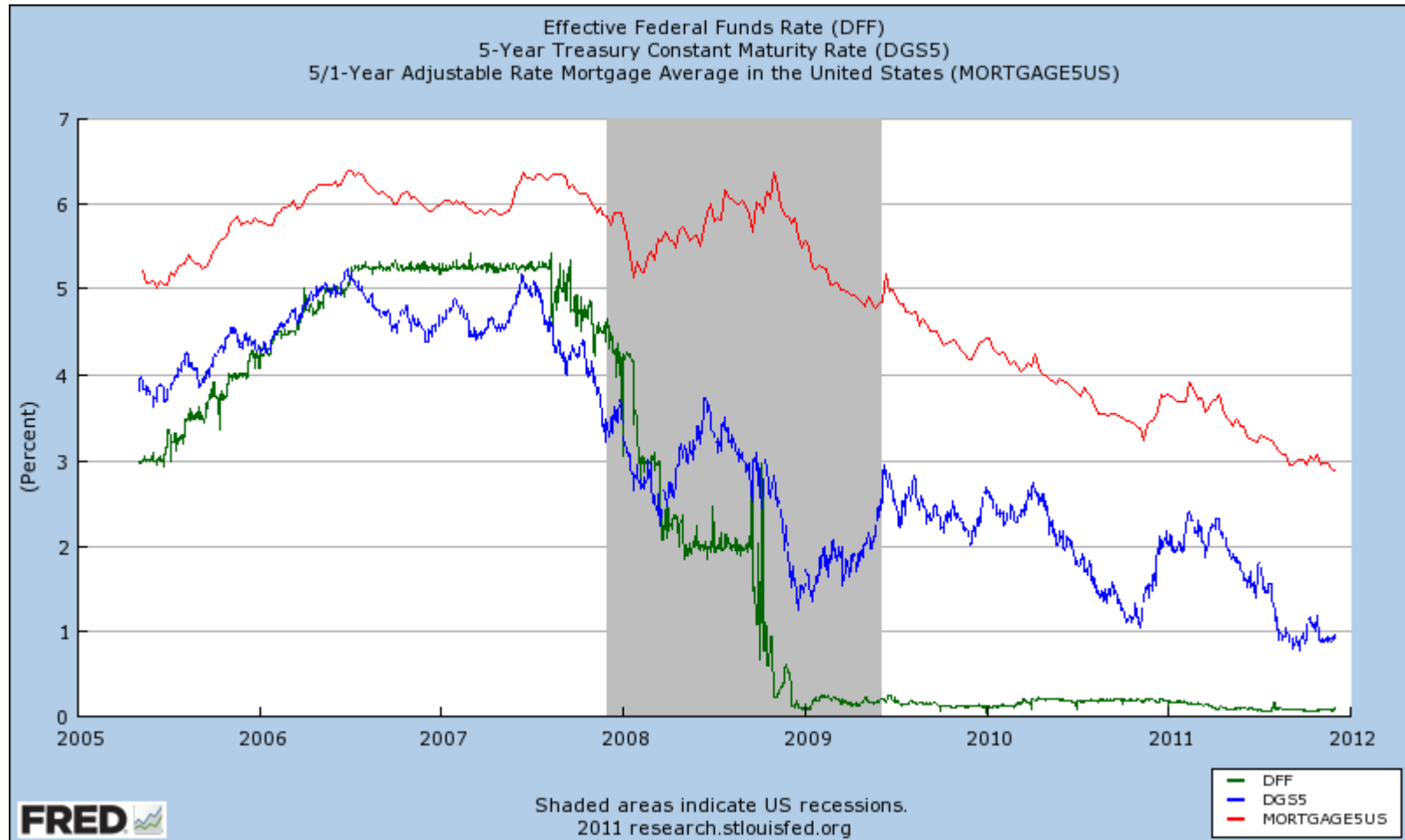
Buy long term (government) bonds



Buy mortgage backed bonds



Fed funds rate and 5-year interest rates



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

Effect on money supply

