Will the Post-Recession Labor Market Constrain Economic Growth?

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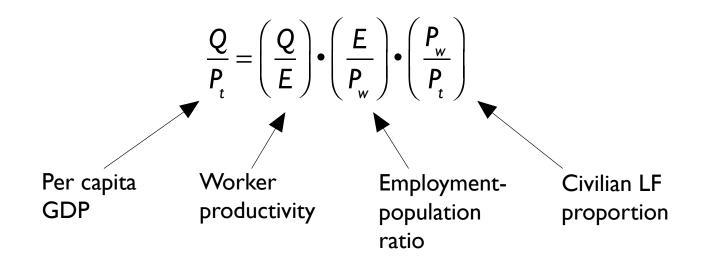
I. Labor and Living Standards

Per capita GDP and its growth depend on:

- Productivity (output per worker)
- The employment-population ratio

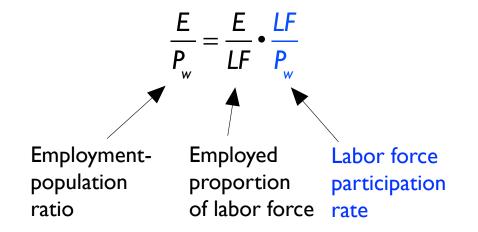
 Employed proportion of the labor force (demand)
 Labor force participation rate (supply)
- The proportion of the total population aged 16 or older, not in the military, and not institutionalized (demographics and immigration)

The key relationship written out



- Per capita GDP is our best measure of living standards
- Output (Q) per employed worker (E) is a good measure of productivity
- The employment-population ratio is an overall measure of labor market health
- The civilian labor force proportion is the proportion of the total population (P_t) that is aged 16 or more, not in the military, and not institutionalized (P_w)

The employment-population ratio can be decomposed



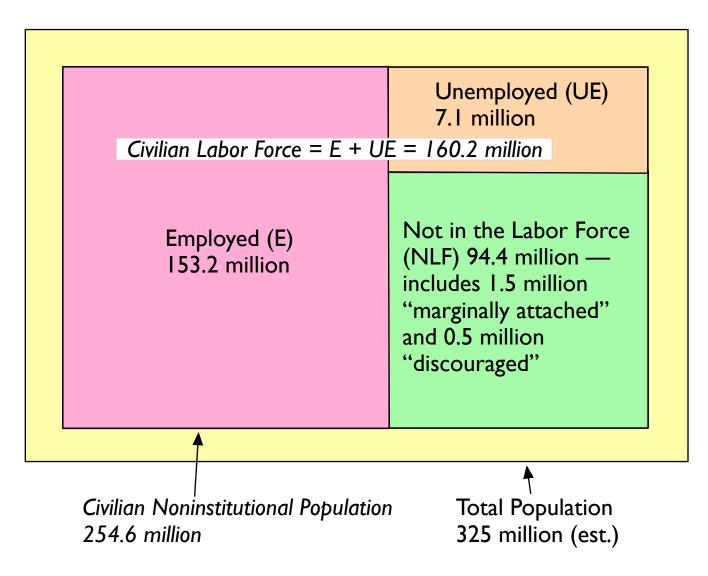
• These are the central element of labor market health

2. Importance of the Labor Market

How tight is the labor market?

- Matters due to implications for earnings and Federal Reserve policy (among other things)
- Unemployment rate and vacancy data suggest tightness
- But other key indicators employment/population ratio, labor force participation rate — suggest slack

Labor force concepts and statistics for April 2017

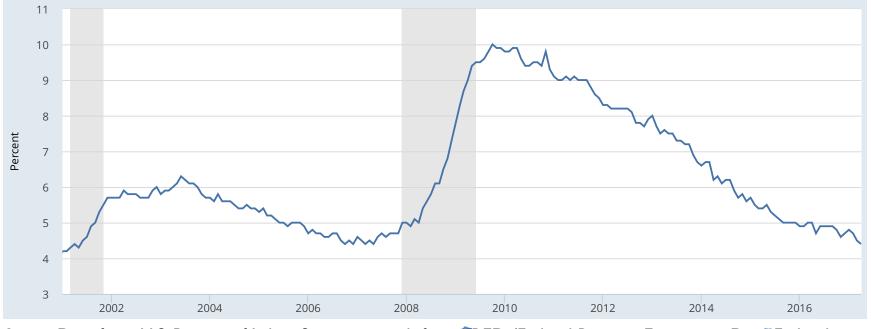


The unemployment rate and vacancy data suggest the labor marketois healthy (a tight labor market)

2001-01-01 2017-04-01

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Unemployment rate (U-3, seasonally adjusted), 2000-present



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

• The official unemployment rate (U-3) suggests the labor market is at full employment — we are back where we were before the Great Recession

NOTES

Source: U.S. Bureau of Labor Statistics 🕑 (http://www.bls.gov/) Release: Employment Situation 🕑 (http://www.bls.gov/ces/)

The unemployment rate represents the number of unemployed as a percentage of the labor force. Labor force data are restricted to people 16 years of age and older, who currently reside in 1 of the 50 states or the District of Columbia, who do not reside in institutions (e.g., penal and mental facilities, homes for

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Unemployment rate (U-3, seasonally adjusted), 1948–present

Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

• Taking a longer view, the evidence seems even stronger

NOTES

Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: Employment Situation 🗗 (http://www.bls.gov/ces/)

The unemployment rate represents the number of unemployed as a percentage of the labor force. Labor force data are restricted to people 16 years of age and older, who currently reside in 1 of the 50 states or the District of Columbia, who do not reside in institutions (e.g., penal and mental facilities, homes for the aged), and who are not on active duty in the Armed Forces.

This rate is also defined as the U-3 measure of labor underutilization.

The series comes from the 'Current Population Survey (Household Survey)'

The source code is: LNS14000000

Suggested Citation:

U.S. Bureau of Labor Statistics, Civilian Unemployment Rate [UNRATE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/UNRATE, May 14, 2017.

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Broadened unemployment rate (U-6): Unemployed, plus marginally attached, plus employed part-time for economic reasons, as percent of the CLF plus all marginally attached workers, 1994–present



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

^{share Links} & broader U-6 is only slightly less positive — within 1 point of where it was before the Great Recession and within 2 points of its lowest-ever level NOTES

Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: Employment Situation 🖸 (http://www.bls.gov/ces/)

The series comes from the 'Current Population Survey (Household Survey)'

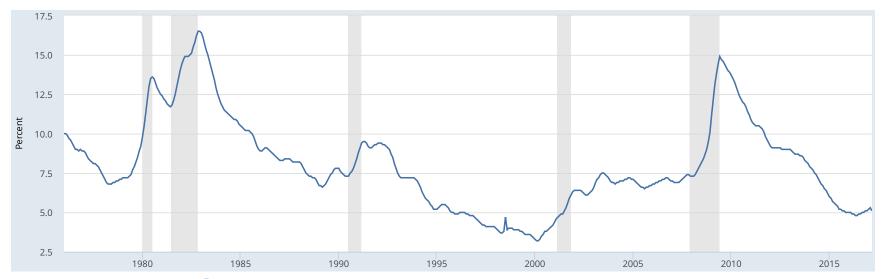
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U.S. Bureau of Labor Statistics, Total unemployed, plus all marginally attached workers plus total employed part time for economic reasons [U6RATE], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/U6RATE, May 15, 2017.

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Michigan unemployment rate (U-3, seasonally adjusted), 2000–present



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

^{share Links} Story is slightly less positive for the official Michigan unemployment rate ...

NOTES

Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: State Employment and Unemployment 🗗 (http://www.bls.gov/sae)

Suggested Citation:

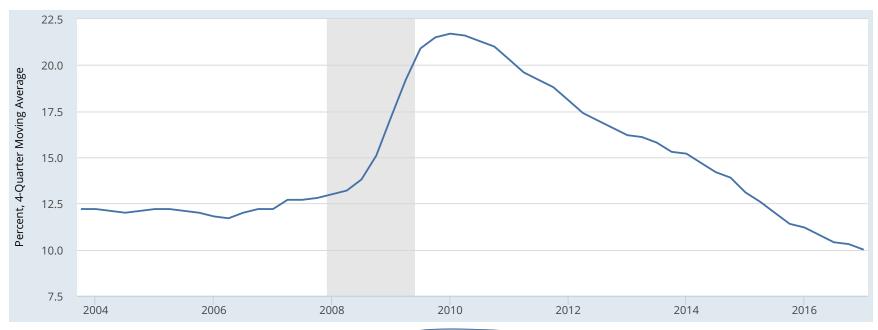
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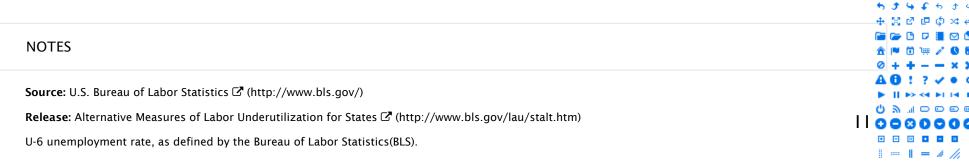


Michigan U-6: Total unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons, as percent of the CLF plus all marginally attached workers, 2003–present



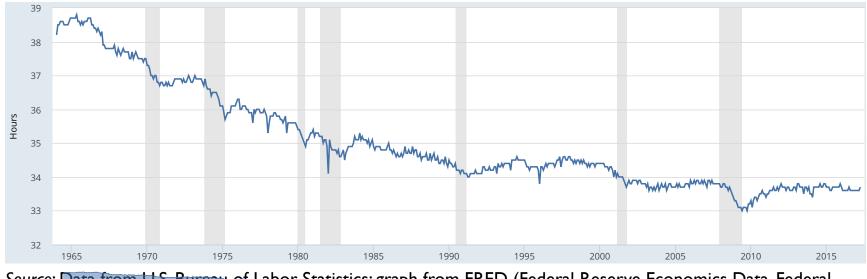
Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

share But slightly, more positive for the broadened Michigan unemployment rate (U-6)



The BLS defines marginally attached workers as persons who are not in the labor force, want and are available for work, and had looked for a job sometime in

Average Weekly Hours of Production and Nonsupervisory Employees: Total Private



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

share LiAverage we kly hours have also nearly returned to their pre-recession level

NOTES

Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: Employment Situation 🖸 (http://www.bls.gov/ces/)

Average weekly hours relate to the average hours per worker for which pay was received and is different from standard or scheduled hours. Factors such as unpaid absenteeism, labor turnover, part-time work, and stoppages cause average weekly hours to be lower than scheduled hours of work for an establishment. Group averages further reflect changes in the workweek of component industries. Average weekly hours are the total weekly hours divided by the employees paid for those hours.

Production and related employees include working supervisors and all nonsupervisory employees (including group leaders and trainees) engaged in fabricating, processing, assembling, inspecting, receiving, storing, handling, packing, warehousing, shipping, trucking, hauling, maintenance, repair, janitorial, guard services, product development, auxiliary production for plant's own use (for example, power plant), recordkeeping, and other services closely associated with the above production operations.

Nonsupervisory employees include those individuals in private, service-providing industries who are not above the working-supervisor level. This group includes individuals such as office and clerical workers, repairers, salespersons, operators, drivers, physicians, lawyers, accountants, nurses, social workers, research aides, teachers, drafters, photographers, beauticians, musicians, restaurant workers, custodial workers, attendants, line installers and repairers, laborers, janitors, guards, and other employees at similar occupational levels whose services are closely associated with those of the employees listed.

The series comes from the 'Current Employment Statistics (Establishment Survey).'

Number of unemployed persons per job opening (seasonally adjusted), 2002–present



Source: U.S. Bureau of Labor Statistics <<u>https://www.bls.gov/charts/job-openings-and-labor-turnover/unemp-per-job-opening.htm#</u>>

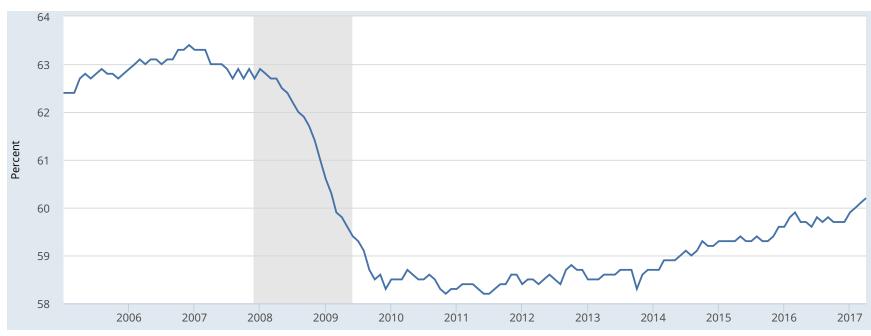
• Number of unemployed persons per job opening was as low as it has ever been

But other indicators suggest a less healthy labor market

Some economists still believe the labor market has some slack

- The employment population ratio has not recovered
- The labor force has been falling
- The Beveridge Curve has shifted out dramatically

2005-01-01 2017-04-01



Employment-population ratio (seasonally adjusted), 2005-present

Source: Data from U.S. Bureau of Labor Statistics; graph from ERED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

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U.S. Bureau of Labor Statistics, Civilian Employment-Population Ratio [EMRATIO], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/EMRATIO, May 14, 2017.	

Civilian labor force participation rate (seasonally adjusted), 1978–present



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

Share Links Notes Account Tools half the decline since 2008 can be attributed to changing demographics (like the aging of the labor force NOTES)

Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: Employment Situation 🖸 (http://www.bls.gov/ces/)

The series comes from the 'Current Population Survey (Household Survey)'

The source code is: LNS11300000

Suggested Citation:

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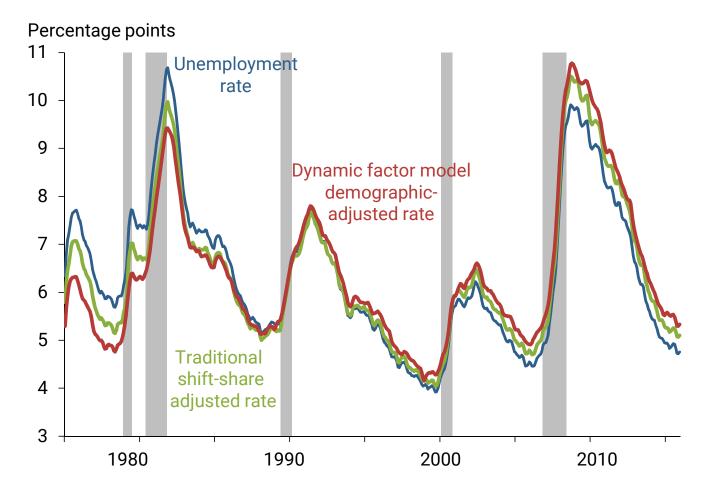






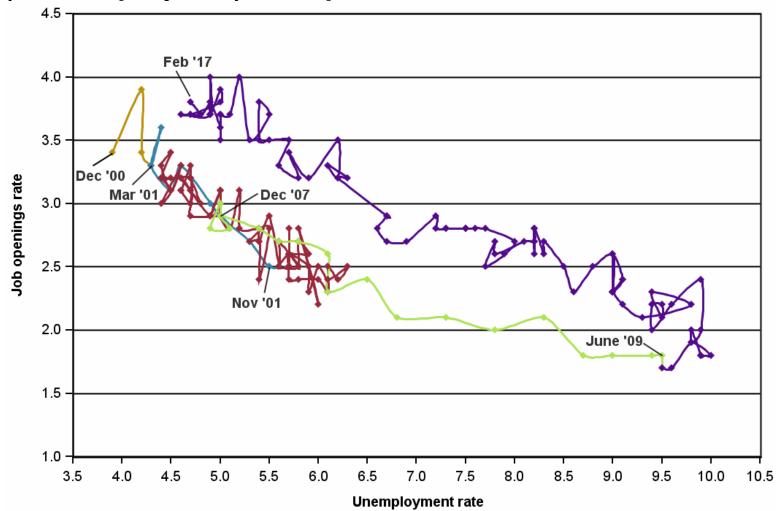
Unemployment rate with two demographic adjustments

Source: Barnichon & Mesters, "How Tight Is the U.S. Labor Market?" FRBSF Economic Letter 2017-07, March 2017



• Further dissent comes from economists who believe a more reliable picture of labor market tightness requires adjustments for demographic changes

The Beveridge curve: Job openings rate and the unemployment rate (seasonally adjusted), 2000-present



Source: U.S. Bureau of Labor Statistics, Job Openings and Labor Turnover Survey Highlights, February 2017 https://www.bls.gov/web/jolts/jlt_labstatgraphs.pdf>

Notes on the Beveridge curve

- The vacancy rate and the unemployment rate vary systematically over the business cycle when the unemployment rate is high, employers have fewer vacancies
- Where the curve lies depends on several factors
- The most common interpretation is that, the farther the curve is from the origin, the less efficient the labor market matching between workers and vacancies could be worse if workers' skills and the available jobs were mismatched, or if unemployed workers were in different locations than vacancies
- But there are other interpretations (see below)

3. Has the Structure of the Labor Market Changed?

Two key pieces of evidence suggest it has

- The labor force has been shrinking more than can be explained by demographic change
- The Beveridge Curve has shifted out dramatically

Why?

The shrinking labor force

- One main possibility: Long-term effects of the Great Recession due to long-term unemployment
- Alan Krueger (among others) has shown that many of the long-term unemployed never returned to the labor force

Of total unemployed, percent unemployed \geq 27 weeks (seasonally adjusted), 1948–2015



Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

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Source: U.S. Bureau of Labor Statistics 🖸 (http://www.bls.gov/) Release: Employment Situation 🗗 (http://www.bls.gov/ces/)

The series comes from the 'Current Population Survey (Household Survey)'

The source code is: LNS13025703

Suggested Citation:

U.S. Bureau of Labor Statistics, Of Total Unemployed, Percent Unemployed 27 Weeks and over [LNS13025703], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/LNS13025703, May 15, 2017.

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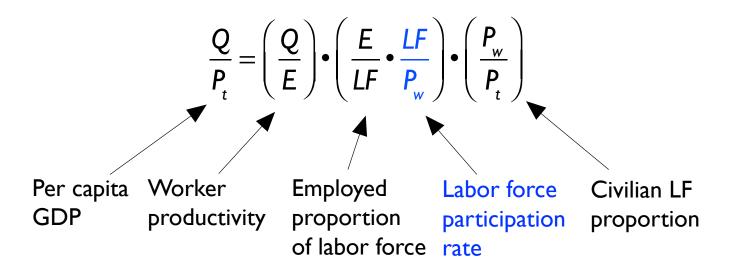




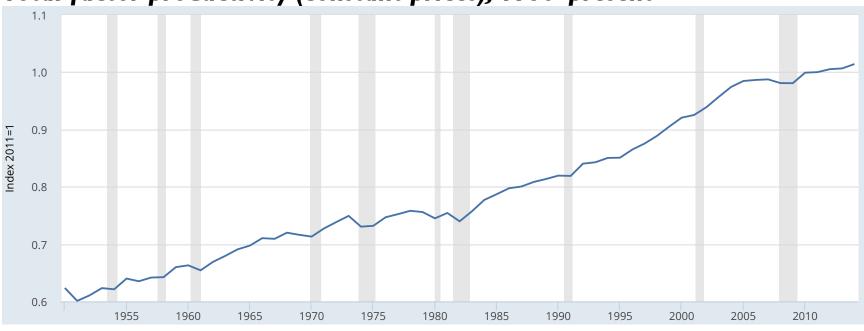
What about the Beveridge Curve?

- The reason(s) for the outward shift of the Beveridge Curve are even less clear
 - Has the labor market become less efficient?
 - Have employers been having trouble replacing aging baby-boomers with younger workers?
 - Has the behavior of employers in posting vacancies may have changed? Are they now more selective in hiring? (Steven Davis and John Haltiwanger)
- When (if) the Beveridge Curve snaps back to its earlier path, we may know more, but the outward shift suggests "something" fundamental or structural has changed

4. Productivity Stagnation?



What about productivity?



Total factor productivity (constant prices), 1950-present

Source: Data from U.S. Bureau of Labor Statistics; graph from FRED (Federal Reserve Economics Data, Federal Reserve Bank of St. Louis)

- 1948-J 972: Fairly steady productivity growth
- 1972–1983: Weak productivity growth (with declines in some years)
- 1983–1995: Resumption of productivity growth
- ^{NOTES} -2004: Brief productivity "burst"
- solucities annually)

Source ID: rtfpna

When using these data in your research, please make the following reference: Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table" American Economic Review, 105(10), 3150-3182, available for download at www.ggdc.net/pwt

For more information, see http://www.rug.nl/research/ggdc/data/pwt/ (http://www.rug.nl/research/ggdc/data/pwt/).

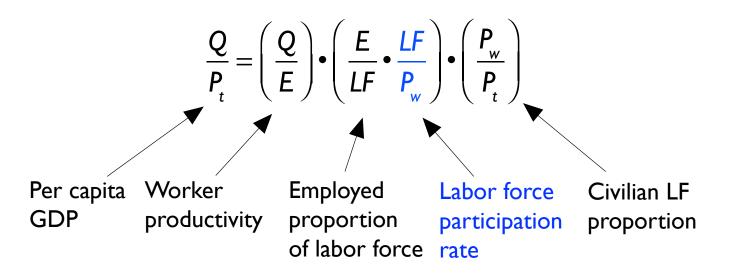
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Why the slow growth of productivity in the aftermath of the Great Recession?

Robert Hall has attributed the decline mainly to three factors:

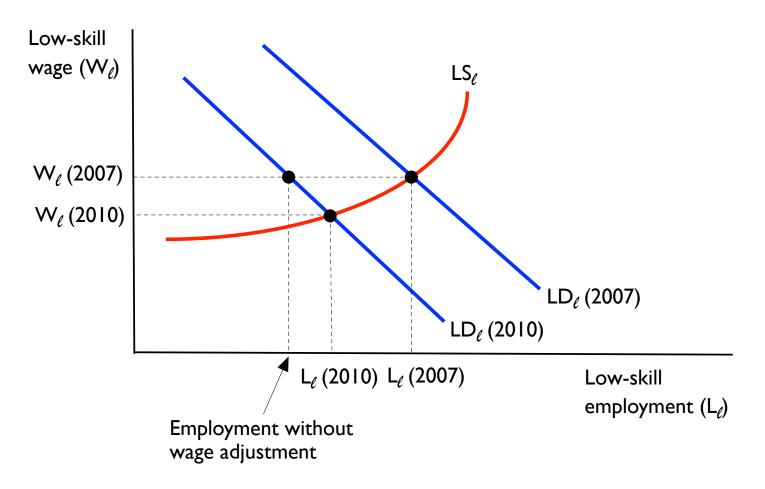
- A depleted stock of physical capital (low investment since the Great Recession)
- Slower technological change (possibly due in part to the recession)
- Reduced human capital per worker (replacement of the Baby Boomer with younger workers)

One last time



- Weak productivity growth
- Falling labor force participation (and other forms of structural change in the labor market)
- Possibly sluggish growth of demand for labor
- All raise concerns about long-term growth, with the labor market playing an significant (unfortunately negative) role

Appendix: A note on the unemployment rate



To a first (VERY rough) approximation), we could simply be in a lower-employment, lower-wage equilibrium — so the unemployment rate may not get us very far in thinking about the health of the labor market