IHS ECONOMICS

Presentation

Economics and Country Risk

The Pennsylvania Economic Outlook

September 2014 ihs.com



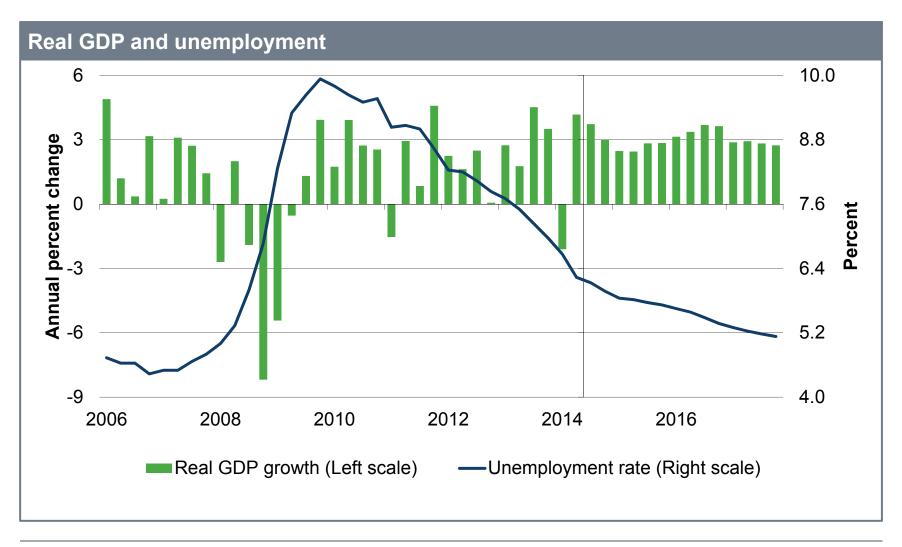


The US economy is gaining momentum

- Third-quarter economic growth remains strong, supported by a pickup in homebuilding, a drop in imports, and robust capital spending.
- An end to above-trend inventory accumulation will be a headwind to growth in late 2014 and early 2015.
- Consumers will cautiously boost spending in response to gains in employment, income, and household net worth.
- Homebuilding will rise in 2014–16 as supply catches up with demand.
- Capital spending will accelerate in 2014–15 in response to global market growth, replacement needs, and technological advances.
- Interest rates will rise significantly over the next three years as monetary accommodation is withdrawn.



US real GDP growth will be sufficient to bring further reductions in the unemployment rate





US economic growth by sector

2013	2014	2015	2016
2.2	2.2	2.9	3.1
2.4	2.2	2.7	3.3
11.9	3.7	14.3	15.2
3.0	5.9	5.3	5.7
-5.7	-2.4	-0.6	-0.9
0.5	0.9	1.2	1.1
3.0	2.8	4.9	4.1
1.1	3.2	4.4	5.7
	2.2 2.4 11.9 3.0 -5.7 0.5 3.0	2.2 2.2 2.4 2.2 11.9 3.7 3.0 5.9 -5.7 -2.4 0.5 0.9 3.0 2.8	2.2 2.2 2.9 2.4 2.2 2.7 11.9 3.7 14.3 3.0 5.9 5.3 -5.7 -2.4 -0.6 0.5 0.9 1.2 3.0 2.8 4.9

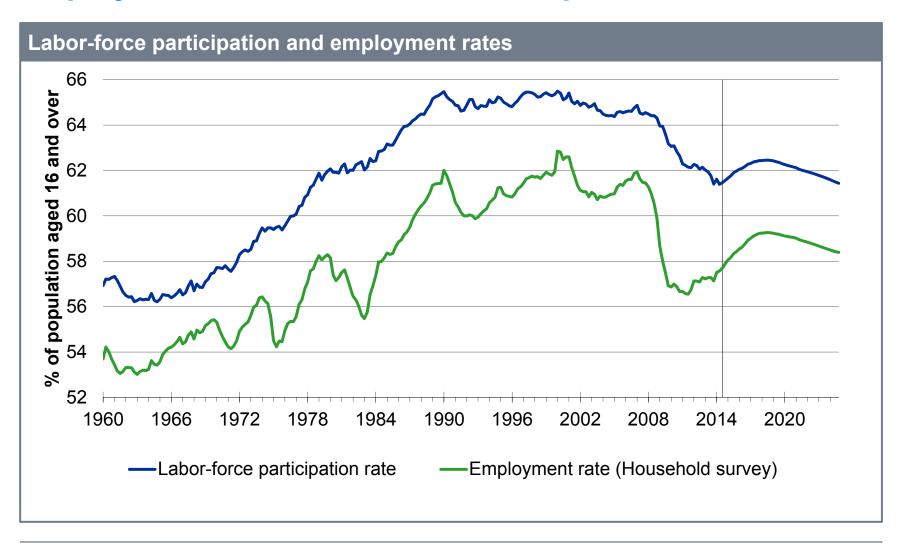


Other key US indicators

Key indicators				
Percent change	2013	2014	2015	2016
Industrial production	2.9	4.1	3.6	3.6
Payroll employment	1.7	1.8	1.8	1.7
Light-vehicle sales (Millions)	15.5	16.4	16.7	17.0
Housing starts (Millions)	0.93	1.02	1.29	1.54
Consumer Price Index	1.5	1.9	1.4	1.6
Core CPI	1.8	1.8	2.0	1.9
Brent crude oil price (\$/barrel)	109	106	104	105
Federal funds rate (%)	0.1	0.1	0.3	2.0
10-year Treasury yield (%)	2.4	2.6	3.2	3.7



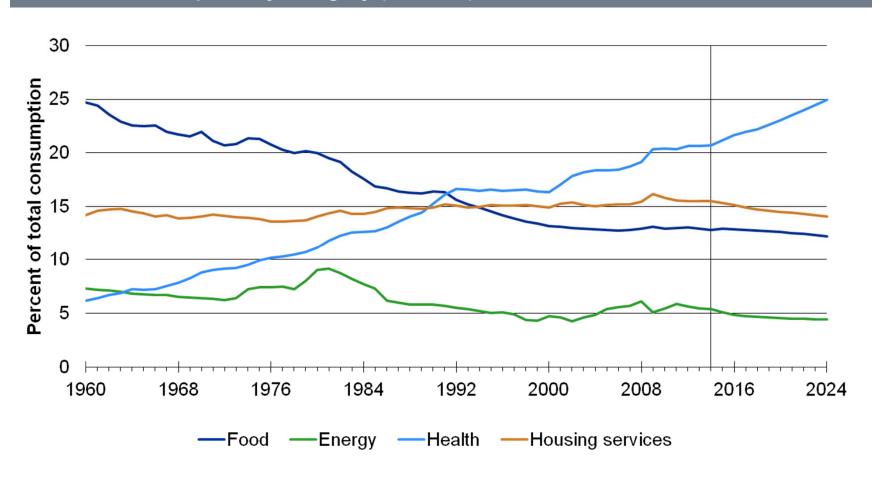
With the population aging, labor-force participation and employment rates will not return to prerecession levels





Healthcare will take a rising share of personal consumption expenditures in the decade ahead

Personal consumption by category (nominal)





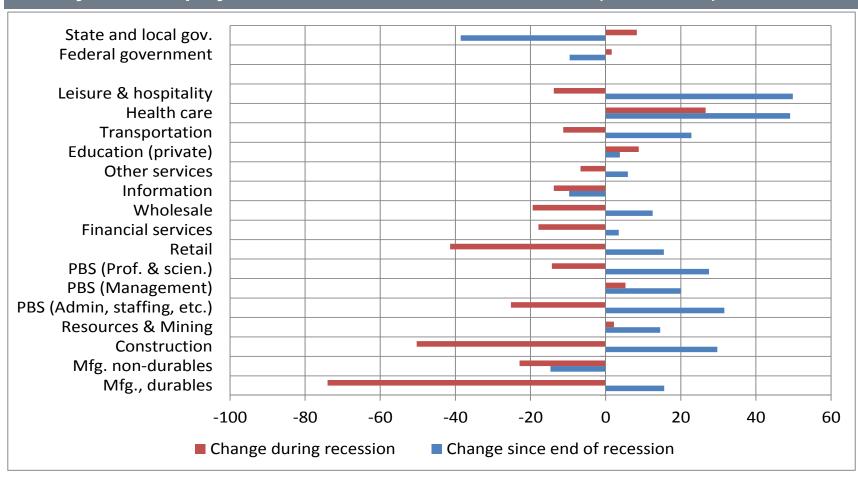
Pennsylvania Outlook

- Pennsylvania avoided worst of recession, but post-recession recovery has been subpar.
 - Full return to peak employment expected in late 2014/early 2015
 - Private sector returned to peak mid-2014
- Health care sector has been most consistent provider of job growth for years.
 - Demographics, expanded coverage should assure continued demand.
- Housing market recovering, but pace is frustratingly slow.
 - Low population growth, demographic factors will limit growth rate
- Marcellus Shale development has been the big newsmaker in recent years.
 - Jobs in exploration and production a small part of the story
 - Construction, manufacturing, transportation, services, etc., the real story
 - Early start, breather as infrastructure catches up, much more to come



Still digging out from the recession

Pennsylvania employment before and after the recession (thousands)



Source: BLS, IHS

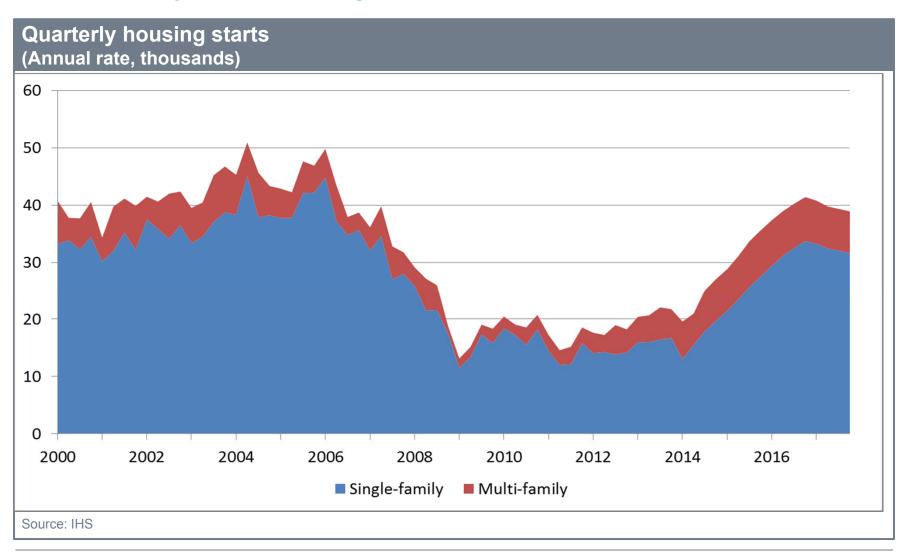


A delayed recovery in housing markets

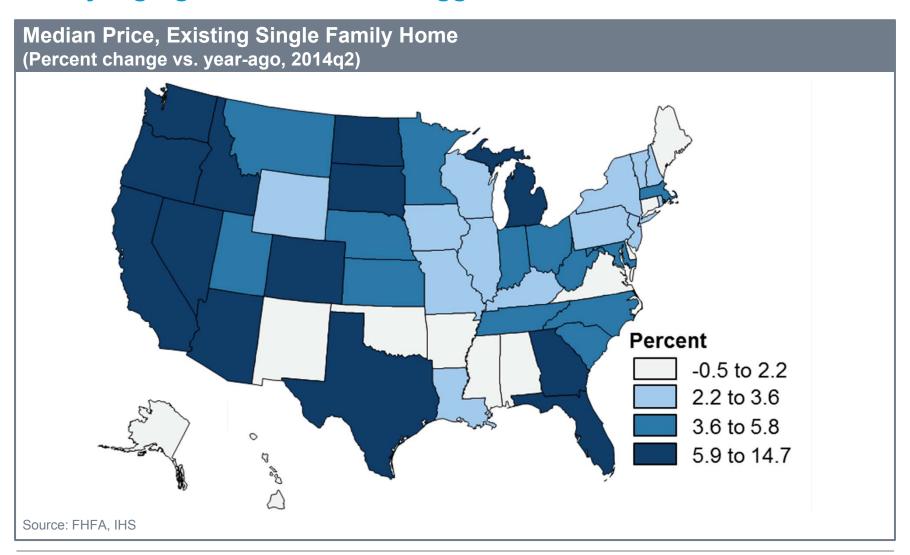
- Job growth will continue to fuel increases in housing demand.
- Rising mortgage rates will, however, restrain growth in home sales.
- After a surge, house price increases are moderating.
- A shortage of well-placed buildable lots is holding back construction.
- Multifamily units will account for about one-third of housing starts.
- Young adults are delaying homeownership.
- Baby boomers are starting to downsize.



PA housing starts – back to historic average, not peak Multi-family remains a big part of the mix



PA Housing prices rising slowly Many high-growth states saw biggest declines in downturn





Marcellus Shale development

- Increased gas supplies promise a major boost to the U.S. economy.
 - Energy-intensive sectors benefit from lower costs
 - Unfortunately, some of these sectors (print, paper) face limited growth
 - Increased infrastructure spending could boost metals, concrete, etc.
 - Chemical sector can use condensates as a feedstock
 - Gains in higher-paying jobs also help to generate indirect service jobs
- How much will Pennsylvania benefit?
 - Proposed ethane cracker near Pittsburgh on hold for now.
 - Plenty of pipelines taking product out of state.
 - Pipelines to eastern part of the state in development, face hurdles

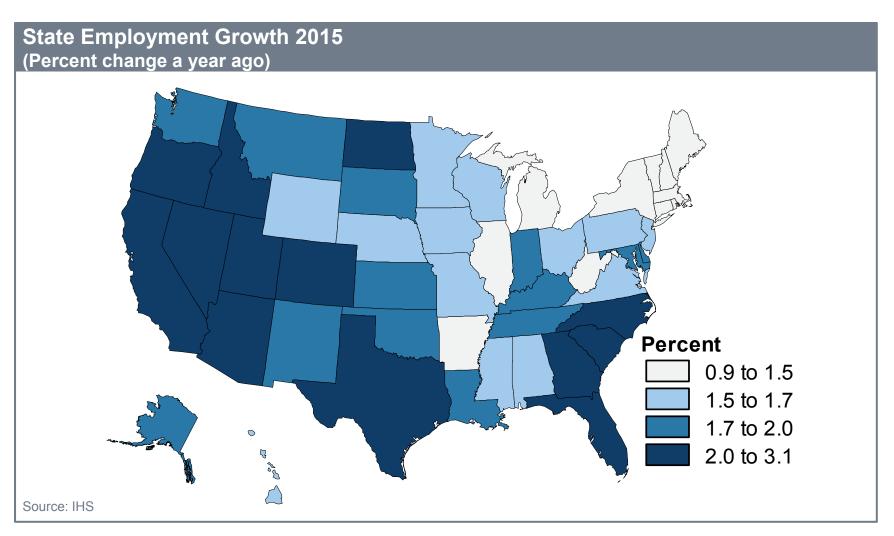
Pennsylvania population growth lagging U.S.

Limits potential work force, demand for services

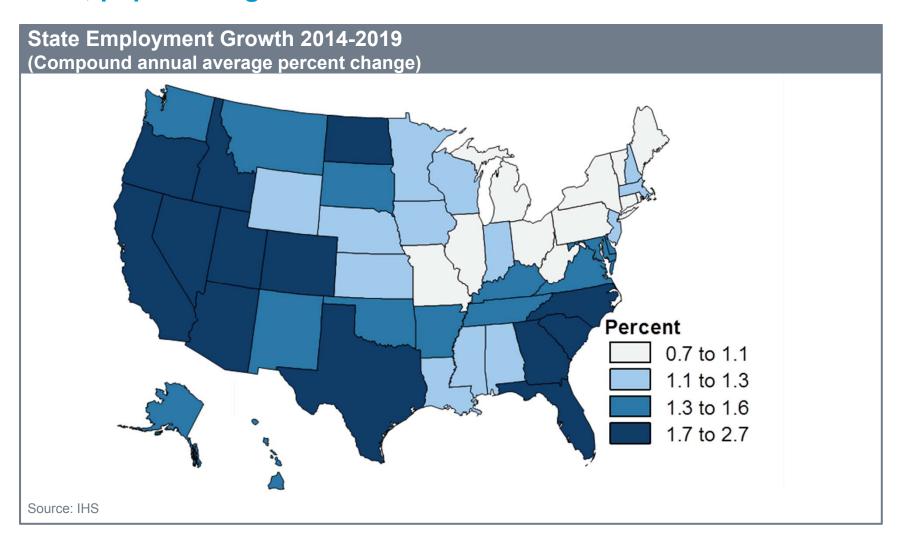
State Population Growth (Compound average annual per	rcent change)			
2003-13		2013-18		
1. Nevada	2.1%	1. Utah	1.8%	
2. Utah	2.1%	2. Texas	1.5%	
3. Arizona	1.8%	3. Arizona	1.5%	
4. Texas	1.8%	4. Colorado	1.5%	
5. Idaho	1.7%	5. North Dakota	1.4%	
42. Pennsylvania	0.3%	46. Pennsylvania	0.2%	
United States	0.9%	United States	0.8%	
Source: Bureau of Census, IHS				

A little stronger going forward into 2015:

Pennsylvania still not among the leaders



Employment still heading south and west in longer termJobs, population growth still show link



Pennsylvania economic outlook

Key indicators				
Percent change	2013	2014	2015	2016
Payroll employment	0.3	0.9	1.6	1.5
Real average annual wage	0.6	8.0	1.4	1.9
Real GSP	0.7	1.4	2.4	2.6
Housing starts (x1000)	21.2	23.2	32.3	39.5
Multi-family share	23%	29%	24%	20%
Light vehicle sales (x1000)	622	634	651	667



And of course we can talk about Philadelphia...

- Philadelphia MSA expected to return to peak employment by mid-2015.
 - Five-county PA portion by late 2014/early 2015.
- Health-care sector doing well, many big projects being built/opened.
- Construction has shown big recent gains.
 - Some high-profile projects going in plus infrastructure take up slack for housing.
- Comcast Center II may help boost the region's tech profile.
- Parts of the city are very attractive to empty nesters/millennials.
 - Will millennials stay when they have school-age children?
- Loss of pharma jobs in R&D and manufacturing hard to replace.
- Navy Yard moving along well, taking advantage of good location.
 - Hoped-for subway may be a long shot.
- Port facilities a natural advantage for the region.
- How much will region benefit from natural gas boom?



Pennsylvania Outlook - Recap

- Economy is growing, but rate is behind the national average
 - Partly because other states had bigger holes to climb out of.
 - Long-term migration patterns, relatively high costs weigh on prospects.
- Housing sector recovery, infrastructure investments will boost employment in construction.
 - •Manufacturing, transportation, other trades also will benefit.
- Continued investment in education and research key to competing in health care, tech.
- Marcellus Shale still a long-term asset for state.
 - Plenty of reserves remain.
 - Gains partly come at expense of coal sector.
 - Total economic gain to state depends on how much value is added locally.
- Like many states, Pennsylvania's public pension system is facing major shortfalls
 - Very difficult to change terms of past labor agreements
 - State contribution, local property taxes could increase in a hurry
 - Diverts money from current initiatives (education, infrastructure, etc.)

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