LABOUR COST PRESSURES MOUNT AS CONSTRUCTION PEAKS IN THE USA

As the prospects of a surge in infrastructure spending by the Trump administration fade, expectations of US economic growth have been revised downwards to 2.1% for 2017. The much anticipated infrastructure bill which fed optimism in the construction industry doesn't look likely to pass this year, and even if it passes in 2018 only a fifth of the anticipated $1tn federal funding will be available. But even without the impetus from the Trump administration, infrastructure will still be a major driver of steady growth in the construction industry, with much needed improvement plans for aging infrastructure supported by ballot initiatives and state policies.

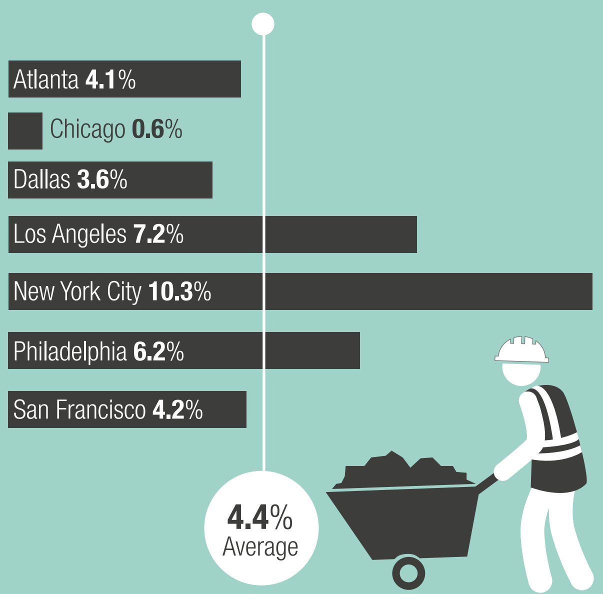
The steady growth in the construction market as it recovered from the 2008 financial crisis has driven increasing demands on the labour market, and the tight market is finally feeding through to higher wages – and therefore construction costs: building cost inflation has grown to 3.4% in August 2017, and construction cost inflation even more so, to 4.4%.[1] As the market passes its peak there are still some hotspots of activity where opportunity abounds, such as Texas and California. Across the country, infrastructure is an area of opportunity, whether in rail, road, airports or energy, and Texas and California are also big contributors to this anticipated infrastructure spend.

"Despite some headwinds in the market, 2017 will be a strong year for construction in the US, driven by continued economic and population growth. However, as the market peaks skills shortages will widen, and we will see growing cost pressures from skilled and even unskilled labor feeding through to bidding prices. Looking to 2018 the industry will also be assessing the potential impacts on labor in Texas and Florida with the anticipated demand for disaster relief works."

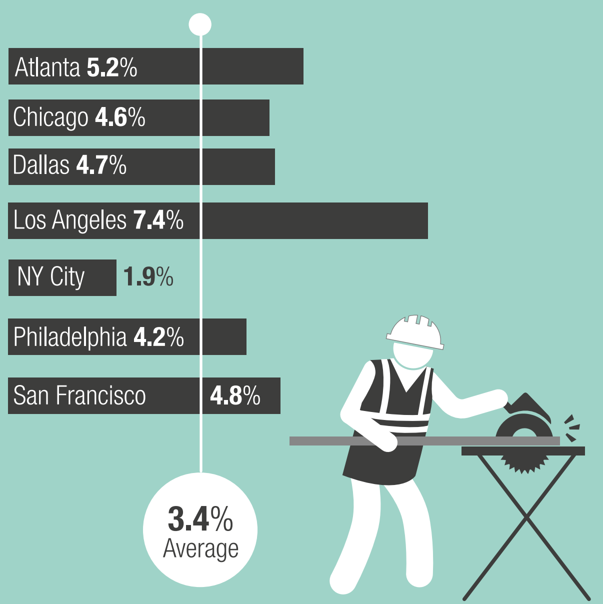
Brian Moran
Associate Director – North America

[1] ENR inflation data – building cost inflation based on skilled labour vs construction cost inflation based on common labour

Construction cost inflation...



Building cost inflation...



CONSTRUCTION

Forecasts of a levelling off in the US construction market in 2016 were proven wrong as the market remained strong throughout the year. The top 400 contractors across the United States generated a record $366.41bn in contracting revenue in 2016, up 6.5% from 2015. Despite normalisation in house building after a period of strong growth, and weakness in certain segments of non-residential building construction, continued strength in construction overall is expected with a 2.4% growth forecast for 2017, and 2.54% for 2018.[2]

The infrastructure sector is anticipated to accelerate as the FAST (Fixing America's Surface Transportation) Act and state-led ballot initiatives will support increased public spending on transport (even without any stimulus from a Trump infrastructure bill). Residential construction on the other hand, a boom market for the past few years, is normalising amid shortages in labour and land for development as the market overheats.

However, without the previously anticipated stimulus of $1tn in federal infrastructure funding, growth in construction output is anticipated to remain slow and steady over the coming decade, with average growth of 2.21% per annum. Infrastructure industry value will see slightly stronger average growth to 2026, of 2.55% per annum. The construction market is still expected to remain strong, but construction firms that were excited about the pro-business agenda and infrastructure spending of President Trump immediately after the election are now moderating their long term outlook. Most believe the market will continue to perform through to 2019 and then begin to level off, unless the Administration shows some progress on its pro-growth initiatives.

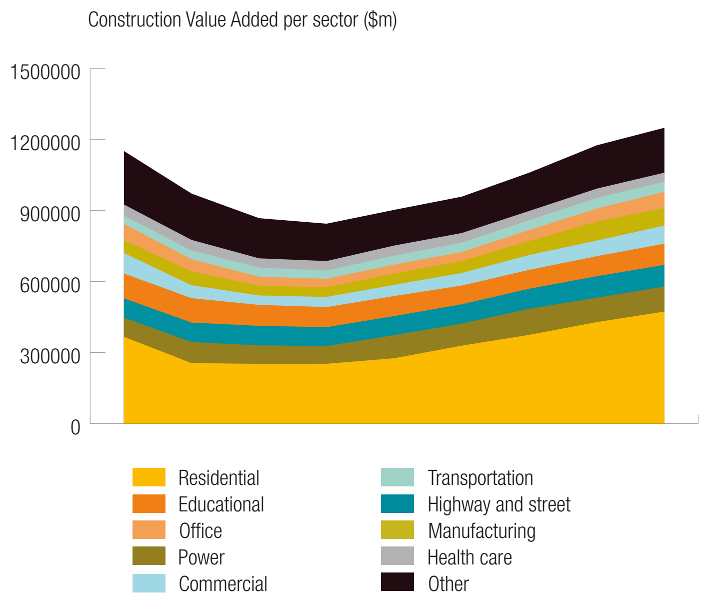


Figure 1: Source USA Bureau Economic Data

Construction took a significant hit during the post financial crisis recession, as can clearly be seen in the dip in both construction value added and construction output during this time. Some sectors however are clear areas of opportunity: residential construction has grown 29% from its 2007 levels and is still seeing strong growth at 10.4% year on year in H1 2017. Manufacturing is also worth highlighting, with 39% growth since 2007, although manufacturing construction has recently shrunk back, by -5.8% in H1 2017. Infrastructure is another area where construction value added is growing at a nationwide level, with power (30%), transportation (19%) and highway and streets (12%) construction sectors all seeing strong growth since 2007, although transportation construction value added did shrink in the year to H1 2017.[3]

COST

Construction cost inflation was 4.4% in August 2017 (y-o-y)[4], as compared to 3.4% for building cost inflation, trending significantly above consumer price inflation despite negligible change in material costs. Significant inflation in common labour is a major drive of the construction cost inflation, at over 4%, and skilled labour inflation was 2.1%, reflecting shortages in key labour segments as the labour market tightens, both in construction and nationwide.

When considering the cities highlighted in the table above, Los Angeles looks to be the most heated market across the board, though New York is seeing significant price pressures in common labour, driving up construction costs, most likely due to the large ongoing volume of infrastructure work causing labour shortages. In Los Angeles, the general inflation reflects the sheer volume of work ongoing in the market driving shortages in labour and material, and reduced competition for work, all contributing to growing costs. This activity is driven by both boosts in infrastructure investment in the region as well as the strong performance of the tech industry driving demand for residential and commercial construction.

The impact of new trade tariffs will also be felt across the industry as they filter through into the prices of materials. We are already seeing an impact in the cost of lumber from the tariff on Canadian timber, which has seen 14% growth in cost y-o-y to August 2017. Overall, however, slowing demand in China and other key areas will drive slowing price growth in key materials such as steel, resulting in slower material price inflation (of only 0.1% y-o-y) for August 2017.

[2] BMI data
[3] US Government data
[4] ENR data

CITY	CONSTRUCTION COST INFLATION	BUILDING COST INFLATION	COMMON LABOUR INFLATION	SKILLED LABOUR INFLATION	MATERIALS INFLATION
Atlanta	4.1%	5.2%	2.5%	2.9%	7.9%
Chicago	0.6%	4.6%	0%	4.4%	5.1%
Dallas	3.6%	4.7%	2%	3%	6.7%
Los Angeles	7.2%	7.4%	7%	7%	8.2%
New York City	10.3%	1.9%	11.1%	1.1%	4.6%
Philadelphia	6.2%	4.2%	6.7%	4.3%	3.8%
San Francisco	4.2%	4.8%	3.2%	3%	9.2%

Figure 2: Cost inflation – ENR data

ECONOMY

Prospects of growth taking off in the US have receded as expectations of expansionary spending providing a boost to the economy fade given the uncertainty of Trump's future fiscal policy, with previous expectations of 2.3% growth in 2017 shrinking back to 2.1%, set to continue into 2018.

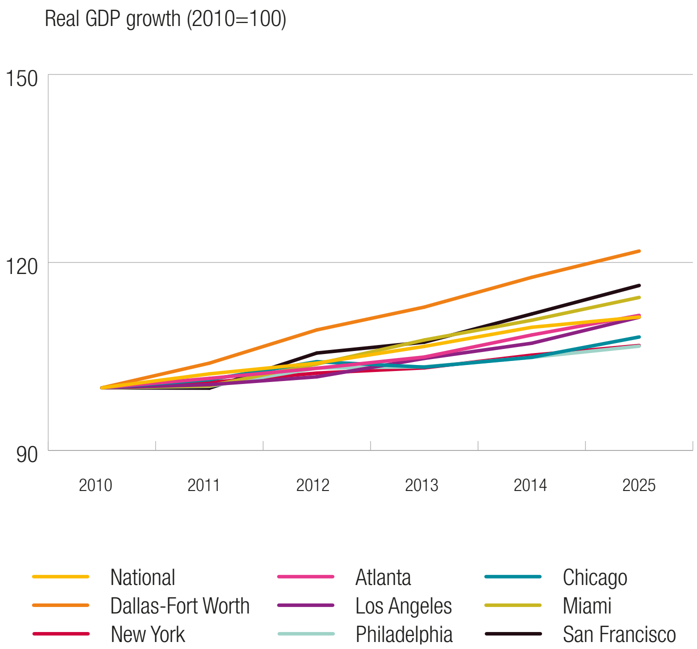


Figure 4: US Government data

Dallas is a notable hotspot of growth in the American economy, with real GDP growing 22% 2010-2015, as compared to 11% nationally. Other areas which have consistently outperformed national average, since at least 2012, are Miami (at 14% growth) and San Francisco at 16%.

GOVERNMENT POLICY

Rate hikes are currently expected for 2018 and no sooner, however, if Hurricane Harvey's damage to the oil refinery and offshore oil and gas industries hits the economy, we could see a reversal in the direction of monetary policy to combat short term economic impacts.

On the fiscal side, there is a small risk of a government shutdown when passing the 2018 budget at the end of this month, however in light of Hurricane Harvey this looks increasingly unlikely. The fiscal 2018 budget proposal put forward by the Administration will seek $200bn of federal infrastructure funds over 10 years to spark several hundred million dollars of further investment from non-federal sources, which would greatly benefit the construction industry, but is not the $1tn injection of funding the industry had anticipated. Of this, only $5bn of outlays would be available in the 2018 budget, so not much stimulus can be expected in the short term from infrastructure spending even if the current bill is passed.

Meanwhile, Hurricane Harvey has devastated large tracts of Texas and Louisiana, impacting not only the infrastructure and housing of the region, but also damaging critical infrastructure for the nation's economy, such as roads and railways leading to a third of the America's refineries. The road to recovery will be long and paved with significant construction contracts, both for rebuilding and for improving resilience for the next big storm. While ongoing efforts are addressing the immediate crisis, it is also hoped that the example of Houston will drive demand for resilience construction as the nation prepares for increasing frequency and intensity of storms such as Harvey due to climate change.

LABOUR MARKET

There is not much slack in the labour market across industries, so we would expect to see some wage pressures, especially with unemployment at a historic low of 4.4%. However, similarly to other developed countries, this stronger than average labour market is not always feeding through to corresponding wage rises as would be expected. However, the construction industry is beginning to see this pass through to higher wages in construction hotspots, signalling that the market is tightening and labour cost pressures could rise.

Construction employment spiked in August, with 28,000 new jobs in the sector, accounting for almost 20% of all new jobs nationwide, and bringing the jobless rate in the sector down to 4.7%. Overall, demand for construction workers continues to expand, and construction firms are increasing the rates paid to get workers on site, driving up hourly compensation in the process and contributing to growing construction costs across both common and skilled labour.

INFLATION

Inflationary pressures eased in Q2, with inflation shrinking to only 0.8% after 2.6% in Q1. At a metro level San Francisco has seen growing inflation, in part relating to housing prices in the city taking off in particular from 2014 onwards, with LA also growing significantly from 2015. The strong inflation on the West Coast, could exacerbate any cost pressures arising from the tight construction market there.

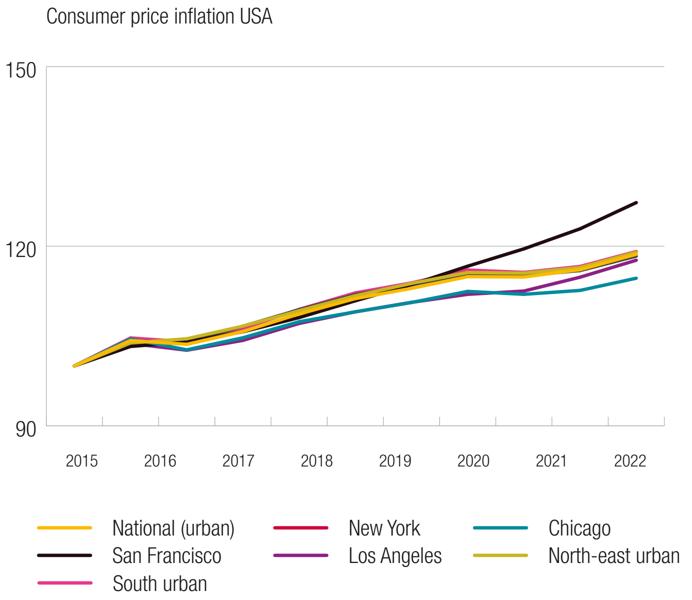


Figure 5: Source US Government data

INFRASTRUCTURE

Infrastructure is expected to be the main driver of construction growth over the coming decade, with a number of key factors sustaining growth across several infrastructure segments, including:

- The FAST Act, which will increase federal spending by 3.5% annually from base levels through to 2020;
- Investment into water infrastructure driven by major crises, from the contaminated tapwater in Flint to the Californian drought;
- Increased use of private sector investment; and,
- Direct voter ballot initiatives funding infrastructure spending: public transit has been a major winner, with >45 approved measures set to provide $170bn.

Infrastructure growth, especially in the transport segment, is expected to begin to outpace general construction growth from 2017 as additional spending on roads, rail and airports boosts the sector. Average real growth in roads and bridges is forecast at 3.4% from 2017-2020 due to the FAST Act funding, with activity expected to drop off past 2020 as the FAST Act expires. Rail is expected to continue to outperform, growing at a significant 5.1% in 2017, as $230bn worth of high value passenger rail projects continue to see progress across the country. Airports will also be a driver, with continued air traffic growth pushing aging infrastructure assets to the limits of operational capacity, necessitating the $60bn of extensions and overhauls in the pipeline.

A moderate pace of growth is expected in the power sector driven by increased investment to combat aging power infrastructure and adapt to intermittent power from renewable energy. Similarly, investment into water infrastructure is expected to increase due to major crises requiring substantial action: the passage of the Water Infrastructure Improvement Act, authorised $10bn in federal funds for this.

PROJECT NAME	SECTOR	VALUE (USDM)	EXPECTED COMPLETION?	STATUS
California High-speed Rail Project, Los Angeles – San Francisco	RAIL	64,200	2029	Under construction
Hudson River Tunnel Replacement Project New York- New Jersey	RAIL	20,000	-	At planning stage
South Suburban Airport, Illinois	AIRPORTS	14,000	-	At planning stage
Philadelphia Airport Expansion Project, Pennsylvania	AIRPORTS	10,500	-	At planning stage
Long Island Rail Road East Side Access Project, New York	RAIL	10,200	2022	Under construction

Table 1: Key Transport Projects USA – Source BMI

REAL ESTATE

The continued improvement in the US economy, low mortgage rates and falling unemployment have all supported a period of strength in the US housing market. However, while homebuilder confidence and starts remain strong, mounting labour shortages and land availability constraints, as well as the potential growth of interest rates in the near future, are resulting in slower growth with an average of 2% annually expected through 2021.

Heightened investment into non-residential construction will continue, and growth in the industry is expected to be maintained by commercial projects over a multi-year horizon. Markets in technology and related sectors continue to grow at full pace, with 2017 seeing even stronger demand from advanced technology customers building data centres and mission critical projects to support the insatiable demand for new content.

The industrial sector looks to be developing into a significant area of opportunity, with increased logistics and distribution warehousing demand driven by e-commerce, and the re-shoring of boutique manufacturing driving a resurgence in demand for industrial property within cities. After a long-term decline in demand for manufacturing construction, a new trend is emerging with a focus on small, craft and niche products, bringing hope for a resurgence in domestic production and demand for smaller industrial spaces in urban areas.

Retail on the other hand faces significant challenges over the coming decade as e-commerce is increasingly adopted across the USA. This trend is resulting in lower demand for new or refurbished stores: studies estimating there will be as many as 8,600 store closures in 2017 (more than in 2008 at the height of the financial crisis).

REGIONS

New York (and Philadelphia)

2016 was a challenging year for construction in New York City, with the value of construction starts shrinking by 8.4% to $49.77bn from 2015 peak levels of $54.36bn. The value of starts shrank across sectors, from -19.7% in commercial and manufacturing, driven by declines in retail and office building, to a much smaller decline in infrastructure starts at only 2.34%, driven by a decline in highway and bridge construction, but growth in environmental public works. The significant multifamily (i.e. apartments) residential sector ($19.5bn in 2016) also shrank, resulting in a 4.4% reduction in residential starts. Institutional construction, previously sustaining momentum in the industry, also saw decreasing starts value, losing 5.7%.

However, expectations are higher for 2017, with work ongoing for many big projects in the commercial sector, especially in the midtown area of rezoning. With a downside risk of saturation in both the luxury and high end housing markets and the office market, some developers are withholding investment until current supply is completed and absorption can be observed. As such, it looks likely that ongoing investment in infrastructure will be the main driver of construction work in New York, from the Penn Station Expansion, a $315m project to expand passenger access to one of the world's busiest transportation hubs, to the major investment in resilience as part of the Big U project (a planned flood protection system expected to break ground in 2019). However, the pace of construction in and around New York City is causing shortages of experienced, skilled labourers, and may result in wage, and therefore cost inflation in this market.

Another market of interest in the region is Philadelphia, forecast to see strong growth of 9.3% in value of construction starts in 2017, to $7.4bn. This includes growth across all sectors apart from commercial and manufacturing, which is expected to lose 19.7% of value in 2017, mainly due to a decline in retail construction. Strong growth in the institutional sector, expected to grow 21.9%, presents opportunities particularly in education where state funded college and university building programs have received a boost from the stronger economy resulting in university endowments rebounding to pre-recession levels. Infrastructure will also see strong growth of 17.4%, driven by a huge bump in electric utilities work to $336m: this investment in electricity will be reflected across the mid-Atlantic region with power plants and hospitals expected to be major sectors in the next five years.

California

Construction has been booming in California for the past few years, and there is some evidence that the regional market reached its peak in 2016. The 90 largest contractors in the region tallied $35.9bn worth of work in 2016, representing a 9.3% increase y-o-y. However, despite the pipeline of work still being very healthy, it is anticipated that there will be some scale back in hot sectors such as residential and commercial development as developers monitor absorption and demand for future supply.

In San Francisco the peak is evident, with the value of total construction starts anticipated to grow very marginally (less than 1%) in 2017 to $10.05bn, after huge growth of 20.5% in 2016. This will be driven by poor performance in the residential sector of -3% forecast for 2017, as well as an even bigger drop forecast in the commercial and manufacturing sector of -20.1% as these sectors recede from recent peak levels. However, growth in infrastructure and social infrastructure will counteract these negative trends, with a 20% increase in the value of infrastructure construction starts forecast for 2017, and an 18.1% increase for social infrastructure, driven by healthcare and other institutional facilities.

Los Angeles' value of construction starts on the other hand demonstrate a market still in the boom phase: with 11.8% growth forecast for 2017 the market will reach uncharted territory at nearly $20bn in starts. The only area where the anticipated slowdown in this booming market was observed was in the commercial and manufacturing sector, with a significant slowdown in retail construction the biggest driver as retail adjusts to negative technological trends. Similarly to San Francisco, infrastructure and social infrastructure will be the biggest drivers of construction growth, with 33.6% growth in infrastructure and 20% in social infrastructure, largely driven by growth in education construction. The positive figures for residential, at 9.5% growth in the value of starts, masks a downward trend in construction of multifamily homes, an underlying reflection of developer caution which is slowing construction growth in both multifamily and office markets. However, Los Angeles' downtown is anticipated to remain 'crane city' for the time being as the huge pipeline of work goes through to the construction stage. Should L.A. be awarded the 2024 Olympic bid, then we can expect another period of construction acceleration, with potential knock on effects for the entire region, especially on the cost to build as labour shortages tighten further.

With multiple megaprojects in the region being funded and given the green light in both the private and public sectors, contractors are looking at news ways to staff and manage the backlog of work: it has reached the point where contractors and subcontractors are developing joint and tri ventures in order to deliver these huge projects. From estimating to operations, availability of people and subcontractors is becoming a limiting factor in the ability to pursue certain projects, and this alone is likely to drive up tender prices in the region, on top of the abundance of work available.

Chicago and the Midwest

Chicago emerged as one of the top global markets for foreign investors in 2016, receiving more than $100bn in direct Foreign Direct Investment (FDI) which contributed to fuelling the peak levels of construction last year. However, construction starts in the city are expected to decline slightly in 2017 from last year's peak levels, due to a sizable drop in multifamily starts not compensating for gains made in the commercial and education sectors. The value of total construction starts is expected to shrink by 3% this year to $16.58bn, with residential construction driving the fall, losing 27.4% compared to 2016's value. However, Chicago is continuing to see an uptick in corporate building as more companies upgrade their facilities or consolidate offices, leading to growth of 10.3% in commercial and manufacturing construction. Growth in the value of construction starts in the city can also be seen in institutional construction, with 42.5% growth in educational construction starts and 29% growth in health care facility starts, making social infrastructure an important area of opportunity. Similarly to elsewhere across the country, infrastructure construction is also growing, with 35.8% growth in highways and bridges starts, to $2.09bn.

Infrastructure will continue to be a strong sector for Chicago and the wider region: Chicago O'Hare is one of the world's busiest aviation hubs, and despite being on the cusp of concluding a $6.6bn airfield modernisation program, Chicago's Department of Aviation has a full slate of other multimillion dollar projects underway. In addition, there are hopes to start another ambitious infrastructure project within three years, linking O'Hare with downtown Chicago via a high-speed rail line.

Southeast

Miami's construction market, similarly to the surrounding region, saw a slight decrease in 2016, but is expected to see 11.8% growth in the value of construction starts in 2017 to $13.57bn. Despite a slower start than anticipated in H1 2017, there is no shortage of work to drive the construction market. The residential market remains very resilient, with 15% growth in residential construction starts anticipated for 2017. The biggest sectoral growth in the Miami area will however be social infrastructure, with the value of starts in education anticipated to grow by 33.8%, and by 30.1% in the healthcare construction market. Infrastructure construction will also contribute to growth, up 9.1% reflecting a wider boom in work on Florida transport systems, including major projects at Orlando, Tampa and Fort Lauderdale airports and the continued construction of South Florida stations for the Brightline train. The only area seeing reduced value of construction starts forecast for 2017 is commercial and manufacturing, driven by stagnation in the office and bank buildings market and decline in the hotels and other commercial buildings market, despite 10.2% growth in retail.

In addition to the sectors highlighted, resilience will be a key area of investment for Miami over the next decade with a major program to prevent flooding in Miami beach announced after the Sunset Harbour neighbourhood experienced foot deep sunny day flooding because of a king tide, indicating that the city's injection-well drainage system wasn't working. Now the city is on a mission to build pump stations and raise roads around the city, particularly key connecting roads such as the raising and installing of new storm water and sewer drainage on the A1A state highway. With Hurricane Irma about to make landfall, this work could become a priority should current systems not stand up to the record breaking rainfall it brings. The need for improved resilience on top of the pipeline is exacerbating Florida's significant skills shortage challenge: a good quality workforce is often difficult to source and many larger contractors consequently fly in skilled labour from elsewhere, driving up costs.

The Atlanta area is expecting similarly strong growth in 2017, forecast to grow 11.7% to $14.5bn, with growth across all sectors bar commercial and manufacturing. Strong gains in infrastructure sector starts (53.9%), led by a jump in spending on highways and bridges, are emblematic of the growth in infrastructure spending across the US. The focus on infrastructure in Atlanta includes a $1bn capital improvement program (CIP) to support water and wastewater systems, which is currently underway to address Atlanta's aging infrastructure. Additionally, Hartsfield Jackson Atlanta airport has also unveiled a 20 year, $6bn new development program, ALTNEXT, which will also fuel infrastructure construction growth. Significant growth is also anticipated in the social infrastructure sector at 29.3%, driven by education construction. Though expected to slow in the coming years, the residential sector is still going strong with 9.1% growth in construction starts anticipated for 2017 and growth dominated by high rise and urban infill projects. Commercial and manufacturing, similarly to Miami, is the only sector that saw negative growth in construction value (at -12.9%) with decreases across retail, hospitality and office space. Despite this, recent announcements of corporate relocations are expected to drive relative strength in the built-to-suit office market. In this busy market, Atlanta is seeing significant material cost inflation of over 7%, which is likely to feed through to higher construction costs. However the tight market does not seem to be putting pressure on construction wages as yet, so should partially counterbalance materials inflation.

Texas

Construction spending in the Dallas area is anticipated to surge this year, fuelled by growth across all major sectors, with the value of construction starts anticipated to grow 16.29% to $26bn driven by strong population growth, with over 2,000 people a week moving to Houston, (over 1,000 a week into Dallas). As such the infrastructure sector is expected to show particular strength, with 28.3% growth in construction starts forecast even before spend on rehabilitation of damage from Hurricane Harvey is factored in. Transportation and energy projects lead the chart of top 2016 starts in Texas as the state invests, in part to attract heavy industrial work in the oil and gas sectors: this includes a 240 mile high-speed rail project that will connect North Texas and Houston in 90 minutes. The residential sector is also expected to grow significantly, with 19.21% growth in construction starts fuelled by strength in single family residential construction. The continued revitalisation of downtown Dallas, particularly in multifamily and mixed use projects, will also contribute to this. In the non-residential building sector, both commercial and manufacturing and institutional construction saw growth in the value of construction starts at 9.42% and 4.37% respectively, with healthcare construction fuelling the institutional sector. It is worth highlighting that manufacturing building starts more than doubled in value (albeit from a relatively low base), driving the commercial and manufacturing sector: this could well be an opportunity area to watch in the city.

A shift in spending profile is anticipated in the state, from private to public sector investment, with increases in particular on municipal, transportation, health care and education. This will be a direct response to the population growth driving demand for improved infrastructure and social infrastructure. There could also be growing demand for resilience infrastructure in the face of more frequent and intense storms, with the National Oceanic and Atmosphere Administration predicting that by 2027 the road which keeps 16% of national oil and gas production operational will flood so often that it will be closed more than 30 days a year.

However, the strong growth expected for 2017 in the construction market could be tempered by the availability of qualified, skilled craft workers, which is anticipated to remain a challenge in the market, and which could make rebuilding challenging following Hurricane Harvey. With shortages continuing in both materials and labour, there is an increased trend towards lean construction methods in order to increase productivity, reduce the number of onsite workers and improve quality, safety and speed of delivery. Getting labour into the industry will remain a challenge, especially with the expanding pipeline of projects, such as ExxonMobil's recent announcement of a $20bn investment along the gulf coast.

Mace
1350 Broadway
Suite 408
New York, NY 10018
+1 917 436 4600

Mace
155 Moorgate
London EC2M 6XB
+44 (0)20 3522 3000

Contacts

Greg Parker	+1 917 436 4601	greg.parker@macegroup.com
Brian Moran	+1 917 436 4605	brian.moran@macegroup.com
Steven Mason	+44 (0) 20 3522 3595	steven.mason@macegroup.com