While a slow economic recovery has its challenges and is difficult to build upon, for the U.S. construction industry, the gradual turnaround and re-defining of some of the industry’s key areas is strategically positioning the construction industry for a more robust and widespread rebound over the long term.
Jones Lang LaSalle’s third annual construction outlook takes a look at the current macroeconomic situation alongside recent trends driving the construction industry’s blueprint for recovery.
1. Introduction
2. The Economics
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4. In Focus: Office, Industrial and Retail Markets
5. Outlook

The U.S. construction industry: Advancing in a challenging environment

The construction industry today is in a vastly different state than it was one year ago. Despite a lagging recovery, the construction industry managed to withstand systemic shocks to the U.S. economy and build off of positive momentum in certain sectors during late 2012 into 2013. The resurgence of the U.S. housing market is helping to propel construction activity and employment into positive territory, while more modest improvement in other areas such as the office market and opportunistic plays in sectors such as healthcare are helping to establish a future platform for growth. The construction industry itself is finally adding jobs, and the value of non-residential construction put-in-place is, with the exception of a couple sectors, growing. Commercial lending sentiment continues to show confidence and liquidity is increasing.

The story, of course, is not all rosy. There are significant challenges ahead including the inevitable changing of monetary policy, the outcome of Obamacare, the resolutions of the government shutdown and the debt ceiling—not to mention the Federal budget deficit. Still, the construction industry is in a better position this year to grow against these potential obstacles. Though the slow, punctuated growth in the construction industry during 2012 and 2013 may have left more to be desired, what it has done for the construction industry is provide a wide and stable platform to more successfully weather macroeconomic shakeups ahead. This report will highlight the strides and setbacks the construction industry has encountered during the last year, and shed some light on themes and opportunities for the industry going forward.

Erin Patterson
Research Manager, JLL Project and Development Services & Construction
Lending sentiment is improving. 47.9 percent of senior loan officers surveyed by the Federal Reserve report stronger demand for CRE loans.

The cost of lumber increased 6.0 percent to $428 per thousand board feet from one year ago as residential building sectors continue to firm and gain momentum.

Construction spending is picking up across all sectors. Spending on education construction leads non-residential building sectors at $79.4 billion, followed by healthcare construction ($41.9 billion) and office construction ($36.8 billion).

The amount of non-residential construction spending in the 12-months through third quarter 2013, up 13.0 percent from the previous quarter.

Estimated increase in the cost of construction during the 12 months through September 2013 in Seattle, driven by a 14.6 percent cost in common labor wages.

The construction industry has only recovered 14.2% of jobs lost during the recession. Since the end of 2010, the industry has added slightly more than 300,000 jobs.
The economics

Economic overview

As the U.S. economy approaches the close of 2013, the increased sense of certainty and cautious optimism are giving way to several macroeconomic events that could compromise the sensitive momentum achieved during the first nine months of this year. This realization is not new, of course. But, given the bumpy ride and setbacks in 2012, there was a perhaps naïve perception that 2013 would somehow circumvent challenges similar to those that manifested in the last part of 2012. Instead we are now grappling with the outcome of a government shutdown and another ongoing battle over raising the debt ceiling.

These events threaten to overshadow the strides that the U.S. economy made during 2013. Taking a look back at the previous nine months, what has the U.S. economy achieved? Though first quarter GDP growth left much to be desired—expanding at a muted 1.1 percent annual rate, at the end of the second quarter, the GDP growth was revised upward to 2.5 percent from 1.7 percent. This healthy turnaround had set the stage for 2013 GDP to grow approximately 2.0 percent according to analysts, but in the wake of the government shutdown, however, this position was weakened. Economists have suggested that each week of a government shutdown can shave 0.12 percentage points off the fourth-quarter annualized GDP growth rate. The last government shutdown, which began in 1995, resulted in a 0.4 percent reduction to GDP growth. Given that the late 2013 shutdown was among the longest in U.S. history at 21 days, the impact on GDP growth will be unavoidable. New estimates by the Federal Reserve Bank of Philadelphia in the third quarter point to a 1.6 percent growth rate for 2013—a significantly more bearish outlook.

What does this mean for the U.S. construction industry? Like the macro economy, the year began with many questions, but slowly evolved into a solid growth environment. The construction component of GDP grew at a rapid 8.0 percent annualized rate through the first quarter of 2013. This was up substantially from pullback into negative territory at the close of 2012. Furthermore, as of late, the construction component of GDP has typically lagged GDP growth, but the first quarter of this year represented a mighty turnaround for the construction industry. By second quarter, the construction component of GDP slowed in its rebound but still posted positive annual growth at 2.5 percent—on par with overall GDP growth. The surge in growth can be partially attributed to the resurrection of the single-family housing market, and as the U.S. economy moves into the final quarter of this year, estimates suggest that the construction industry will continue to expand in spite of recent roadblocks.

Labor market fundamentals showed a similar pattern, with tepid growth but maintaining positive gains through the third quarter. During the month of September, total non-farm payrolls added 148,000 jobs, bringing the total number of jobs gained during the third quarter to 430,000. While gains during the month of September were down from August, the good news is that job growth is happening, achieving a 3.4 percent year-over-year growth rate. The construction industry is expanding as well. Construction industry payroll growth for September accounted for 13.5 percent of non-farm employment growth, translating to 20,000 jobs added in a one-month period. The year-over-year rate of growth is even more impressive, adding 1.7 percent to payrolls during the 12 months through September.

Notably, despite the perceived concentration of the construction industry recovery in residential construction, job growth is permeating all sectors. Residential building construction...
jobs are up 2.6 percent year-over-year, but non-residential building construction payrolls increased 3.5 percent during the same period. In raw numbers, this equates to a gain of 23,400 jobs in non-residential building and 14,700 jobs in residential building. This depth in recovery is also evident in non-residential construction put in place. Non-residential construction put in place reached $562.8 billion as of the third quarter (seasonally adjusted annual rate) which represented a 13.0 percent increase over the second quarter, and on par with last year at this time. Spending on education construction leads non-residential building sectors at $79.4 billion, followed by healthcare construction ($41.9 billion) and office construction ($36.8 billion).

Commercial lending sentiment

Echoing the healthy activity in construction spending, commercial lending sentiment is improving. The low cost of capital and re-emergence of the CMBS market have both aided in increased liquidity and easier lending. Standards, however, are by no means as lax as before the recession. New CMBS issuance totals $50.8 billion so far through beginning of August 2013, twice the level achieved through the first full eight months of 2012, which totaled $24.9 billion.

According to the Federal Reserve Board’s Commercial Lending Sentiment survey, 47.8 percent more respondents reported higher demand for commercial real estate loans in the third quarter of 2013 compared to the second quarter. This dwarfs the 23.4 percent response last year at this time, and represents the biggest improvement in demand indicators in more than a decade. The survey also revealed that 19.2 percent fewer respondents reported a tightening in standards for commercial real estate loans during the same period, also marking an improvement from 12 months ago when that change was just 10.9 percent. As these numbers continue to diverge, more capital will flow into private-sector commercial investment, which is a crucial step for depth in recovery in the construction industry.

“Although on the rise, interest rates are still relatively low and continue to spur economic growth and support the housing and commercial real estate market; cost and availability of capital remains favorable to support growth in transaction volumes across various property types and markets.” Marisha Clinton, Director of Research, JLL Capital Markets
The cost of construction

One of the most challenging aspects of the current recovery phase is the persistent increase in the cost of all things construction—the cost of materials, the cost of labor, the overall cost to build—all of these things are rising at a time when demand is still so vulnerable. And while cost increases have so far been difficult but manageable, the pick-up in the residential building sector on top of modest recovery in other sectors, is fueling a greater inflation in costs. According to Rider Levett Bucknall’s (RLB) Construction Cost Index, which incorporates what general contractors and subcontractors pay and charge for construction to derive a trend in overall construction costs, the cost of construction increased 3.6 percent during the 12 months through the third quarter 2013. This compares to a 1.5 percent increase last year at this time and annual growth rates that barely eclipsed 2.0 percent in the last two years. So what is driving such an upswing in costs in the face of still volatile demand levels? The main culprit in recent months is the improved single-family sector which is putting immense pressure on housing-related materials. The improvement in single-family home building is also squeezing labor, in turn pushing up wages. The construction industry has yet to regain back a full work force, and in fact, has only recovered about 14.2 percent of jobs lost during the recession. Because of structural issues in the construction labor market, labor force shortages will continue to plague the industry at least during the near term, and continue to drive up the cost of labor.

Regionally, the trends do not deviate. In RLB’s comparative cost index, all markets are showing some degree of increase in the cost of construction. That said, there are unsurprisingly varying levels of inflation. The New York metropolitan area is by far, the most expensive of all major markets tracked by the index, showing a 6.9 percent increase in the cost of construction in the 12 months through the third quarter. The Washington, D.C. and Boston metros followed closely behind with 6.5 percent and 6.1 percent growth, respectively. The cost of construction in all these markets has eclipsed previous peak levels, with New York up 6.6 percent. Part of the reason for the drastic inflation in the New York metropolitan is the impact of post-hurricane Sandy recovery. Unprecedented levels of demand for materials and labor required for the reconstruction that spans New Jersey, New York and Connecticut, has put pressure on both material and labor costs in the region. While the cost of construction is growing without discrimination, there are some markets where costs are still gauged lower than pre-recession levels. San Francisco, Seattle, Phoenix, Portland, Denver and Las Vegas remain below peak levels in terms of construction costs.

### RLB national construction cost index

![Graph showing the increase in construction costs in the New York area during the third quarter 2013 – the highest of metropolitan areas tracked by RLB.](image)

1.3%

Increase in construction costs in the New York area during the third quarter 2013 – the highest of metropolitan areas tracked by RLB.

Source: Jones Lang LaSalle, RLB
As opposed to some of the spiking recorded in the overall cost of construction, material prices appear to have weathered the majority of the year with some restraint. While volatility continues to characterize material cost trends across the U.S., the only materials that have truly spiked in cost are housing-related materials including lumber, plywood, gypsum, and crude energy materials. Engineering News Record’s (ENR) material price index showed a 3.0 percent increase at the end of the third quarter compared with third quarter 2012. During the same period, the price of lumber, for example, increased 6.0 percent. The index has shown some retraction, however, since mid-year, pulling back 0.4 percent.

Although materials have yet to show aggressive inflation, any sudden increase in costs would negatively impact the construction recovery as many distributors and contractors are unprepared to manage the consequences of an already weak supply of materials brought on by overall lack of demand. If demand for non-residential building in particular shows a marked turnaround on the heels of the rebound in residential construction, sharper increases in material prices could result. In a study by Thompson Research Group, distributors tend to delay increasing prices until manufacturing capacity utilization is between 80.0 and 85.0 percent. Various capacity measures by the Federal Reserve are approaching this range; the output of construction supplies is currently at 81.8 percent, again buoyed by the residential market. For contractors, this means either charging more or absorbing cost increases. With the more moderate levels of inflation, many contracts have elected to delay increasing prices until manufacturing capacity utilization is between 80.0 and 85.0 percent. Various capacity measures by the Federal Reserve are approaching this range; the output of construction supplies is currently at 81.8 percent, again buoyed by the residential market. For contractors, this means either charging more or absorbing cost increases. With the more moderate levels of inflation, many contracts have elected to maintain their pricing, but any abrupt acceleration in inflation could result in project cost increase of approximately 2.5 percent, with an increase in structural steel being most impactful.

Material price forecast for 2014

- **Gypsum**: 7.9%
- **Reinforcing bars**: 14.4%
- **Cement**: 4.5%
- **Lumber**: 7.4%
- **Structural steel**: 11.4%

Source: Jones Lang LaSalle, IHS Global Insight
Our 2013 playlist highlights some of the main themes in the construction industry today. These themes will continue to be a part of defining the construction industry through the recovery and even longer term.
Green building: What the advent of building codes and LEED v4 means for tomorrow’s sustainability targets

Did you know? LEED v4 is not the mandatory certification route until June 1, 2015. Until then, projects can be registered for LEED 2009 or LEED v4.

**LEED v4**

Since LEED 2009 hit the headlines, the rating system has not shifted...until now. LEED v4 was approved by the U.S. Green Building Council (USGBC) in July, and will formally launch in November 2013. The new version of the LEED Rating System brings with it several new changes that will sophisticate the world of Green Building. Major new provisions in LEED v4 include making the initiative more adoptable internationally, expanding property type-specific designations, and weighing points more heavily towards optimizing energy performance. LEED v4 also encompasses Cradle to Cradle more stringently, which means among other criteria, that products and resources used are environmentally safe, designed for recycling or composting, and the manufacturing process must make use of renewable energy and carbon management.

### Risks

- The inclusion of Cradle to Cradle is a point of controversy among many interest groups in the industry. The added processes involve tracking and sourcing materials and resources used in the construction process. While the credit is not mandatory, it sets the bar considerably higher than previous LEED versions.
- For the building owner who pursues LEED v4, there is no guarantee that the building tenants realize the value of the certification. The challenge for many owners and developers is how to create a value prop for recertification or new certification under LEED v4; many may simply opt to maintain their certification or certify new projects under LEED 2009.
- Unlike outside the U.S., there are no existing incentives for LEED v4, even for companies with fewer resources because there are enough large projects in the pipeline to support the institutionalization of LEED v4.

### Opportunities

- The Federal Government still requires LEED certification for all new construction, which helps drive interest in LEED from the developer-landlord down to the tenant.
- More property types are covered in LEED v4 so the platform is widened and more accessible to mixed portfolio landlords and developers who are pursuing Green Building.
- Projects can be certified under LEED 2009 until 2015, which will provide more access to certification, particularly to those who cannot invest the amount needed to obtain LEED v4 certification.

“No one else has the traction or horsepower of LEED...LEED v4 will drive the market, pushing perfection [in green building], but the challenge will be how to create a value-prop for recertification of buildings [to LEED v4].”

Jean Savitsky, Sr. Director, Energy & Sustainability, JLL.
IgCC

After a year since its inception, the International Green Construction Code (IgCC), has been adopted by several state and local jurisdictions across the U.S. The IgCC is the first of its kind in many respects—it is the first building code to mandate sustainable building construction and design, and the first code to evaluate ongoing performance as well. While currently a voluntary set of guidelines, the intent of the code is to cut energy use in commercial buildings by way of creating minimum standards, and to continue the requirements through building commissioning, operations and maintenance.

**Risks**

- The advent of the IgCC could threaten LEED to a degree as it would provide an eventually mandatory effort to build Green. If buildings have to satisfy IgCC as a benchmark, and thus are considered sustainable, there could be less incentive to go the extra mile and pursue LEED certification.
- Existing buildings are not automatically exempt, which could present a challenge for landlords and owners of outdated buildings or functionally obsolete buildings, creating a financial issue for the market.
- The mandatory nature of codes could lead to implementation of complex components not fully understood, and lead to prolonged construction timelines or even building failures.

**Opportunities**

- The code would expand green building as a default, by establishing a benchmark for green building. For more sophisticated owners and tenants, there will be incentive to pursue LEED in order to set themselves apart.
- The incorporation of commissioning, operations and maintenance in the IgCC is the first code that implements ongoing review as part of meeting its mandates.
- For some buildings, the implementation of IgCC will be a first step towards LEED certification, and help ease the transition of “Going Green.” The baseline code will help provide knowledge and best practices before owners or developers go to the expense of LEED certification.
Alternative project delivery: Using P3s to help avoid an infrastructure collapse

Did you know? The U.S. needs $78.0 billion in transit repairs and improvements according to the Federal Transit Administration.

Infrastructure is at the forefront of issues that face the U.S. as we move into the 21st Century. Inefficiencies in infrastructure have vast consequences from preventing people getting to their jobs to the transport of goods and services and productivity losses. There were hopes that MAP-21 which was approved in 2012, would allow for the upgrades and reconstruction of the nation’s bridges, tunnels and roadway. Much of MAP-21 funding, however, was focused on the national highway system, omitting a vast amount of infrastructure in need of repair. Currently, there is no money available to states for new projects in the fiscal year 2015, without any funding for the Highway Trust Fund in place and MAP-21 set to expire in 2014. Public-private partnerships, or P3s, are now emerging as a solution to help meet need for capital and financing for infrastructure projects at a time when public funding is limited. The essential goal of a P3 is to build an infrastructure asset that will generate revenue quickly and efficiently. Efficiency is the key component in a successful partnership. The project’s financing, development and operation all have to be carried out efficiently in order for the investment to be viable.

Risks

- Many P3 investments do not have much or immediate liquidity and require backing of large balance sheets, which may be a challenge for smaller contractors. The long-term commitments on contractor and vendor balance sheets are also a challenge.
- Contractors should limit exposure to P3 investments so that if one project fails, it does not have as big an impact on the entire company. Knowledge of a P3s complex structure and risk transfer scheme is often limited.
- Not all projects attract the investors needed as not all projects deliver a steady stream of revenues, which means that there needs to be several financing options or approaches in place in the planning stages.
- Without a standard protocol, different P3s have evolved according to region and project type so a lack of fluidity has materialized which can limit the application of best practices and experience from project to project.
- It can be particularly difficult to validate the premium paid for financing various infrastructure projects since there is not a one-size-fits-all scheme requiring due-diligences on varying levels of affordability and markets’ acceptance.

Opportunities

- Many P3s create more stable or conservative investment opportunities with increased cost certainty for financiers, which helps to draw money into projects. In addition, better access to capital results in more cost effective results because of the ability to hire and retain highly skilled workers and obtain the best materials.
- The use of P3s in construction expands financing options for projects unable to start or be completed because of MAP-21 dollars re-funneled to other areas in need of funding. MAP-21 also expires in 2014, so P3s can help provide financing for proposed or planned projects to break ground.
- The P3 environment is a highly complex one with many stakeholders so there is opportunity for business developers helping firms strategize for P3 pitches, which creates a whole new knowledge base for working with P3s.
- P3s can also allow expedited design and construction process reducing infrastructure delivery times.
- Integrated service delivery ensuring facilities are built not only for purpose but for long term serviceability, and capital assets are worth more after the hand back period due to built-in maintenance and life cycle costing.

“The role of the private sector in these partnerships allows for risk transfer to the private sector that is best suited to manage the risk as well as increased innovation by leveraging private sector knowledge during initial competitive RFQ/RFP process.”

Nick Joosten, Executive Vice President and National Leader, JLL PDS
Today’s labor market: The risks and rewards of recovery

Did you know? The construction industry has only recovered 14.2% of jobs lost during the recession.

The bright side of today’s construction labor market is that it is finally adding jobs. Recovering the more than 2.2 million jobs lost during the last six years is no easy task, however. The protracted decline in construction employment is a result of several factors including firms downsizing and layoffs during the recession, but also extending to the inability for many firms to retain workers even after the recession as many continued to exit for employment in more profitable fields with better outlooks. Additionally, the industry is suffering from an outflow of executive, senior-level and skilled workers who put off retirement during the recession. This is particularly relevant in construction because of physical risks associated with the industry not necessarily present in other industries, and retirement for many becomes more of a necessity. All of these drains on the labor force present an obstacle to regaining jobs at a time when economic fundamentals are improving and driving increased demand for construction industry workers.

**Risks**

- The shortage of workers is currently materializing in management and supervisory positions, and among skilled craft workers. During the recession, workers already in these positions were not exiting the industry unless it was a result of layoffs or downsizing, just as their senior counterparts were putting off retirement plans. At the same time, less experienced workers did leave the industry for better opportunities in other industries, or were laid off. As a result, training and mentoring to prepare an up and coming workforce to grow into the higher managerial and skilled craft worker roles was limited.
- Among impacts of a work shortage, the most severe include the lengthening of jobs and the need to turn down extra work, as well as pushing up the cost of labor at a time when contractors and subcontractors are trying to closely manage costs. A 3.0 percent increase in the cost of labor can translate to a 1.2 percent increase in the cost of a project, according to Gilbane.
- Increased demand for labor is also currently associated with specific industries such as energy and natural resources, which are isolated to certain geographic areas and lends to a lop-sided recovery. Housing is also another area where labor shortages are coming into play, and this is putting upward pressure on materials specific to housing construction, such as lumber and wood products.

**Opportunities**

- Because of the outflow of the most senior workers now entering retirement, there is a window of opportunity for growth into upper management for workers.
- The need to attract more talent into the construction industry and retain current talent could lead to a build-up in workplace incentives including mentoring, apprenticeships, compensation, and relocation packages. Contractors specifically should note the importance in incentive plans as a very effective tool for retaining talent, according to a survey by FMI, when contractors in growth regions and areas are bargaining hard to recruit.
- An area of potential growth that is not limited to a geographic area is the need for renovations and retrofitting. During the recession, building owners and companies put off base building and infrastructure improvements. Now with more liquidity and increased confidence in the market, there will likely be a more concerted effort to undertake these projects, which will drive further employment growth among a wider pool of workers.

“In addition to labor costs increasing due to higher average construction salaries, a loss in supervisory/skilled craft workers could lower productivity rates (labor hours/unit of work), driving labor costs upward (productivity rate x hourly labor wage). Labor cost increases could be greater on more complex projects.”  Chris Kollar, PM, JLL PDS
First responders: Rebuilding following a natural disaster

Did you know? Aside from structural rebuilding, another challenge in post-disaster recovery is outdated or inaccessible elements such as electrical wiring. For many New Jersey office tenants, post-Hurricane Sandy challenges involved ongoing electrical issues. In fact, inaccessible electric wiring damaged by flooding was named the culprit in a recent boardwalk-destroying fire along the Jersey Shore.

In the last year, natural but sizeable and catastrophic events across the country have redefined what recovery means. Not only is the U.S. still climbing its way out of recession, but to throw the complications of natural disaster on top of this recovery forces all industries to re-evaluate their business operations. For the construction industry in particular, it means not only operating efficiently externally by successfully carrying out reconstruction efforts but also internally to manage the process of a successful reconstruction. As natural disasters seem to occur with more regularity, it will become increasingly important for the construction industry to be strongly positioned to emerge a hero. This is a challenge at a time when the industry continues to find its footing. Being aware of the internal and external verticals that are adversely impacted during disaster recovery phases and being able to counter the challenges will result in more recovery in the construction industry, and a more successful reconstruction for the disaster site as well. As knowledge is accumulated and best practices formed, the role of construction as a First Responder will become more well-defined and offer more career development and opportunities over the long term.

Internal challenges

• A lack of knowledge regarding operational processes during a disaster is currently one of the biggest challenges for construction firms, particularly because of unfamiliar or unstudied regulations associated with the disaster site.
• Not only is there a lack of skilled workers to begin with, currently, but disaster recovery typically involves mobilizing an unskilled labor pool to assist with mass reconstruction.
• The work requirements and budget in a disaster reconstruction environment are constantly evolving as external working conditions change, and there are typically more unexpected environmental hurdles than in a non-disaster construction environment.
• Wage enforcement among contractors and vendors becomes more stringent because government is the source of construction funding. Along with wages, schedules and job postings are also more closely scrutinized.

External challenges

• The initial steps to recovery involve work even before the true disaster may be over. Engineers and construction workers are often needed to help remove debris, seal levee breaches, and restore power and water depending on the disaster situation.
• Ongoing government intervention and rescue efforts can delay construction mobilization, or interrupt ongoing reconstruction.
• There are frequently interrupted supply chains and destroyed logistical facilities which are impactful on material readiness and prolong the reconstruction process.
• Access to non-process infrastructure (housing for transient workers, medical, police and fire facilities) is often limited placing burden on construction firms involved in reconstruction.

Disaster-relief funding ($ millions) allocated in the first half of 2013

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount ($)</th>
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<tbody>
<tr>
<td>Federal Transit Administration</td>
<td>$5,700</td>
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<tr>
<td>HUD community development grants</td>
<td>$5,400</td>
</tr>
<tr>
<td>FEMA disaster-relief fund</td>
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<td>Federal Highway Administration</td>
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-5.0% overall reduction from original appropriations.

Source: Jones Lang LaSalle, Disaster-relief Appropriations Act
In line with macro-construction industry trends, a focus on the office, industrial and retail building sectors shows a slow resurgence in growth, characterized mainly by build-to-suits, but in more saturated and high-growth industry markets, speculative building is on the rise.
In focus: Office

Green shoots in the form of office buildings
In Q3 2013, office construction reached 50.3 million square feet under development, the highest volume seen so far in the recovery and the first time construction levels have surpassed 50.0 million square feet since 2008. The result of an increasingly landlord-favorable market across the United States, new starts have been sprouting up across the country counter to the previous concentration of new development in a few core geographies. Of the 50.3 million square feet under construction during the third quarter, 13.1 million square feet (26.0 percent) came in the form of new starts, again the highest figure so far during the recovery. Ascending rents and stabilized to increasing occupancy are driving U.S. office market fundamentals towards a more landlord-favorable environment. Nationally, Class A rents have risen by 4.7 percent year-on-year, while average asking rents in Central Business Districts have grown by an additional 5.5 percent. A combination of a lack of new construction, flight-to-quality during the recession years and shifting demographic patterns and workforce preference have placed an even higher premium on core, well-located Class A space. Vacancy, however, remains elevated compared to historical norms. Core, urban locations in quality space are gradually being absorbed, but at a more muted pace than in previous recoveries. CBD Class A vacancy currently sits at 14.4 percent. And, in markets struggling with a high overall vacancy rate, premium assets are typically showing disproportionate strength, relative to overall market trends. This, combined with below-average expansionary activity among tenants, has resulted in an environment where spec construction is not always viable, but where office conditions are such that development would relieve increasing pressure on tenants.

Previous office construction booms remain cautionary tales
Perhaps it is a lesson learned from the previous recovery and economic expansion period where overbuilding was a prime ingredient in weakening the construction industry, but new office construction today is a far more calculated venture—as it should be. Geographically, construction remains concentrated in core markets despite growth in secondary metros. The top three markets for construction—New York, Houston and Washington, DC—posted 21.1 million square feet of space under development in Q3 2013, or nearly 42.0 percent of development nationally, despite being home to 24.5 percent of the country’s office supply. After these markets, 10 geographies have at least 1.0 million square feet of space under construction. Yet 25 markets have less than 500,000 square feet in progress, limiting the number of new blocks coming to market. Even in Houston, where cranes dot submarkets such as Katy Freeway and The Woodlands, a significant amount of new construction is build-to-suit and of little use to most tenants in the market. In spite of these challenges, outward pressure from external forces...
will likely constrain most markets to the point that increases in supply are necessary to avoid an outflow of tenants and activity. Markets such as Austin, Charlotte and Raleigh-Durham have witnessed some of the fastest employment growth in the country, but new construction volumes are still below the amount needed to suppress rent growth. On the other hand, demand for space from tech firms in the Bay Area, for example, is not being met due to stringent local regulations on the total Rentable Building Area (RBA) under construction in the city proper, while other tech hubs (such as Portland and Seattle) are only beginning to see new blocks emerge.

### Three Things to Know

1. Space efficiency the new norm. The nuance of this economic recovery for businesses is trying to keep costs down while adding workers. One of the most common ways businesses are tackling this is by evaluating their workspace utilization. Most companies average about 250 square feet per employee but the most progressive companies today target 150 square feet. This trend will persist, just as job growth gains steam, and the need for more office construction to accommodate new workers will be overshadowed by increased workspace efficiency, and restraining new development to a certain degree.

2. New demands for new construction revolve around preventative measures. Recent natural disasters in major markets across the U.S. have prompted attention to infrastructure investment in office buildings to contend with future catastrophic events. Multiple generators, space allocated for disaster recovery and measures to combat flooding are just a few of the elements that tenants are prioritizing in their search for space.

3. Green building is not going away. Green building for office buildings is the new black. Since launching in 2000, the U.S. Green Building Council has certified about 350 structures under LEED at various certification levels. What does this mean for tenants? Not only are the associated benefits of a Green building for the landlord, but tenants also record cost savings and favorable employee retention figures as a result of locating in a Green building.

### Outlook

Overall, the competing trends of rent pressure alongside higher vacancies and increased space efficiency are likely to persist. While new supply is already under way in select, space-constrained markets, in other markets, landlords are just beginning to take the upper hand in negotiations. As this trend gains momentum, demand for new construction will materialize across a broader geography. How much development will occur, however, will be ultimately determined by economic and demographic factors outside of the office sector and their effect on both tenants and investors. With the lingering economic challengers, a repeat of 2013 for office construction is likely through the next 12 months. This sector is certainly in recovery mode and much improved from pre-2012 activity levels, but the overall U.S. fundamentals have only reached a toehold thus far. The pipeline of new development projects should remain steady but muted, and especially compared to where we were through the last spec boom during the real estate bubble. Longer term, the character of office construction will be dynamic and ever-changing as workplace environment continues to morph and industries not previously office market leaders, such as high tech and energy, take the helm. These shifts will likely encourage a new onset of office construction as older inventory becomes increasingly obsolete, repositioned for other uses or demolished.
In focus: Industrial

Modernity counts
Newer is better, and this translates to a focus on space-functionality as tenants seek modern facilities to accommodate their evolved distribution strategies and material handling processes. This hints at maximizing operational efficiencies while mitigating costs in an environment where the World Trade Organization has cut its 2013 global trade growth forecast from 4.5 to 3.3 percent. The economy, though improving, is doing so at a measured pace, meaning industrial users want supply chain optimization and access to population centers to position themselves to compete and vie for market share when true momentum occurs in the global economy.

Build-to-suits: the precursor to spec
Development activity began to increase in the first half of 2012, and much of this stemmed from big-box committals prior to groundbreakings. Underwriting criteria for warehouses made true speculative construction difficult and many developers sought pre-commitments prior to going vertical, suggesting this cycle’s build-to-suits are less about design-build-projects, but more about kicking off semi-speculative building.

As rents appreciated, speculative development returned, beginning in Southern California, and whispers of groundbreakings were soon heard in major logistics corridors such as Dallas/Fort Worth, Chicago, New Jersey and Atlanta. All now have projects underway and tenants’ preference for modern warehouse space, which outweighs supply thresholds, from a national perspective, has ushered in new development in secondary markets.

Speculative development is increasing
Preliminary numbers for the third quarter of 2013 have under construction activity at 96.7 million square feet; nearly half of this is speculative product with an average building size of 360,000 square feet. By geography, the West (San Diego to Seattle) has the highest speculative to total construction ratio with 66 percent, followed by Central (Phoenix to Pittsburgh) with 47.0 percent and the East (Miami to Boston) with 36.0 percent. In all, 40 of 48 U.S. markets are building on a forward-looking basis.

Demand continues to become increasingly widespread, and this is reflected in underway product: More than half of new speculative construction is for space between 100,000 and 499,999 square feet. Additionally, tenants with requirements in excess of 750,000 square feet will not find many options in buildings, such facilities allow tenants to utilize more cubic space. As rental rates appreciate across markets, this new construction standard will become more common in major distribution markets.

Outlook
The lessons developers learned from over-building during the last cycle’s peak are not forgotten, meaning that although U.S. speculative development is increasing it will be at a gradual pace. Groundbreakings will be more common in Central and the East however completions are not anticipated to mirror 2008; at least, not anytime soon.

While tenant requirements are up from six months prior, a substantial injection of new inventory may prove too much if developers become too aggressive and are not sensitive to where U.S. demand is concentrated. In a sense, a calculated game of risk is being played, and local market intelligence is crucial to determine where expectations and are realities are in-sync.

Three Things to Know
1. Pushing east. Speculative development, based on current tenant requirements, is set to increase in the Northeast, especially in markets such as New Jersey and Philadelphia. It will also become more pronounced in the Southeast, notably in Atlanta, where requirements remain steady. Build-to-suit development will continue in these markets as well.

2. Raising the roof. A 32 foot clear height is the general standard for Class A warehouse construction, yet a handful of speculative developments will raise the roof to 36 foot clear. While the development costs are higher (e.g. additional steel, higher tilt up panels, upgraded sprinkler systems and thicker floors), and pallet configurations differ than 32 foot clear buildings, such facilities allow tenants to utilize more cubic space. As rental rates appreciate across markets, this new construction standard will become more common in major distribution markets.

3. e-commerce is shaping development. All new e-commerce facilities presently underway are build-to-suit or owner-built facilities. This speaks to the building requirements today’s users demand in this highly specialized industry, such as more building depth with wider column spacing to accommodate large pick modules, sorters and automation; multiple mezzanine levels; and high power requirements.

“...A key driver for the industrial sector continues to be development of manufacturing projects in the southeastern United States. Both domestic and foreign companies are investing in increased manufacturing capacity and are attracted to the southeast by favorable wages rates, utility rates, state and local incentives, and construction costs. We also are seeing significant strengthening in the Houston and North Texas markets for industrial manufacturing projects. Many contractors are hiring additional workforce, but with caution to maintain a lean profile. ”

Tripp Eskridge, Managing Director, JLL PDS
In focus: Retail

Retail follows rooftops
Retail’s goal is to give consumers the goods and services they need and want, at a profit. It is an accepted axiom that retail will go where the people are. Prior to the recession, consumer demand and retail supply were aligned. The recession, however, created an imbalance with existing retail inventory outweighing consumer demand. Since the recession, retail expansion is more closely tracking population growth as opposed to projected consumer spending patterns.

Currently, the greatest population expansion seems to be in the Sun Belt, where the housing bust was at its worst. Now that housing is trekking upward once more, the largest demand for homes will be where the greatest price reductions were seen; namely markets such as Las Vegas, Phoenix, and Florida markets. These are the areas where we can expect to see the greatest improvement in retail fundamentals, and therefore more construction activity.

Notwithstanding, population does not stand alone in determining retail activity. Employment and, therefore, income growth will have a meaningful impact on where and when construction takes place.

Why more space?
In general, the supply spigot is at its lowest level in years. Furthermore, in a true reflection of current economic conditions, construction is moving from multi-anchor power centers and lifestyle centers to big-box, single-tenant stores, often occupied by discounters such as Walmart, Target and Costco.

Dead malls
While there is still a plethora of vacant space available, frequently this space is located within dead, underperforming or obsolete centers. In competitive centers—where the vacancy rate has dropped as much as 4 percent since the recession—space is at a premium.

What is being built?
As previously mentioned, current construction, where it occurs, is focused on single-tenant big-box or discount/wholesale space. Those multi-tenant projects underway are largely in urban cores or peripheral outlet centers.

Rationale
Again, this reflects two factors: the reduced disposable income of consumers and demographic patterns. Many consumers are choosing to move from suburban locations into cities that feature walkable communities and are close to work, shop and play areas.

Specific tenants that are actively developing or retrofitting space include movie theaters and grocery stores. There has been a flurry of activity in upscale theaters with enhanced food and beverage service and plush seating. Developers are being innovative in the way these spaces are constructed, making them less expensive to build as well as easier to retrofit back into a plain vanilla box, if necessary.

Upscale grocers such as Sprouts and Earth Fare are also on the move, in many cases, retrofitting existing spaces to fit their needs. On a related note, as Walmart continues to expand its Neighborhood concept, the giant discounter too is ramping up construction.

Outlet centers
Not surprisingly, the recession sparked a renewed interest in value. As a result outlet centers have performed outstandingly in recent years with developers racing to bring more centers to market to meet growing demand. Furthermore,
the quality of retailers tenanting outlets has evolved, becoming more sophisticated and upscale. Outlet centers opened in 2011-2012 totaled over 4 million square feet. Recent openings included Paragon Outlets in Texas, Opry Mills in Tennessee and Tanger Outlets Glendale in Arizona. Approximately 13 new outlet centers (totaling 4.8 million square feet) and 600 new outlet stores will be opened this year.

Trend over the years
Since the last peak in 2006, deliveries of retail space has dropped from 255.1 million square feet to 45.1 million square feet—a reduction of 82.3 percent. Even since the end of the recession, construction starts have fluctuated, dropping 55.5 percent from 10.8 million square feet in the first quarter of 2010 to 4.8 million square feet in the second quarter of this year.

Regional trends
Dallas, Las Vegas, Atlanta, Tampa and Miami all fall into the top ten markets for square footage currently under construction. Dallas tops the list at 3.8 million square feet.

Three Things to Know
1. Redevelopment is the buzzword in retail construction. But not just anywhere. An asset already has to be a proven success for redevelopment to be feasible in the current economic environment. Developers are seeking return rates of 500-600 points on redevelopment projects. In many cases, developers are looking at their existing portfolios and properties to find opportunities for renovation and improvement.

2. Keeping up with technology. As omnichannel retail gains traction, the way we think about traditional retail will have to change. Future considerations will include pick-up zones in stores and around centers, modular layouts that can easily be changed, more sophisticated stock storage and creative store configurations that allows for digital-media-rich interactions such as kiosks, self-scanners and virtual walls.

3. Green is good. As consumers in general—and millennials in particular—demand greater environmental responsibility, shopping centers and stores will have to embrace green practices and sustainability, including LEED certification, improved recycling, green roofs and incorporated green space.

Outlook
Redevelopment will continue to be the name of the game for the next few years. Thereafter, our construction experts at Jones Lang LaSalle predict that 2017 will be the banner year for new construction deliveries. Since retail development takes time—at least three years—those developers who have not already begun planning new development will be behind the curve by 2017.

“In the past, when the economy was strong, most of the focus was on new store growth, and existing stores were neglected. Since the downturn, most of the focus has been on renovations to increase same store sales. In 2013, we are now starting to see an increase in new stores also.”

Steve Jones, Managing Director, JLL PDS
All leading indicators for non-residential construction appear to be on the same path—pointing towards increased activity during the first half of 2014, but expect some short term retraction in volume to result from recent uncertainty in regards to the U.S. macro economy.
Leading indicators

Leading indicators for construction activity showed little volatility during 2012, but three-quarters of the way through 2013, it seems as if indicators are pointing in a more solid—and positive—direction. The Architecture Billing Index (ABI), which is based on inquiries into new projects and construction spending, showed weakness in the first part of this year. The overall index fell to less than 50 in April, indicating a decline in billings compared with the previous month and marking a steady contraction since the start of the year. By August, however, the overall index reached 52.7, regaining momentum lost during the first four months of the year. After starting the year at 51.1, the ABI for commercial and industrial billings also showed an uptick through August, improved to 54.2—the highest level since the first quarter 2012. Across the U.S., all regions recorded an uptick in billings year-over-year, with the Northeast and South posting the highest index levels at 54.3 and 54.2, respectively. Likewise, the Dodge Momentum Index, which tracks projects in planning stages, also recorded an upswing through August. The index surged 11.1 percent from second quarter 2013. The commercial building index recorded a 3.7 percent increase in the month of August, alone, which was a major driver in the improvement recorded in the overall Dodge Momentum Index.

The Construction Backlog Index (CBI) tracks a short term outlook of 6 to 8 months, based on months of backlog, but is also showing steady improvement following some stagnation in the previous few quarters. The CBI increased to 8.2 months of contractor backlog as of the second quarter 2013 (the latest data available), up from 7.9 months one quarter earlier. While this appears to be a positive trend, the number itself does not reveal the entire story. The increase in

![Diagram of Leading Indicators]

Source: Jones Lang LaSalle, American Institute of Architects, McGraw-Hill Dodge
Backlog is also reflective of recent labor shortages and a lack of skilled labor availability prolonging construction timelines. This is particularly true in the Southern markets, where a combination of housing resurgence and natural gas-related infrastructure construction is driving activity. Backlog reached 9.1 months at the end of the second quarter. Only the Northeast markets recorded a longer backlog of 9.4 months, with the reconstruction efforts related to Hurricane Sandy delaying or postponing project timelines.

As expected, the start of 2013 brought a short-term pullback in growth, with all leading indicators showing some flatness or retraction. The current CBI indicates a steady work stream through year-end. The recent improvement in both the ABI and Dodge indices, which provide a 9 to 12 month outlook on construction volume, echoes this workflow and extends a positive outlook at least through the first quarter of 2014. It is likely that there will be a slight pullback across all indicator results in the next few months, and a consequential plateau in activity, particularly as the U.S. economy grapples with the fallout from government shutdown and the resolution of the debt ceiling. While the CBI may still show longer backlog, it will likely be a result of postponed or delayed projects impacting work flow as opposed to a net increase in work.

Architecture Billings Index and Construction Backlog by region

Source: Jones Lang LaSalle, Associated Builders and Contractors, American Institute of Architects
The story going forward is a positive one. There may be backtracking along the way, but the end result will be an overall construction environment more favorable than any construction environment we’ve seen during the last five years.
Construction industry outlook

The protracted recovery that is characterizing the construction industry is actually a productive path. The industry is virtually absent of unfounded or unsustainable development and overbuilding characteristic of many previous recoveries. While the year 2012 teetered on the edge of massive uncertainties that would completely set back the marginal improvements recorded by the close of that year, 2013 has brought with it more stability. There are still obvious ramifications yet to be seen from the Government shutdown and debt ceiling resolutions, but the depth of regional and sector improvements so far during 2013 positions the construction industry for further expansion. Housing, of course, is a big ingredient in year-to-date momentum, but the majority of sectors are posting positive year-over-year gains in volume including retail, industrial warehouse, and lodging. Private investment dollars still have the advantage of liquidity and low interest rates on their side which alongside more positive economic indicators, boosted investment in construction during 2013. Additionally, projects that have public dollars appropriated for 2013 still available likely will not be impacted in the short term by the shutdown.

This is not to say the outlook is without serious risks. Public construction funding continues to falter, particularly in terms of infrastructure improvement which will have severe detrimental long-term effects on both the overall construction industry and the U.S. macro economy. Unless action is taken to direct a substantial increase in capital to public construction, or the further incorporation of public-private-partnerships is taken seriously, the U.S. will face an immense infrastructure deficit by as soon as 2014.

Job growth is another factor that has the power to substantially derail the construction industry, but a major reversal would have to occur for the labor market alone to have this impact. On the same token, if the construction industry is to exhibit growth stronger than 2013 levels, it will take more robust job growth to fuel demand for major construction sectors like office building construction. As a result of lackluster job growth, particularly in office-using sectors, construction on the office side is still lagging, but forecasts suggest that the sector is poised for growth beginning in 2014.

Moreover, it is unlikely today’s construction industry could successfully contend with a surge in demand beyond the current demands of the housing arena. With the existing labor force and requirements for training and promoting workers, estimates suggest it will take at least five years to regrow the construction labor force to acceptable levels. As this part of the recovery occurs, the obvious short to medium term ramification will be a worker shortage. In turn, resulting pent-up demand will drive construction outside this timeline.

Notwithstanding the risks presented through both geopolitical and U.S. macroeconomic events, the construction industry as it stands is poised for consistent growth through the next year. The housing market turnaround coupled with improving labor market fundamentals will strongly anchor growth in the construction industry while demand for new building in other sectors also gains momentum. Such step-by-step expansion may breed some degree of impatience in the short term, but will allow the industry to look forward to more robust and widespread growth over the next two to three year horizon.
Our Construction Services

Jones Lang LaSalle offers comprehensive services as a construction manager, general contractor and design/builder; performing over $150 million in construction annually with a service reach throughout New England, the Mid-Atlantic, the Midwest, San Francisco and Philadelphia. We offer our clients added focus and accountability from seasoned professionals during the preconstruction and estimating phases, and continue to focus on your needs post-occupancy. It is our commitment to deliver maximum value from conception to completion.

General contracting
We are an innovative manager of over $150 million in construction annually.

New building construction
We excel in a variety of delivery systems, from traditional contracting to fast-track design/build.

Interior construction
We are one of the leading construction firms for interior projects of all sizes and complexity.

Preconstruction/value engineering
We alleviate potential challenges and unexpected costs that can influence the scope and cost of the entire project.

Estimating
We deliver a cost analysis and utilize prequalified subcontractors to manage and reduce project costs.

Project scheduling
We use critical path scheduling to keep your project on time and on budget.

Project closeout and occupancy
We are committed to our clients to stay involved until you are 100 percent satisfied with the result and quality.

Commitment to sustainability
Jones Lang LaSalle places an emphasis on providing environmentally friendly construction techniques and solutions. We are fully equipped to assemble a LEED accredited team for new construction, existing building upgrades and interior construction. Additionally, we support the use of reclaimed and recycled building materials when possible and the practice of responsible recycling has longtime been a standard part of our project delivery process.

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Our Project and Development Services

Jones Lang LaSalle is an industry leader in Project and Development Services. We provide management of design, construction and relocation services for corporate and institutional clients. With extensive experience in minimizing risk for our clients, we manage and consult on a wide range of construction projects—from interior build-outs to base building construction on everything from single tenant properties to multi-site developments.

**Project management**
Whether the project is a one-time renovation or an ongoing strategic alliance, we provide expert management throughout each phase.

**Capital improvements**
Manage and advise for all phases of the project—from initial planning through closeout—to enhance the life of the property and increase its value.

**Move management**
Supervise all phases of the move-management process, including personnel relocation, furniture installation and coordination of all service providers.

**Tenant improvements**
Supervise all phases of an interior project—from renovations to restorations—that meet the tenant’s needs.

**Project consulting**
As the owner’s agent, advisor and advocate, we provide strategic solutions throughout all phases of the project management process.

**Multi-site program management**
Manage projects in multiple locations such as office roll-outs, retail expansions, facility upgrades and signage re-branding programs.

**Development management**
Oversee any or every phase of the development process—from feasibility planning to closeout—for projects ranging from ground-up construction to complex redevelopments.

**Development advisory**
Advise you during the predevelopment or development stages of your project.

**Build-to-suit**
Create a completed facility that meets your occupancy requirements.

**Investment development**
Execute attractive investment opportunities, including development and repositioning strategies.

**Technical due diligence**
Coordinate with teams and agencies to achieve your goals within your bottom line.

**Sustainability services**
We advocate and implement sustainable design and sound environmental practices to help you establish and prioritize your objectives.

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About Jones Lang LaSalle

Jones Lang LaSalle (NYSE:JLL) is a professional services and investment management firm offering specialized real estate services to clients seeking increased value by owning, occupying and investing in real estate. With annual revenue of $3.9 billion, Jones Lang LaSalle operates in 70 countries from more than 1,000 locations worldwide. On behalf of its clients, the firm provides management and real estate outsourcing services to a property portfolio of 2.6 billion square feet and completed $63 billion in sales, acquisitions and finance transactions in 2012. Its investment management business, LaSalle Investment Management, has $46.3 billion of real estate assets under management. For further information, visit www.jll.com.

About Jones Lang LaSalle Research

Jones Lang LaSalle’s research team delivers intelligence, analysis, and insight through market-leading reports and services that illuminate today’s commercial real estate dynamics and identify tomorrow’s challenges and opportunities. Our 300 professional researchers track and analyze economic and property trends and forecast future conditions in over 60 countries, producing unrivalled local and global perspectives. Our research and expertise, fueled by real-time information and innovative thinking around the world, creates a competitive advantage for our clients and drives successful strategies and optimal real estate decisions.

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