

CalPERS Chief Investment Officer Total Fund Update

Appendix A: Market and Economic Update

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Investment Committee
November 2013

Contents

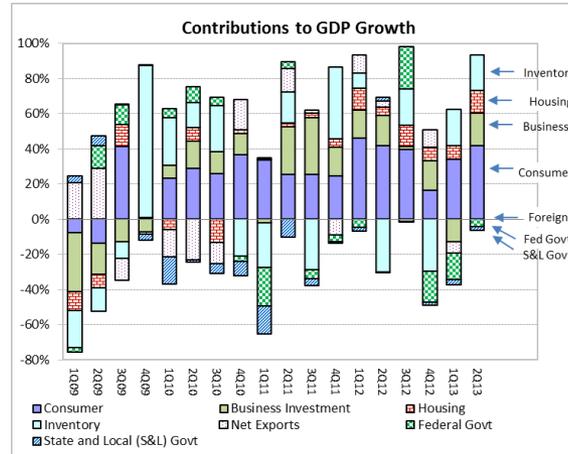
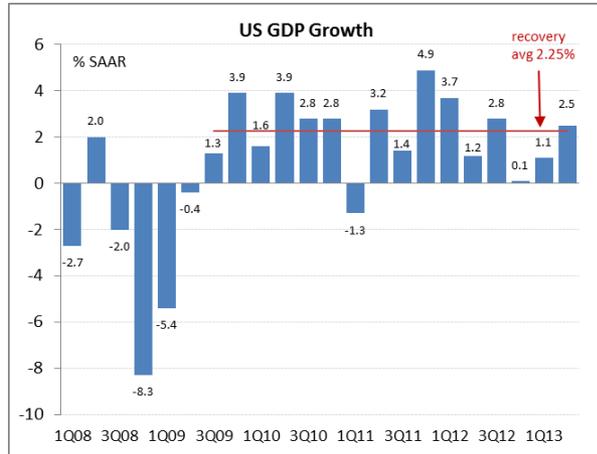
i. US Economy in Aggregate	pp 3-8
ii. Jobs Market	pp 9-15
iii. Household Sector	pp16-21
iv. Housing Market	pp 22-29
v. Business Sector	pp 30-35
vi. Government	pp 36-38
vii. Inflation, Money and Credit	pp 39-43
viii. International	pp 44-53
ix. Financial Markets	pp 54-57

i. US Economy in Aggregate

Underlying economic improvement continues

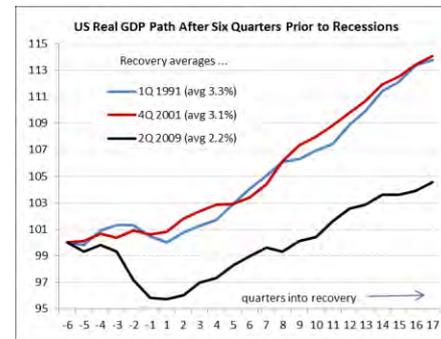
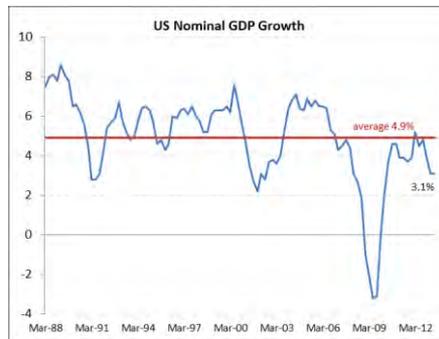
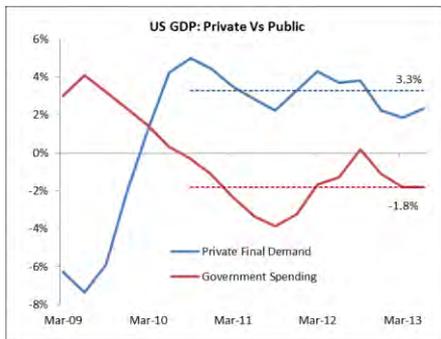
- US private sector and global cyclical indicators have been showing further moderate improvement during the summer.
- One highlight was the US flow of funds and balance sheet data for 2Q 2013, that showed strength in both the household and corporate sectors.
- Another is the improvement in the industrial sector, related in part to better economic conditions abroad.
- Uncertainty with regards to the US fiscal crisis and implementation of the Affordable Care Act will have had some impact on confidence, hiring and spending but it may take some time to quantify it. The 1995-96 government closure subtracted an estimated 0.3% from GDP.
- In this environment the Federal Reserve is likely to continue to preach caution in when and how quickly it eventually reduces monetary support for the economy.
- Improved economic conditions in China, Japan and Europe have, for now, taken some non-US tail risk concerns off the table.

- US GDP growth was only 1.6% in the year to 2Q 2013.
- In the 4 years since the recession 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	2Q2013
Private		
Consumer		
- goods	3.2%	3.6%
- services	1.9%	1.0%
Housing	11.6%	14.8%
Capex	9.0%	2.3%
Government		
Federal	-2.3%	-4.1%
S&L	-0.6%	-0.7%
Final sales		
Domestic	2.7%	1.6%
Other		
Inventories	0.1%	0.0%
Net exports	0.0%	0.1%
GDP	2.8%	1.6%
GDP Prices	1.7%	1.5%

- Private vs public sector contrast.
- Nominal GDP growing 2pts below 25yr avg.
- Real GDP nine points below last cycle.



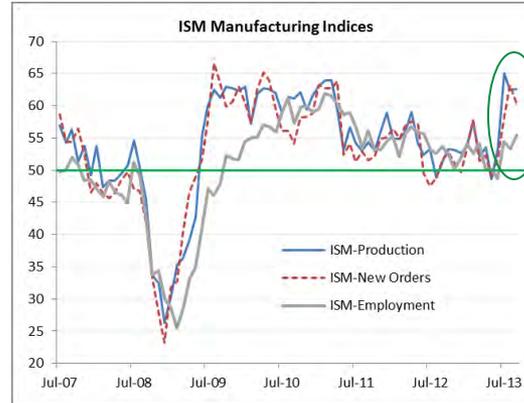
Candidates for catch up ...

- 1. Less fiscal drag
- 2. Deleveraged balance sheets
- 3. Housing
- 4. Business capex
- 5. External sector
- 6. Labor market

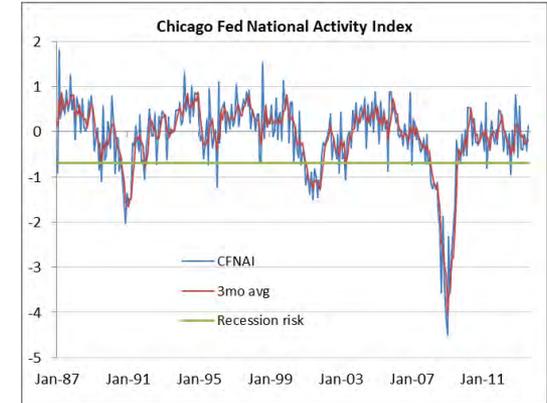
- Industrial production growth has accelerated to 2.7% YoY and the leading index projects faster ahead.



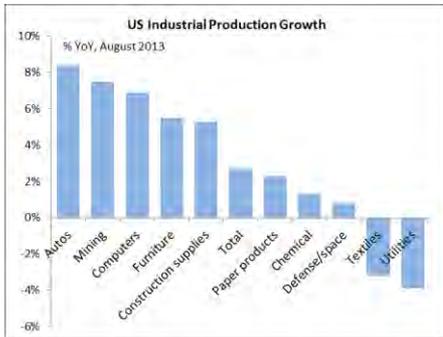
- The ISM survey of US manufacturers remained high in August, employment component improving.



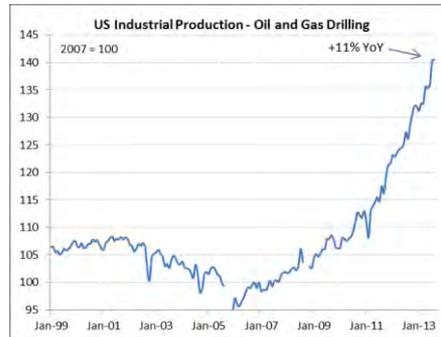
- The Chicago Fed 's measure of national activity improved to +0.14 in August.



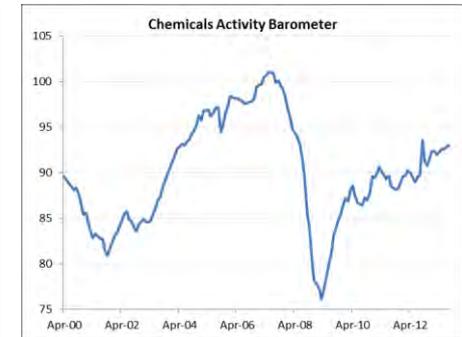
- Strength in autos and mining output, weakness in defense, utilities and textiles.



- Oil and gas drilling and IT output growing double digits.



- Chemical sector activity leads overall industrial activity, and is still rising.



Latest round of Fed projections (September 2013)

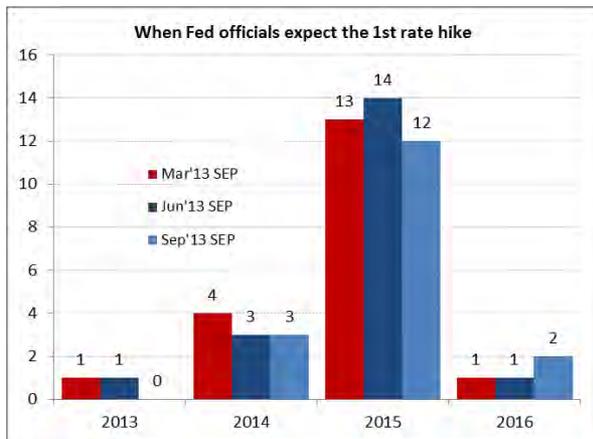
FOMC Summary of Economic Projections, September 2013

	2012	2013	2014	2015	2016	Longrun
Change in real GDP						
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
Sep	1.6	2.0 to 2.3	2.9 to 3.1	3.0 to 3.5	2.5 to 3.3	2.2 to 2.5
Unemployment rate						
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
Sep	7.8	7.1 to 7.3	6.4 to 6.8	5.9 to 6.2	5.4 to 5.9	5.2 to 5.8
PCE inflation						
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
Sep	1.6	1.1 to 1.2	1.3 to 1.8	1.6 to 2.0	1.7 to 2.0	2.0
Core PCE inflation						
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
Sep	1.5	1.2 to 1.3	1.5 to 1.7	1.7 to 2.0	1.9 to 2.0	n.a

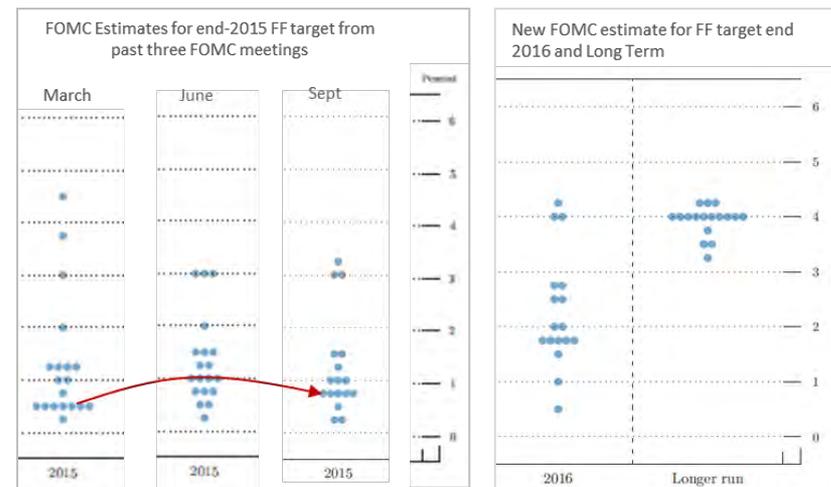
HIGHLIGHTS OF FED'S SEPT 19 DECISION

- The FOMC decided not to start tapering QE and actually reduced its expectations for the subsequent pace of monetary tightening.
- In doing so the Committee's central tendency forecasts for GDP growth this year and next were revised down ... -0.3% for this year, -0.25% for 2014 in spite of a lower unemployment rate.
- Inflation estimates for next year were revised lower.
- The Fed was cognizant of ongoing government cutbacks but also tighter financial conditions (weaker bond market and EM).

FOMC: Predictions for 1st hike

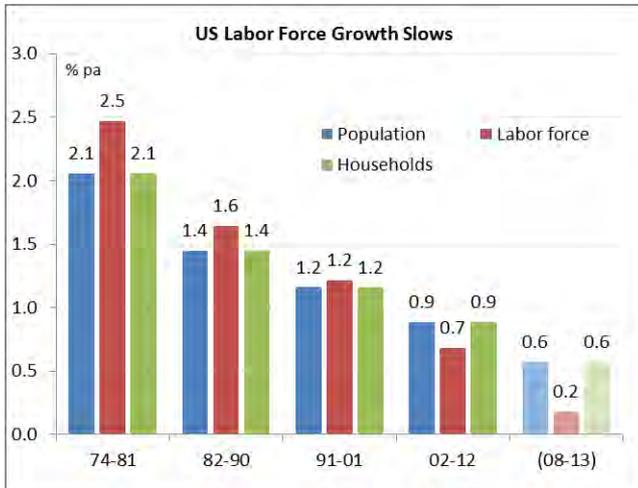
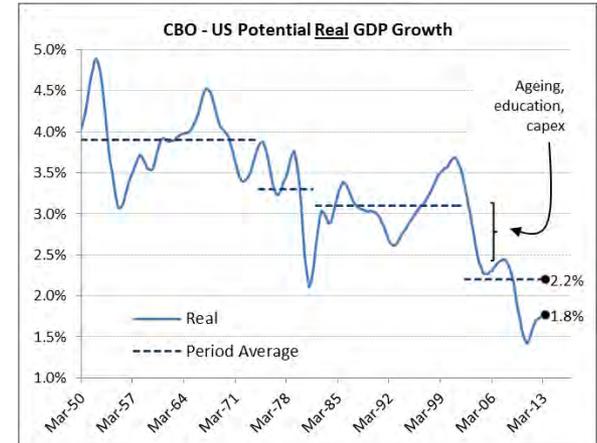


FOMC: Predictions for FF target at discrete future points

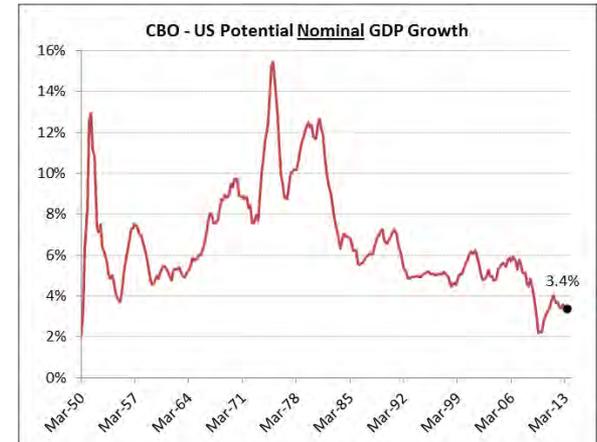


Key Assumptions in CBO's Projection of Potential GDP							
	Average Annual Growth					Projected	
	1950-1973	1974-1981	1982-1990	1991-2001	2002-2012	2013-2018	2019-2023
	Overall Economy						
Potential GDP	3.9	3.3	3.1	3.1	2.2	2.2	2.3
Potential Labor Force	1.6	2.5	1.6	1.3	0.8	0.6	0.5
Potential Labor Productivity	2.3	0.8	1.5	1.8	1.4	1.6	1.8
Nonfarm Business Sector							
Potential GDP	4.0	3.6	3.2	3.5	2.5	2.6	2.6
Potential Hours Worked	0.9	1.7	1.1	0.8	0.3	0.3	0.4
Capital Services	1.2	1.3	1.2	1.4	0.7	1.0	1.0
Potential Total Factor Productivity	1.9	0.7	0.9	1.3	1.4	1.2	1.3

+0.75% working age pop less 0.25% for ageing



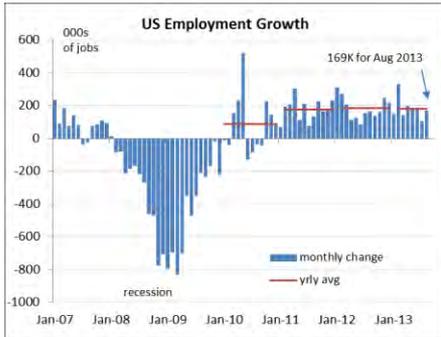
US Pop Projections	2015	2040	2060
Under 18	23%	22%	21%
.18 to 24 years	10%	9%	8%
.25 to 64 years	52%	49%	48%
.65 years and over	15%	21%	22%
.85 years and over	8%	17%	20%



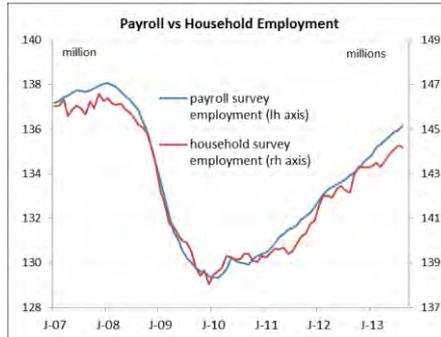
ii. Jobs market

Steady jobs market improvement

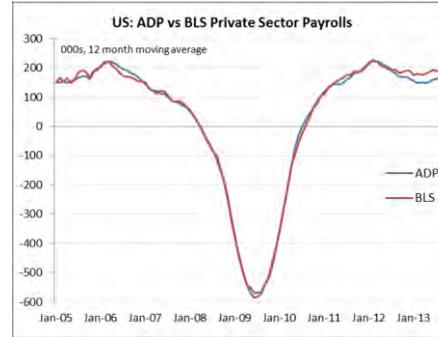
- Three years of remarkably steady jobs growth at 180K per month.



- Jobs in the household survey - 115K in August, slipping further behind survey of firms (+169K).



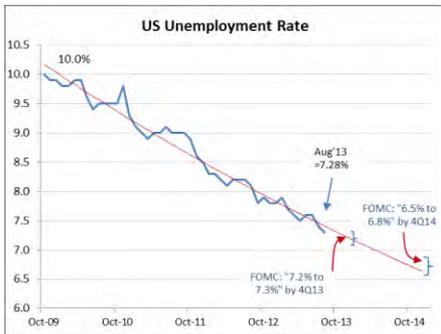
- Jobs from the ADP survey are lagging behind the government (BLS) measure.



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



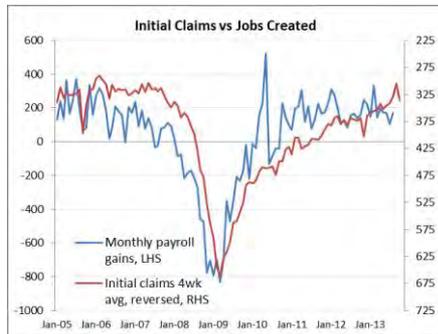
- The unemployment rate fell to 7.28% in August but because the labor force (-312K) fell by more than household jobs (-115K).



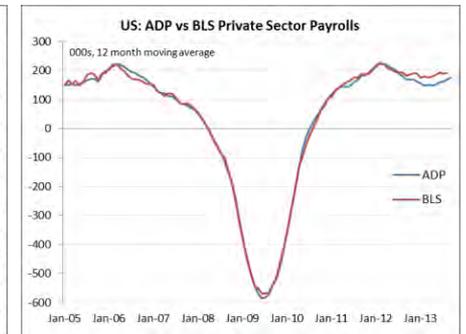
- Slight uptick in hourly wage growth, including in manufacturing.



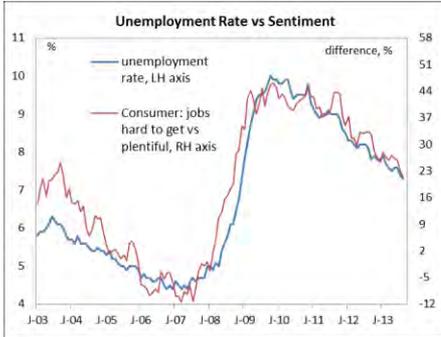
- Initial jobless claims (newly out-of-workers) shrinks back to pre recession levels.



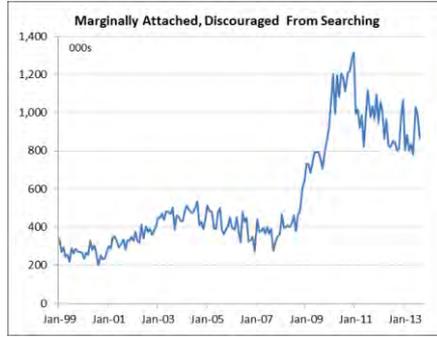
- ADP report showing less jobs growth than official BLS data.



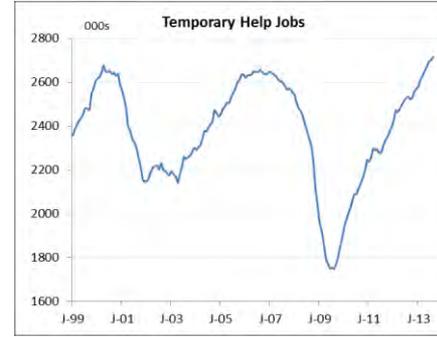
- Improvement in jobs market perception correlates with unemployment rate.



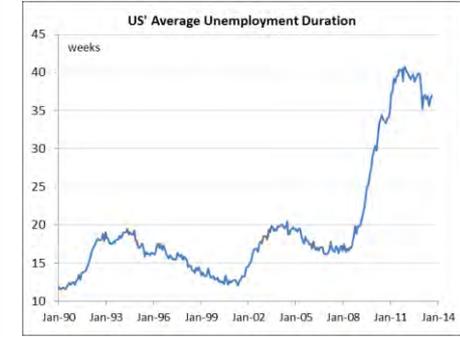
- The discouraged worker cohort is volatile, but trending down



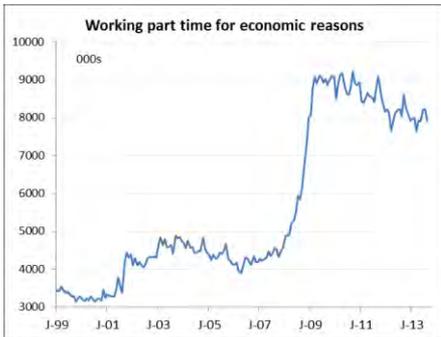
- Temporary jobs can become permanent as business become more confident



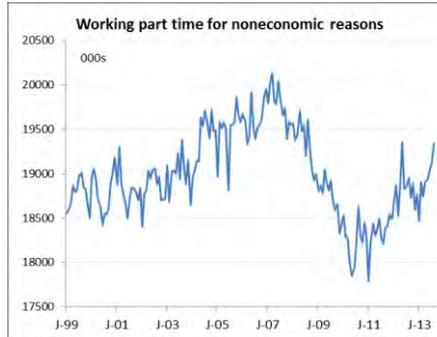
- Average unemployment duration remains elevated.



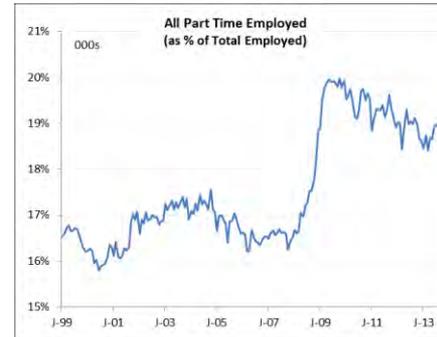
- Part time work for economic reasons (ie would prefer more hours) has been steady in trend terms.



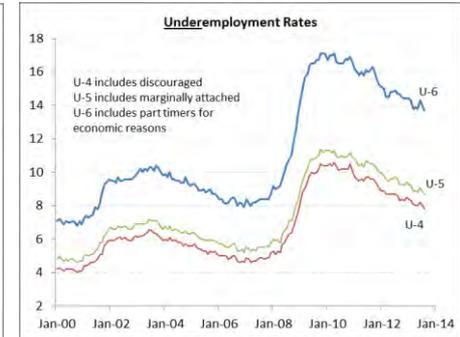
- Non economic reasons (childcare, family, and schooling) has been the main cohort for more part timers ... meaning that the role of the ACA has been overstated.



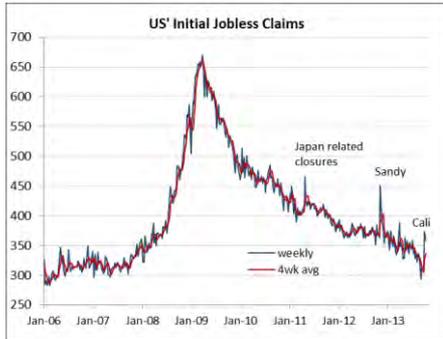
- In any case, although part time employment as a percentage of the total has increased recently the trend is down since the end of the recession.



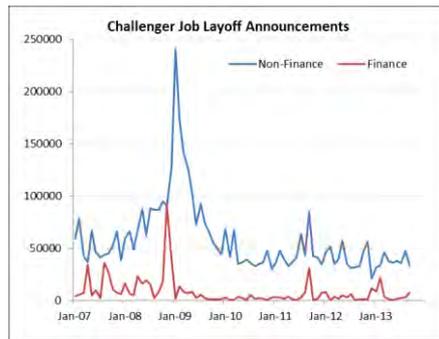
- The underemployment rates are high but gradually declining.



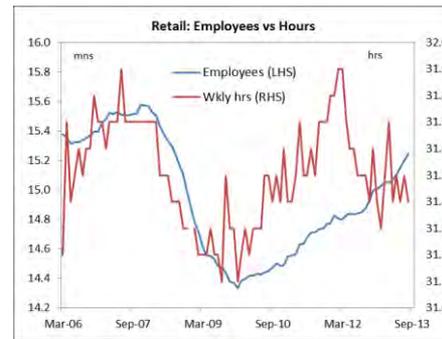
- New persons on unemployment claims back to pre recession.



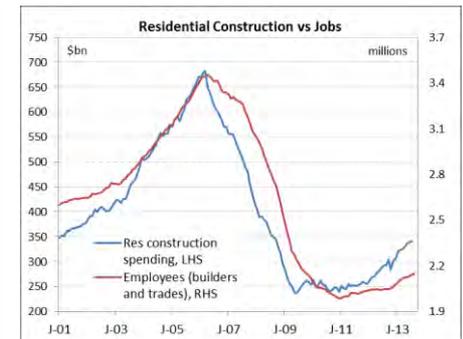
- Layoff announcements increased in August (industrial, computers).



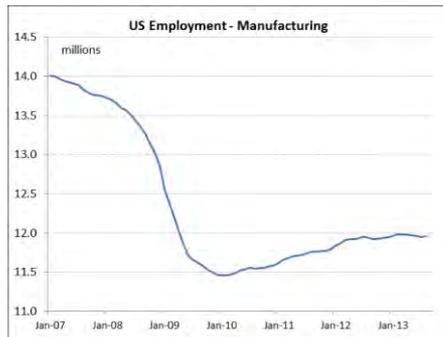
- Fall in retail hours per employee is partly cyclical but also attributable to ACA.



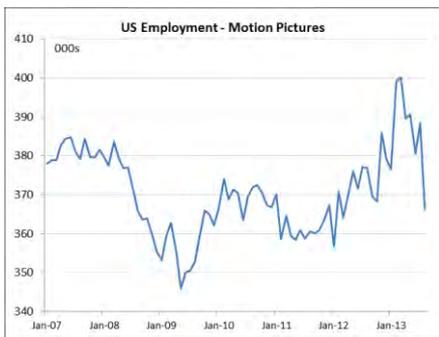
- Jobs in housing related trades are growing 6% pa but overall is lagging the pick up in activity.



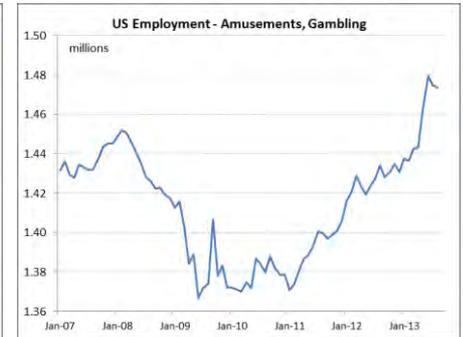
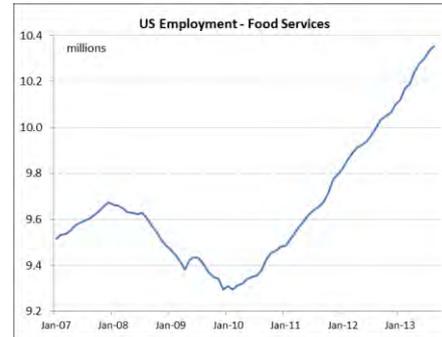
- Manufacturing renaissance not showing up in jobs.



- This category has been inexplicably noisy.



- Biggest gains have been in lower paying jobs.

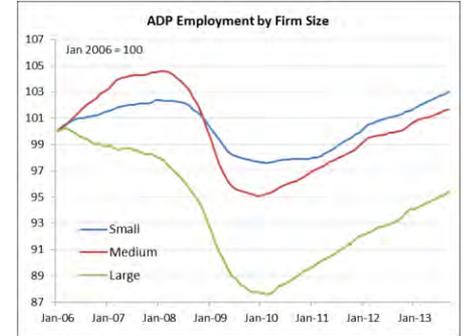
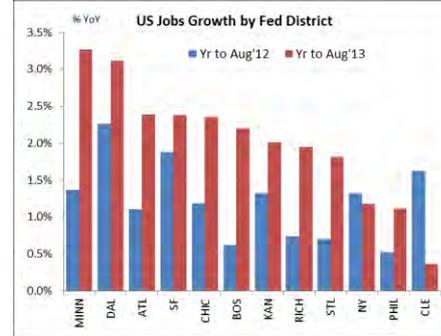
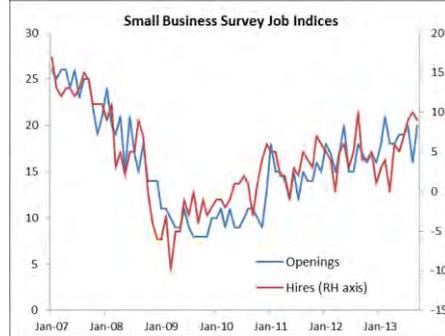
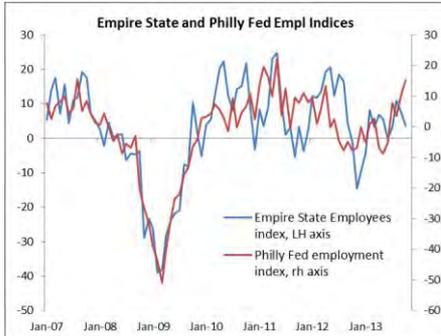


- Both the Philadelphia Fed and Empire State surveys shows solid labor demand.

- Small business openings and hires are trending modestly higher.

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

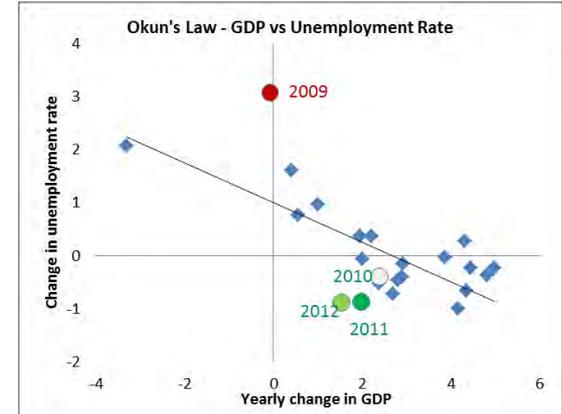
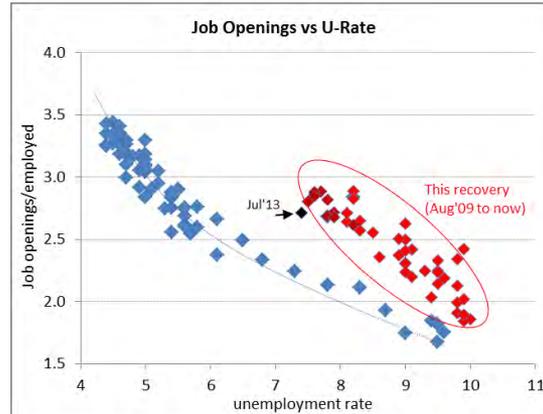
- Small business jobs are above their prior peak.



- Job Openings and Labor Force Turnover (JOLT) survey showed that manufacturing openings have receded.

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

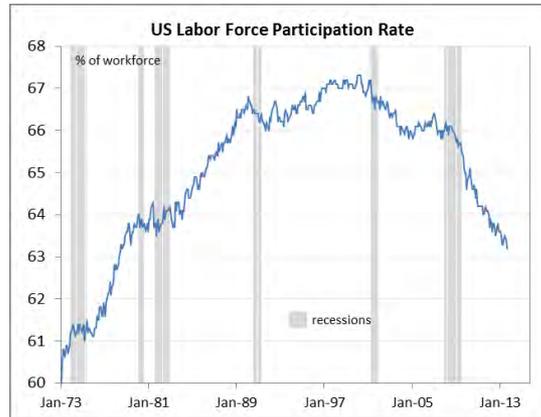
- Okun's Law: It now takes less GDP growth to produce a given drop in the unemployment rate.



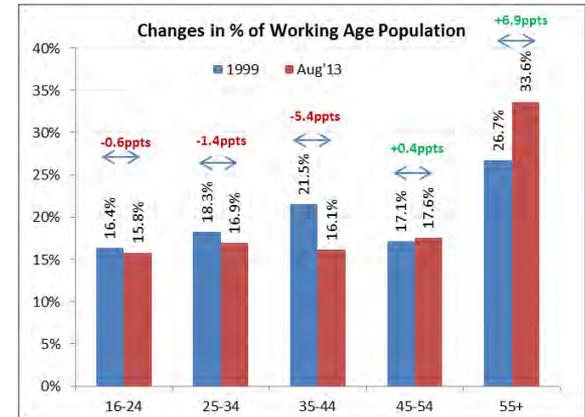
- US labor force has grown less than 0.2% pa since the start of the last recession, despite population growing 0.9% pa



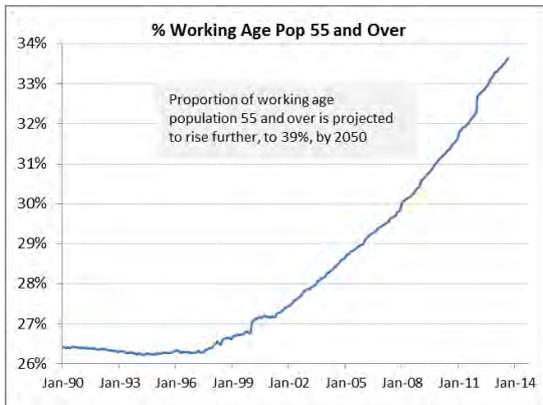
- Participation rate dipped at faster pace in 2008-09 recession but structural elements dominate.



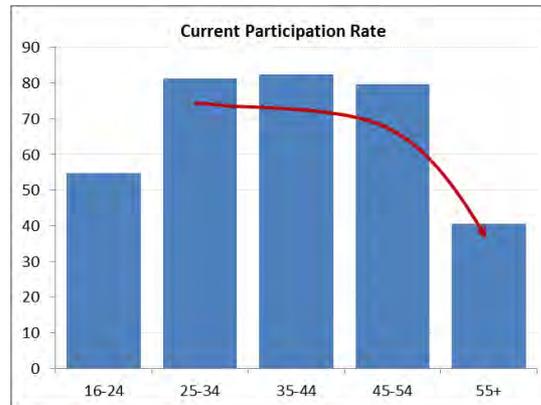
- Population bubble moving into older age groups ...



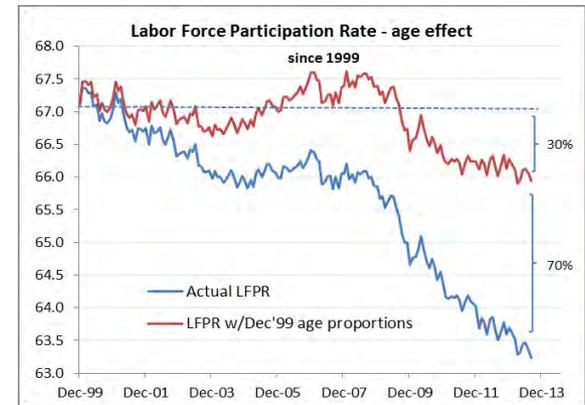
- ... and will continue



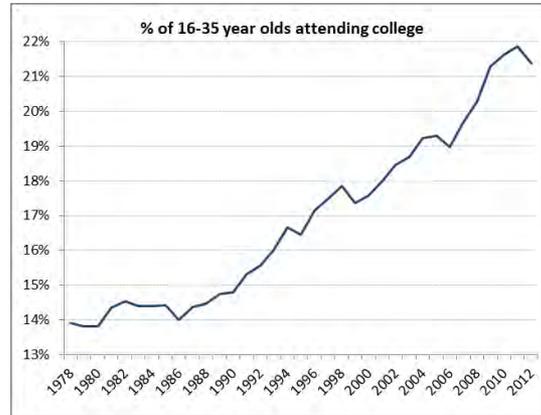
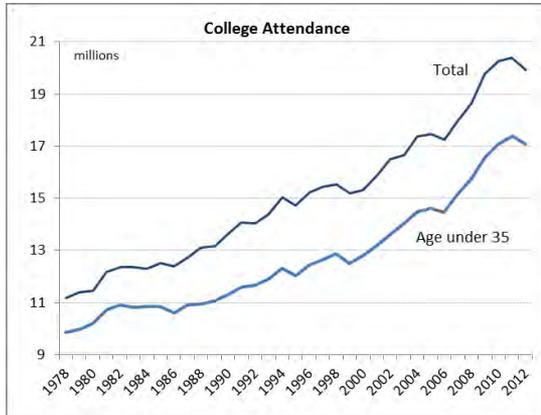
- Participation rate halves from 55+ age group



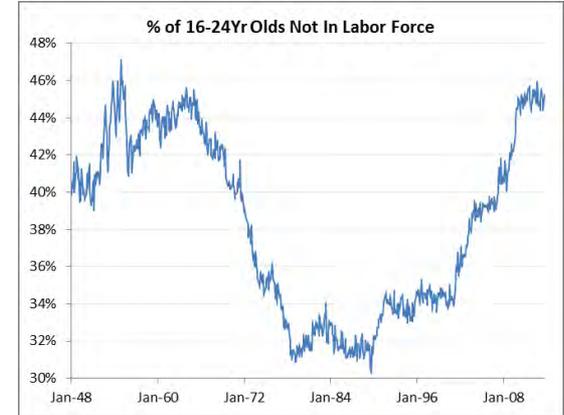
- 70% of drop in labor force participation rate since '99 is due to changes in age composition including 50% since 2007.



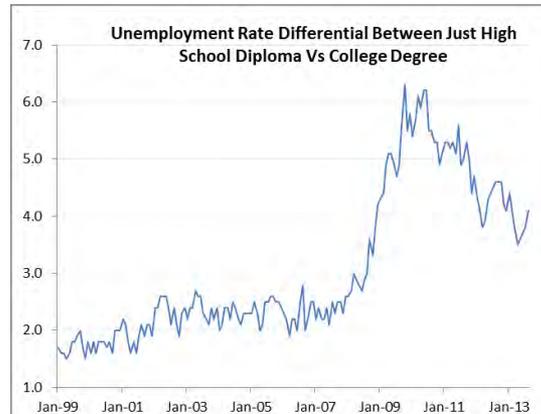
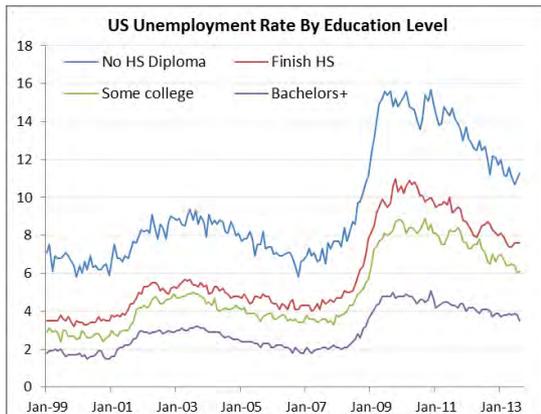
- College attendance has increased rapidly for persons aged 35 and below, esp. since 1990s



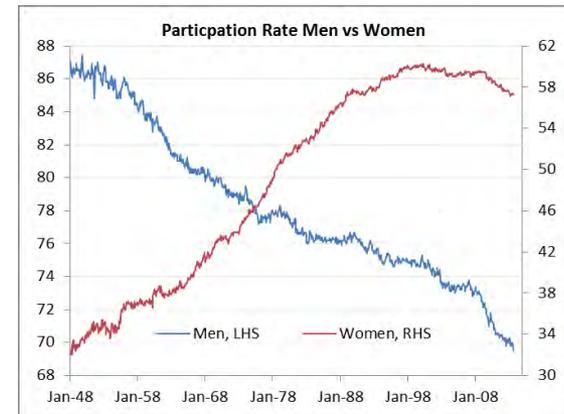
- Choosing education over looking for work was a big factor for young cohorts in the 2000s.



- Apart from this structural change, there is also a cyclical rise in recourse to education during recessions.

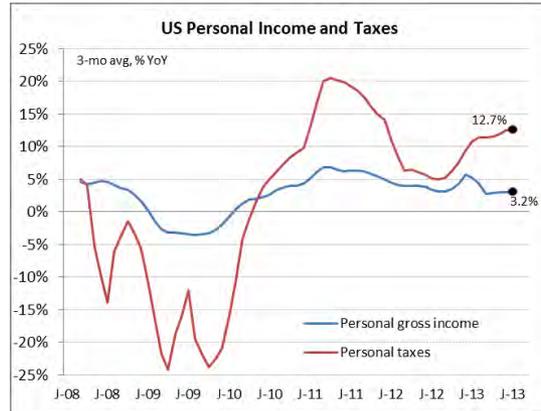


- The female participation rate has reversed part of its long uptrend, and this too may be related to education.

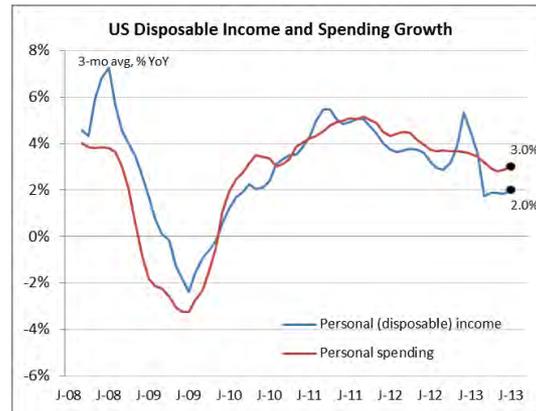


iii. Consumer and Retail

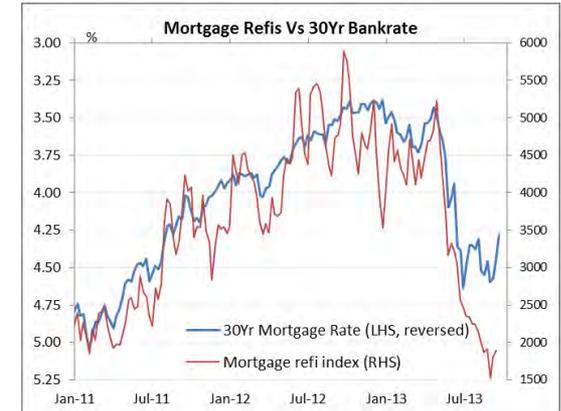
- Private sector wages and salaries now growing 4%+, but government sector W&S are declining outright.



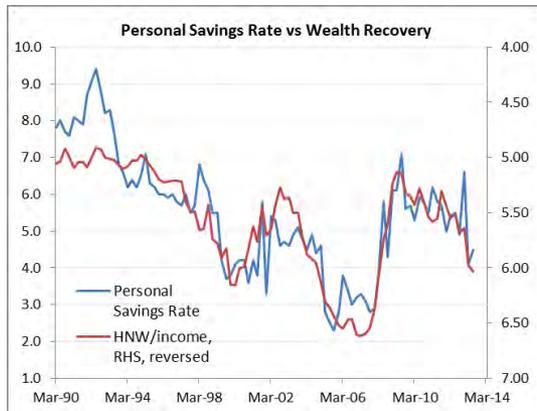
- Disposable income growing just 2% yearly, also suppressing spending.



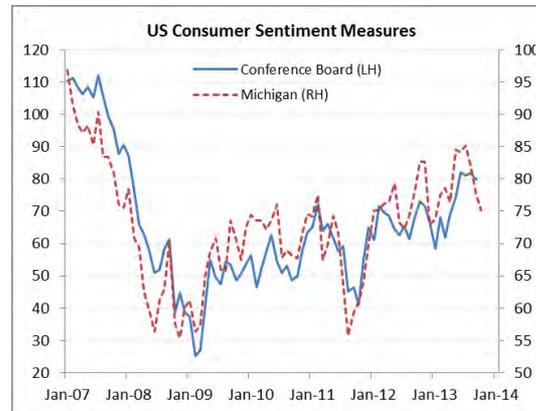
- Higher mortgage rates mean that less new households are getting the benefits of refinancing their mortgages.



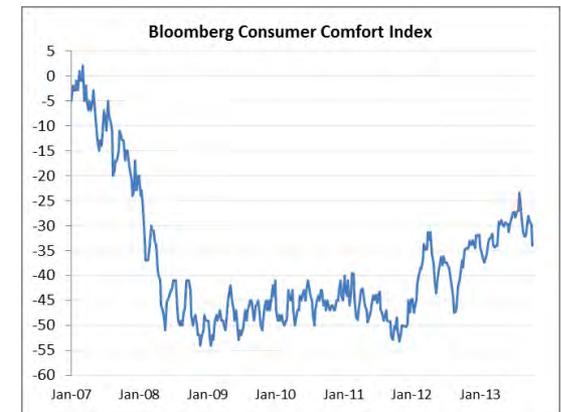
- Personal savings rate aligned with wealth recovery.



- Dip still leaves above 2012 averages.



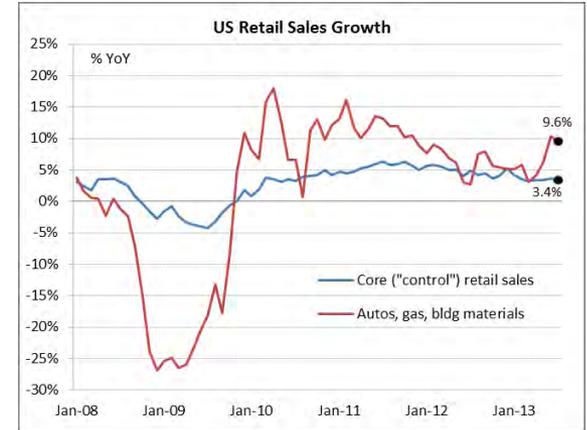
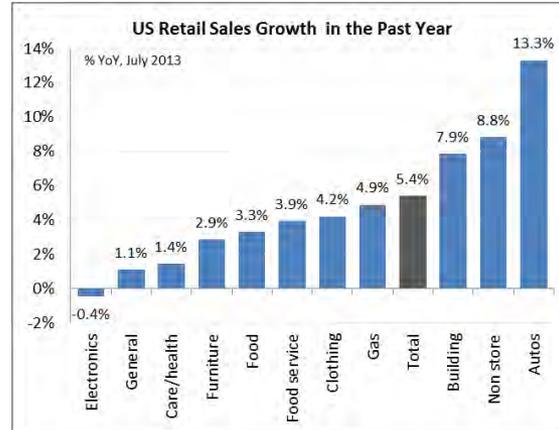
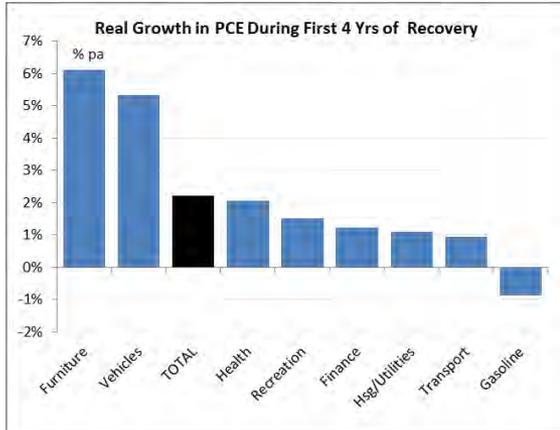
- Similar drop to the 2011 debt ceiling crisis.



- From the GDP report: Consumer spending recovery slow as households economize: energy, finance and healthcare

- Retail sales growth improved to 5.7% YoY in June, partly on base effects. Quite divergent yearly growth between components.

- Retail sales have recently been strongest in the non-core components – cars, gas and building supplies.

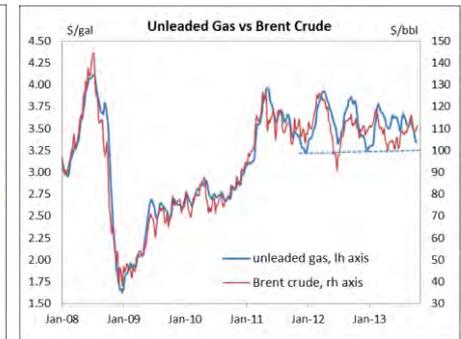
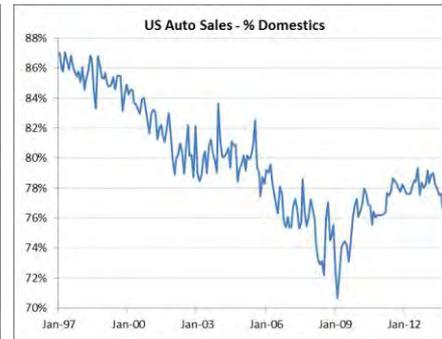
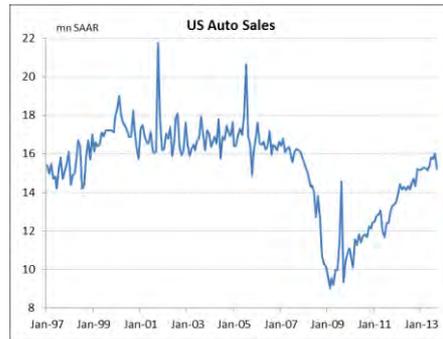


- Chain stores sales growing only 1% YoY, losing wallet share.

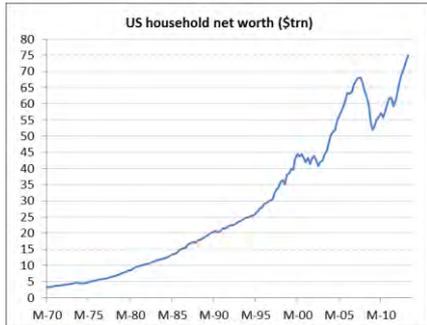
- Auto sales rose +1.4% in 2Q and another 1.3% in 3Q.

- Share of domestics drops back as Japan restores output.

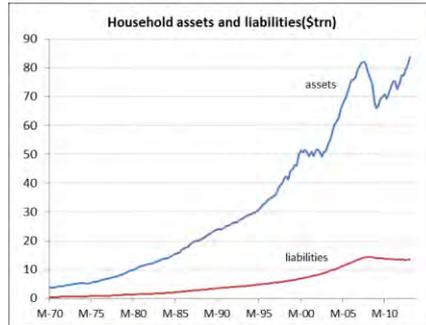
- Relief at the gas pump.



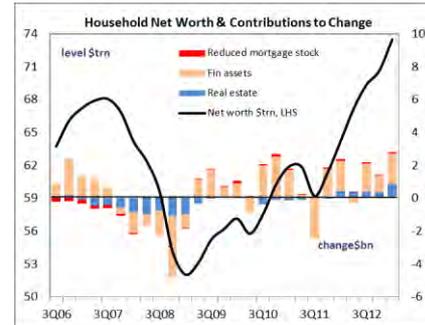
- Net worth +\$7.7trn the past year



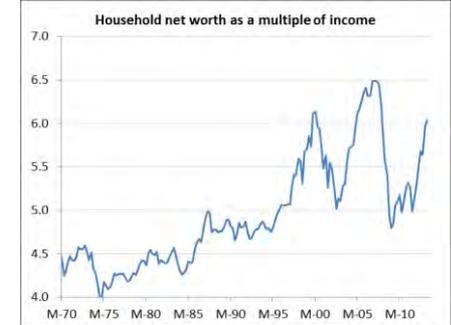
- Rising assets and stagnant liabilities



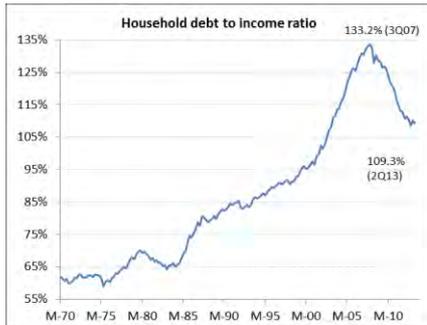
- All facets increasing now



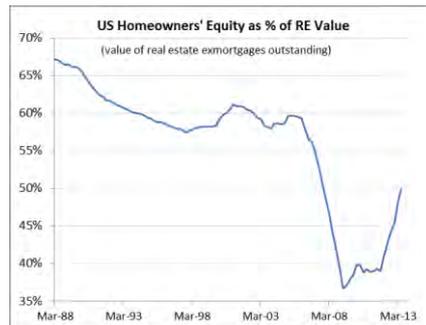
- Valuations start to look toppish?



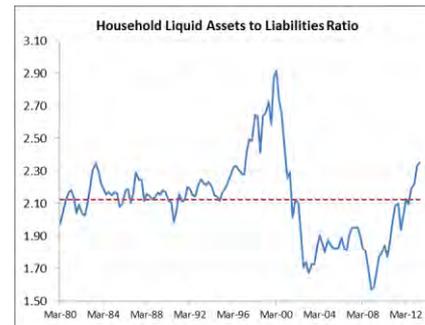
- Ratio back to early 2003 comparison



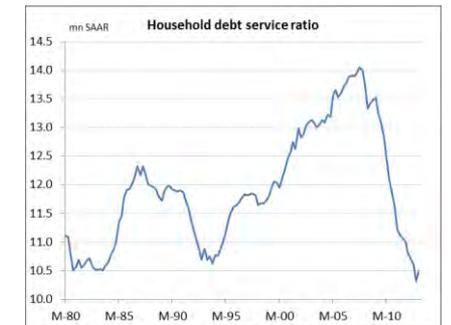
- Further rebound in home equity



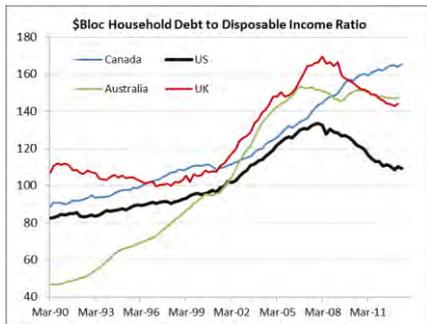
- Householders more liquid



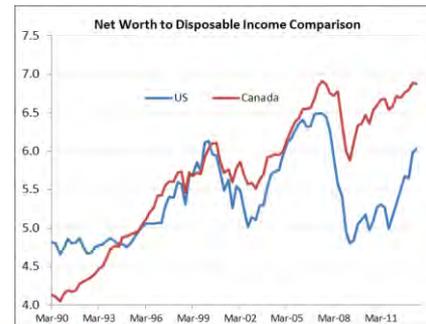
- And debt servicing burden low



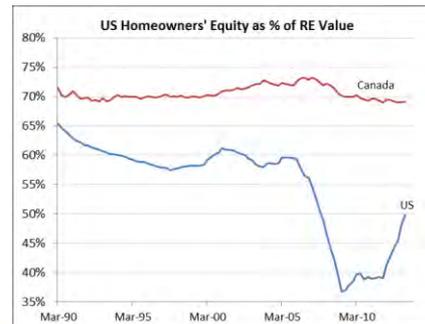
- Less leverage than peer group



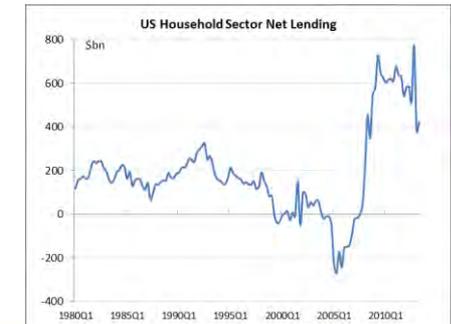
- Less valuation risk than Canada



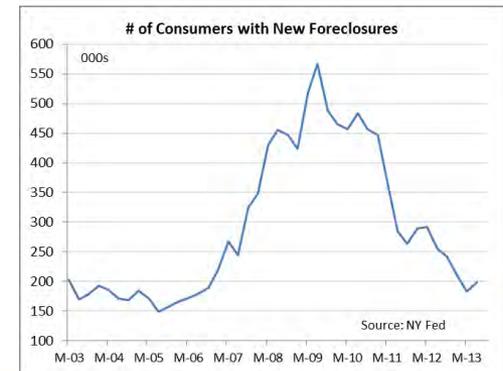
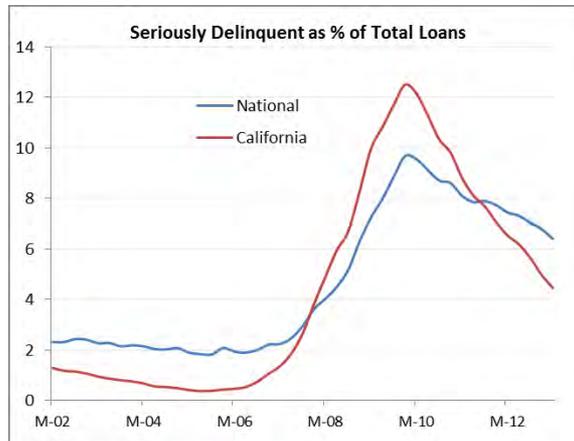
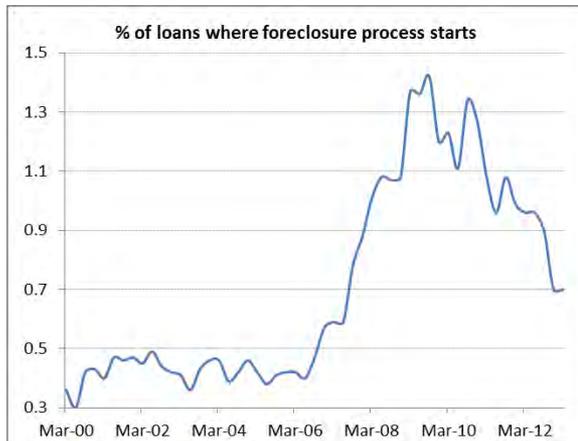
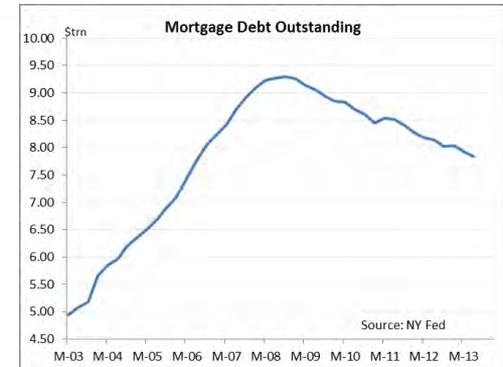
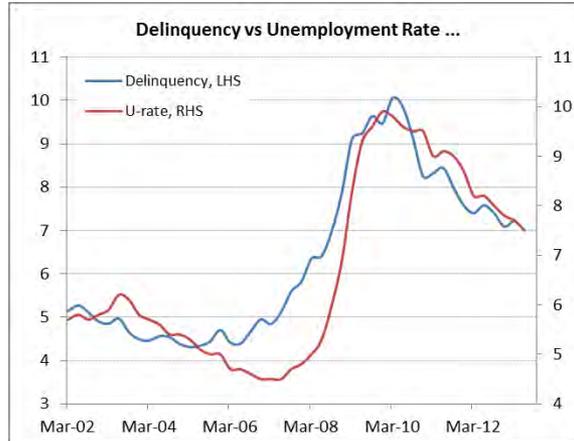
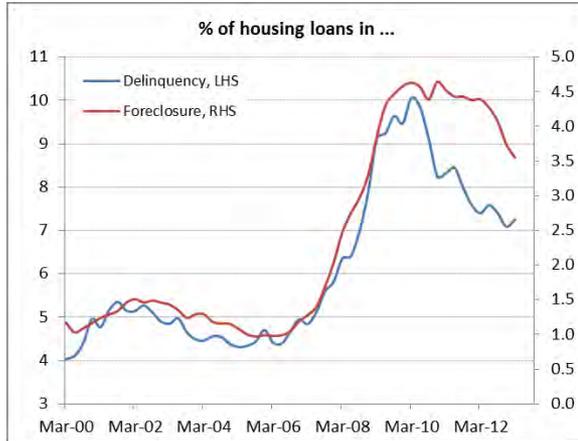
- ... although less housing equity



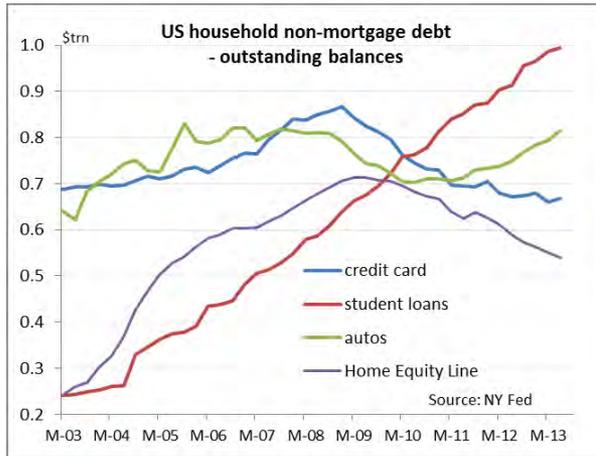
- Households still net lenders



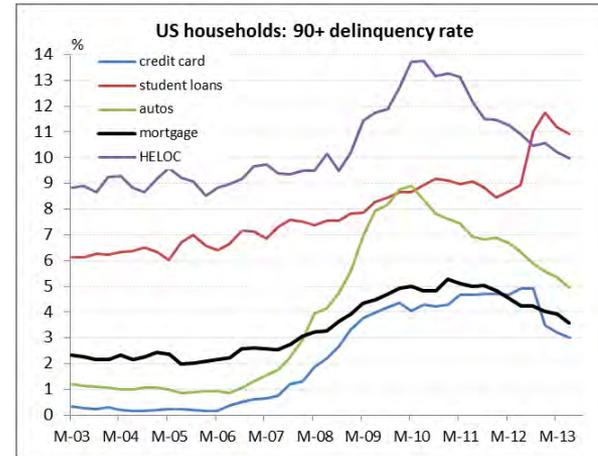
- Higher prices and a stronger jobs market have dissipated part of this problem.



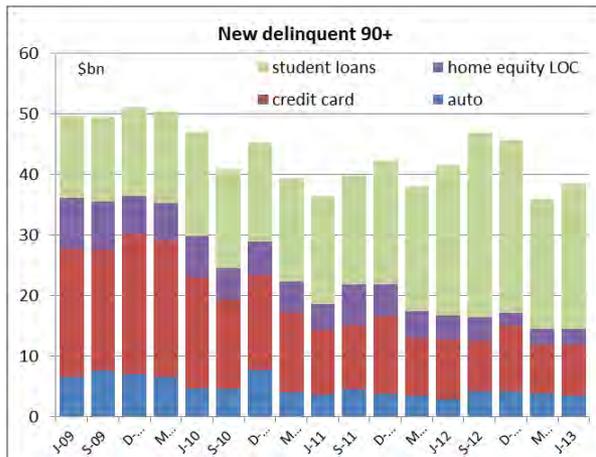
- Student debt approaches \$1trn



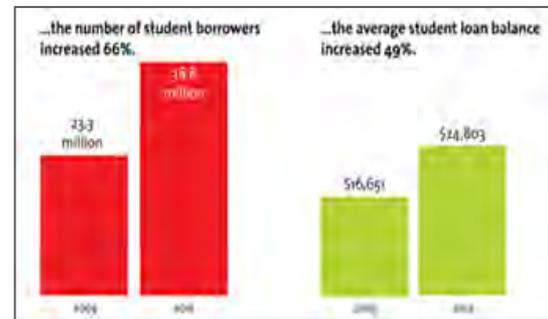
- delinquency rate has eased a little



- ... but still disproportionate share

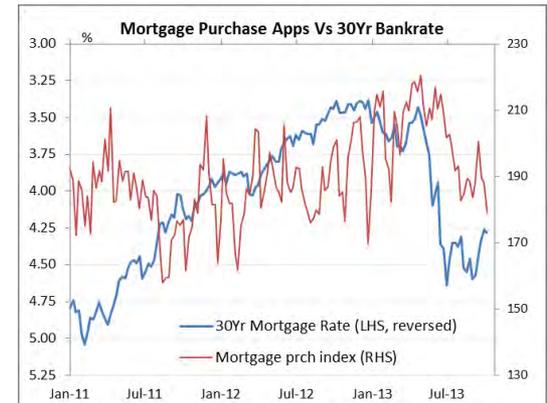
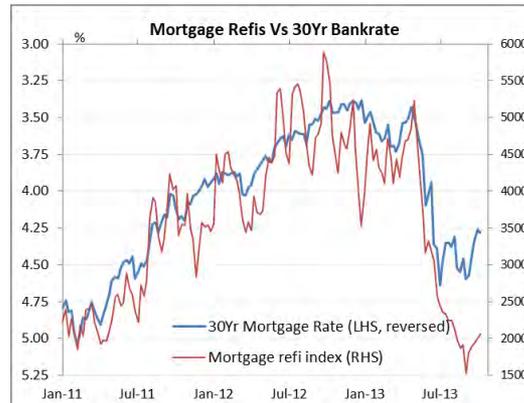
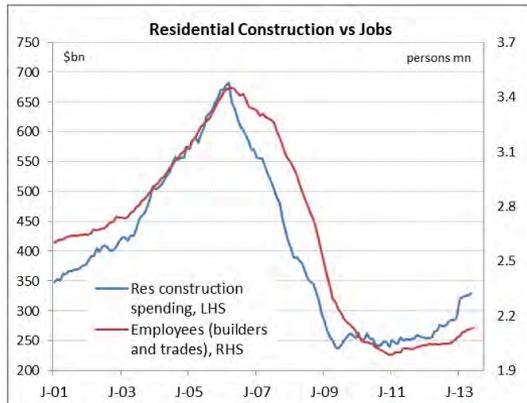
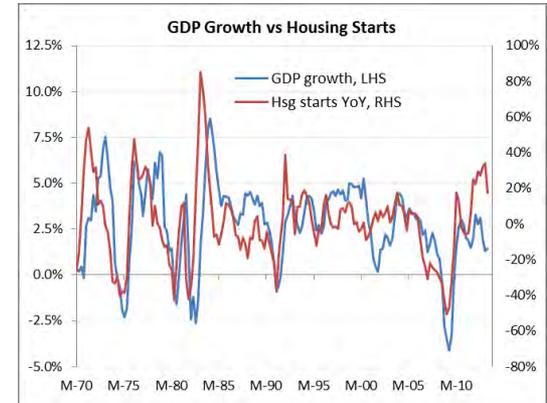
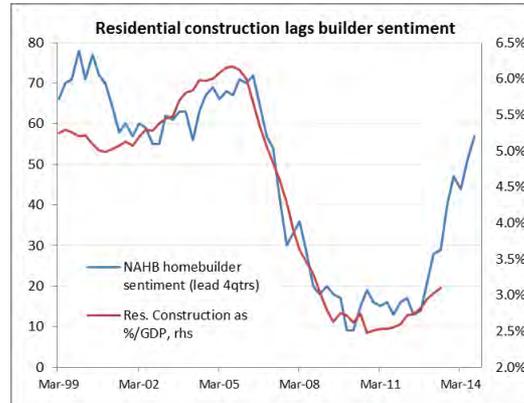
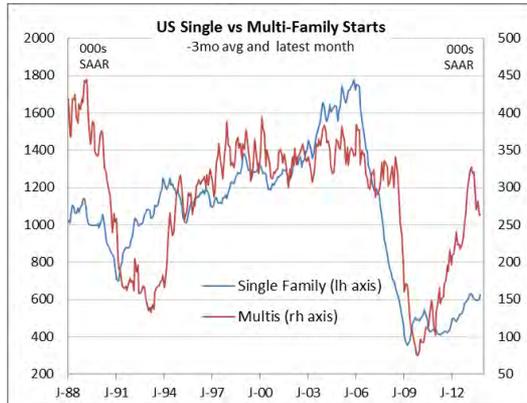


- # of borrowers vs average loan size

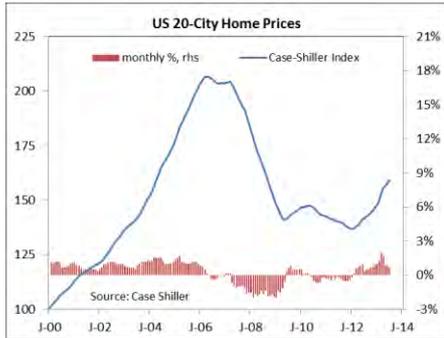


iv. US Housing Market

- Starts growth remains mostly in multi unit dwellings although recently single family has picked up. In this cycle the supply response in single family has been slow; thus prices have risen faster in the 1st phase.
- Strength in housing has a good read-through for jobs and GDP in past cycles, although residential construction/GDP (3.1%) remains muted at only half its GDP contribution vs the end of the last boom.
- Risk: Higher rates have hit applications for refinancing and new mortgages for purchase.



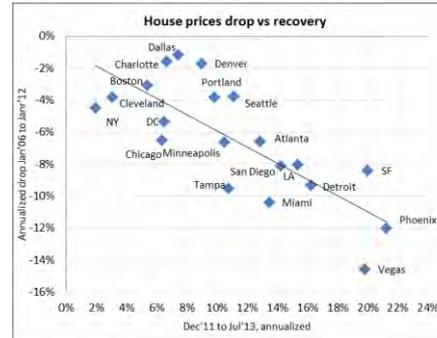
- Monthly price gains have unsurprisingly slowed as more stock comes out.



- Phoenix, Vegas and SF remain the strongest recovery markets.



- Depth of decline correlated with subsequent recovery.



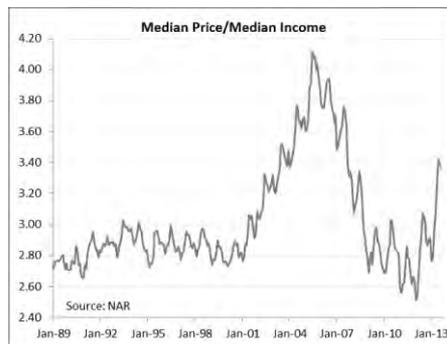
- Slow supply response reflected in higher new home prices than last peak



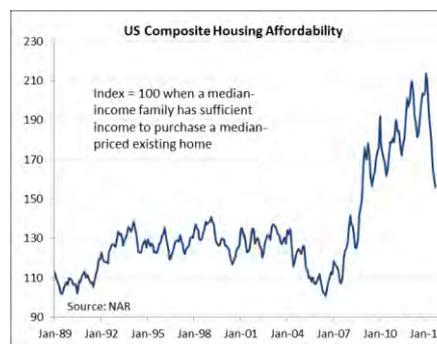
- NAR measure of existing home median sales price has recovered 75% of drop..



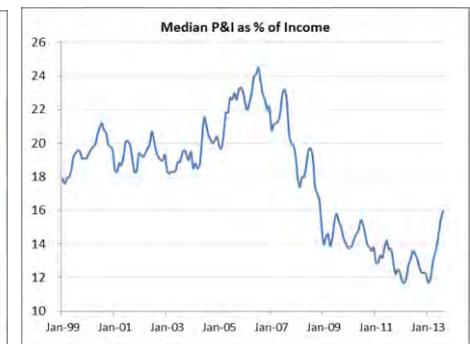
- Median house price to income has retraced 47% of its cyclical decline.



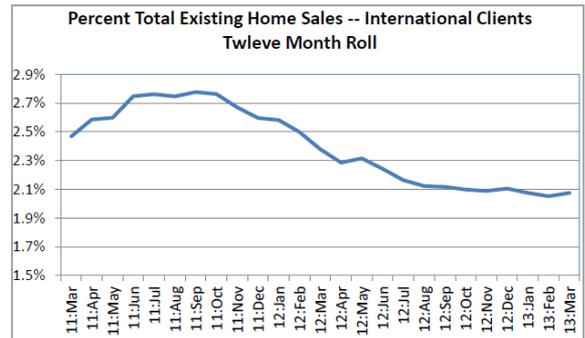
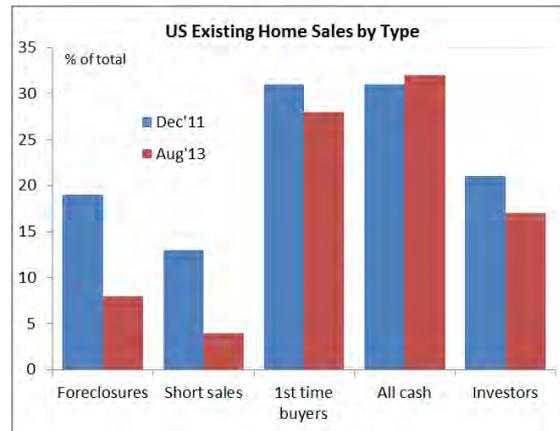
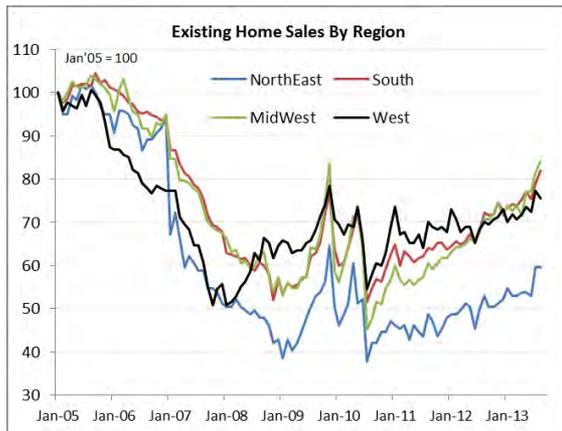
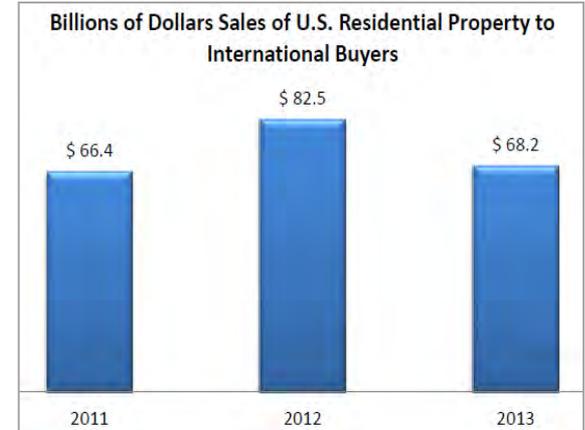
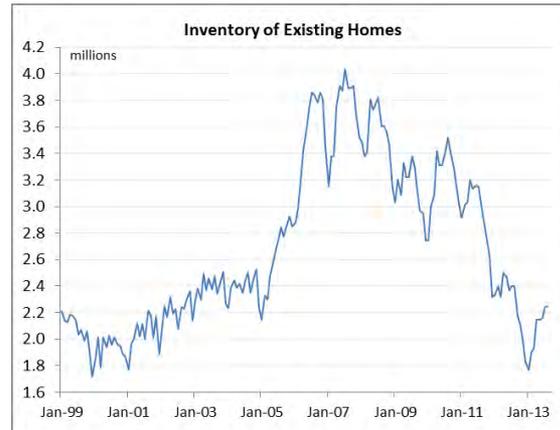
- Affordability has retraced around one half of its cycle gain (on mortgage rate of 4.41%).



- 4 point rebound in % of median income used to pay mortgage.



- Pending sales still project higher actual sales the next couple of months. However, inventory of unsold homes has rebounded as more supply on market.
- Only 12% of sales are now foreclosures or short sales. International purchases fell in latest year, with increased focus on lower end.

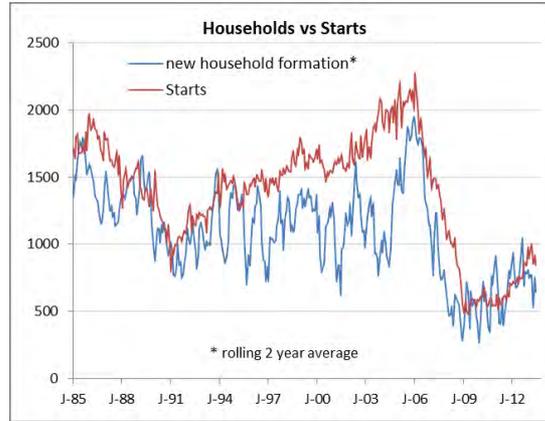


This housing cycle is going to be very gradual

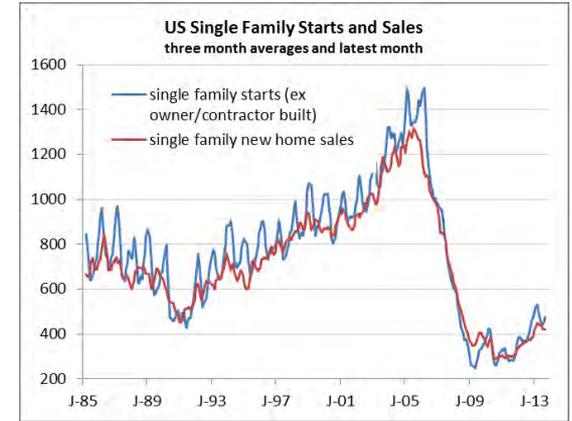
- Lumber prices have rebounded, implying more starts.



- Housing formation has faltered this year.



- Single family activity remains especially low, with shift to renting, larger family sizes



- Completions edging higher.



- Mortgage apps for purchase remain low relative to sales



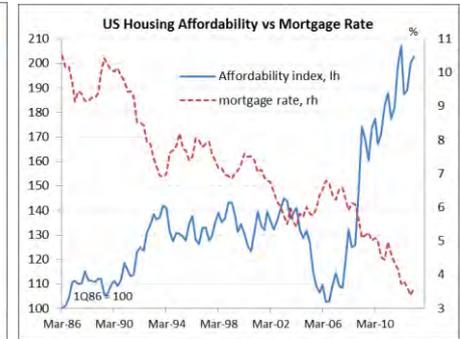
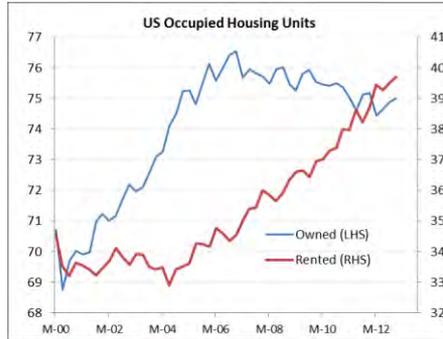
- Builder expectations well ahead of actual sales.



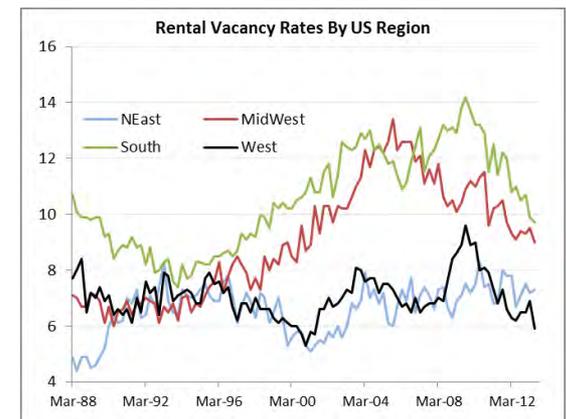
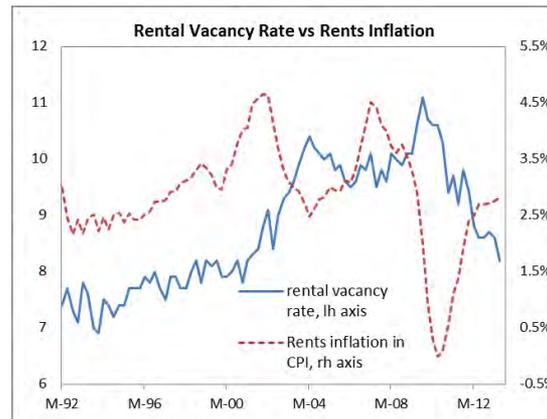
- Normalization of inventory should start quelling the pace of price rises.



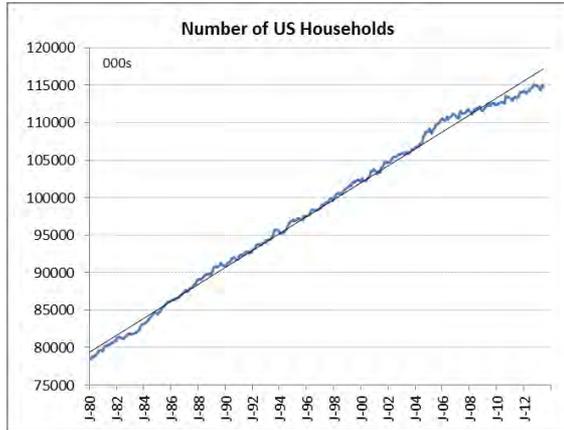
- Ownership gravitates back toward pre-bubble rate.
- Occupied rentals growing 2.2% per annum for the past nine years.
- Rents +7.5% during the past 2yrs but not as aggressive as past spurts.
- More affordable to purchase but constraints and tastes have changed.



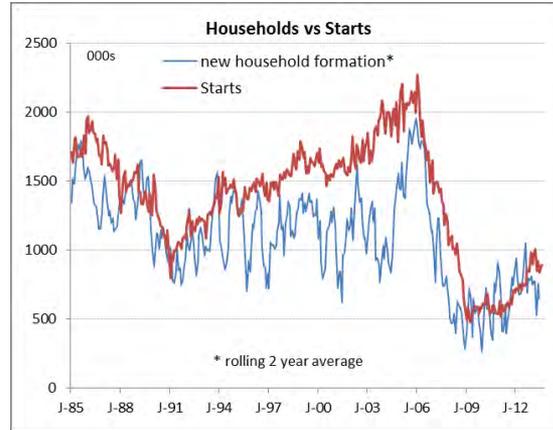
- The median rents to sales price ratio is back in its pre-cycle range
- Rents inflation (in CPI) nudges a little higher in 2Q 2013, to 2.8%.
- Rental vacancies are especially tight in the West.



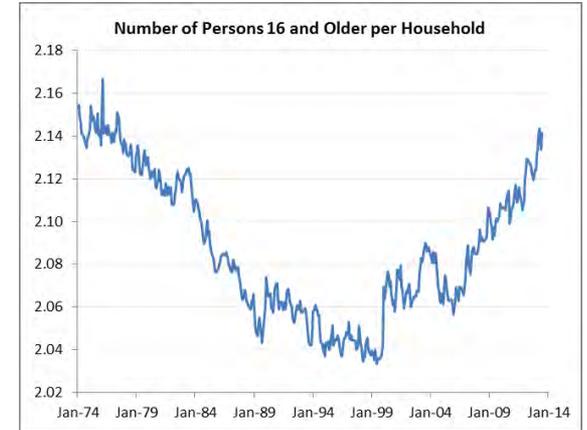
- Household formation is still below trend line



- ... as the recovery in starts is still in its infancy



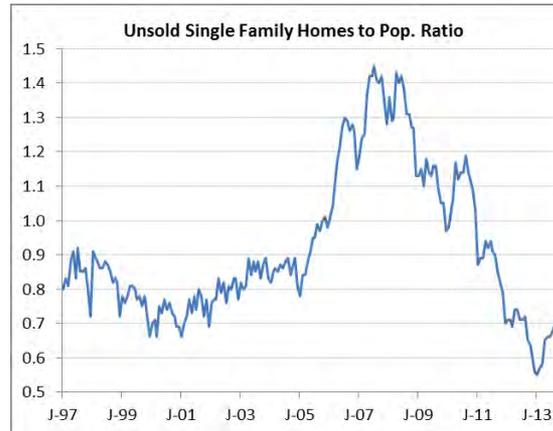
- Rise in # of adults per household is partly cyclical/reversible.



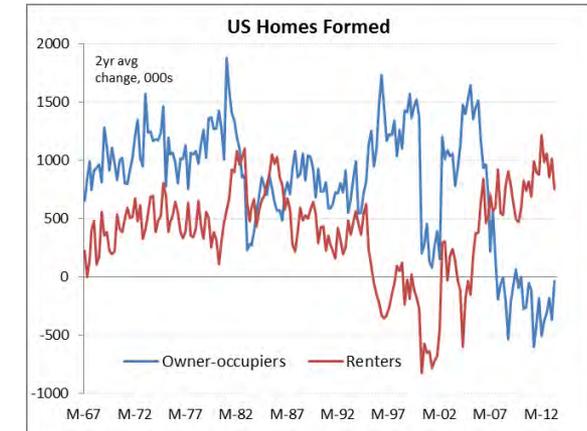
- Vacant year round homes back to trend line



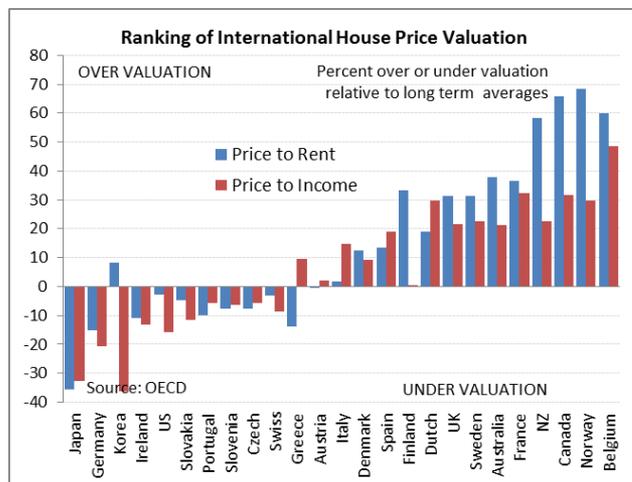
- Slightly more homes coming to market



- All of the household formation has been in renters



- House prices in the US are relatively low by international standards when measured against rents and income.

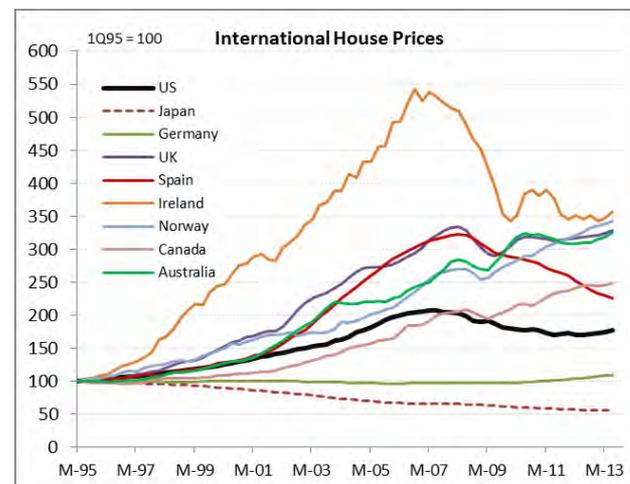


- Changes in house prices since the 1990s have been relatively slow in the US.



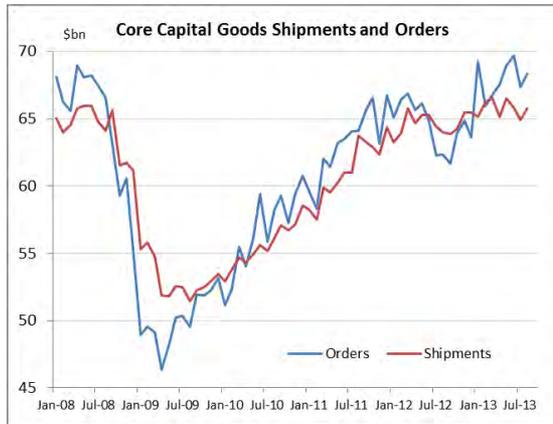
EU house prices, year to:

	2Q11	2Q12	2Q13	Cum
Spain	-6.2	-16.0	-10.6	-29.6
Ireland	-12.9	-14.4	1.2	-24.5
Neth	-1.7	-5.6	-7.5	-14.2
Portugal	-1.2	-8.3	-4.3	-13.3
Hungary	-3.4	-4.3	-4.5	-11.7
Slovenia	3.2	-5.7	-4.6	-7.2
Italy	1.2	-2.0	-5.9	-6.7
Euro area	1.5	-2.5	-2.2	-3.2
Slovakia	-1.9	-2.5	1.2	-3.2
Czech	0.6	-2.0	-0.8	-2.2
Denmark	1	-5.4	3.5	-1.1
UK	-1.8	2.0	2.9	3.1
France	6.8	-0.2	-1.1	5.4
Belgium	4.2	2.6	0.4	7.3
Finland	4.2	1.8	1.4	7.6
Sweden	3.9	-0.1	4.6	8.6
Norway	7.4	7.4	5.8	22.0

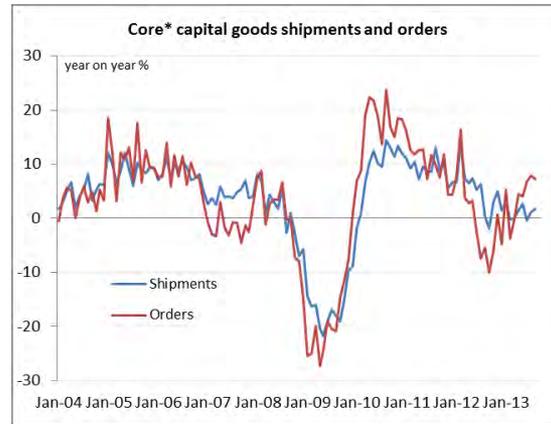


v. Business Sector

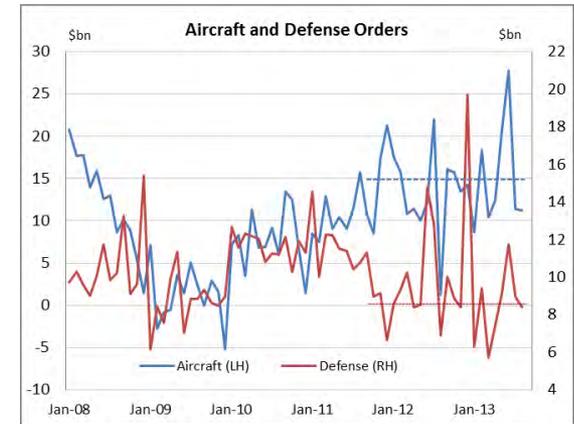
- Orders and shipments rebounded modestly in August.



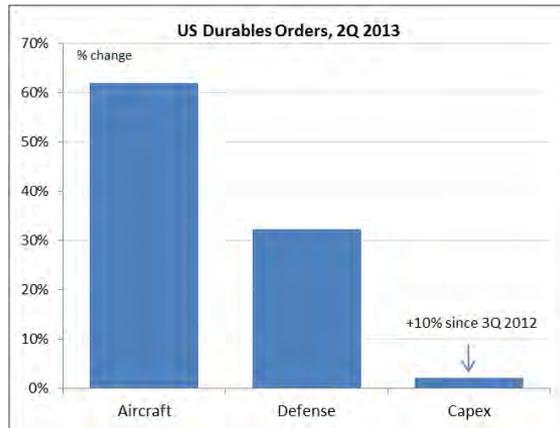
- Trend in core capex orders has improved to 7.2% YoY (shipments just 1.8% YoY).



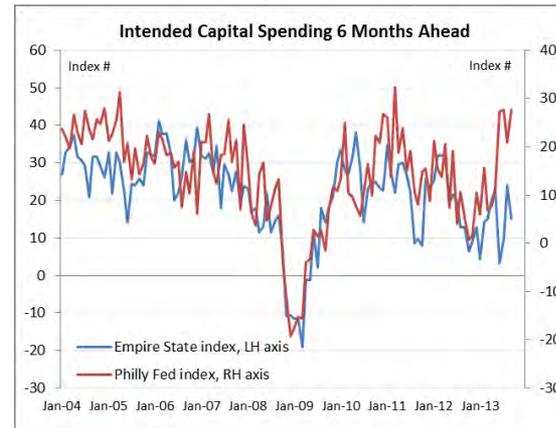
- Aircraft and defense orders still trending sideways.



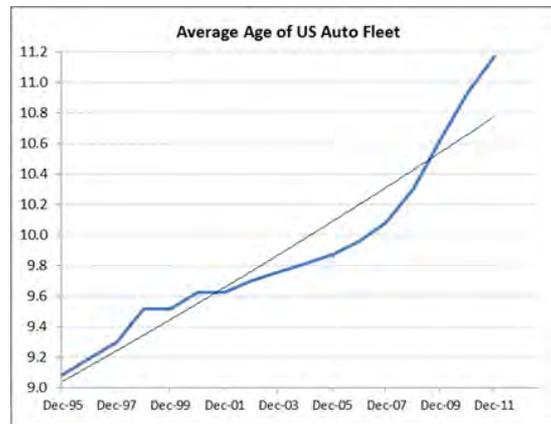
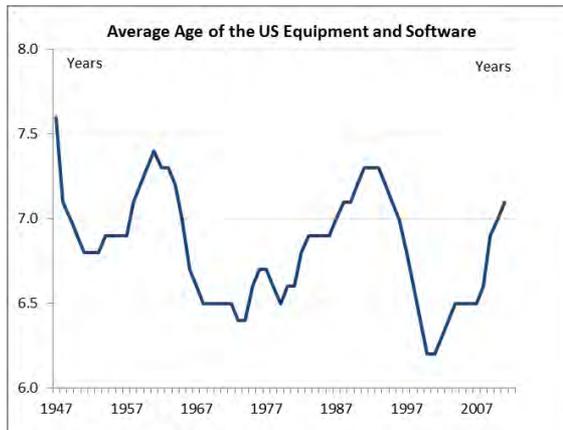
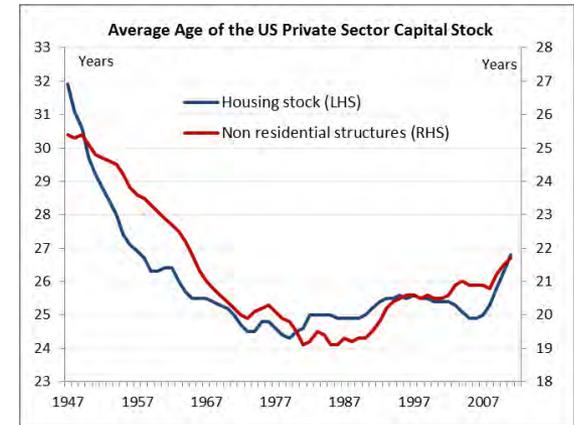
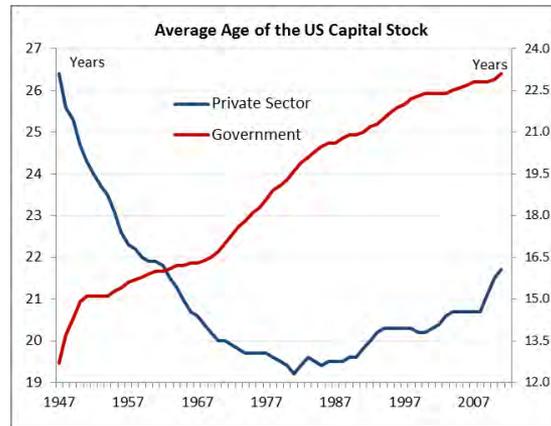
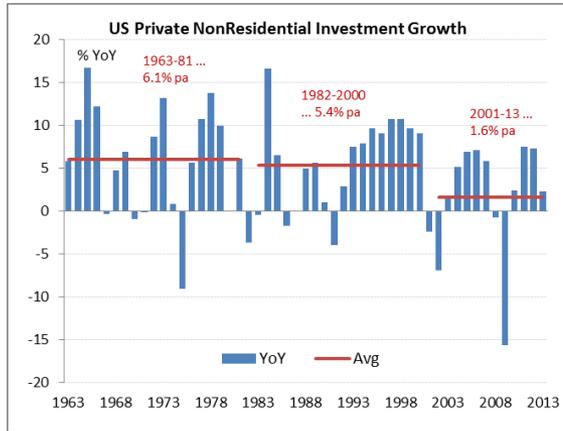
- Dip in orders for July-August followed a very strong second quarter.



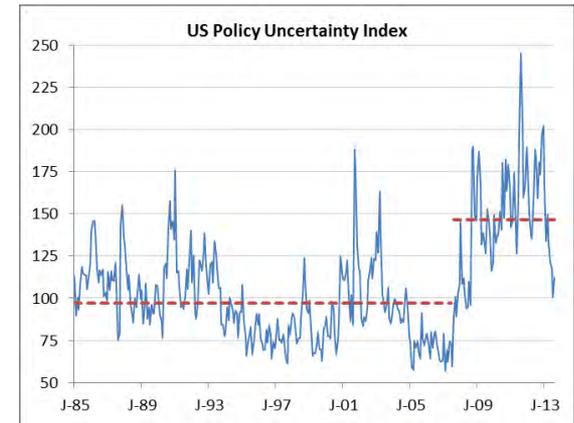
- Intended capex remains quite strong according to the Philly Fed survey.



- Ageing may trigger replacement investment



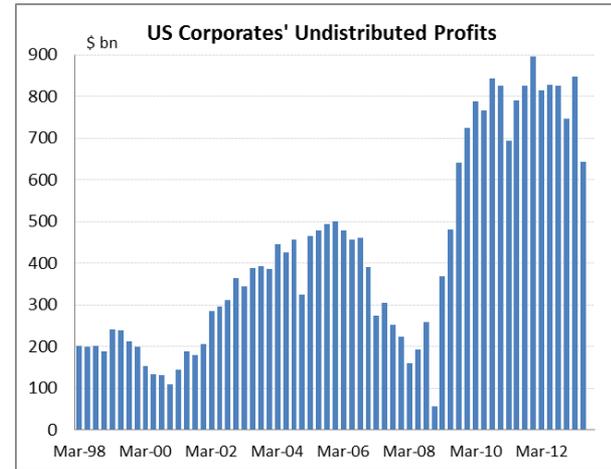
- Investment also correlated with policy uncertainty



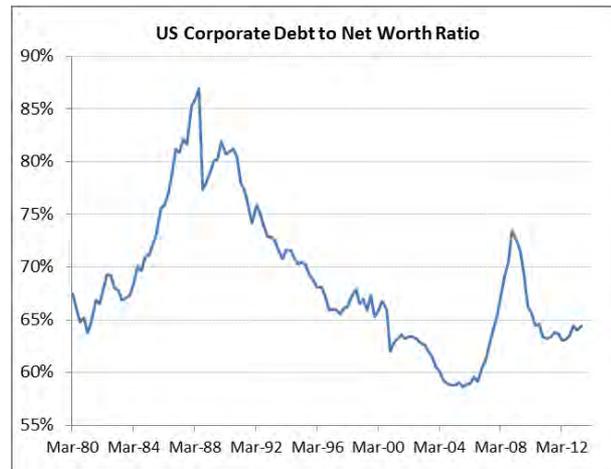
- US corporate profits jumped 4% in 2Q 2013, taking ratio to GDP back to the high.



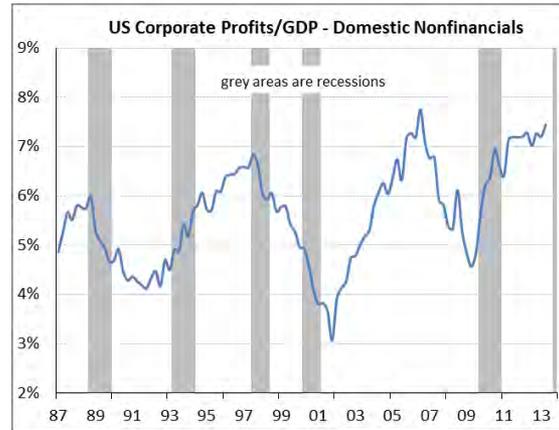
- Fell away in 2Q13 largely because of Fannie Mae dividend to government.



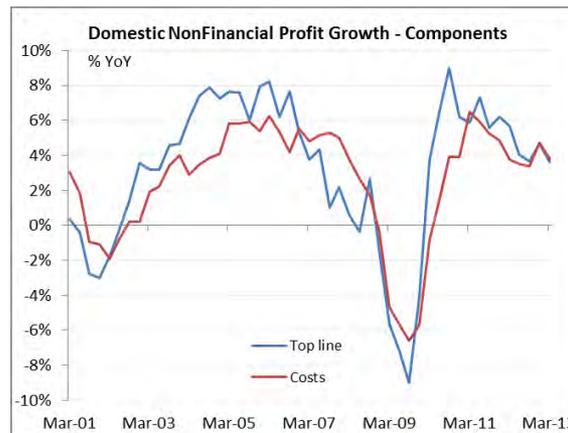
- Corporate debt to net worth much lower than during last boom although elevated vs mid 2000s



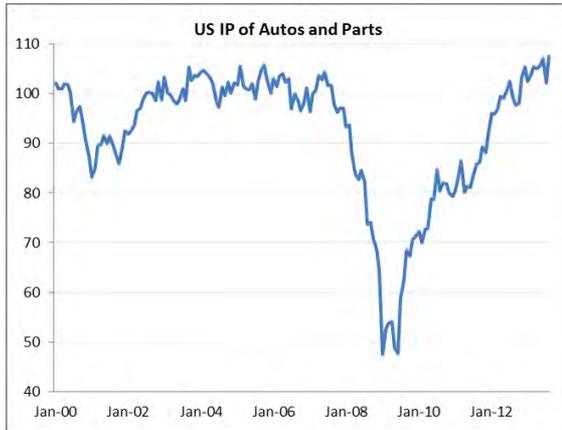
- Profits increase of 4% is across the board.



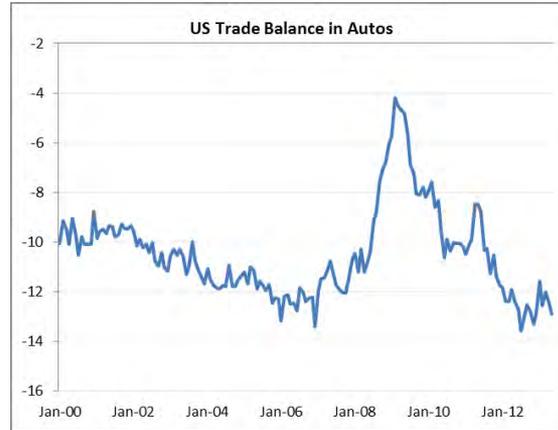
- Corporate top line and costs are both growing at 3 ½ to 4%, little different to nominal GDP.



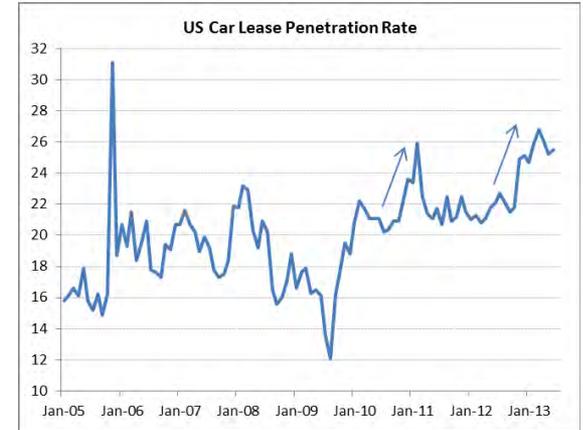
- Auto production back to highs of last cycle.



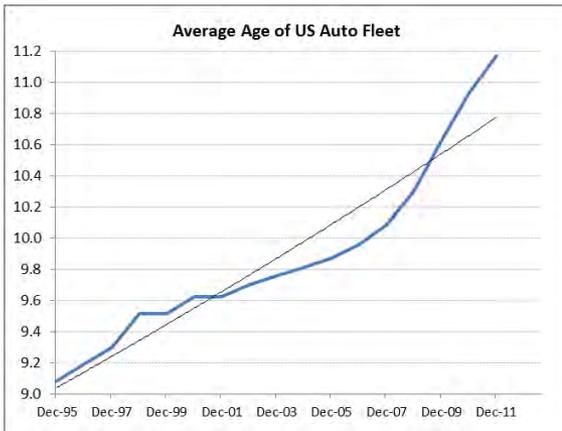
- Although the auto trade balance has deteriorated.



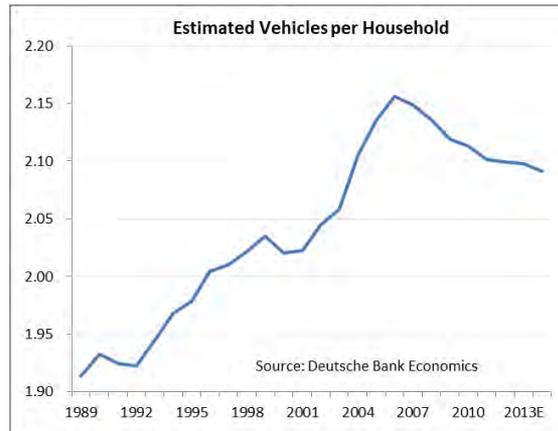
- There has been a jump in expiring leases.



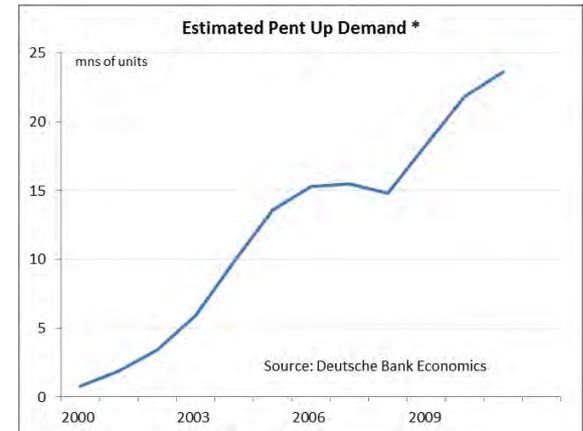
- Ageing fleet = pent up demand.



- Drop in cars per household since recession.



- One estimate of pent up demand for cars is in excess of 20 million units.



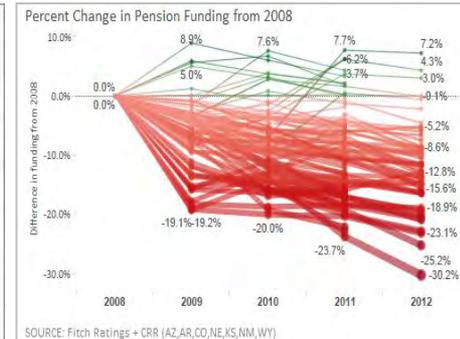
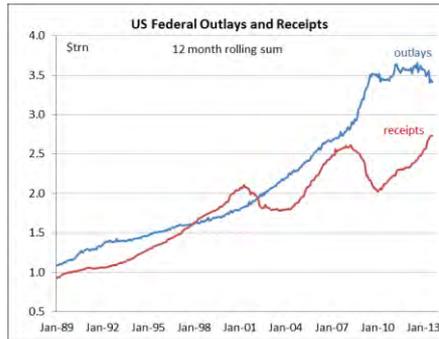
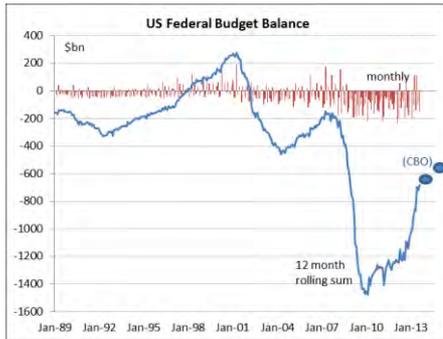
vi. Government Sector

- Federal deficit down to \$679 bn in the year to August, vs \$1227bn a year earlier.

- Outlay dip due to sequester and \$60bn div payment by Fannie Mae (neg outlay).

Improvement in S&L revenue is not being spent this time ...

Deterioration in reserves and pension underfunding are to blame

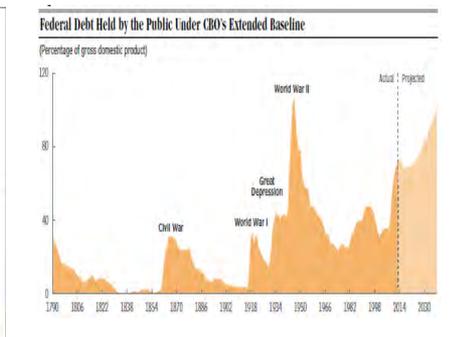
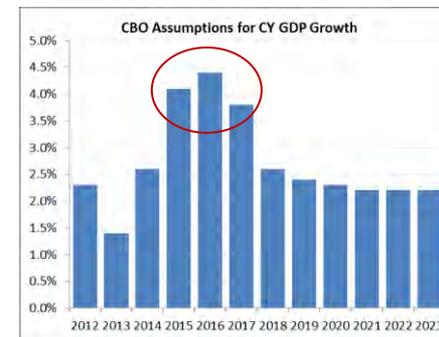
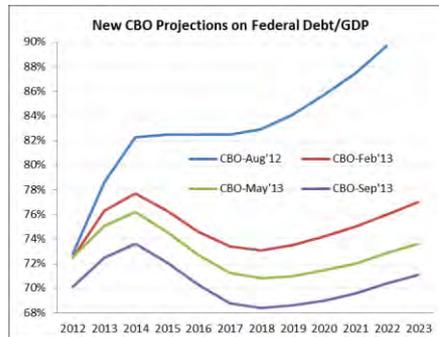
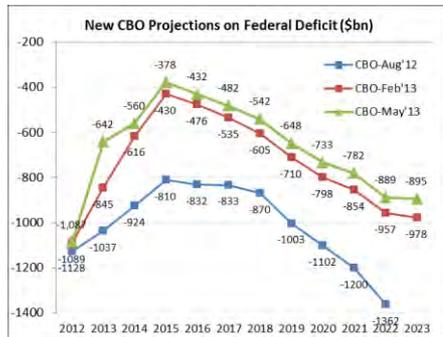


- Latest CBO estimates in May further reduce expected deficit trajectory.

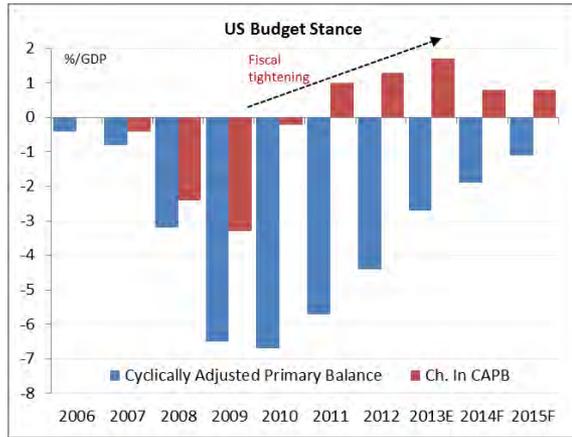
- Resulting in a less onerous near term peak in debt/GDP.

- That said, the CBO growth projections might be optimistic in 2015-17.

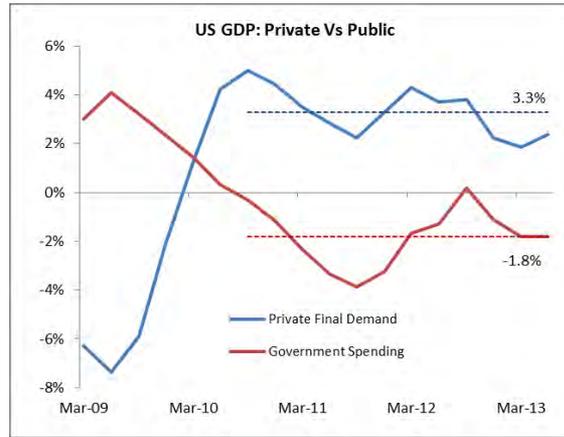
- Then in the 25 year outlook, federal debt to GDP approaches the WW2 high.



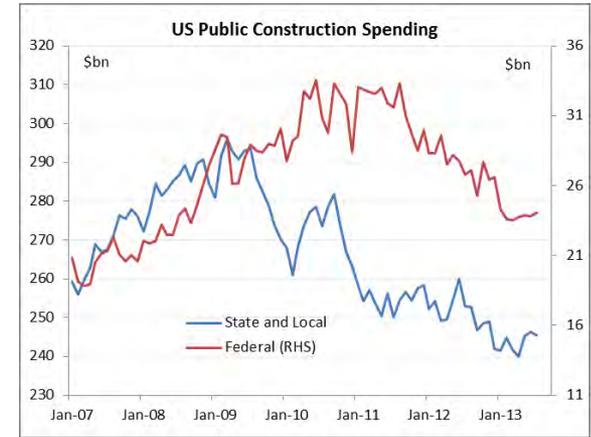
Fiscal drag reaching its max point



The private sector economy has been averaging 3% growth vs -2% for public sector.



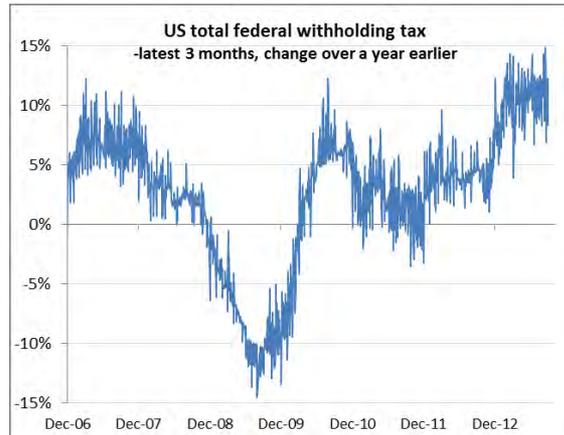
Public sector construction spending appears to be bottoming.



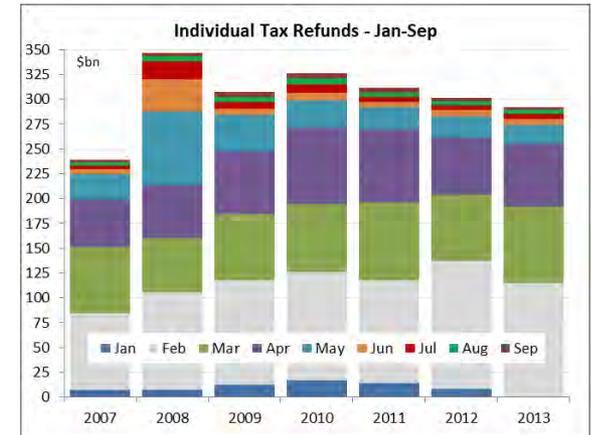
\$15bn off government worker wages and salaries in July and Aug (annualized -0.5%/nominal GDP).



- Private income growth also restrained by 10% YoY growth in withholding tax.

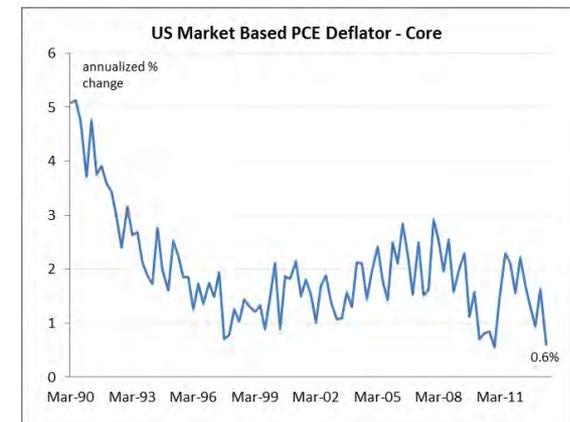
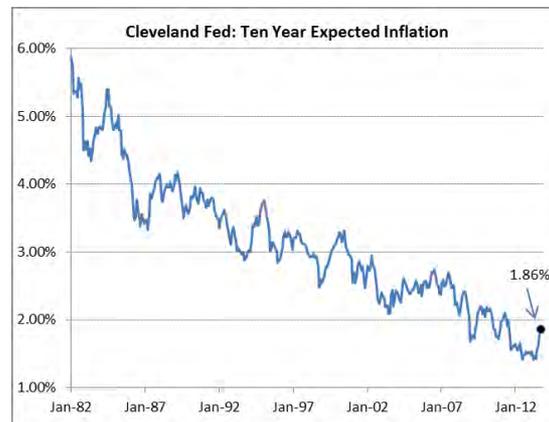
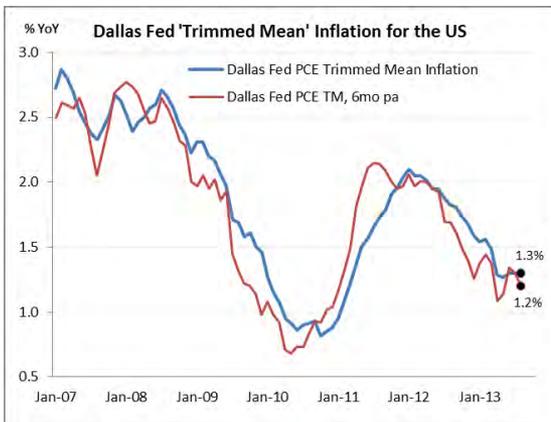
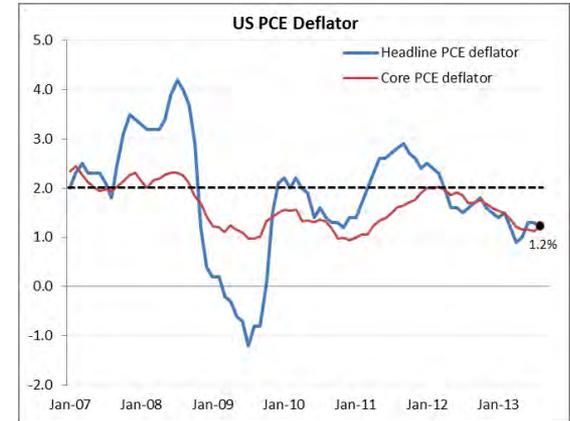
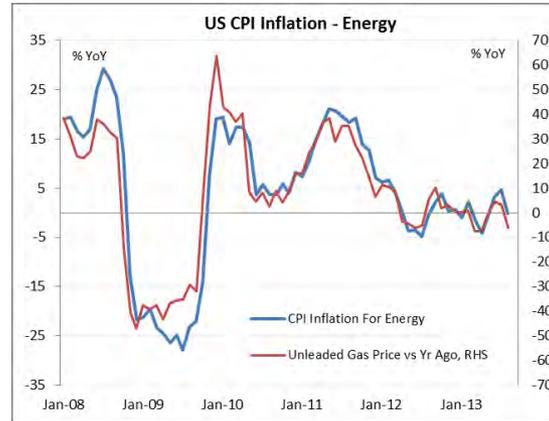
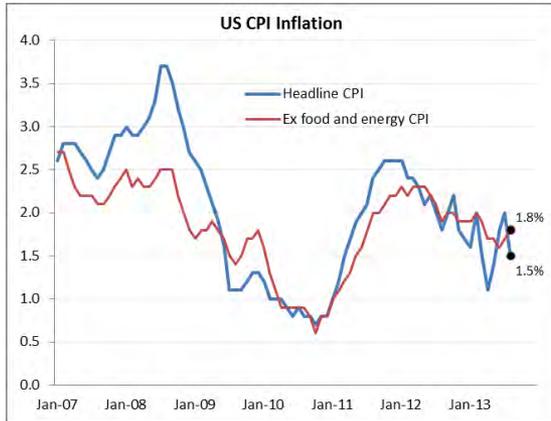


... and federal Income tax refunds are down

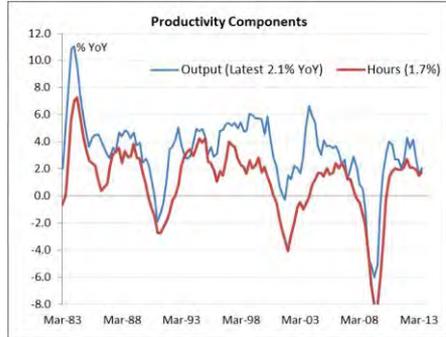


vii. Inflation, Money and Credit

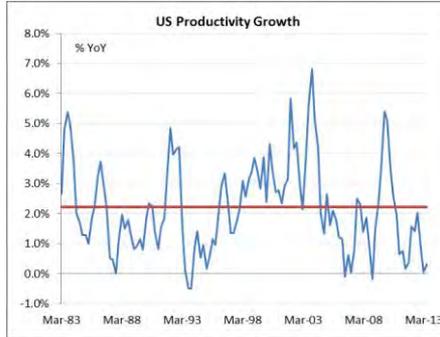
- Core/underlying inflation measures remain well below Fed 'target' of 2%.



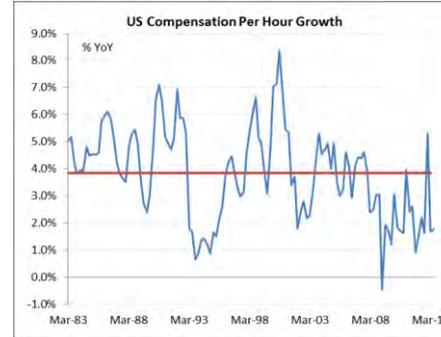
- Both output and hours are growing at 2% yearly



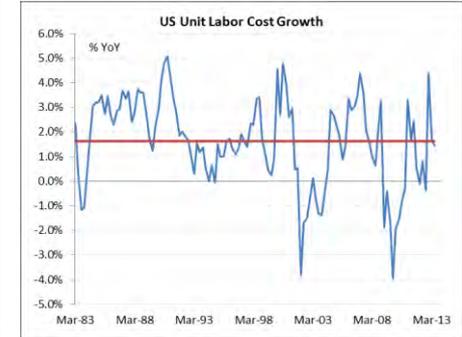
- Translates into zero labor productivity growth.



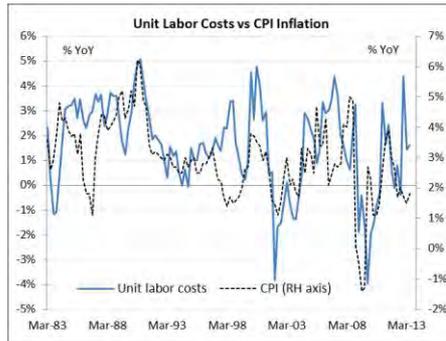
- Wages and salaries growing at a below 2% rate



- Low productivity and wage growth = trend-like unit labor costs



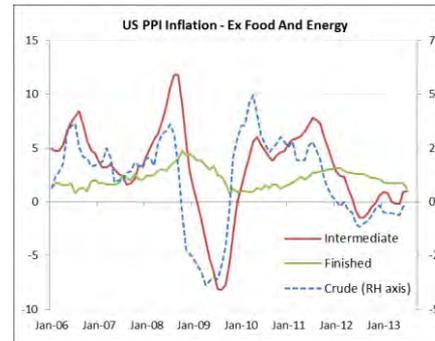
- CPI inflation running lower than predicted by unit labor costs alone.



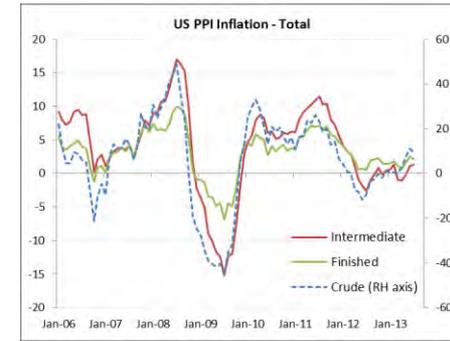
- Productivity in manufacturing also below trend.



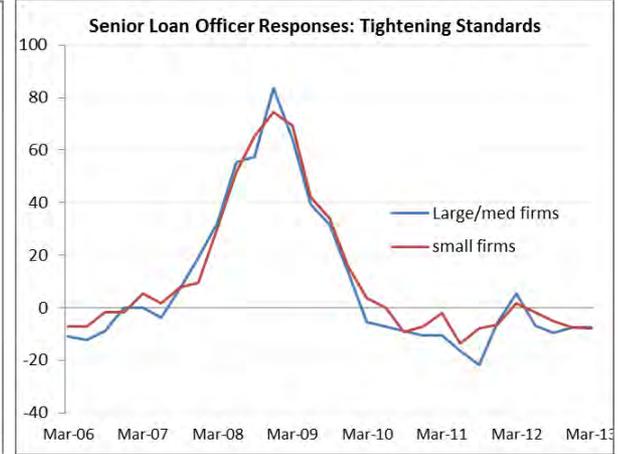
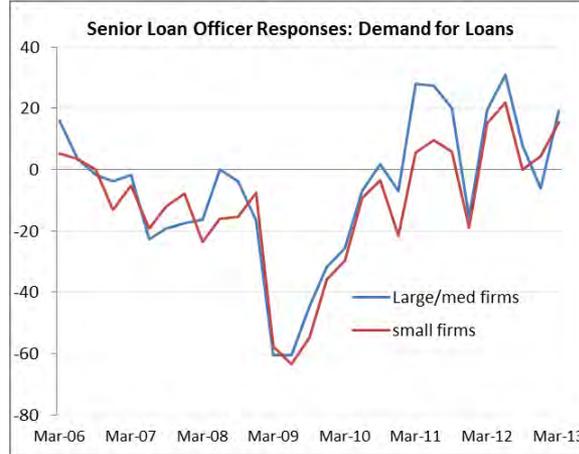
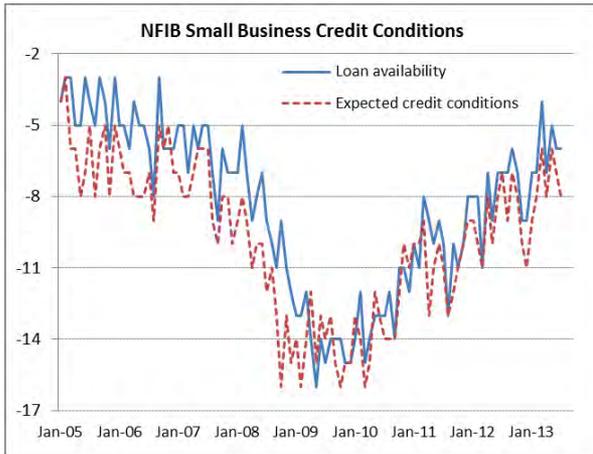
- Modest pick-up in early stage producer price inflation ex food and energy.



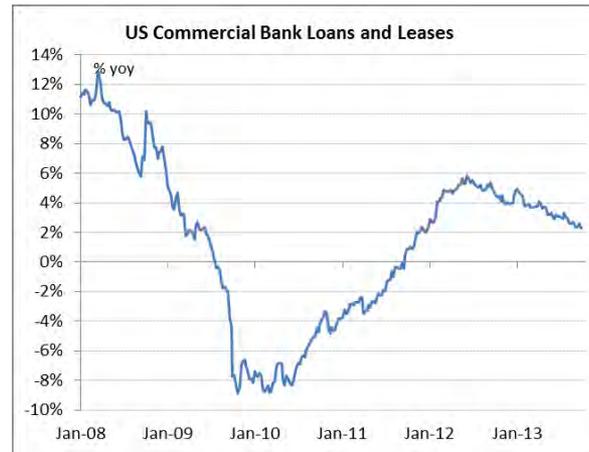
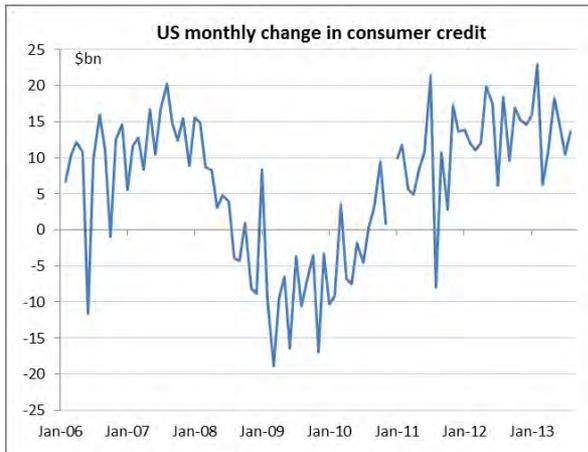
- More so when energy and food are included.



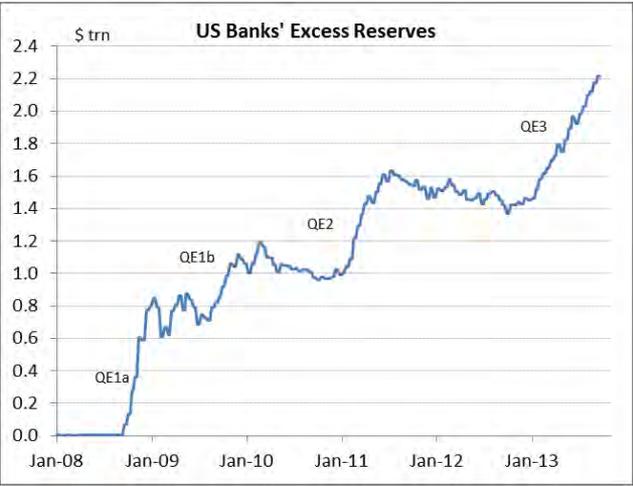
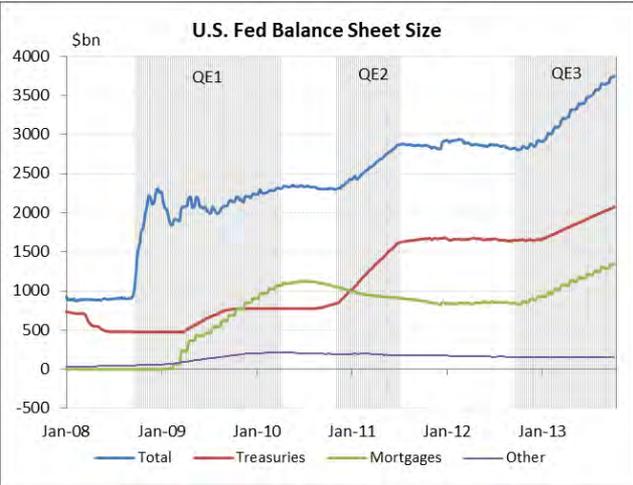
- Credit channels have unclogged



- Consumer credit growing at a 5 ½-6% YoY rate, about the same as household spending on durables. Commercial bank loan growth has slowed, though, to 2.3% YoY.



- Trends in money multipliers and money velocity suggest that there is to date little inflation risk from Feb balance sheet expansion/base money creation.



viii. International

	Year over Year						Q4 over Q4		
	2011	2012	Projections		Difference from July 2013 WEO Update		Estimates	Projections	
			2013	2014	2013	2014	2012	2013	2014
World Output¹	3.9	3.2	2.9	3.6	-0.3	-0.2	2.7	3.1	3.6
Advanced Economies	1.7	1.5	1.2	2.0	0.0	0.0	0.9	1.8	2.1
United States ²	1.8	2.8	1.6	2.6	-0.1	-0.2	2.0	1.9	3.0
Euro Area	1.5	-0.6	-0.4	1.0	0.1	0.0	-1.0	0.4	1.1
Germany	3.4	0.9	0.5	1.4	0.2	0.1	0.3	1.3	1.1
France	2.0	0.0	0.2	1.0	0.3	0.1	-0.3	0.5	1.1
Italy	0.4	-2.4	-1.8	0.7	0.0	0.0	-2.8	-0.9	1.4
Spain	0.1	-1.6	-1.3	0.2	0.3	0.1	-2.1	-0.2	0.2
Japan	-0.6	2.0	2.0	1.2	-0.1	0.1	0.3	3.5	0.2
United Kingdom	1.1	0.2	1.4	1.9	0.5	0.4	0.0	2.3	1.5
Canada	2.5	1.7	1.6	2.2	-0.1	-0.1	1.0	1.9	2.4
Other Advanced Economies ³	3.2	1.9	2.3	3.1	0.0	-0.2	2.1	2.8	3.0
Emerging Market and Developing Economies⁴	6.2	4.9	4.5	5.1	-0.5	-0.4	4.9	4.7	5.4
Central and Eastern Europe	5.4	1.4	2.3	2.7	0.2	-0.1	0.8	2.8	3.4
Commonwealth of Independent States	4.8	3.4	2.1	3.4	-0.7	-0.3	1.4	2.0	3.5
Russia	4.3	3.4	1.5	3.0	-1.0	-0.3	2.0	1.6	3.8
Excluding Russia	6.1	3.3	3.6	4.2	0.1	-0.1	...	...	...
Developing Asia	7.8	6.4	6.3	6.5	-0.6	-0.5	6.8	6.2	6.6
China	9.3	7.7	7.6	7.3	-0.2	-0.4	7.9	7.6	7.2
India ⁵	6.3	3.2	3.8	5.1	-1.8	-1.1	3.0	3.9	5.8
ASEAN-5 ⁶	4.5	6.2	5.0	5.4	-0.6	-0.3	8.9	4.2	5.3
Latin America and the Caribbean	4.6	2.9	2.7	3.1	-0.3	-0.3	2.8	1.9	3.8
Brazil	2.7	0.9	2.5	2.5	0.0	-0.7	1.4	1.9	3.6
Mexico	4.0	3.6	1.2	3.0	-1.7	-0.2	3.2	1.0	3.5
Middle East, North Africa, Afghanistan, and Pakistan	3.9	4.6	2.3	3.6	-0.7	-0.1	...	...	...
Sub-Saharan Africa	5.5	4.9	5.0	6.0	-0.2	0.1	...	...	...
South Africa	3.5	2.5	2.0	2.9	0.0	0.0	2.3	2.3	3.0
<i>Memorandum</i>									
European Union	1.7	-0.3	0.0	1.3	0.2	0.1	-0.7	0.8	1.4
Middle East and North Africa	3.9	4.6	2.1	3.8	-0.9	0.0	...	...	...
World Growth Based on Market Exchange Rates	2.9	2.6	2.3	3.0	-0.2	-0.2	1.9	2.6	3.1
World Trade Volume (goods and services)	6.1	2.7	2.9	4.9	-0.2	-0.4	...	...	...

- OECD: “The CLIs point to economic growth above trend in the United States and Japan, and to growth firming in the United Kingdom ... In the Euro Area as a whole, the CLI continues to indicate a gain in growth momentum The CLIs point to growth returning to trend in China, and to a tentative positive change in momentum in Russia”.

	Ratio to trend, amplitude adjusted					Month on Month change					Year on Year change (%)	Growth cycle outlook
	(long term average =100)					(%)						
	2013					2013							Latest month
Apr	May	Jun	Jul	Aug	Apr	May	Jun	Jul	Aug			
OECD Area	100.3	100.4	100.5	100.5	100.6	0.09	0.07	0.06	0.06	0.05	0.87	growth around trend
Euro Area	99.9	100.1	100.2	100.4	100.6	0.14	0.15	0.16	0.17	0.18	1.43	growth gaining momentum
Major Five Asia*	99.6	99.5	99.3	99.3	99.2	-0.10	-0.12	-0.11	-0.08	-0.03	-0.35	growth around trend
Major Seven	100.4	100.5	100.6	100.7	100.8	0.10	0.10	0.09	0.08	0.07	1.11	growth around trend
Canada	99.4	99.4	99.5	99.6	99.8	0.00	0.05	0.08	0.11	0.12	0.00	positive change in momentum
France	99.4	99.4	99.5	99.6	99.7	-0.03	0.00	0.06	0.11	0.15	0.06	positive change in momentum
Japan	100.8	100.9	101.0	101.0	101.0	0.19	0.13	0.06	0.01	-0.03	1.21	growth above trend
Germany	99.9	100.0	100.1	100.3	100.4	0.14	0.14	0.14	0.14	0.15	1.66	growth firming
Italy	99.7	100.0	100.2	100.5	100.7	0.21	0.24	0.25	0.25	0.23	1.99	positive change in momentum
United Kingdom	100.3	100.5	100.6	100.9	101.2	0.07	0.11	0.17	0.26	0.31	1.65	growth firming
United States	100.7	100.8	100.9	100.9	100.9	0.08	0.09	0.07	0.04	0.01	1.04	growth above trend
Brazil	99.4	99.2	99.1	98.9	98.8	-0.13	-0.16	-0.17	-0.14	-0.10	-1.18	growth below trend
China	99.6	99.4	99.3	99.3	99.3	-0.19	-0.18	-0.13	-0.05	0.02	-0.53	growth returning to trend
India	97.7	97.5	97.2	97.1	97.0	-0.23	-0.26	-0.25	-0.20	-0.11	-1.93	growth below trend
Russia	99.0	99.1	99.1	99.3	99.4	0.04	0.06	0.08	0.11	0.13	-0.22	tentative positive change in momentum

* China, India, Indonesia, Japan and Korea.

JPM Global Economics:

- “The third quarter of 2013 saw the global economy record its sharpest quarterly growth of output for one-and-a-half years ... Outside of the US, the rate of increase (on average) hit a two-and-a-half year high.”
- September data signaled that the UK remained a stand-out performer, with all-industry output rising at a rate close to August's series record high. Growth also ticked higher in Japan, hitting a four-month peak, while Brazil returned to expansion and the modest recovery in Russia continued. ... The big story was the ongoing recovery in the Eurozone

Global Manufacturing PMI™ Summary

50 = no change on previous month.

	Aug	Sep	Change	Summary, rate of change
Global PMI	51.6	51.8	+	Expanding, faster rate
Output	52.3	53.1	+	Expanding, faster rate
New Orders	53.2	52.8	-	Expanding, slower rate
Input Prices	55.1	55.5	+	Expanding, faster rate
Employment	50.5	50.3	-	Increasing, slower rate

Global Services PMI™ Summary

50 = no change on previous month.

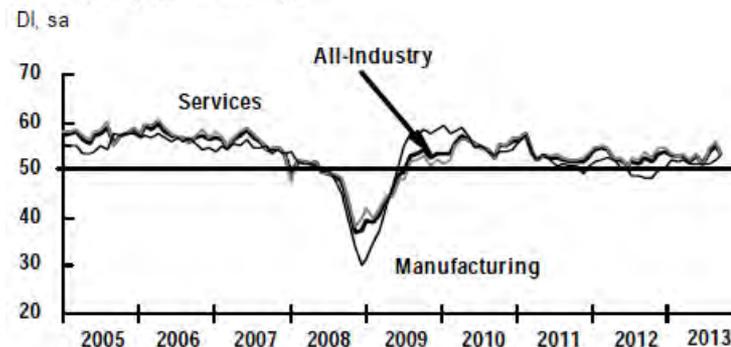
	Aug	Sep	+/-	Summary
Output/activity	56.0	53.6	-	Growth, slower rate
New business	55.3	55.0	-	Growth, slower rate
Backlogs of work	49.8	49.9	+	Falling, slower rate
Input prices	53.7	55.7	+	Rising, faster rate
Employment	52.7	51.3	-	Rising, slower rate

Global Manufacturing & Services PMI™ Summary

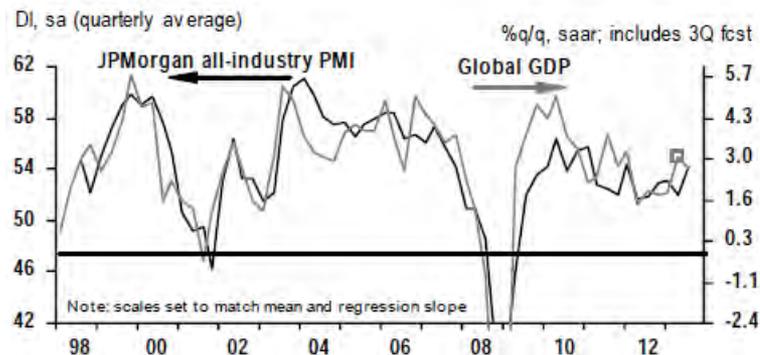
50 = no change on previous month.

	Aug	Sep	+/-	Change Summary
Output	55.1	53.5	-	Expanding, slower rate
New Orders	54.8	54.5	-	Expanding, slower rate
Input Prices	54.0	55.6	+	Rising, faster rate
Employment	52.2	51.0	-	Rising, slower rate
Backlogs	49.8	50.0	+	Unchanged, from declining

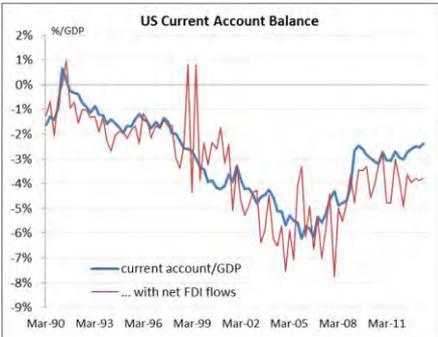
JPMorgan global PMI output



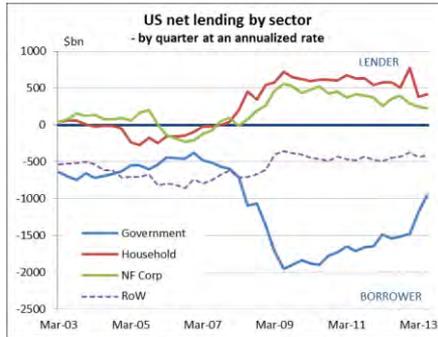
Global activity indicators



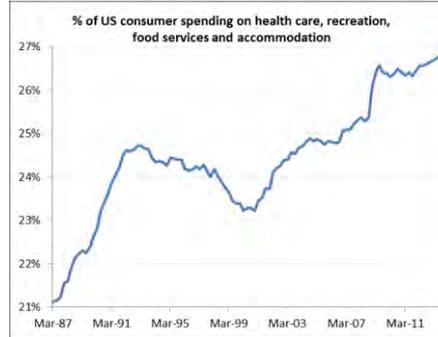
- Current account deficit narrowing, although basic balance less so.



- Structurally a lower government deficit is driving.



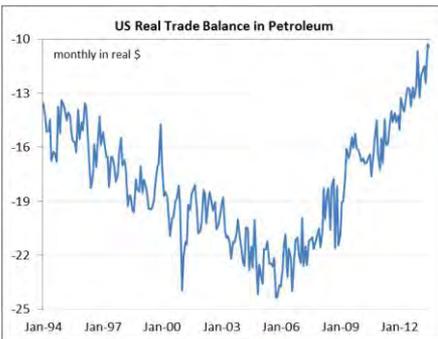
- US consumers spending more on (domestic) services.



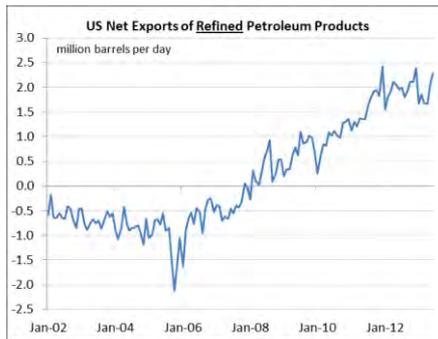
- Relative unit labor costs are falling.



- Sharp decline in net imports of petroleum.



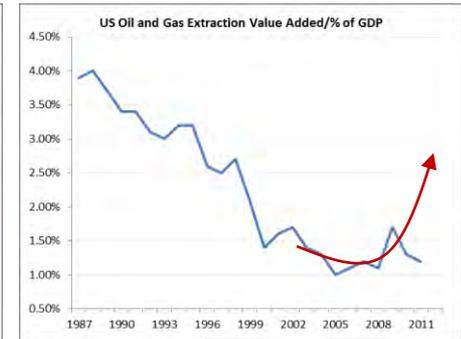
- And balance in refined product has turned positive



- Oil and gas drilling activity has increased rapidly.



- ... but GDP share has upside.



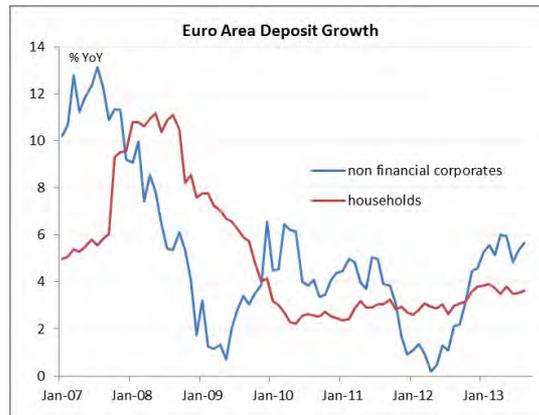
- EZ GDP positive again after 6 qtr recession.



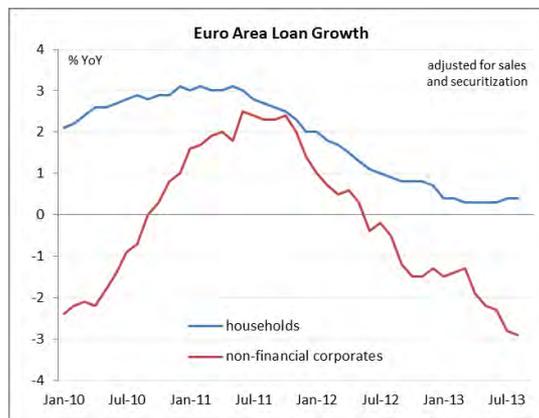
- Sentiment bottoms, u-rate rise has slowed.



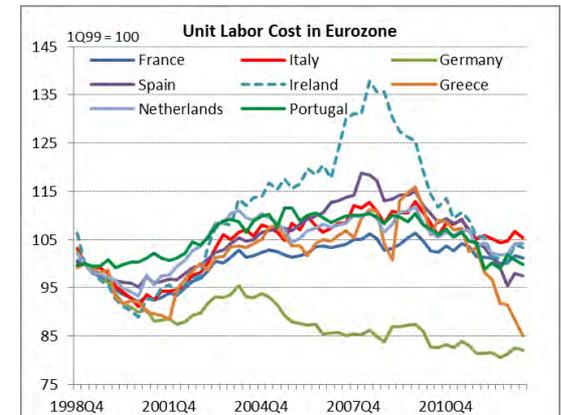
- Deposit growth tick up in August.



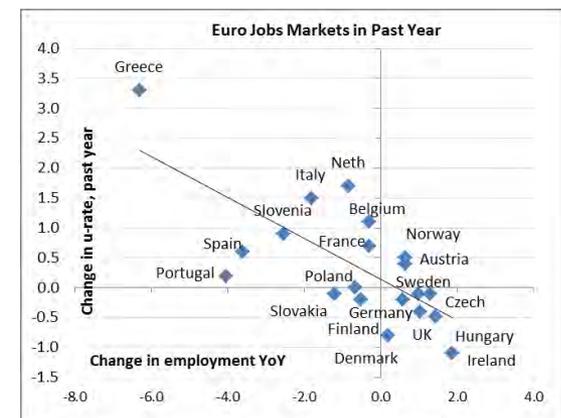
- But corporate loan growth weakens further.



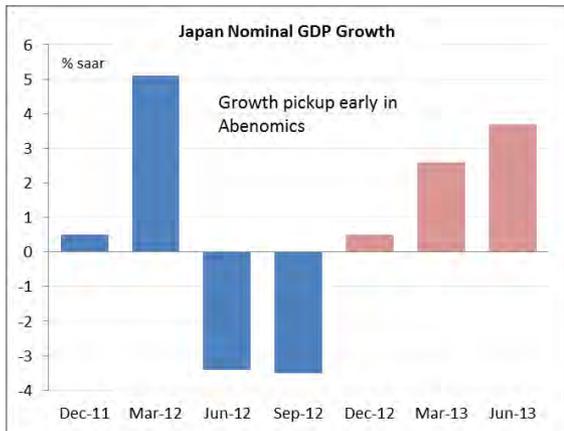
- Periphery relative unit labor costs improve.



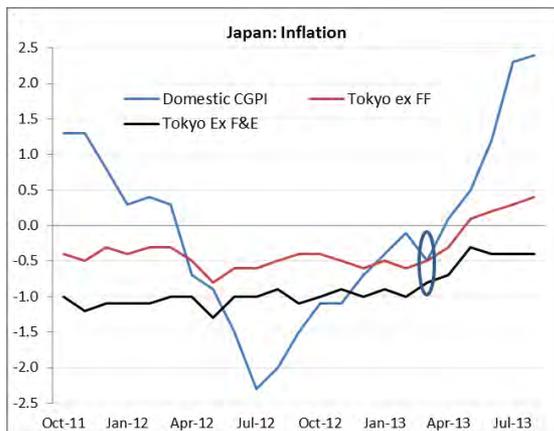
- But periphery jobs markets recovering slower.



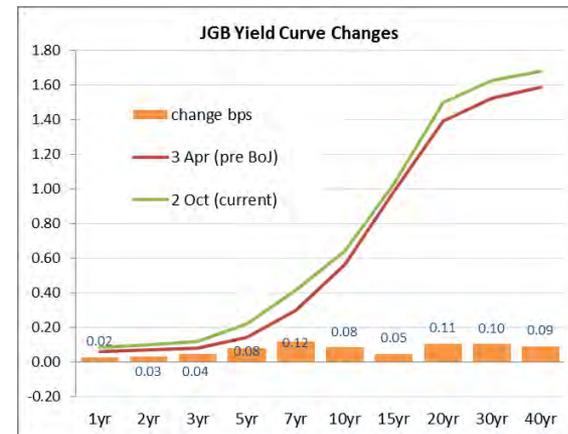
- Nominal GDP has turned positive.



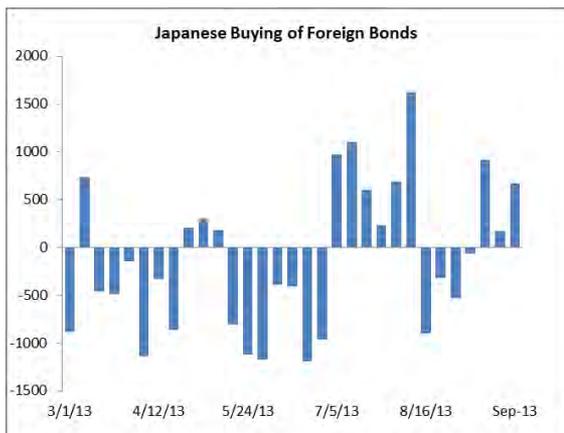
- Most key inflation measures have turned positive.



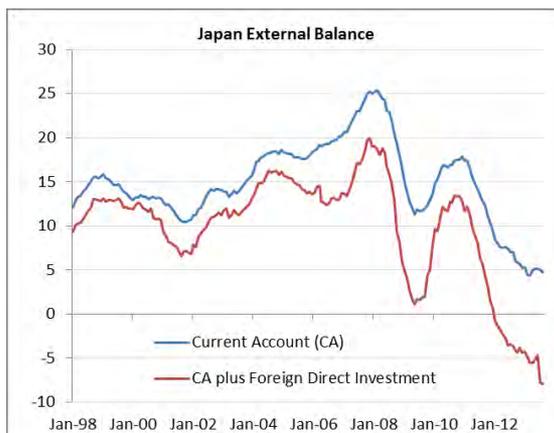
- Yet financial repression has kept JGB yields low (and stable).



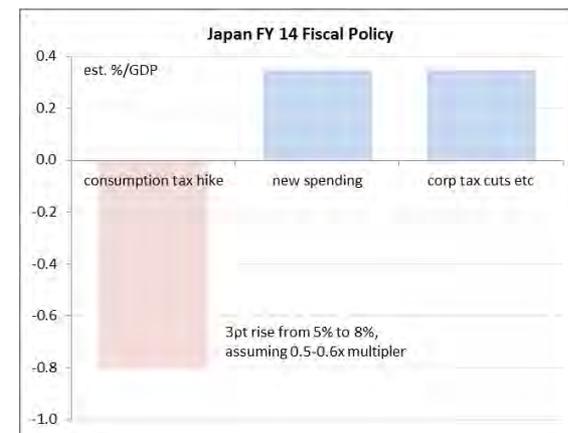
- As yet Japanese investors have not reallocated to foreign bonds.



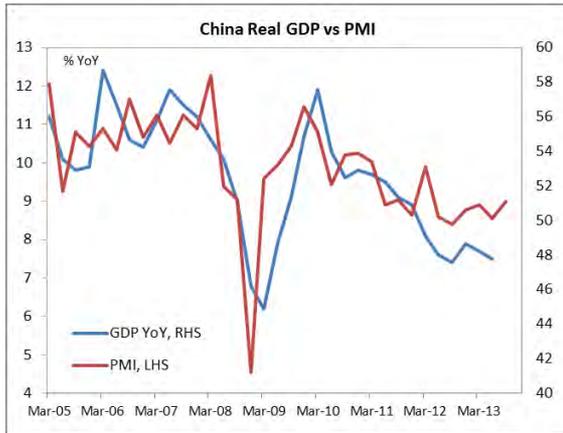
- Japan's investible surplus has declined and is negative if net FDI outflow is included.



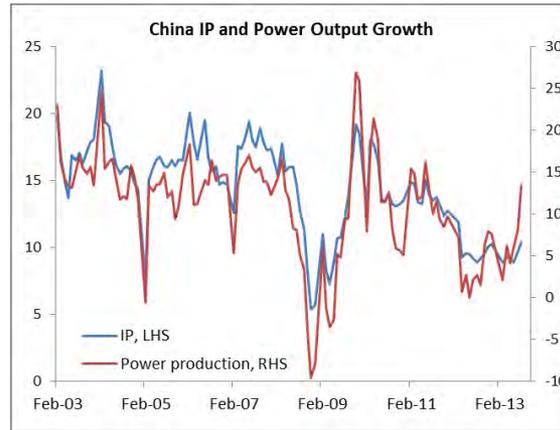
- Japan is hoping that offsets dampen the GDP impact of the planned rise in consumption tax.



- PMI has stabilized.



- Power output has accelerated.



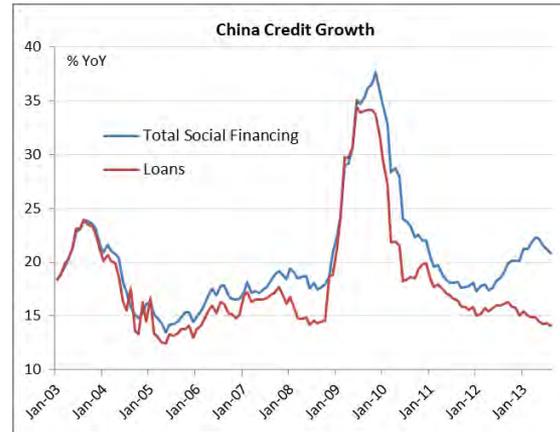
- Iron ore price has rebounded.



- Exports improved again in August.



- Loan growth slows to 14.1% YoY, total social financing to 20.8% YoY.



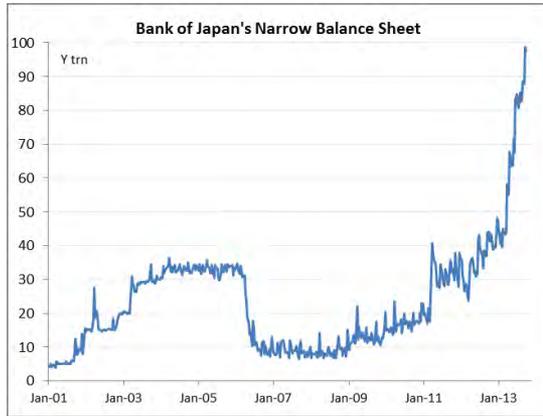
- Tier 1 city house price rises continue.



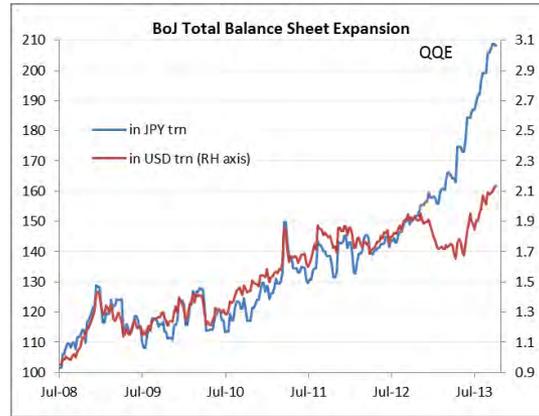
Note: New data methodology is applied since Jan 2011. Source: CEIC, NBS and BofA Merrill Lynch Global Research.



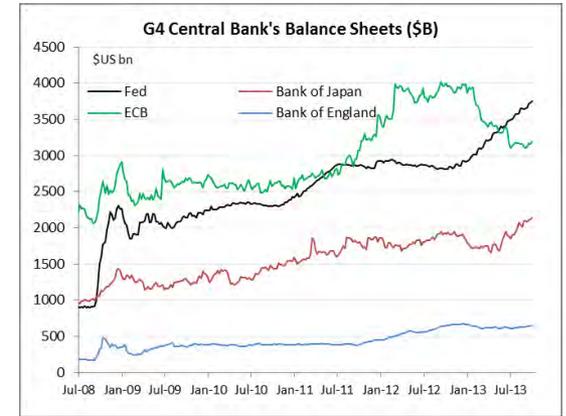
- Rapid expansion of Japan's CB balance sheet has been the main story in 2013.



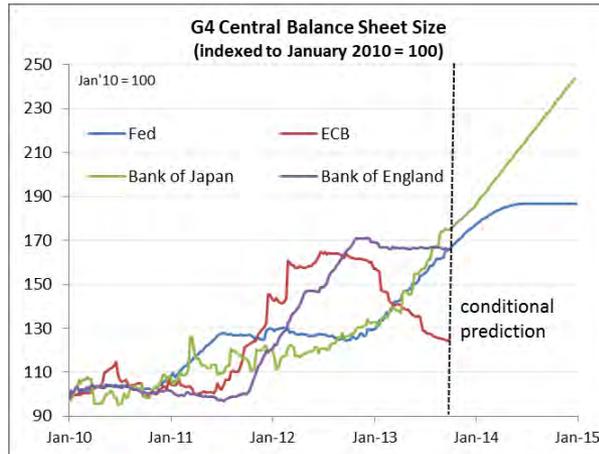
- But BoJ QQE less aggressive in dollars because of the lower Japanese yen.



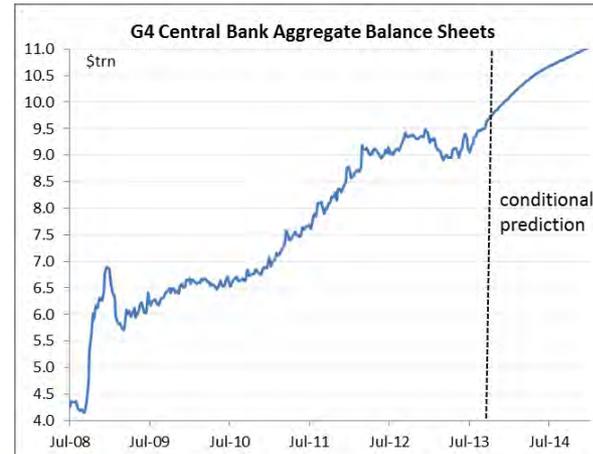
- And offset by lower ECB balance sheet size, no additional QE from the UK.



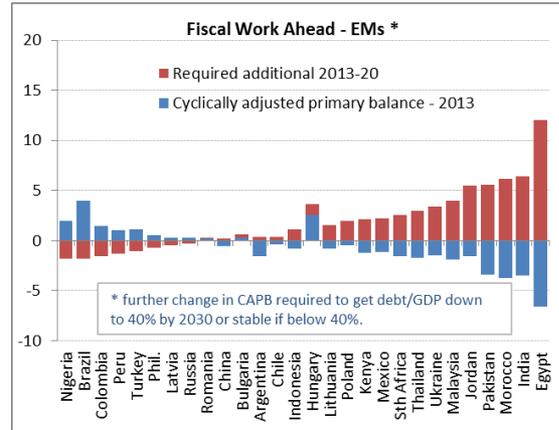
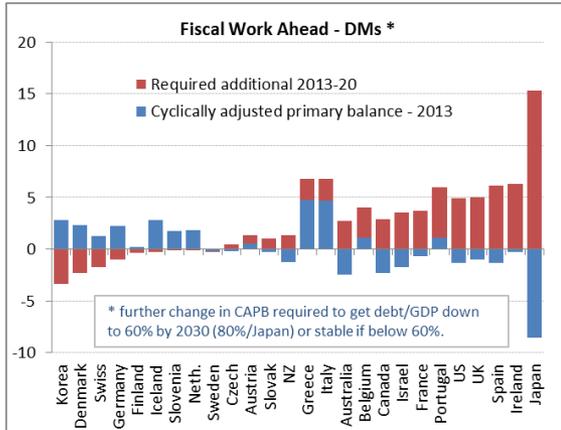
- In this chart we project BoJ QQE trough end 2014 at constant FX rate + Fed tapering.



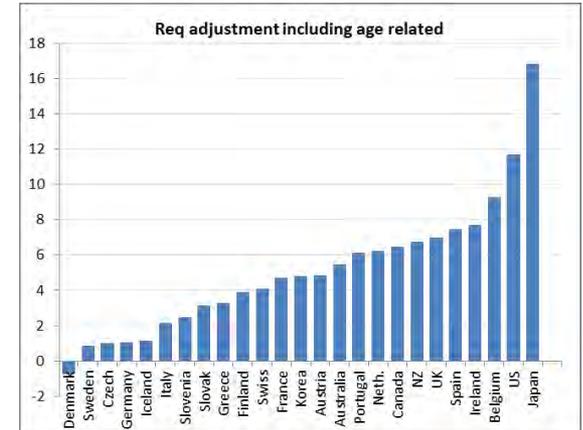
- Conditional prediction is for G4 balance sheets to be \$11 trn at end 2014.



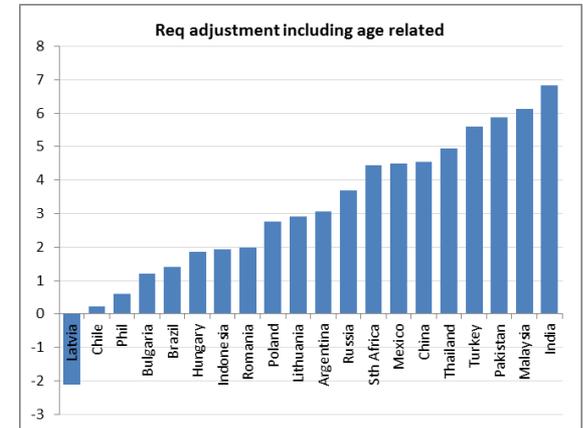
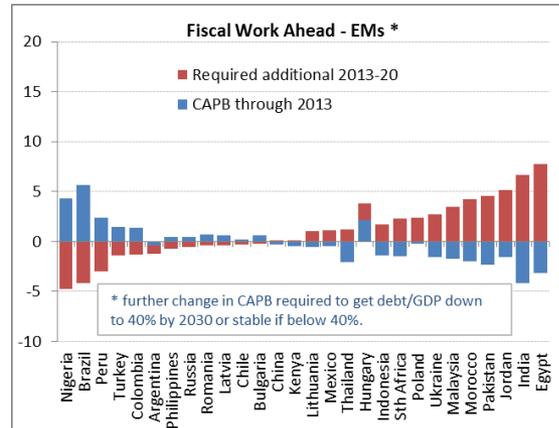
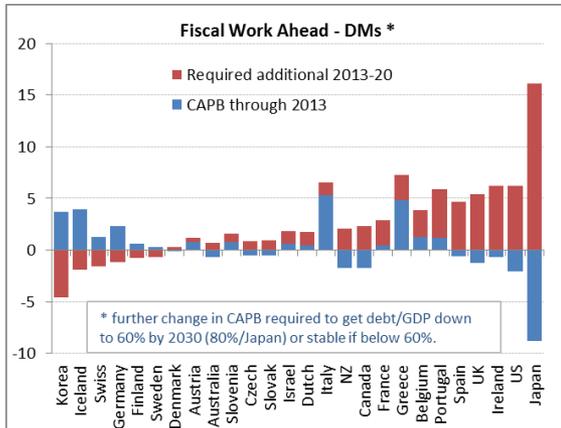
FISCAL MONITOR – OCTOBER 2014



Required adjustment including age related spending



FISCAL MONITOR – APRIL 2014

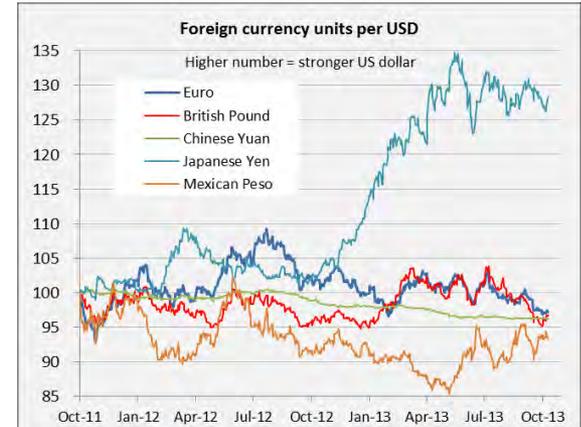
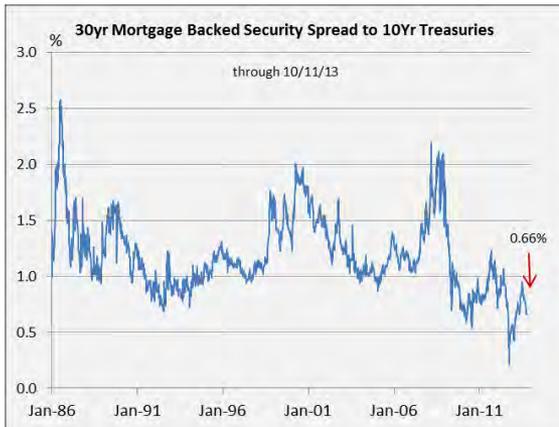
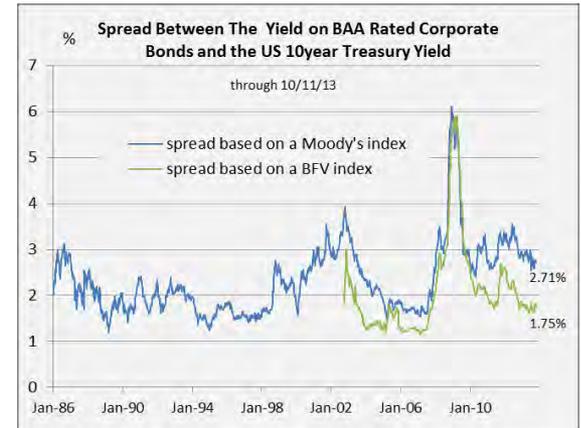
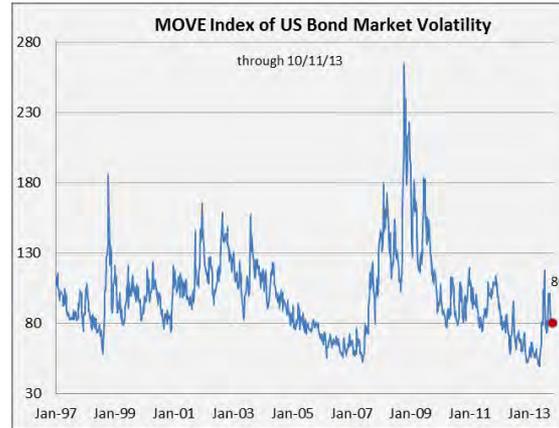


ix. Financial Markets

- European equity markets outperforming this fiscal year (also, EUR/USD rises from 1.30 to 1.35).



- US Treasuries are trading between 2 ½% and 2 ¾% and the short end is priced for a 0.75bps fed funds target at the end of 2015.
- Spread product underperformance has so far been limited.
- The broad value of the US dollar slipped a little on the back of delayed tapering and fiscal drag in part related to the shutdown.



- Oil, copper and the GSCI supported by a soft dollar and better China data.
- Corn (bumper crop) and gold (structurally weak) are exceptions.

