

Labor Market Update

December 3, 2010

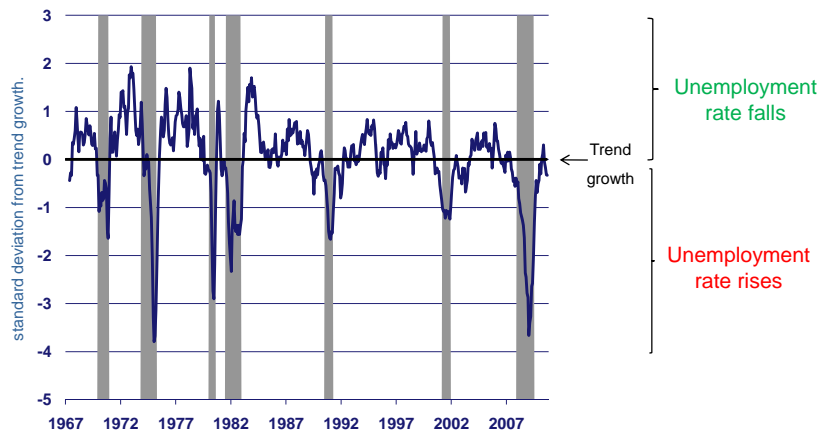
Daniel Aaronson
Vice President and Director of Microeconomic Research
Research Department
Federal Reserve Bank of Chicago
daaronson@frbchi.org



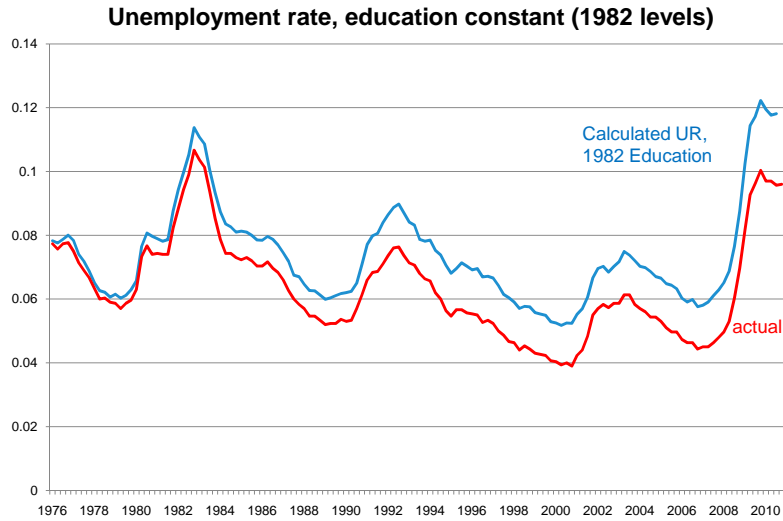
Where we are today

Chicago Fed National Activity Index

(standard deviation from trend, 3-month moving average, shading corresponds with NBER recession periods)

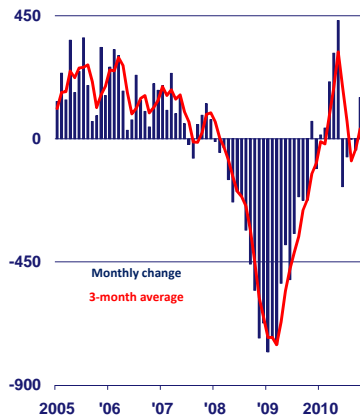


Unemployment rate is historically high, especially accounting for changes in skill levels



Large Resource Gaps: Payroll Employment version

Nonfarm Payroll Employment
 (change, thousands)



Since peak (12/07): Empl = -7.5 million.
 But "gap" includes 100,000/month to keep
 up with population growth. So really down

$$7.5 \text{ million} + 34 \text{ mos} * 100,000 = 10.9 \text{ million}$$

To make up that gap plus keep up with
 future population growth, would take
growth rates over these time horizons:

402k/month over 3 years OR

327k/month over 4 years OR

281k/month over 5 years

Historical context

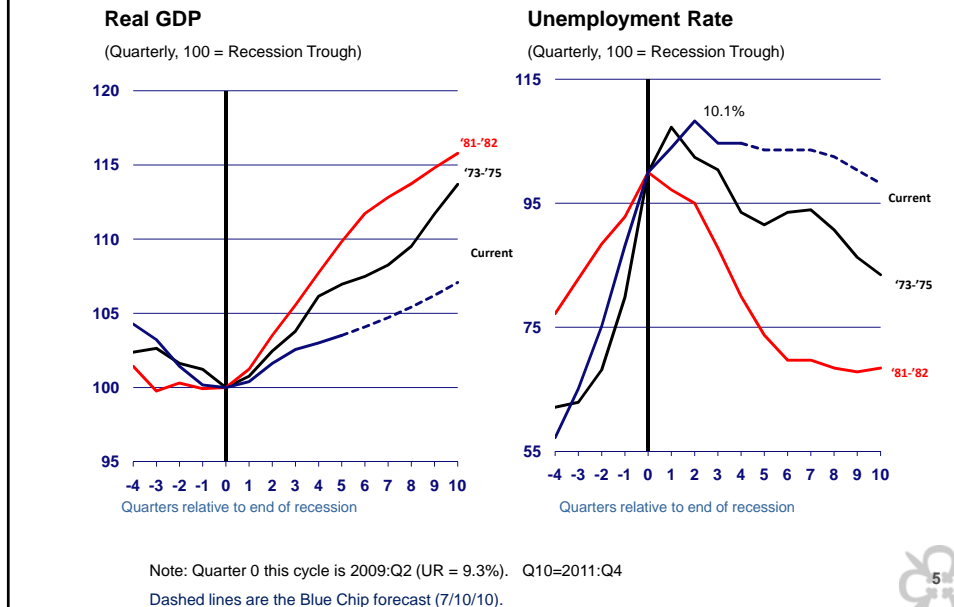
2010 emp growth = 87k/mo

2004-06 emp growth = 183k/mo

1993-99 emp growth = 251k/mo



Recovery is forecasted to be weak relative to past cycles with deep recessions.



How much of high unemployment is a *cyclical* versus *structural* problem?

- Critical question.
- **Structural (impediments to matching workers with firms)**
 - e.g. skills mismatch
 - industry mismatch (e.g. turning construction workers into nurses)
 - geographic mismatch (e.g. house lock)
 - incentives arising from policy (e.g. UI extensions)
 - → Solution: Fix impediments. Education/training, information/search assistance, mobility/housing strategies.
 - *Key implication:* The “long-term” unemployment rate (NAIRU) is higher. More accommodative monetary policy will lead to inflation problems and not help to clear mismatch/frictions.
- **Cyclical (demand deficiencies)**
 - → Solution: need more economic activity.
 - *Key implication:* NAIRU need not have risen.

Outline from here

- Some evidence for increase in structural unemployment
 - 1. Okun's "law" is broken
 - 2. Job openings up, hiring not (shift in "Beveridge Curve")
 - 3. Increase in long-run unemployment
 - 4. UI extensions and work disincentives

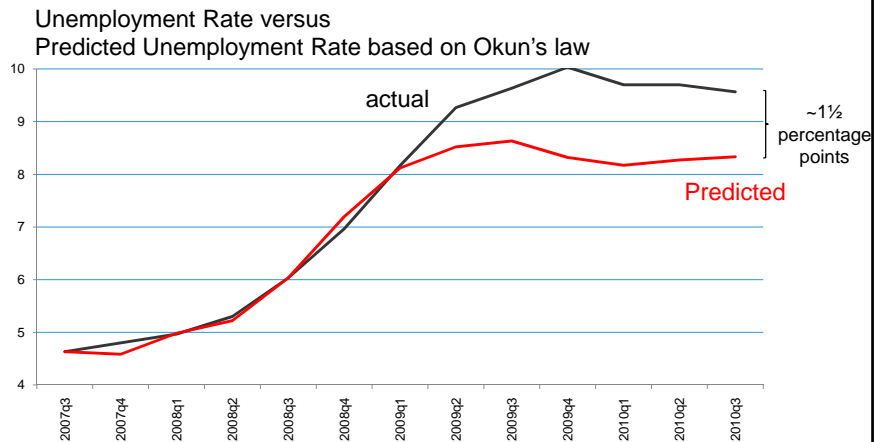
- Some evidence for increase in cyclical unemployment
 - 1. Okun's "law" is not broken
 - 2. The behavior of the Beveridge Curve is not that uncommon
 - 3. Workers are not in the wrong sectors
 - 4. Workers are not in the wrong geographic areas
 - 5. Skill mismatch is not a significant barrier

- Summary



1. Structural: Okun's law is broken

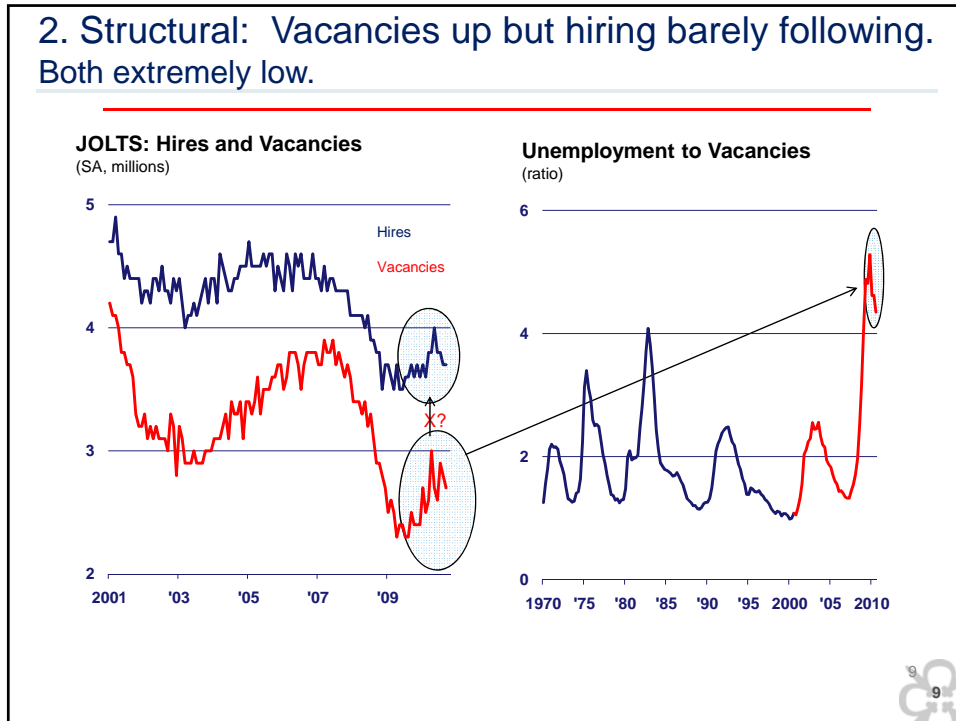
The unemployment rate is higher than expected given GDP path



* The predicted unemployment rate is based on an Okun's coefficient of 0.5 and the actual path of GDP growth.

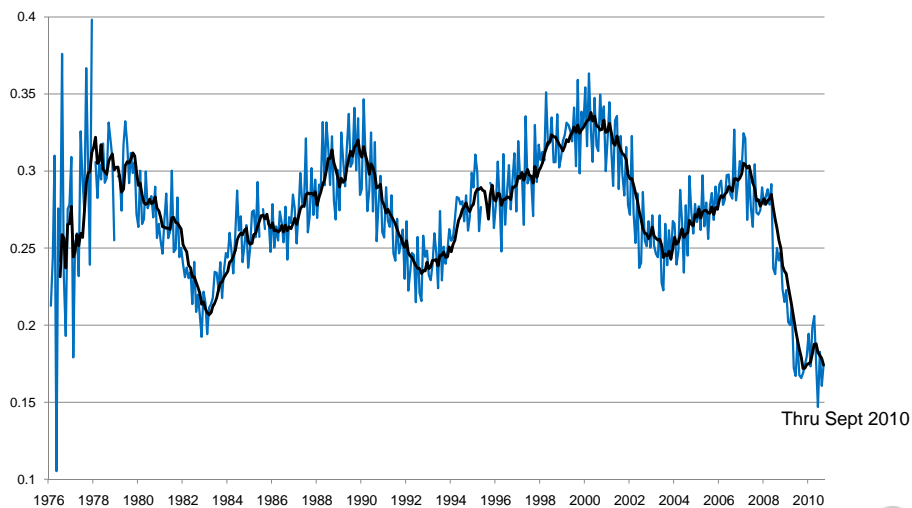


2. Structural: Vacancies up but hiring barely following. Both extremely low.



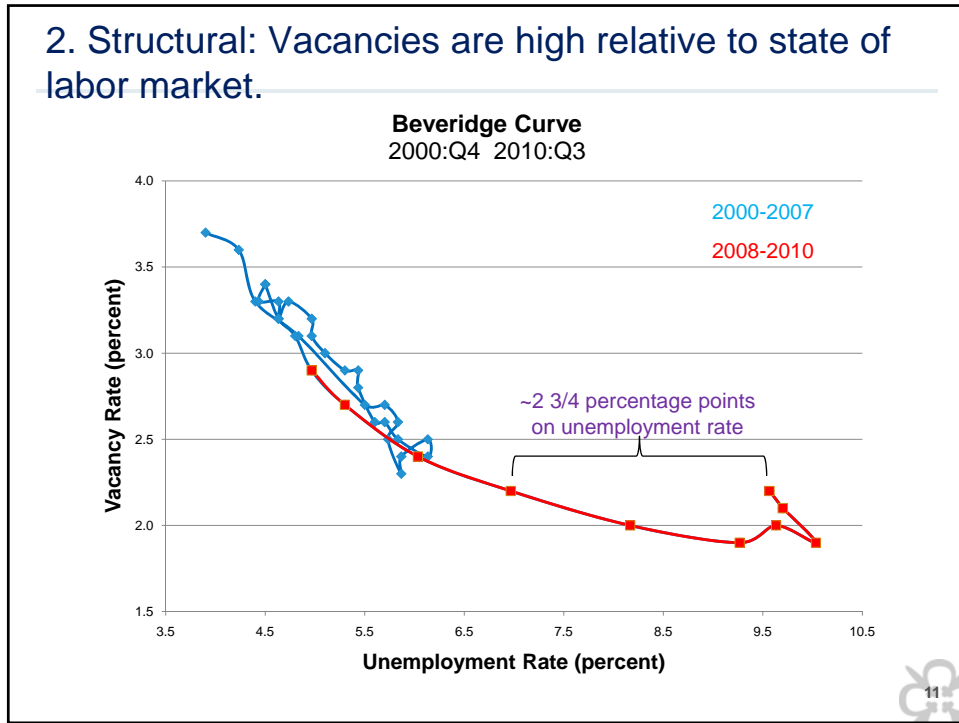
2. Structural: Hiring out of unemployment (or out of labor force) historically very low

Probability of moving from unemployment to employment

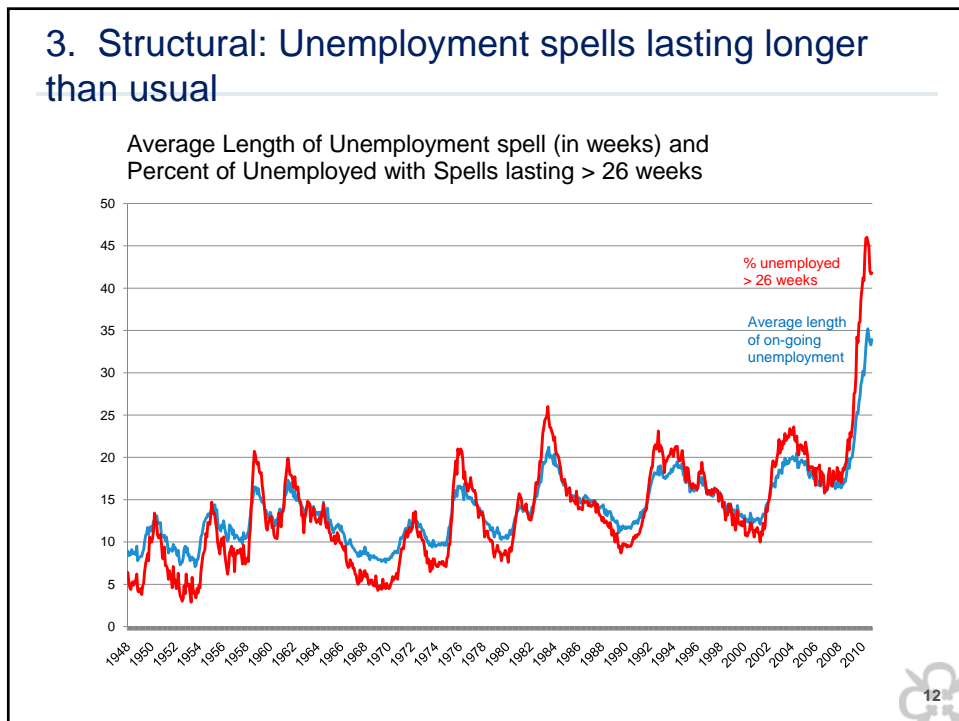


Calculations from matched CPS files.

2. Structural: Vacancies are high relative to state of labor market.



3. Structural: Unemployment spells lasting longer than usual



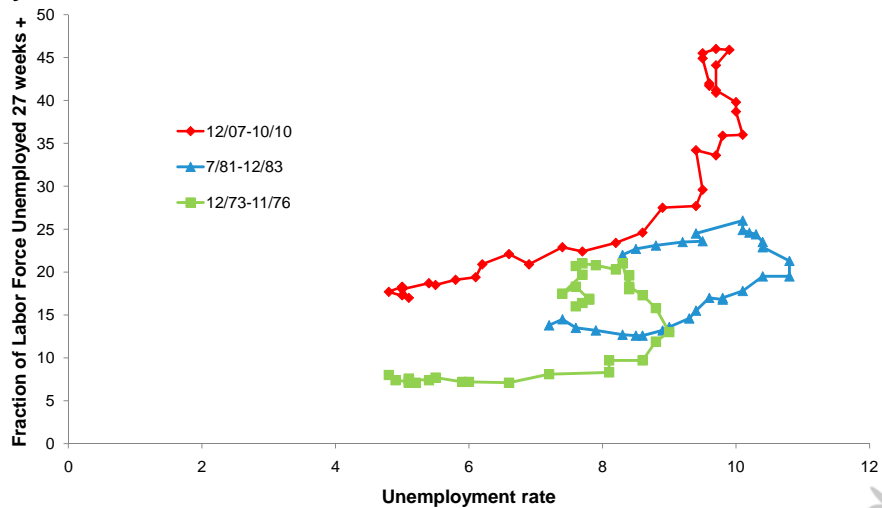
3. Structural: ...even conditional on the state of the labor market

Unemployment Rate vs Long-term Share of Unemployment, 1948-2010



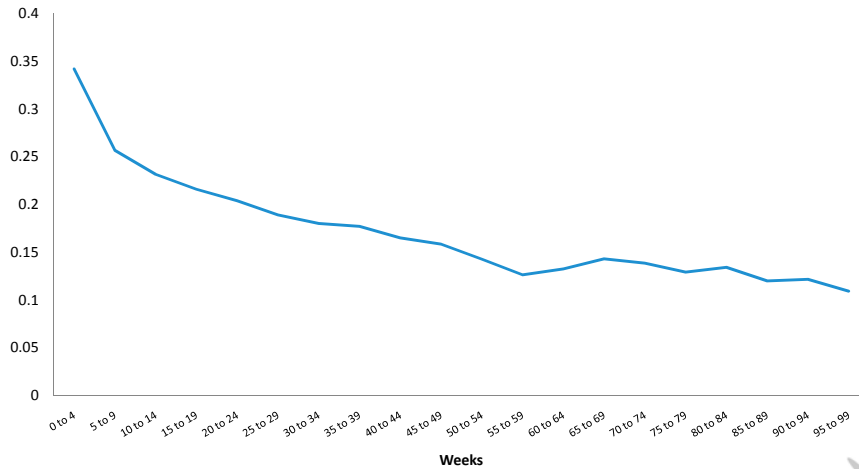
3. Structural: ...and this will last a long time.

Unemployment rate vs share long-term unemployed, selected cycles



3. Structural: A spell that is initially due to bad economic conditions can turn “structural” (lost skills, job networks)

Probability of finding a job next month,
 by unemployment duration this month

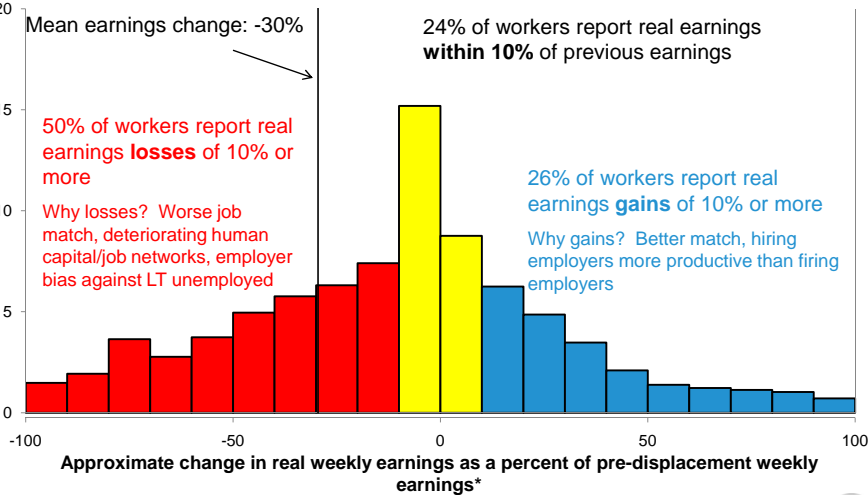


Note: Calculations based on matched CPS microdata from 1976 to 2009



3. Structural: Involuntary layoffs lead to long and deep earnings losses.

Percent of re-employed displaced workers

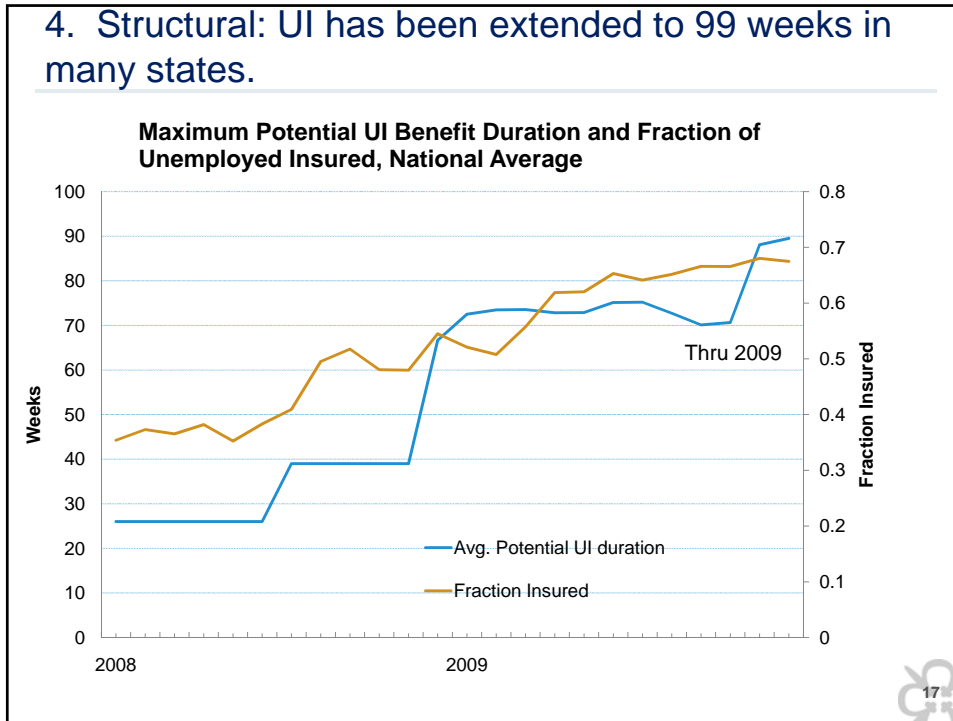


*Approximate change = change in log of workers' real earnings*100; extreme values are included in the statistics, but not shown in the histogram.

Source: BLS Displaced Worker Survey (covering 2007-2009), author's calculations.



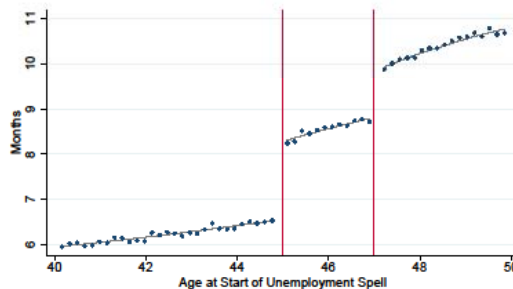
4. Structural: UI has been extended to 99 weeks in many states.



4. Structural: Extensions probably lead to an increase in unemployment duration and rate

- Our best guess is that a 1 month increase in benefits leads to a 0.1 month increase in the length of unemployment spells.
 Implies ~ 3/4 to 1 percentage point on UR today.

Figure 4: Actual Unemployment Insurance Benefit (ALG) Durations and Non-employment Durations by Age - Period March 1999 to December 2004



Example: Schmieder, Von Wachter, and Bender (2010). German UI system has sharp eligibility extensions at specific ages.

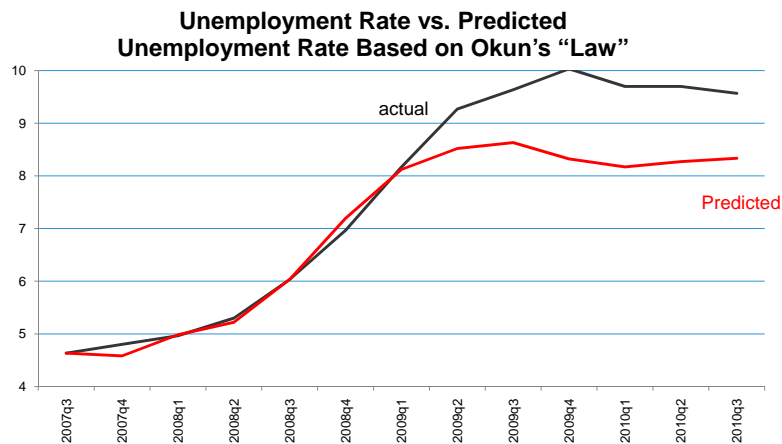
NOTE: Combination of work disincentive and easing of liquidity constraints (Chetty 2010). Latter is likely very beneficial to economy.

Outline

- Some evidence for increase in structural unemployment
- Next, evidence for increase in cyclical unemployment
 - 1. Okun's "law" is not broken
 - 2. The behavior of the Beveridge Curve is not that uncommon
 - 3. Workers are not in the wrong sectors
 - 4. Workers are not in the wrong geographic areas
 - 5. Skill mismatch is not a significant barrier



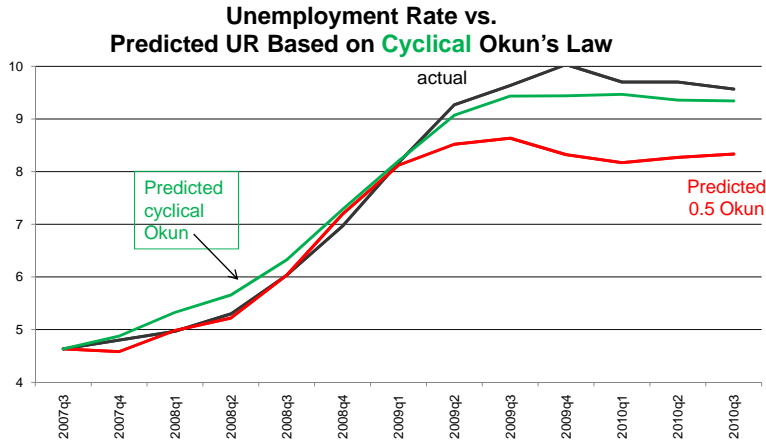
1. Cyclical: Okun's Law revisited



* The predicted unemployment rate is based on an Okun's coefficient of 0.5 and the actual path of GDP growth.



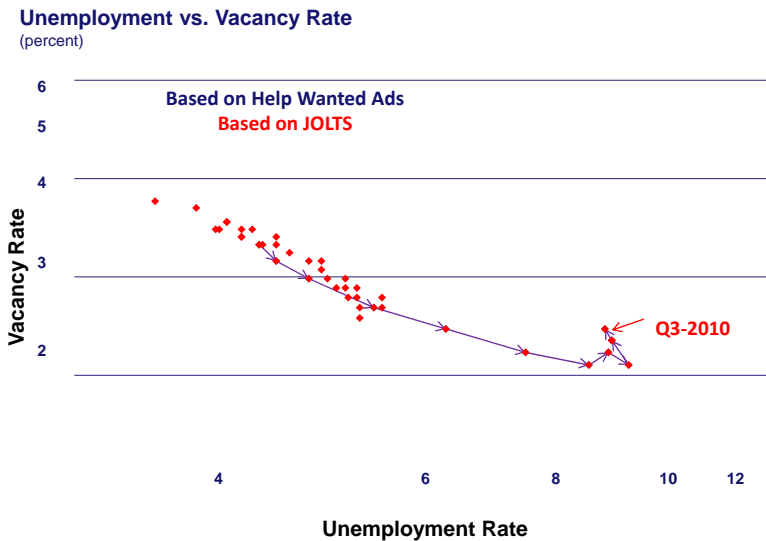
1. Cyclical: The rise in the unemployment rate is not that surprising after all, under other assumptions.



* The predicted unemployment rate based on a cyclical Okun's coefficient is estimated separately for recession and expansion quarters and applied to the actual path of GDP growth.

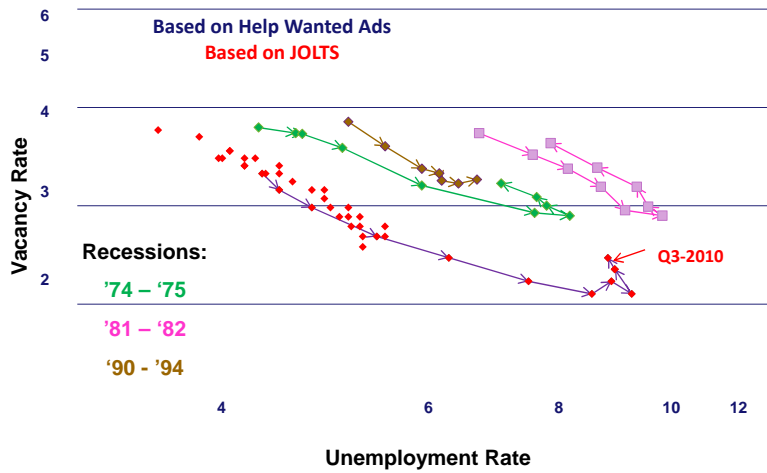


2. Cyclical: What about the shift in the Beveridge Curve?



2. Cyclical: Beveridge Curve loops are common and consistent with economic theory

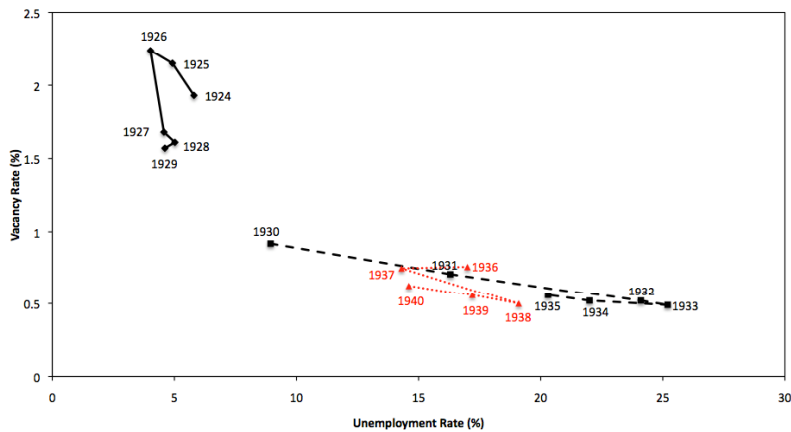
Unemployment vs. Vacancy Rate
 (percent)



23

Beveridge Curve during the Great Depression also did not sit on a linear curve relative to expansion.

U.S. Depression Beveridge Curve, Lebergott Unemployment Rate



Sources: Vacancy rate from Zagorsky (1998). Unemployment rate for 1923-1930 from Romer (1986), thereafter from Lebergott (1964) as reported in Darby (1976).

24

2. Cyclical: Moreover, what a vacancy is may vary across the cycle. Efforts to fill a vacancy are lower.

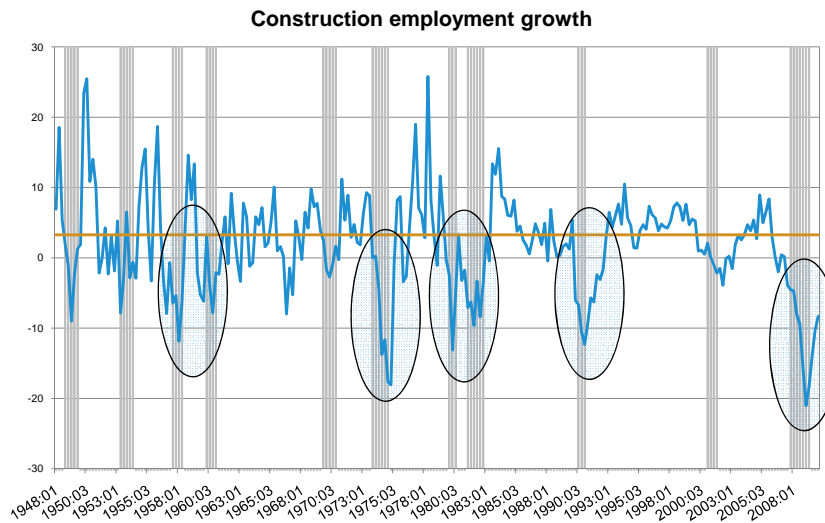


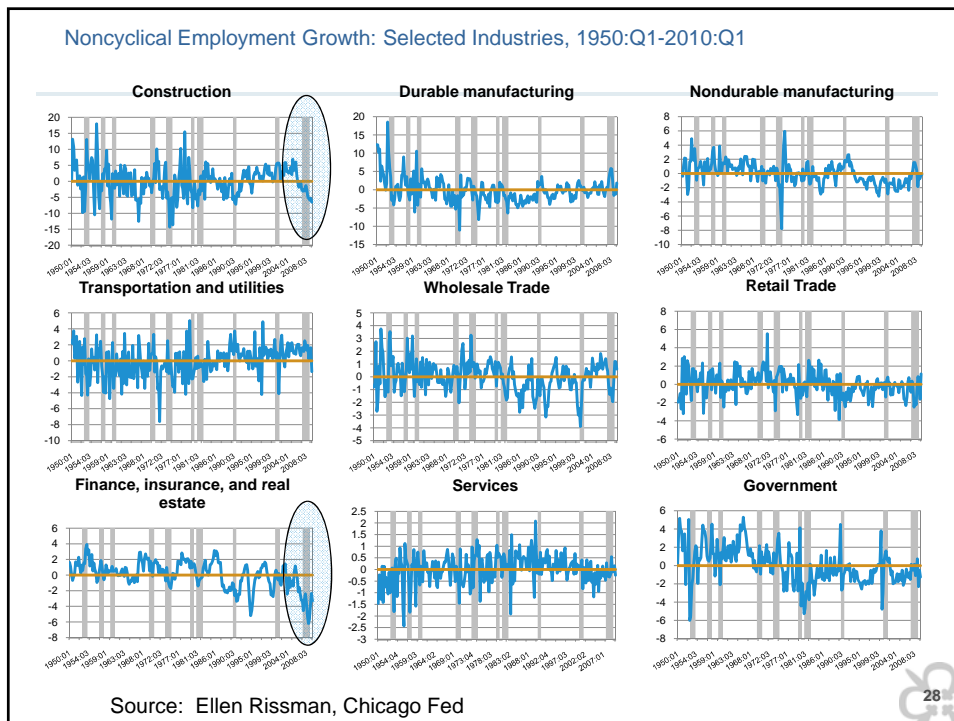
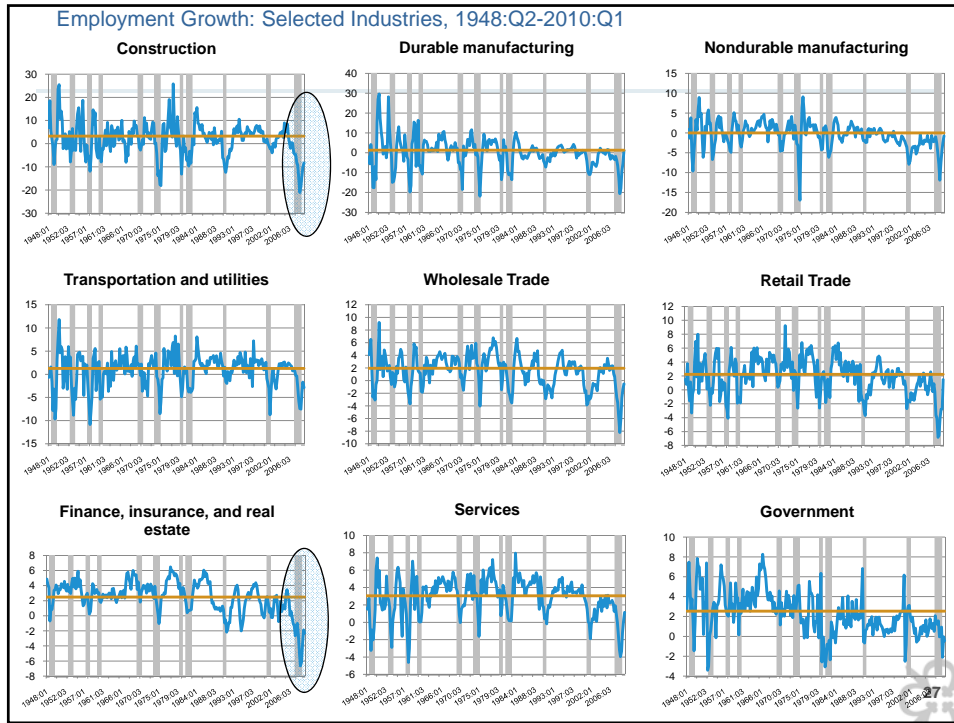
Recruiting effort down about 12%.
Explains about 1/4 of hire shortfall

S. Davis, J. Faberman, and J. Haltiwanger, "The Establishment-level Behavior of Vacancies and Hires," WP Philadelphia Fed.



3. Cyclical. Is the problem related to people being in the "wrong sectors"?

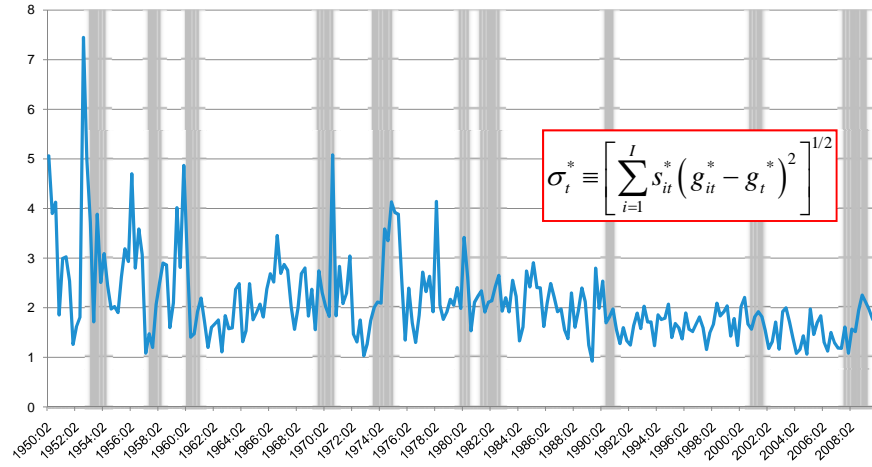




Source: Ellen Rissman, Chicago Fed

3. Cyclical. Is it industry reallocation? **Not likely**

Noncyclical measure of employment reallocation



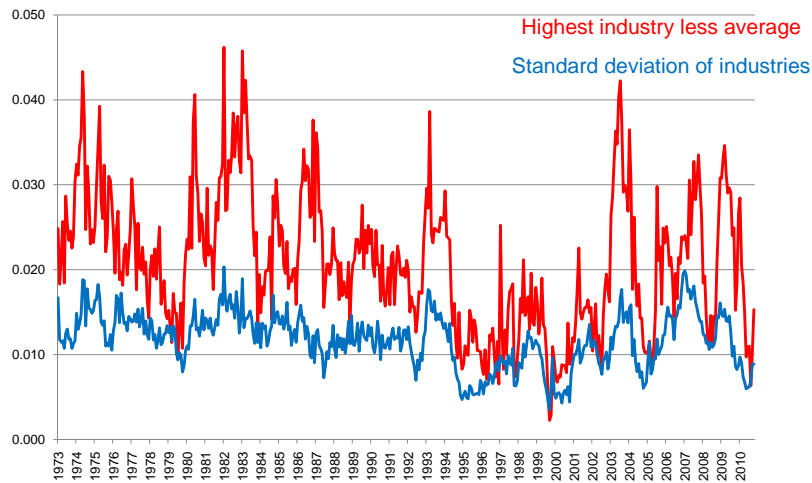
Perhaps mismatch is within industry. Hard to measure.

Source: Ellen Rissman, Chicago Fed



3. Cyclical: No evidence in the wage data that there is unusual demand in particular sectors.

Dispersion of private industry hourly earnings, year-over-year

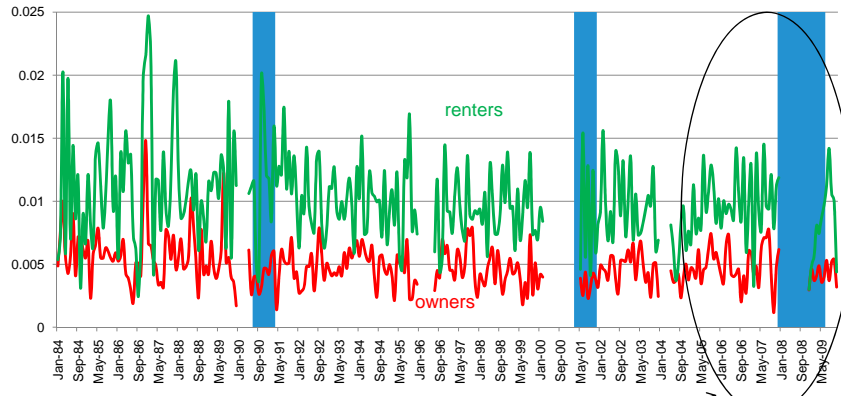


Average hourly earnings, by private industry (CES). Excludes mining and logging. Red line = highest industry less average industry. Blue line = standard deviation of industry average hourly earnings.



4. Cyclical. Is it people being in the wrong place?
 Homeowner migration rates have barely budged.

State to State Migration over 4 month intervals, SIPP

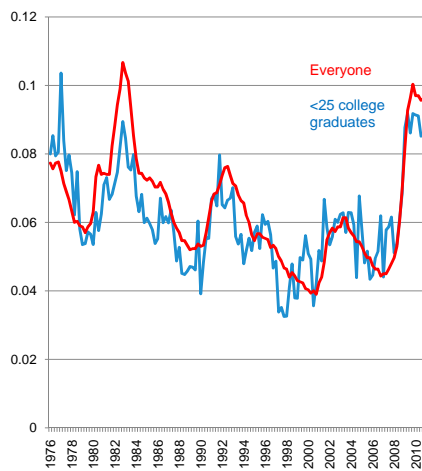


	2005-07	12/08-11/09	Difference
Renters	0.0083	0.0080	-0.0003
Owners	0.0046	0.0041	-0.0005
Difference			-0.0002 (0.0010)

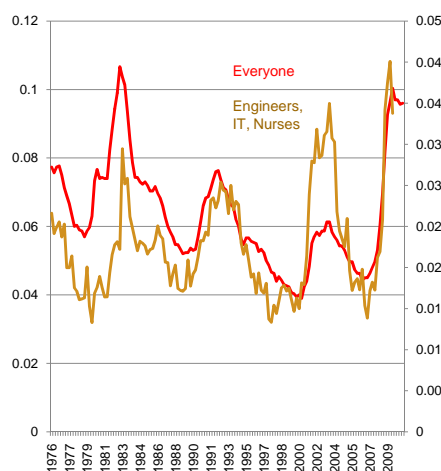
Similar result if
 look at states with
 largest price declines

5. Cyclical. Is it people having the wrong skills?
 Unemployment has gone up proportionately for highly skilled

Unemployment rate:
 recent college grads*



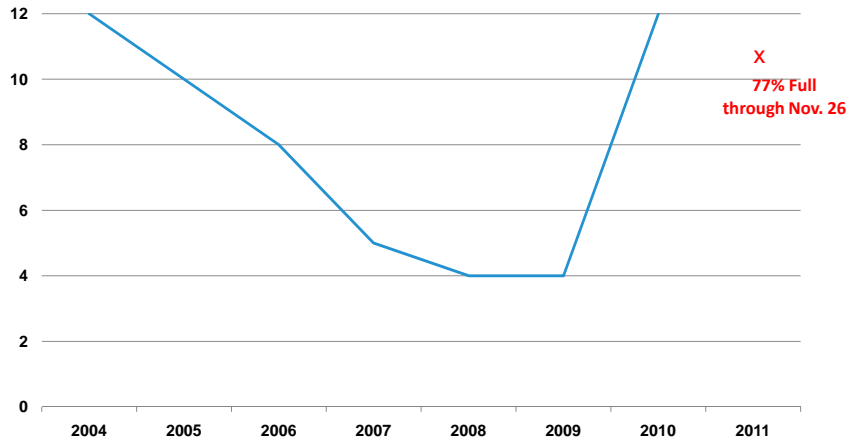
Unemployment rate:
 Engineers, IT, & Nurses



* Also no UI, no homes, highly mobile

5. Cyclical. Is it people having the wrong skills? Then why not grab folks from other countries?

Regular H1B Visa Cap Reached Dates
 (Month of previous year)

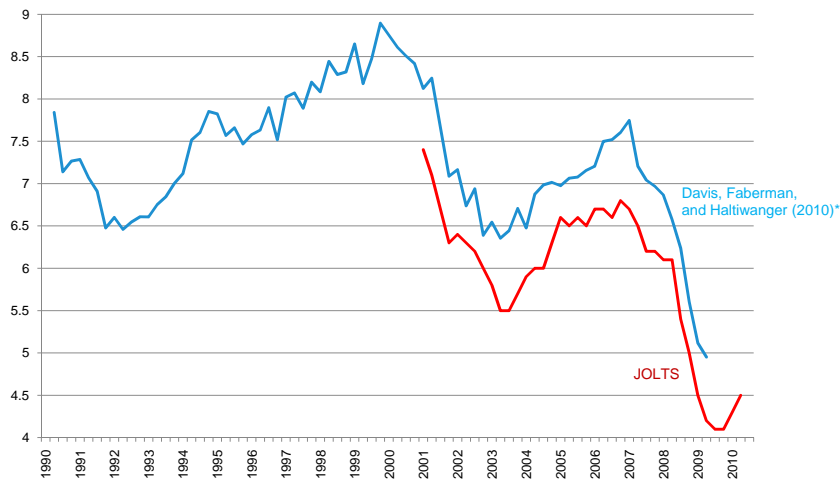


The regular H1B cap has been 65,000 since 2004. There are also 20,000 Masters' exemption visas.



5. Cyclical. Is it people having the wrong skills? Then why not grab folks from other firms?

Quits as a share of total employment (*100)

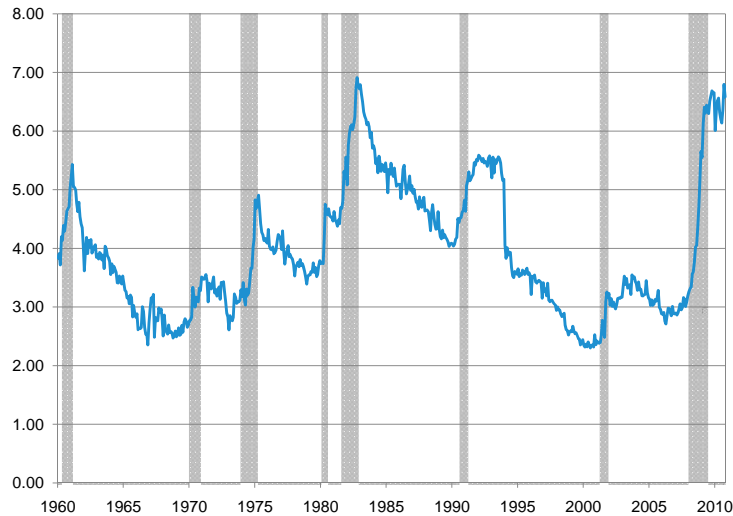


*Davis, S, J Faberman, and J Haltiwanger, 2010, "Worker Flows and Job Flows in the Cross-Section and Over time, WP Philly Fed.



5. Cyclical. Lots of people “in the door” but still not getting enough hours

Part-time for economic reasons as a share of total employment (*100)



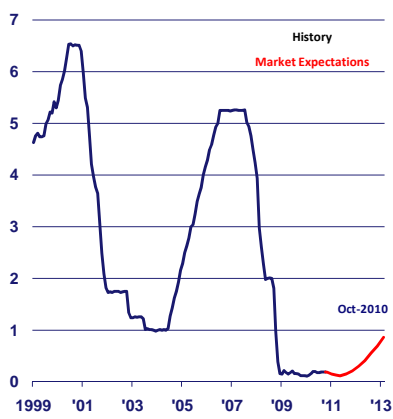
Summary of labor markets

- There is probably some extra impediments in the ability of firms and workers to match right now.
 - NAIRU (in the medium-term) has risen from 5 to 6-7 percent. A good chunk of this may be temporary (UI).
- The high unemployment rate is probably primarily due to deficiencies in the demand for goods and services.
 - Little direct evidence of any kind of mismatch problem (at this point).
 - Recession (and mild recovery) has been broad-based.
 - No inflation (prices or wages)
- As the modest economic recovery continues, the unemployment rate will come down in-line with past relationships between aggregate economic activity and labor market activity.

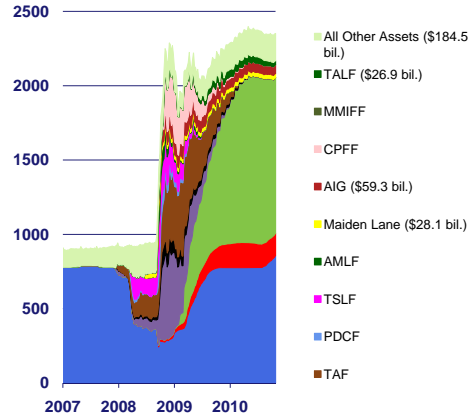


Policy actions

Fed Funds Rate
(percent)



Federal Reserve Assets
(Bils. \$)



Fiscal policy might help too. E.g. employment subsidies that lower the marginal cost of additional hiring (possibly through payroll taxes), work/job sharing programs, job search assistance, education and skill development (longer-run).

