

# CalPERS Chief Investment Officer Total Fund Update

Appendix A : Market and Economic Update

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Investment Committee  
August 2013

## Slow growth year in the rear view mirror, but reasons for optimism remain in place

- US real GDP growth was only 1.7% in 2Q 2013 and averaged 1.4% in the latest four quarters. Laggards in the past year are household spending on services, business capex and federal government.
- Nominal GDP growth, which includes inflation, has slipped to just 3% this year vs a 25 year average of 5%.
- With the growth laggards all expected to improve somewhat in the year ahead, and the jobs market doing better than aggregate GDP, the Federal Reserve is still likely to cautiously taper its supportive monetary policy later this year.
- Private sector jobs growth has been a robust 215K per month since last October, about 30K more per month than in the two prior years.
- Improved household sentiment and income growth are offsetting the drain from lower government spending and higher taxes. Home sales and prices, durable goods orders and the production of autos, energy and Information Technology are also improving.
- US real exports are growing slowly, reflecting a difficult international environment. There are pockets of optimism in the G10 (Europe stabilizing, Japan growing faster) but also concerns about slower growth in emerging markets.

- Although not showing up in aggregate GDP, the US economy continues to show underlying improvement in important areas.

 Positive	 Same Trend	 Negative
<p><b>- Jobs</b> 215K per month in new private sector jobs since October.</p> <p><b>- Personal income</b> Labor market strength and financial returns translating into income growth.</p> <p><b>- Consumer sentiment</b> Mild correction in stocks hasn't prevented further sentiment gains.</p> <p><b>- Business capex</b> Business orders for aircraft, defense and capital goods surged in 2Q 2013.</p> <p><b>- Home sales</b> Strength in pending sales, new homes and builders' expectations</p> <p><b>- Car sales</b> 16 million units sold in June and fewer plants closed for retooling this year.</p> <p><b>- Central banks improve delivery</b> New forward guidance in Europe, better delivery in Japan and China.</p>	<p><b>- Inflation</b> Most measures of US inflation are in the low 1% range, half the central bank target.</p>	<p><b>- GDP</b> Real GDP grew by only 1.4% in the year through 2Q 2013.</p> <p><b>- Retail sales</b> Retail and chain store sales softened in June.</p> <p><b>- Housing starts, households</b> Starts peaked in March. Less than 500K households formed in year to 2Q 2013.</p> <p><b>- Mortgage refinancings</b> Refinancings have fallen as rates rise, thus less income stream improvement.</p> <p><b>- Credit growth</b> Has slowed to 3%, roughly in line with sub-par growth in economic activity.</p> <p><b>- Furlough effects</b> Should hit personal income for government workers, starting July.</p>

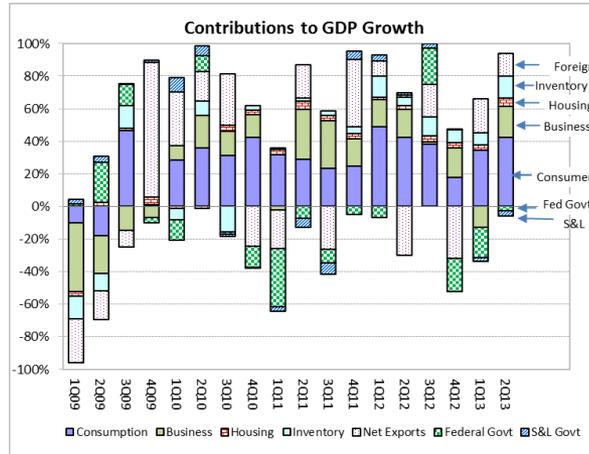
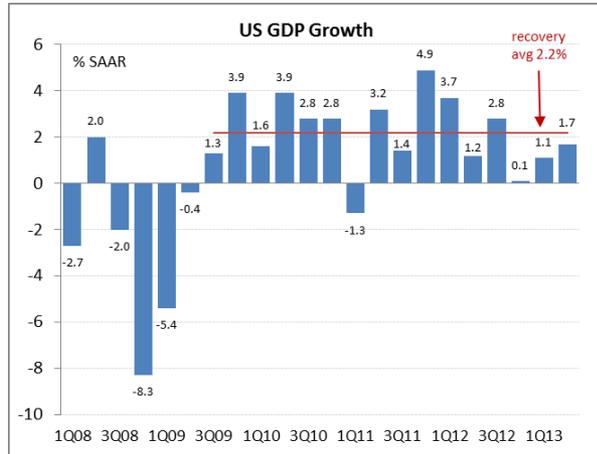
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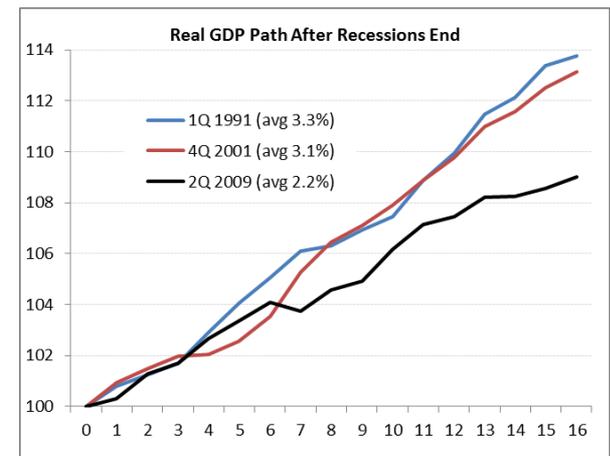
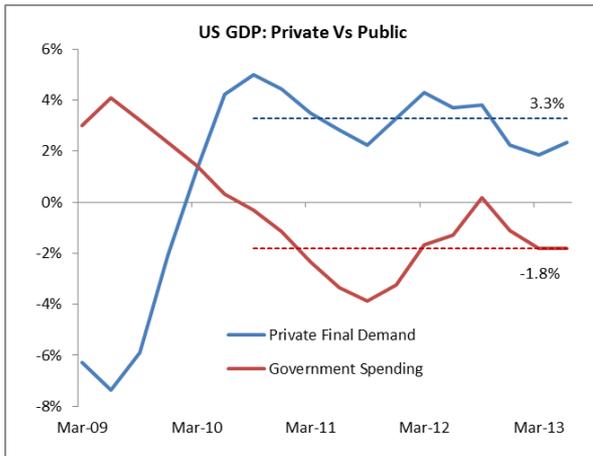
## i. US Economy in Aggregate

- US GDP growth was 1.7% in the second quarter of 2013 but only 1.4% on average in the past four quarters.
- In the 4 years since the recession 'officially' ended in mid 2009, US GDP growth has averaged just 2.2%, versus 3.2% on average after the 2001 and 1991 recessions. Household and government deleveraging explain the slower rebound.

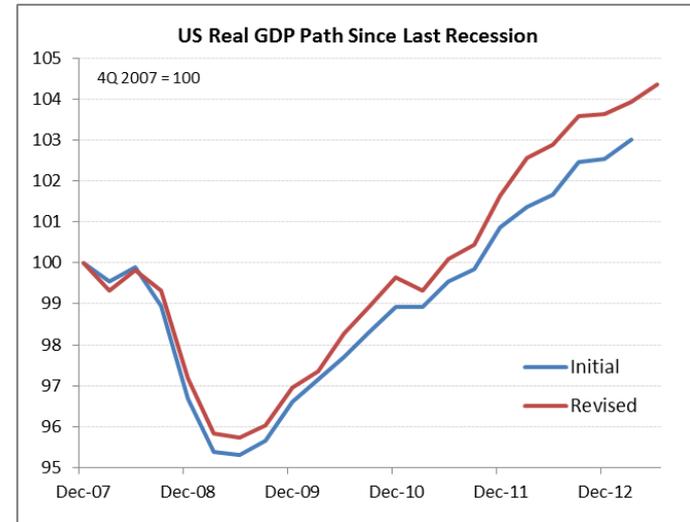
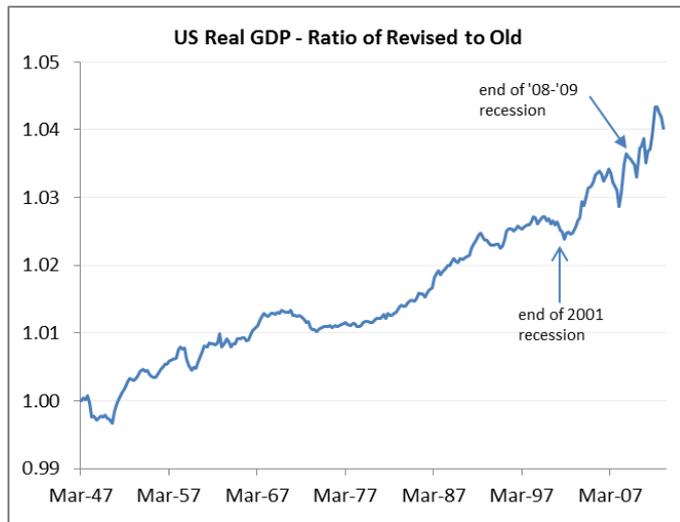


COMPOSITION OF GDP GROWTH		
Year to:	2Q 2012	2Q 2013
<b>Private</b>		
Consumer		
- goods	3.2%	3.6%
- services	1.9%	0.9%
Housing	11.6%	14.9%
Capex	9.0%	2.4%
<b>Government</b>		
Federal	-2.3%	-4.1%
S&L	-0.6%	-0.5%
<b>Final sales</b>		
Domestic	2.7%	1.5%
<b>Other</b>		
Inventories	0.1%	0.1%
Net exports	0.0%	-0.1%
<b>GDP</b>	<b>2.8%</b>	<b>1.4%</b>
GDP Prices	1.7%	1.4%

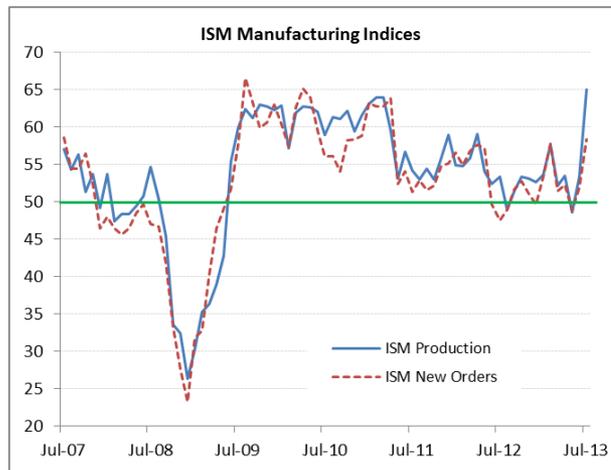
- Private vs public sector contrast.
- Nominal GDP growing 2pts below 25yr avg.
- Slower GDP recovery than the past two.



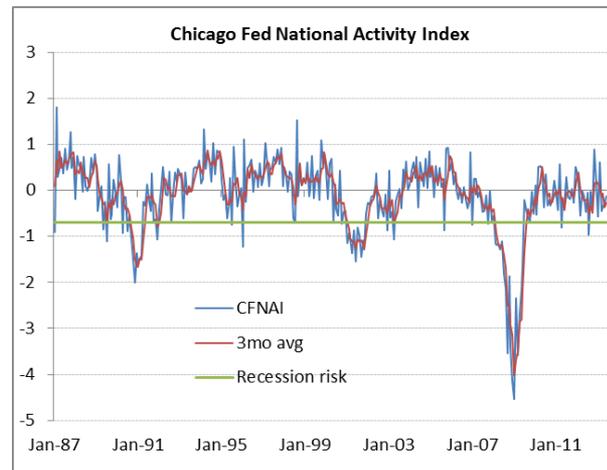
- As is the custom every five years. The government just revised its estimates for the level of US GDP going back to 1929.
- The level of real GDP since WW2 has been revised four percentage points higher, including 1.5 points since the 2001 recession.
- In the most recent business cycle the data shows a slightly shallower recession and faster recovery.
- At the margin this might make the Federal Reserve more amenable to unwinding monetary accommodation.



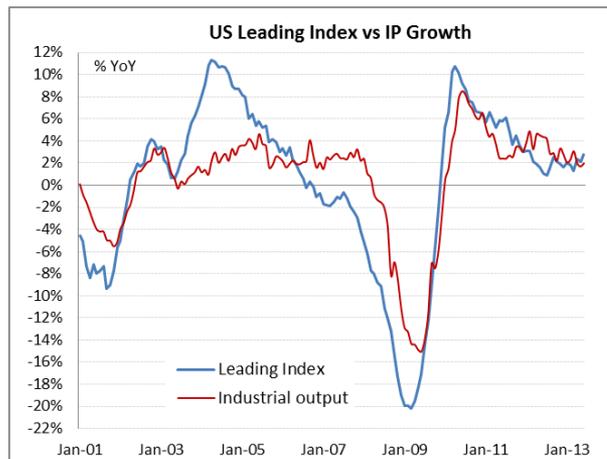
- The Institute of Supply Management survey of US manufacturers showed sharp improvement in July.



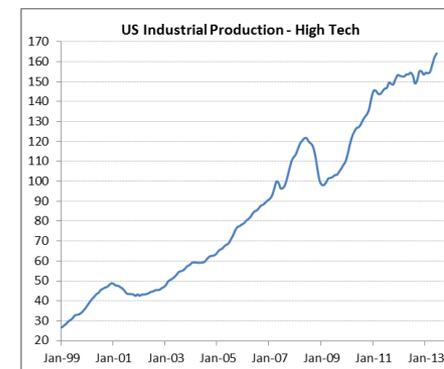
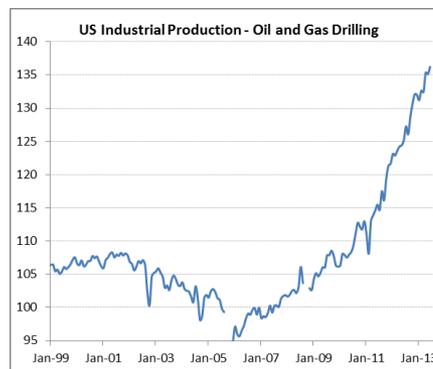
- The Chicago Fed 's measure of national activity has languished at -0.26 past 3 months.



- Overall industrial production is just growing 2% year on year (YoY).



- However, oil and gas drilling and IT have been strengths within the total.

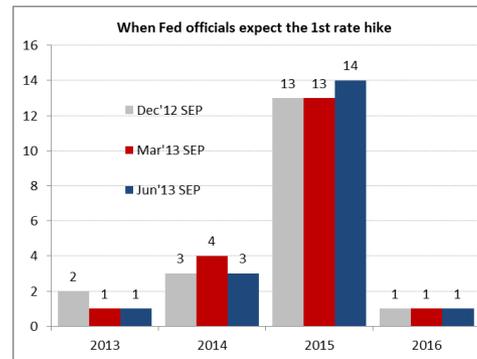


- After its June 19, 2013 decision the Fed chairman said that if the economy pans out the way that the Federal Reserve thinks, tapering of its bond purchases might begin later this year and end by mid 2014.
- The Federal Open Market Committee (FOMC) also lowered its median estimate for the unemployment rate, was more upbeat on the economy and its members' median estimate for where the federal funds rate would be at end 2015 has shifted up to 1.00%.

### Latest round of Fed projections (June 2013)

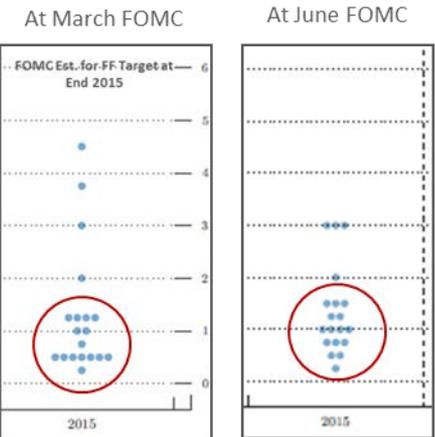
FOMC Summary of Economic Projections, June 2013					
	2012	2013	2014	2015	Longrun
<b>Change in real GDP</b>					
Dec	1.7 to 1.8	2.3 to 3.0	3.0 to 3.5	3.0 to 3.7	2.3 to 2.5
Mar	1.6	2.3 to 2.8	2.9 to 3.4	2.9 to 3.7	2.3 to 2.5
Jun	1.6	2.3 to 2.6	3.0 to 3.5	2.9 to 3.6	2.3 to 2.5
<b>Unemployment rate</b>					
Dec	7.8 to 7.9	7.4 to 7.7	6.8 to 7.3	6.0 to 6.6	5.2 to 6.0
Mar	7.8	7.3 to 7.5	6.7 to 7.0	6.0 to 6.5	5.2 to 6.0
Jun	7.8	7.2 to 7.3	6.5 to 6.8	5.8 to 6.2	5.2 to 6.0
<b>PCE inflation</b>					
Dec	1.6 to 1.7	1.3 to 2.0	1.5 to 2.0	1.7 to 2.0	2.0
Mar	1.6	1.3 to 1.7	1.5 to 2.0	1.7 to 2.0	2.0
Jun	1.6	0.8 to 1.2	1.4 to 2.0	1.6 to 2.0	2.0
<b>Core PCE inflation</b>					
Dec	1.6 to 1.7	1.6 to 1.9	1.6 to 2.0	1.8 to 2.0	n.a
Mar	1.5	1.5 to 1.6	1.7 to 2.0	1.8 to 2.1	n.a
Jun	1.5	1.2 to 1.3	1.5 to 1.8	1.7 to 2.0	n.a

### FOMC: Predictions for 1<sup>st</sup> hike

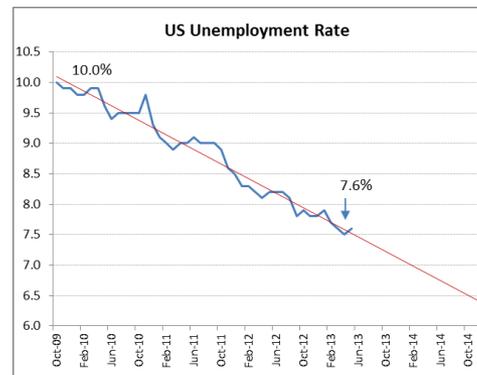


### FOMC members move up estimate for FF target at end 2015

FOMC member estimates for FF rate at end 2015:

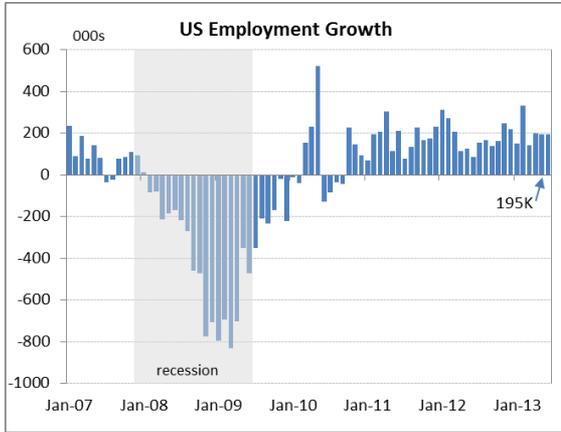


### FOMC is assuming a steady and persistent fall in the unemployment rate

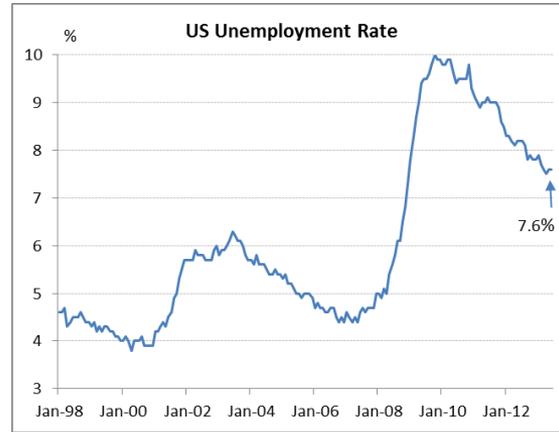


## ii. Jobs market

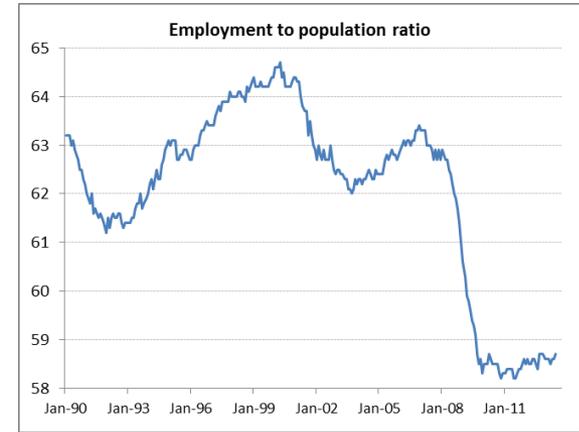
- Since last October US jobs growth has averaged 204K per month including 215K for private sector jobs.



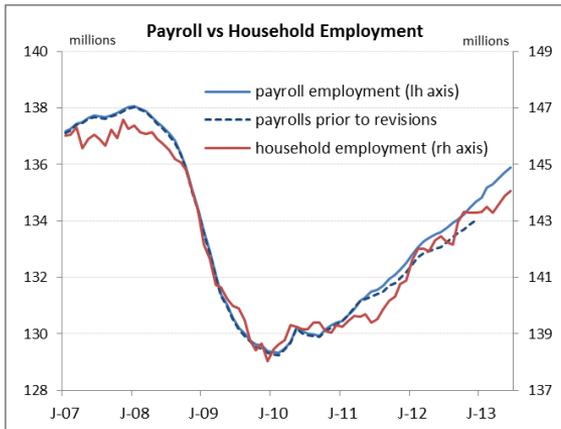
- The unemployment rate was steady in June at 7.55%.



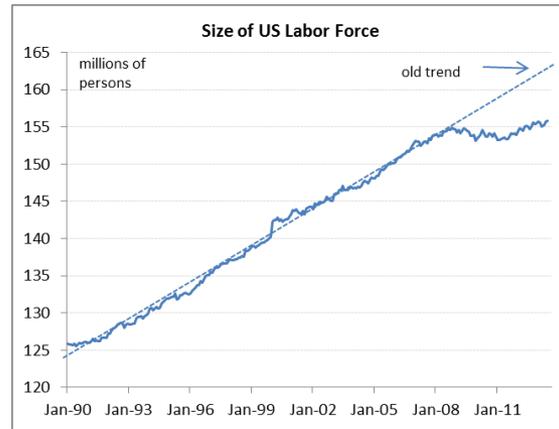
- Employment to population remains low, but due largely to population ageing.



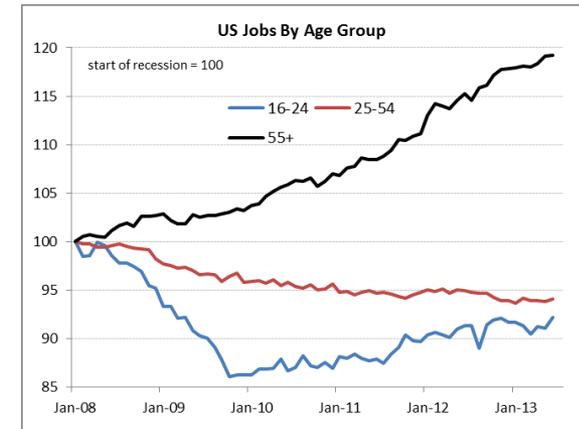
- Employment growth is solid in both payrolls and household surveys.



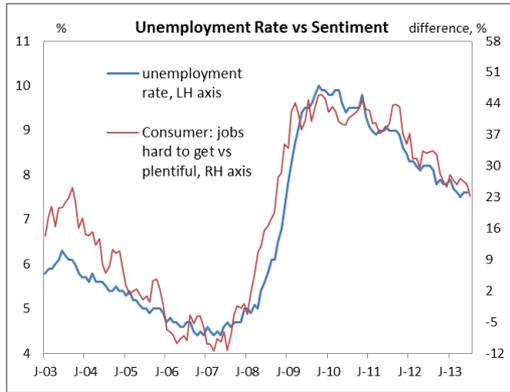
- Ageing is the main reason that the labor force is growing more slowly.



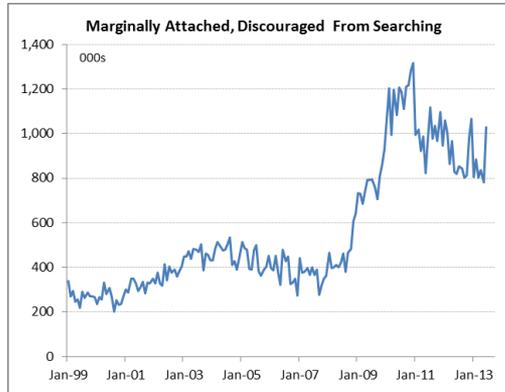
- Since 2010, employment growth has been in the 'tails' ... the 16-24 and '55& older cohorts.



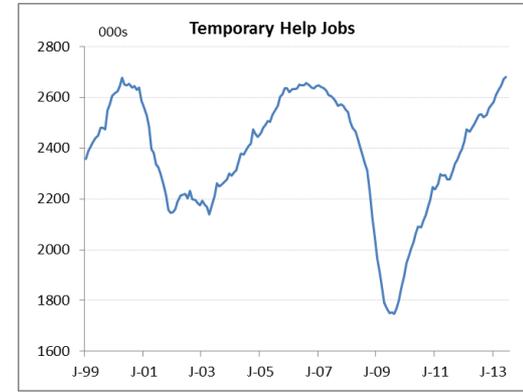
- Improvement in jobs market perception in consumer survey correlates with unemployment rate.



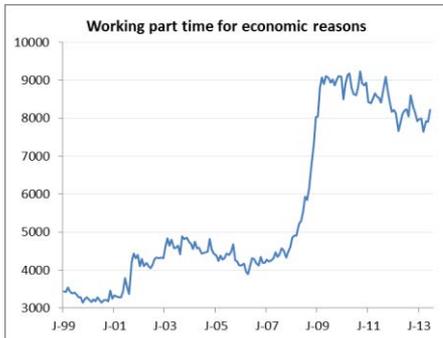
- The discouraged worker cohort is volatile, but trending down



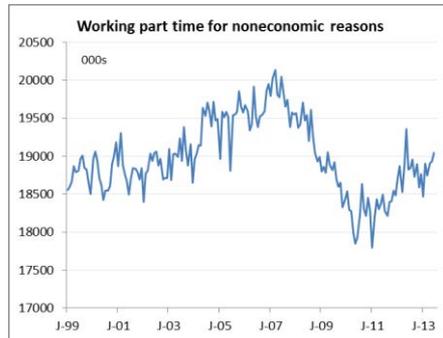
- Temporary jobs can become permanent as business become more confident



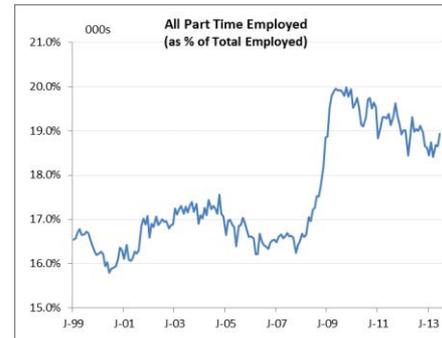
- Part time work jumped in June, but the overall trend is down.



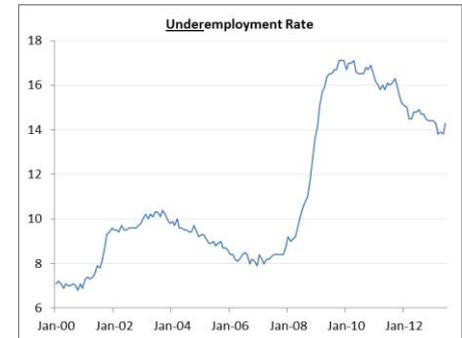
- Childcare, family, and schooling issues explain most of this cohort.



- Part time employment is trending lower as a percentage of the total.



- Thus, the underemployment rate is declining.

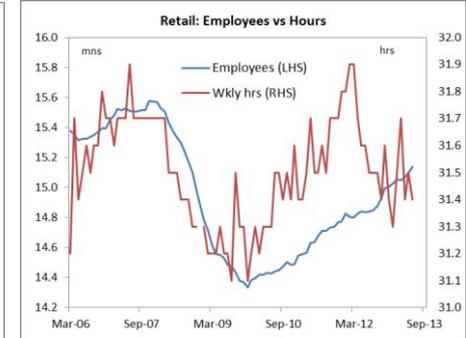
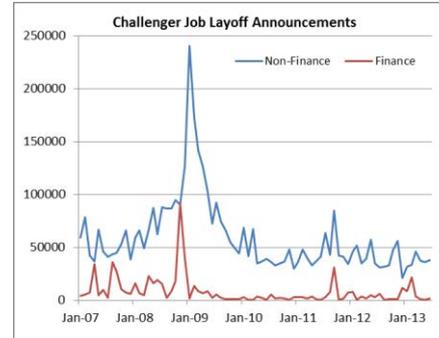
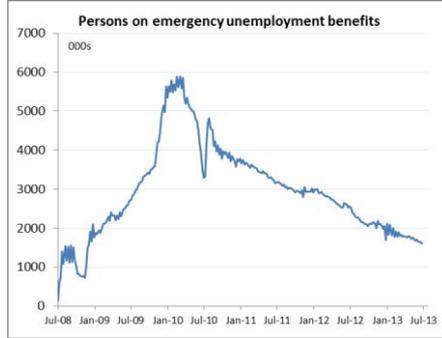
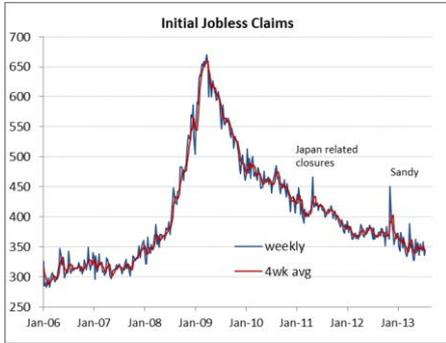


- Jobless claims are low and stable, as is jobs growth.

- Emergency benefits are gradually receding.

- Layoff announcements are subdued.

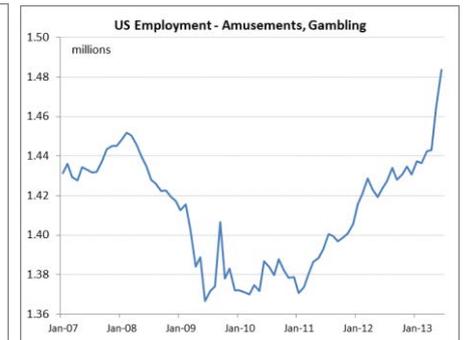
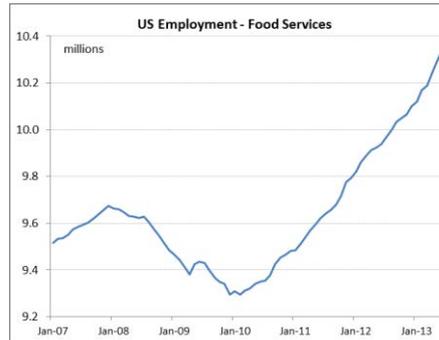
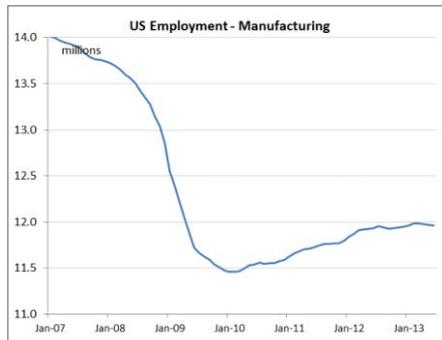
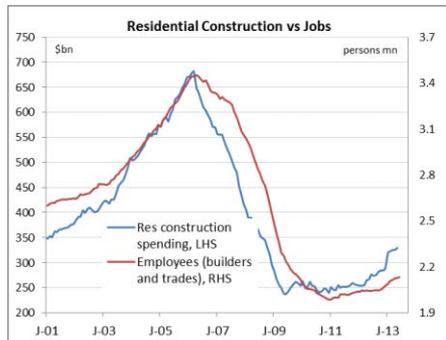
- Retail hours per employee may be impacted by Affordable Care Act requirements.



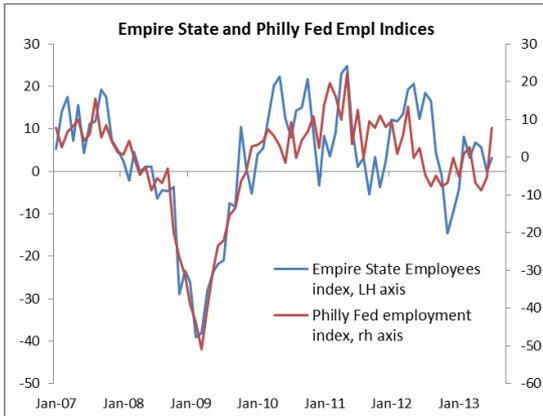
- Housing jobs are lagging rising activity in the sector.

- Manufacturing jobs have stalled due to slower world economy and higher productivity.

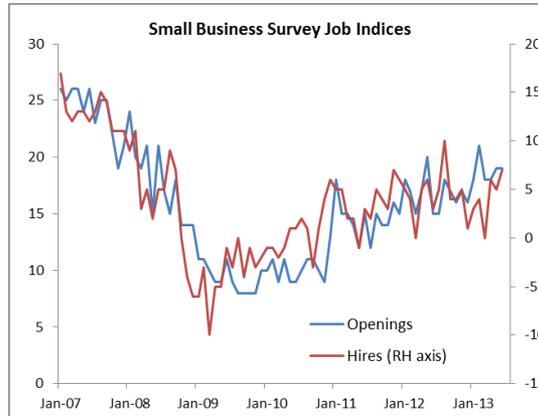
- Biggest gains have been in 'lower paying' jobs



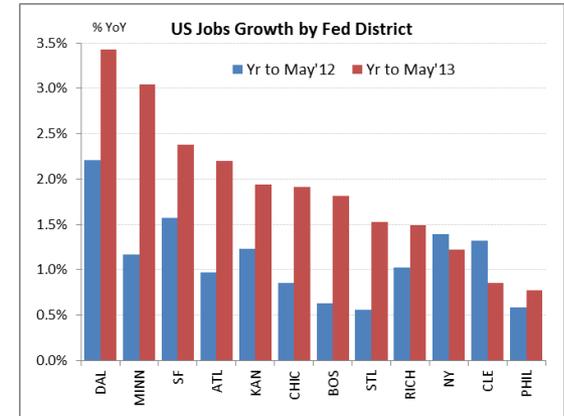
- Jump in the Philadelphia (Philly) Fed survey indicator of employment.



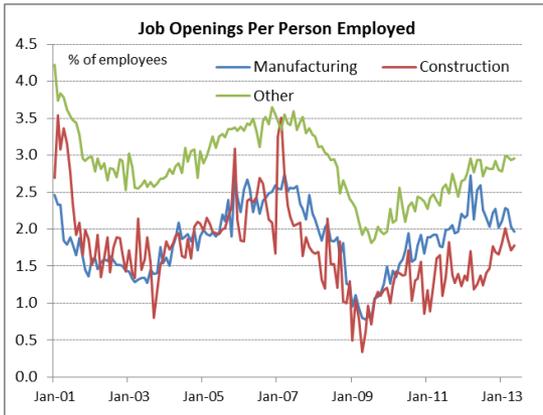
- Small business hiring recently caught up to job openings



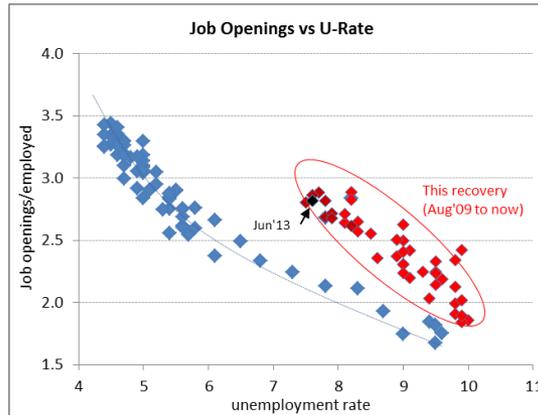
- There is significant regional variation in jobs market recovery within the US.



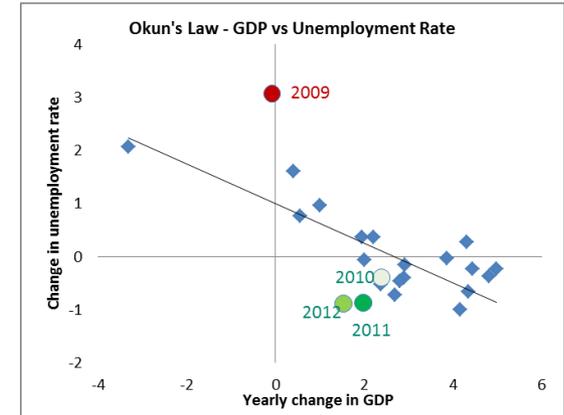
- Job Openings and Labor Force Turnover (JOLT) survey showed steady openings in May.



- Poorer tradeoff between openings and the unemployment rate suggests a skills mismatch.



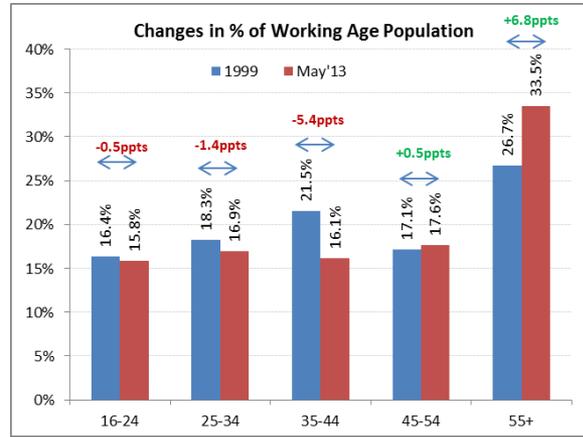
- Okun's Law: It now takes less GDP growth to produce a given drop in the unemployment rate.



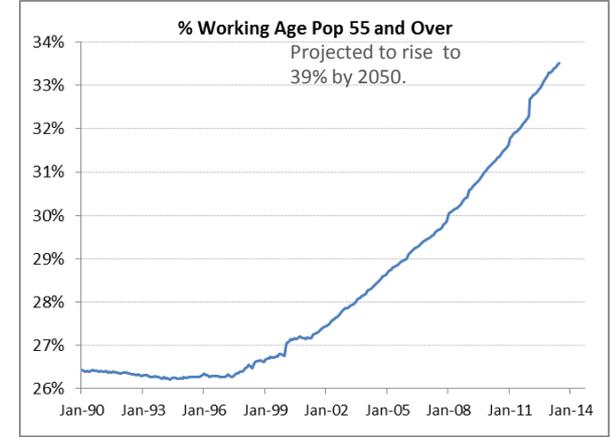
- Fall in participation steepened in 2008-09 recession but there is also structural element



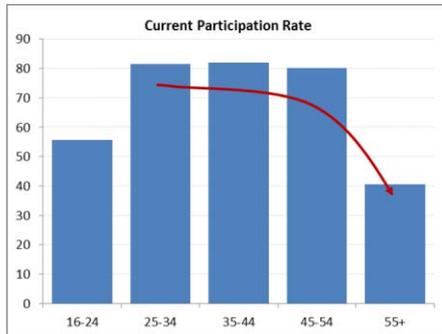
- Big shifts in composition of population since 1999 into older groups.



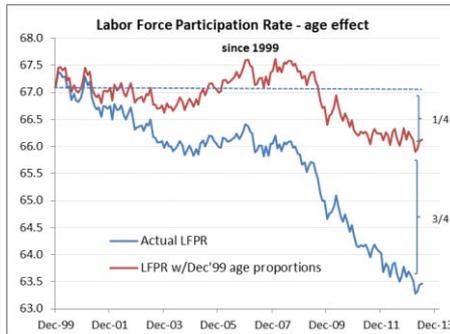
- Especially movement into the 55+ cohort



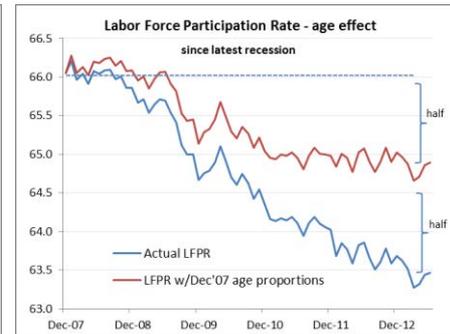
- ... where the participation rate is lower



- ¾ of drop in LFPR since '99 is ageing.



- 50-50 since the recession started.



- Another factor is the younger cohort staying in education vs joining labor force.

