BUILDING
MORE THAN
BUILDINGS®

BUILDING FOR THE FUTURE

Construction Economics
Market Conditions in Construction

EXECUTIVE SUMMARY

Spring 2015

Gilbane

Summary

CONSTRUCTION OUTLOOK

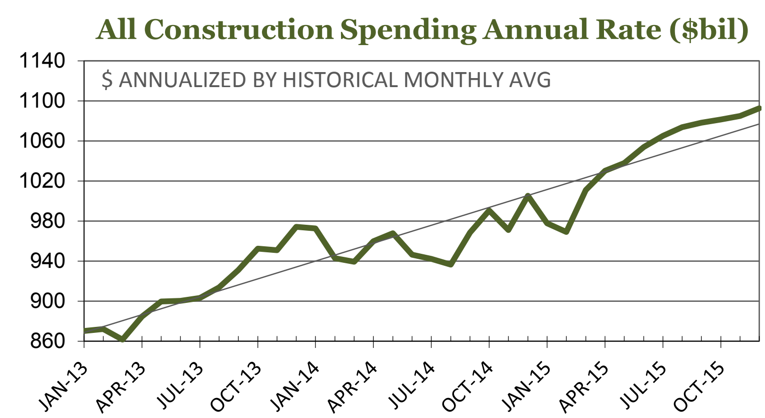
- Nonresidential new starts have been increasing at an average of 16% per year since 2012 lows.
- Nonresidential buildings starts from April 2014 through February 2015 reached the best three-month average and best six-month average since July 2008. Nonresidential buildings starts help predict the spending trend for the next one to two years.
- Even if new starts growth were to turn flat for rest of 2015 (which is not expected), those starts already recorded over the past 12 months indicate spending for nonresidential buildings in 2015 will increase 15% over 2014, the best growth since 2007.
- In the first quarter of 2015, the seasonally adjusted annual rate for all spending will average $980 billion. By year end 2015, it will be $1.080 trillion.
- 2015 spending advances will be supported by the strongest gains in nonresidential buildings spending in eight years. Residential spending will also help total spending advance. Nonbuilding infrastructure spending, after a brief gain, will go flat or decline at least until moderate growth resumes in the fourth quarter of 2015.

Q1 2015 OUTLOOK

$980 billion

Average seasonally adjusted annual rate for all spending in Q1 2015

FIGURE A:
All Construction Spending Rate of Growth 2013-2015



Total spending for all types of construction will grow 9% year over year from 2014 to 2015. The year started at an annual rate of spending near $980 billion and should finish at a rate of $1.08 trillion.

As expected, nonresidential buildings contributed to the dips in March and June of 2014, but now will help lead the expansion throughout 2015.

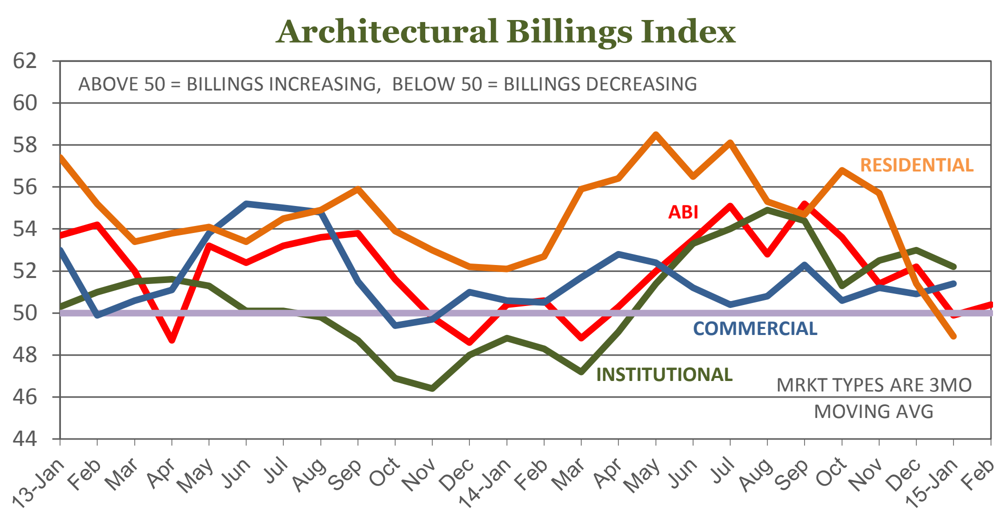
RESTRAINTS TO GROWTH

- The BLS Job Openings and Labor Turnover Survey (JOLTS) for the construction sector is now at 166,000 unfilled positions. The number of open positions has been over 100,000 for 23 of the last 25 months and is currently increasing. This is a good sign for future hiring, but highlights the importance of workers having the right skills. An increase in job openings generally signifies that employers cannot find people with the right skills to fill open positions.
- In a recent Associated General Contractors (AGC) survey of contractors, 80% indicated some difficulty in acquiring trained workers.
- The period from July 2012 through August 2013 had the lowest average new starts for infrastructure work of any period in the last six years, until the first six months of 2014 went even lower. The effect of all of those low starts will result in constrained nonbuilding infrastructure spending continuing through 2015. Nonbuilding infrastructure starts help predict the spending trend for the next two to three years.
- Housing starts are off to a slow start. In February and March, new starts dropped well below expectations and will hold down totals for 2015. This could have the effect of lowering total residential spending by as much as 2%.

Hiring workers with the right skills will be a key constraint to economic growth in 2015.

407,000 construction jobs have been gained in 15 months since December 2013.

FIGURE B:
Architectural Billings Index 2012-2014



THE EFFECTS OF RAPID GROWTH

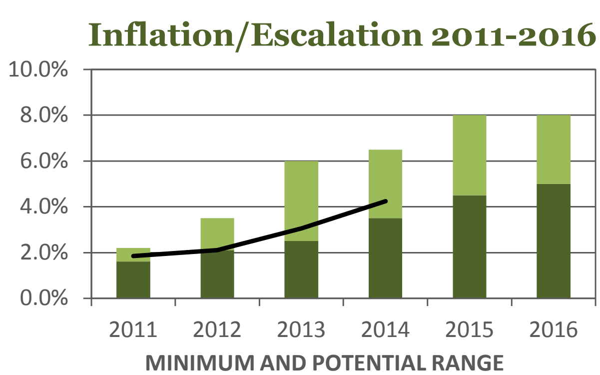
- 407,000 construction jobs have been gained in 15 months since December 2013. At 27,000 jobs per month, that is the third fastest rate of construction jobs growth ever recorded. Only 1998 and 2005 were higher. In that same period, total hours worked also increased, effectively as if we added an additional 60,000 jobs. That's more than a 7% increase in labor, but at the same time there has been less than a 3% increase in volume output. That signifies a decline in productivity.
- As work volume begins to increase over the next few years, expect productivity to decline. There are many reasons why this will occur, among them: working longer hours until new workers are brought on; working more days; hiring less qualified workers; and acclimating new workers to the crew.
- Growth in nonresidential buildings and residential construction in 2014 and 2015 will lead to more significant labor demand. This may lead to labor shortages in some trades. This will drive up labor cost.
- Construction inflation in rapid growth years is much higher than average long term inflation.
- Long-term inflation is 3.3% for nonresidential buildings and is 3.5% for residential buildings.
- During rapid growth, inflation is 8% for nonresidential buildings and is 9% for residential buildings.

This could be the breakout year for nonresidential buildings. The outlook is for 15% growth in spending. Much of that gain is already recorded in new starts. Escalation will climb to levels typical of rapidly growing markets.

FIGURE C:
Inflation / Escalation 2011-2016

In order to capture increasing margins, future escalation will be higher than normal labor and material cost growth. Lagging regions will take longer to experience high escalation. Residential escalation is currently near, or even above, the upper end of the range.

For escalation back to year 2000, see Figure 29. An advised range of
- 4.5% to 8% for 2015
- 5.0% to 8% for 2016
- minimum 5% for 2017



BUILDING
MORE THAN
BUILDINGS®

Gilbane Inc. is a full service construction and real estate development company, composed of Gilbane Building Company and Gilbane Development Company. The company (www.gilbaneco.com) is one of the nation's largest construction and program managers providing a full slate of facilities related services for clients in education, healthcare, life sciences, mission critical, corporate, sports and recreation, criminal justice, public and aviation markets. Gilbane has more than 50 offices worldwide, with its corporate office located in Providence, Rhode Island.

The information in this report is not specific to any one region. The information is limited to the United States and does not address international economic conditions.

Author Ed Zarenski, a 42-year construction veteran and a member of the Gilbane team for 35 years, managed multi-million dollar project budgeting, owner capital plan cost control, value engineering and life cycle cost analysis. As a construction economics analyst, he compiles economic information and provides data analysis and opinion for this quarterly report.

Questions regarding this report can be addressed to:

Edward R. Zarenski

Construction Economics Analyst
Construction Analytics
Providence, Rhode Island

EZarenski@Gilbaneco.com
Twitter: @EdZarenski
LinkedIn: Ed Zarenski

This report and the materials contained therein are provided as estimates and projections for what may happen in the future. Information herein is believed to be reliable but Gilbane does not warrant its completeness or accuracy. Gilbane, its related business entities and the author make no guarantee that the projections and expectations will reflect actual future market and industry behavior and the information is used at the reader's own risk.

Data Sources

Along with countless news articles, these sources are used for data in this report:

- American Institute of Architects – www.aia.org/practicing/economics/index.htm
- American Iron and Steel Institute - steel.org
- American Recycler - americanrecycler.com
- Associated Builders and Contractors - abc.org
- Associated General Contractors of America - agc.org
- Bloomberg L.P. Financial News - Bloomberg.com
- Bureau of Labor Statistics - Stats.BLS.gov
- Construction Industry Round Table – cirt.org
- CMD - CMDGroup.com (formerly Reed Construction Data)
- Data Digest – DataDigest
- Dodge Data & Analytics - construction.com/about-us/press
- Economic Cycle Research Institute - businesscycle.com
- Engineering News-Record - ENR.com
- Financial Trend Forecaster - Fintrend.com
- FMI Management Consulting - FMINET.com
- IHS Global Insight - ihs.com
- Institute for Supply Management - ism.ws
- Metal Prices – metalprices.com
- Producer Price Indexes - bls.gov/ppi
- Random Lengths - randomlengths.com
- U.S. Census Bureau - census.gov

Engineering News-Record BCI table reprinted by permission.

Financial Trend Forecaster Moore Inflation Predictor graph reprinted by permission.

U. S. Census Bureau data obtained from public domain.

U. S. Bureau of Labor Statistics data obtained from public domain.

Graphics and tables reprinted by permission may not be reproduced outside this report.

All other figures and tables created by E. Zarenski, Gilbane Building Company

You must request permission to reproduce any part of this report.