Part C: Demographics/Economics

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Opening Comments

The Demographic & Economics section includes information on incomes; employment; gross domestic product; United States and global economies; and demographics.

The information comes from Sentier Research; Bureau of Labor Statistics; Bloomberg; J.P Morgan; Price Waterhouse Coopers; and author’s analysis.

As mentioned in the previous section, these data and information are a “snapshot in time” and should be viewed in a long-term context.
Demographics & Economics
Median Household Income Index, Percent Unemployed, Marginally attached or Working Part-time for Economic Reasons: January 2000 to August 2015

Source: http://www.sentierresearch.com/reports/Sentier_Household_Income_Trends_Report_August2015_10_02_15.pdf; 1/2/15
“…median annual household income in August 2015 reached a post-recession high of $55,794, 1.1 percent (or $615) higher than the July 2015 median of $55,179. This is one of the largest month-to-month increases in median household income recorded during the post-recessionary period (since June 2009).

The August 2015 median income of $55,794 is not significantly different than the median of $55,634 in June 2009, the end of the recent recession and beginning of the “economic recovery.”

(Since the recession ended consumer prices have increased by 10.8 percent, creating a sizable “headwind” for changes in median annual household income.) However, the August 2015 median was still 1.5 percent lower than the median of $56,671 in December 2007, the beginning month of the recession that occurred more than seven years ago. And the August 2015 median was 2.7 percent lower than the median of $57,345 in January 2000, the beginning of this statistical series.

…the broad measure of employment hardship in January 2000 was 7.1 percent, rose to 8.8 percent in December 2007, continued to rise to 16.5 percent in June 2009, fell to 16.1 percent in August 2011, and stood at 10.3 percent in August 2015.” -- Dr. Gordon Green, Sentier Research
Nonfarm payroll employment increased by 142,000 in September. Employment rose in health care and information, while mining employment decreased over the month. Thus far in 2015, employment has increased by an average 198,000 per month, compared to an average 260,000 per month in 2014.

The employment change for July was revised down from +245,000 to +223,000, and the change for August was revised down from +173,000 to +136,000. Incorporating revisions, employment growth rose by an average 167,000 per month in the third quarter.
Demographics & Economics

Employment in total nonfarm
Over-the-month change, September 2015
Seasonally adjusted, in thousands

- Mining and logging
  - Construction
  - Manufacturing
  - Wholesale trade
  - Retail trade
  - Transportation and warehousing
  - Utilities
  - Information
  - Financial activities
  - Professional and business services
  - Education and health services
  - Leisure and hospitality
  - Other services
  - Government

Total nonfarm: 142

+ 29,000 Education and Health Services
+ 31,000 Professional and Business Services
+ 13,000 Financial activities
+ 16,000 Hospitals
+ 1,000 Other Services

- 9,000 Manufacturing
- 12,000 Mining and Logging
- 4,000 Wholesale Trade
+ 4,000 Transportation and Warehousing
+ 35,000 Leisure and Hospitality
+ 24,000 Government

Source: http://www.bls.gov/web/empsit/ceshighlights.pdf; 1/2/15
Chart 2. Civilian labor force participation rate
Seasonally adjusted, 1990–2015

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS11300000.

Chart 4. Employment-population ratio
Seasonally adjusted, 1990–2015

Note: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). Data online at http://data.bls.gov/timeseries/LNS12300000.


Source: http://www.bls.gov/web/empsit/cps_charts.pdf; 1/2/15
Employment Gap

Millions of full-time-equivalent jobs needed to reach full employment*

Sources: Andrew Levin, Bloomberg, CBO, BLS, Federal Reserve.

*Assuming CBO estimate of potential labor force, pre-recession average part-time employment and unemployment target of 4.9 percent.

Source: http://www.bloombergview.com/articles/2015-10-02/the-u-s-still-needs-2-7-million-jobs; 1/2/15
Demographics & Economics

Changes in Labor Force Participation Rates for Various Demographic Groups Since the Great Recession

Source: https://twitter.com/DanielAlpert/status/649949058803605504/photo/1  1/2/15
Economic growth and the composition of GDP

Real GDP
Year-over-year % change

-6% -5% -4% -3% -2% -1% 0% 1% 2% 3% 4% 5% 6% 7% 8% 9% 10%

-50% -40% -30% -20% -10% 0% 10% 20% 30% 40% 50%

Average: 2.9%
Expansion average: 2.2%

Components of GDP
2Q15 nominal GDP, USD trillions

- 3.3% Housing
- 13.5% Investment ex-housing
- 17.7% Gov’t spending
- 68.3% Consumption
- 2.9% Net exports

Source: BEA, FactSet, J.P. Morgan Asset Management.
Values may not sum to 100% due to rounding. Quarter-over-quarter percent changes are at an annualized rate. Average represents the annualized growth rate for the full period. Expansion average refers to the period starting in the second quarter of 2009.


Demographics & Economics

Residential real estate

**Housing Affordability Index**
Average mortgage payment as a % of household income

- **Average:** 19.6%
- **Aug. 2015:** 12.4%

**Down payment as a percent of household income**
Assuming down payment is a constant 20% of home price

- **Aug. 2015:** 54.4%
- **Average:** 53.0%

**Lending standards for approved mortgage loans**
Average FICO score based on origination date

- **Jul. 2015:** 745

Demographics & Economics

Long-term drivers of economic growth

Growth in working age population
Percent increase in civilian non-institutional population ages 16-64

Drivers of GDP growth
Average year-over-year percent change

Growth in workers
+ Growth in real output per worker
Growth in real GDP

Growth in investment in structures and equipment
Non-residential fixed assets, year-over-year % change

Source: J.P. Morgan Asset Management, (Top left) Census Bureau, DOD, DOU, (Top left and right) BLS, (Right and bottom left) BEA.
GDP drivers are calculated as the average annualized growth between Q4 of the first and last year. Future working age population is calculated as the total estimated number of Americans from the Census Bureau, controlled for military enrollment, growth in institutionalized population and demographic trends.
Guide to the Markets – U.S. Data are as of September 30, 2015.

Demographics & Economics

Labor market perspectives

Employment – Total private payroll
Total job gain/loss, thousands

-1,000 to 600

-800 to -200
-400 to 200
0
200 to 400
400 to 600
600

'06 '07 '08 '09 '10 '11 '12 '13 '14 '15

8.8mm jobs lost
13.2mm jobs gained

Labor force participation rate
Population unemployed or looking for work as a % of total, ages 16+

62.4%

Net job creation since Feb. 2010
Millions of jobs

Source: BLS, FactSet, J.P. Morgan Asset Management.
Guide to the Markets – U.S. Data are as of September 30, 2015.
Demographics & Economics

European recovery

Markit PMI and GDP growth in the eurozone
Markit Composite PMI index and eurozone GDP q/q SAAR

U.S. dollar per euro

Eurozone unemployment
Persons unemployed as a percent of labor force, seasonally adjusted

Eurozone credit demand
Net % of banks reporting positive loan demand

Source: FactSet, J.P. Morgan Asset Management, (Top left) Markit, (Top and bottom left) Eurostat, (Bottom right) ECB.
Guide to the Markets – U.S. Data are as of September 30, 2015.

Demographics & Economics

Japan: Economy and markets

Japanese economic growth
Real GDP, y/y % change

Japanese yen and the stock market

Japanese labor market
Unemployment, y/y % change in wages 3-month moving average

Demographics & Economics

China: Cyclical sectors

- **Domestic car sales**
  - Unit sales, millions, seasonally adjusted annual rate
  - Aug. 2015: 18.8

- **Construction of private residential floor space**
  - Year-over-year % change
  - Aug. 2015: -18.2%

- **Manufacturing and Services PMI**
  - Caijin/Markit manufacturing and services indices
  - Sep. 2015: 47.2

- **Exports and imports**
  - Year-over-year % change
  - Aug. 2015: -13.8%
  - Aug. 2015: -5.5%

“...the market may be driven by the fact that a significant number of these two age groups will likely be making significant life style choices; for example, where to live, home purchases, job status and the like. The real estate market is contemplating the potential impact on housing and commercial real estate markets.” – Andrew Warren, Director, PwC

“...a number of markets will find themselves at the mercy of the decisions made by these two groups: millennials over age 30 and baby boomers ages 55 to 64. On average, the combination of these age groups represents from 19 to 22 percent of total population of the markets in this year’s survey.” – PwC, Emerging Trends in Real Estate® 2015

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