

Real value in a changing world

Energy Outlook

United States . 2013

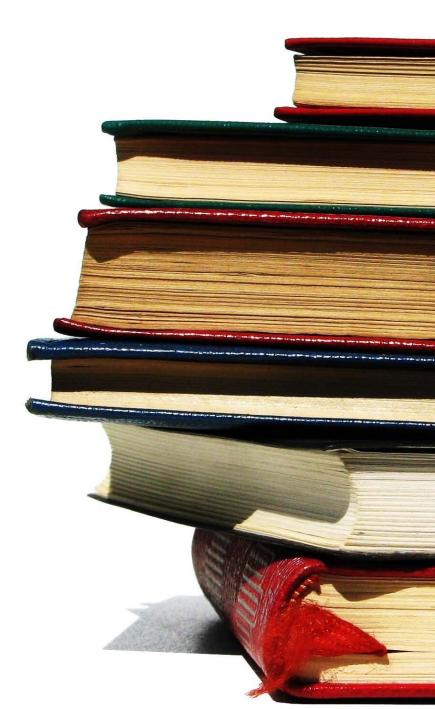
The U.S. emerges as a leader in the world's energy market and increased demand for real estate follows

Over the next couple of decades, the U.S. energy industry will drive employment gains, the reindustrialization of the economy, the migration of workers and income growth. The economic impact of surging natural gas and shale oil production will not only be felt by those directly in the energy industry but the numerous sectors that support it.

Energy companies will demand more industrial, development and manufacturing space around shale plays, especially those with favorable transportation logistics. Energy companies will also require larger office footprints in hub locations to accommodate a growing workforce. With less volatility in energy pricing and employment expected, the energy industry will be a source of long-term economic growth and an attractive tenant group for investors and developers to target.

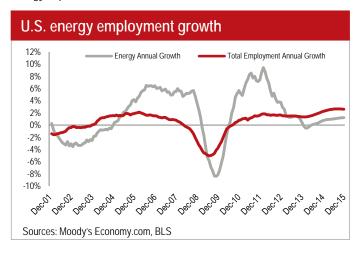
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Energy & the U.S. economy

Energy employment typically tracks total employment trends, and is an indicator of the overall health of the economy. The rise or decline in energy employment correlates to strong or weak demand for oil, natural gas and other forms of energy. It's no surprise, then, that the demand for energy, and corresponding employment in the sector, dropped sharply during the recessions in 2001 and 2008. The data indicate that energy employment is also more prone to boom and bust periods, declining more sharply and rising more rapidly than total employment through economic cycles. Energy employment lags the total economy, however, with job cuts in the energy sector occurring after declines in the overall economy push people to spend less on air travel, heating bills, car trips and other non-essential energy expenditures.



Today's U.S. energy boom, made possible by the emergence of new extraction techniques, is not only creating new jobs directly in the energy industry but rippling across the broader labor market. According to IHS Global Insight, the energy boom will directly or indirectly support 3.5 million American jobs by 2035. Today, one in four of the jobs created by the energy boom takes place in a state that is not seeing any new drilling activity. So while the surge in U.S. oil and gas supply is driving employment growth around shale plays, it is also fueling ancillary job growth such as real estate professionals, insurance agents and heavy equipment makers.

For the markets in the center of the energy boom the surge in population, employment and income has been substantial. For the last two years North Dakota has recorded the fastest population growth in the country and at 3.3 percent currently boasts the lowest unemployment rate in the U.S.

Energy employment growth in hub markets

Market	% Growth: 2003 vs. 2013
North Dakota	382.0 %
Colorado	74.8 %
Texas	63.2 %
Pennsylvania	43.4 %
Total U.S. Employment Growth	4.0 %

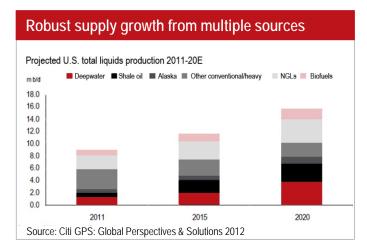
The next few decades will bring significant change for the energy industry and corresponding growth for the U.S. economy. The surge in natural gas and shale oil production and its associated activity could increase real GDP by an additional 2.0-3.0 percent by 2020 according to a study by Citigroup. The multiplier effect of the energy boom will without question influence population, wealth, employment and other economic indicators in 2013 and beyond.



Industry insight

The historic shift in how the U.S. produces and consumes energy is driving a new supply and demand outlook with dramatic economic, political, environmental and financial ramifications domestically and overseas. North America emerged as the fastest growing oil and natural gas producing area in the world in 2007. Four years later the *U.S. has moved from a net importer to a net exporter of refined petroleum products and is trending toward overtaking Saudi Arabia as the largest oil producer in the world.* While difficult to forecast, current expectations are for North American crude oil and natural gas liquids production to increase from 15.4 million barrels per day in 2011 to 26.6 million barrels per day by 2020.

Supply: The strength and speed of the growth trajectory has sparked questions regarding the long-term sustainability of the energy boom. But there are five sources of liquids growth positioned to support North America as the largest source of new supply: oil sands production in Canada, deepwater in the U.S. and Mexico, oil from shale and tight sands, natural gas liquids and biofuels.



After a moratorium on deepwater drilling following the Macondo disaster, deepwater production is bouncing back and could see output increase from 1.3 million barrels per day in 2012 to 3.75 million barrels per day by 2020. Analysis of U.S. shale plays reveals reserves are substantial, production is growing and productivity is increasing. Recently, the sustainability of the U.S. energy boom gained additional support from a nonpartisan funded study performed by the University of Texas that examined 15,000 wells drilled in the Barnett Shale formation over the past decade. The results confirmed that *U.S.* shale rock formations will produce a growing supply of natural gas through 2040 and then decline slowly after that. When considering the outlook for biofuels, we expect growth to be constrained in the foreseeable future due to low natural gas prices.

North America's new role in the world's energy market will reshape foreign policy and boost global influence but also bring new risks. The International Energy Agency forecasts North America's oil production will increase to represent 40 percent of new supplies while the Organization of Petroleum Exporting Countries (OPEC) will see its production slip to 30 percent by 2018. This will bring North America to its highest level of energy independence in 20 years and reduce the control OPEC currently maintains on oil prices.

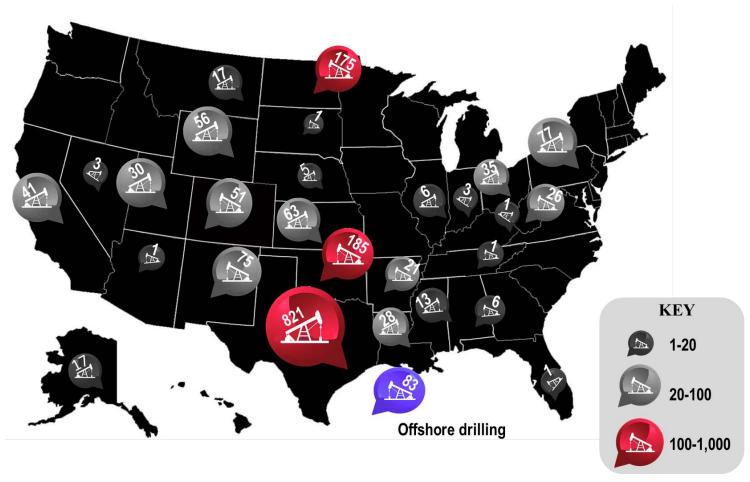
Demand: In tandem with the surge in domestic energy production is a structural decline in U.S. oil demand. Demographic changes, policies on fuel efficiency and new technologies have reduced demand for finished motor gasoline in the U.S. from 9.0 million barrels per day in 2010 to potentially 7.4 million barrels per day in 2020. Vehicle density, the number of vehicles per household, has steadily declined the last few years as the Baby Boomer generation retires and forgoes the daily commute. The second demographic trend reducing vehicle density is the preference of Generation X and Millennials for urban living. New driving habits following the oil price spike in 2008 and the recession have also curtailed gasoline demand. Compounding these trends is the continued tightening of the CAFE standards around fuel efficiency and the gradual uptick in sales of electric and natural gas vehicles.

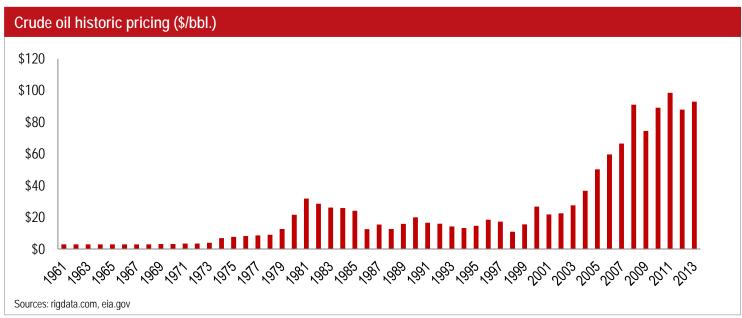
While the reduction in domestic oil demand will contribute to energy independence for the U.S. it will likely have little influence on global prices. Global oil demand shows no sign of slowing down and is expected to increase by 7 million barrels per day by 2020 according to the International Energy Agency. Steadily rising demand in China, India and other developing countries will offset lower oil demand in the U.S. and Europe for the foreseeable future.

Regulation: Most in the energy industry view regulation, not geological or technological challenges, as the primary obstacle to North America's accession as the leader of the global energy market. There are environmental questions largely centered on hydraulic fracturing (adequacy of water, disposal of water waste, integrity of aquifers) and seismic activity. Regulatory questions also stem from the petrochemical industry looking to ban or limit natural gas exports to maintain a cost advantage for downstream exports. Rounding out the list of regulatory hurdles are issues of national security and the extent to which non- U.S. vessels would be allowed to ship out of the Gulf Coast. Regulation will be the key determinant in how the U.S. energy boom plays out in the coming years by either curtailing or enabling growth.

Supply & demand U.S. oil rig landscape

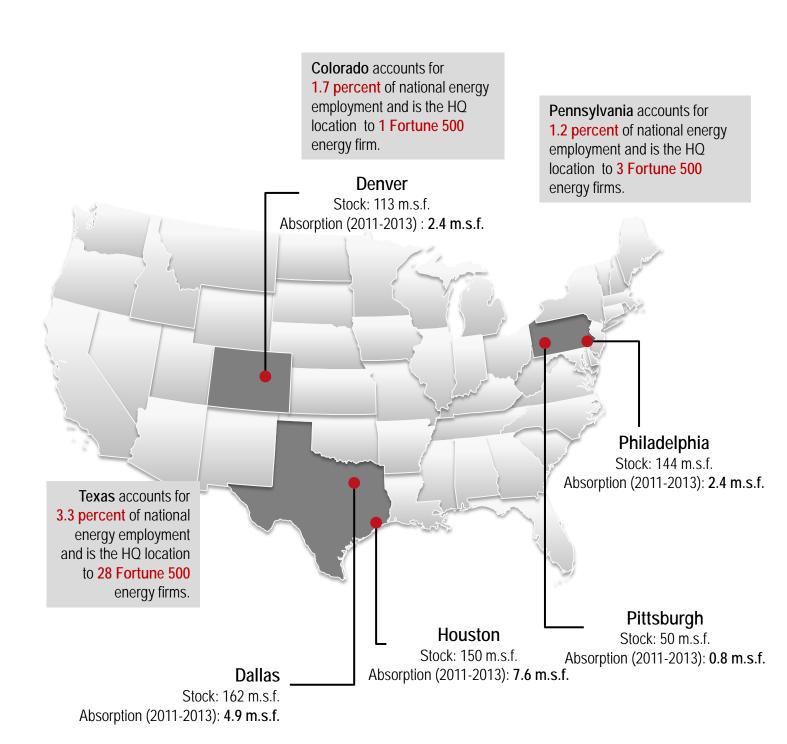
Today there are 52 percent more rigs in the U.S. than 10 years ago. 47 percent of those rigs are in Texas. Each rig is capable of sourcing 8 to 10 wells.





Supply & demand

Energy office market landscape



Company insight

The surge in U.S. natural gas production and the decline in its price is having a ripple effect across industry sectors and transforming how companies plan and prepare for the future. The U.S. industrial and manufacturing sectors have benefited the most by retooling processes to use natural gas instead of oil derivatives to capitalize on lower costs.

Chemical companies are prospering from low natural gas prices and the knowledge that the natural gas pipeline will be strong for decades to come. Dow Chemical has announced a \$4 billion expansion along

Fastest growing energy companies				
Location	Company	Fastest- growing rank	Revenue growth	
Dallas, TX	Dallas, TX HollyFrontier		93%	
Wayzata, MN	Northern Oil and Gas	7	122%	
Atlanta, GA	RPC	10	121%	
Oklahoma City, OK	Gulfport Energy	27	89%	
Irving, TX	Pioneer Natural Resources	29	95%	
Calgary, Alberta	TransGlobe Energy	30	40%	
Houston, TX	OYO Geospace	31	98%	
Midland, TX	Concho Resources	32	25%	
Denver, CO	Whiting Petroleum	70	66%	

Source: Fortune 500 List

the Gulf Coast, including a new ethylene production plant at its a Freeport, Texas complex; already the largest chemical plant in North America. Calling the U.S. the "one bright spot," the expansion comes s Dow plans to downsize in overseas locations due to slow growth in Europe. Overall, Texas chemical plants have announced roughly \$15 billion in expansions as a result of natural gas growth which is expected to net 25,000 jobs for the state according to the Texas Chemical Council.

The steel industry is also feeling a resurgence from the U.S. energy boom, benefiting from lower manufacturing costs and from strong demand for steel pipes used in oil and gas drilling. Steel companies in Pennsylvania and Ohio are revamping older plants to use cheaper natural gas instead of oil. Others are relocating to be closer to major gas distribution hubs, including steel giant Nucor which is investing \$750 million to open a new plant in Louisiana this year.

Relying on natural gas as an energy source and a raw material, plastics and fertilizer companies are also revamping growth plans to expand production. In probably the best example of how the U.S. energy boom has revitalized the country's standing as a manufacturing hub, Vancouver-based Methanex Corp decided to spend \$425 million to disassemble an idled methanol plant in Chile and relocate it to Louisiana.

More than \$5.0 trillion in capital expenditures is expected to be invested in unconventional oil and natural gas activities by 2035.

Geography insight

U.S. oil firms have responded to the domestic boom by selling assets overseas and transferring resources to American plays. While there is a financial motivation behind moving assets to the U.S. there are other factors driving the trend. It is much easier to do business in the U.S. which is highly transparent compared to countries like Libya and Iran. The geology is better known, there is less risk for violence and skilled workers and infrastructure are more widely available. Several energy companies, including ConocoPhillips, Hess, Devon and Murphy, have sold billions of dollars of assets overseas during the last year while bulking up their presence in the U.S.

There are two additional factors shaping the geographic footprint of the U.S. energy landscape. The first is the location of shale formations and the infrastructure that constrains or enables their production. The three most active shale plays - the Bakken, Eagle Ford and Marcellus - are similar in their production potential but vary greatly in their access to infrastructure, Gulf Coast refining centers, export terminals and demand centers. These geographic factors will dictate their long-term growth potential

The second trend impacting the future geography of the U.S. energy boom is tied to the labor market and where highly sought-after energy professionals will want to work and live. Over the next five years the energy industry will feel "the big crew change," a global generational gap in experienced skilled workers. The gap is the result of hiring and training contractions that took place in the late 1980s and early 1990s when the price of oil declined and left many projects unviable. A report from Schlumberger Business Consulting predicts the energy industry will need to replace more than 22,000 top geoscientists and petroleum engineers by 2015 with a very limited supply of graduates from quality institutions. As skilled workers retire out of the industry and demand for geologists, engineers and senior designers hits an all-time high, energy companies will need to use salary and living incentives to entice workers. The winning geographies will be those with amenities and living standards most attractive to this labor pool, leaving less desirable energy hubs struggling to compete.

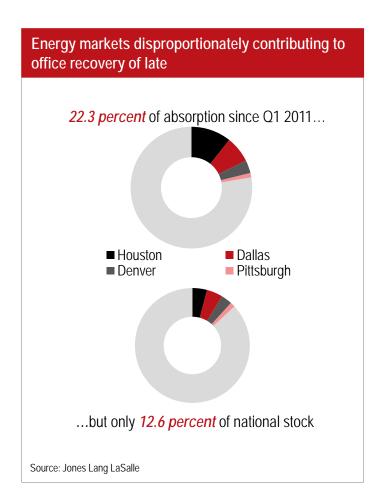
Real Estate insight

Growth in the energy industry has significant direct and indirect ramifications on real estate supply and demand trends. In the most direct connection, increased production and profitability are driving energy companies to expand their office and industrial footprints in core locations such as Fort Worth, Dallas, Houston, Denver and Pittsburgh. Additionally, gains in energy employment and wages are fueling demand for hotel, multifamily and retail space. Indirectly, dividends from the energy boom flow to construction companies, engineering firms, financial institutions, law firms and equipment suppliers who must expand payrolls and facilities to keep up. This dynamic has propelled the energy markets to lead the U.S. in absorption and rent gains.

Property requirements from energy companies are highly specific due to the diverse and complex nature of their various business functions and processes. Consequently, real estate portfolios for large energy companies comprise a mix of CBD space, suburban office campuses, oil field service facilities, and industrial properties with lay-down yards for storage. Build-to-suit solutions are often required, especially in the industrial segment as energy companies typically seek smaller industrial buildings with ample yard space. New construction is often the only way to secure a 10,000-20,000 square foot industrial property with 10-plus acres of land with proximity to rail, truck, port and other transportation logistics.

While leasing volume has slowed in the office and industrial markets due to the drop-off in natural gas pricing, demand continues to outweigh supply in the submarkets most attractive to energy companies and those businesses that support them. The perception across the industry is that this is a long-term trend, not a bubble, due to the sustainability and depth of the U.S. oil and gas pipeline. Therefore, investors and developers find market segments such as the Energy Corridor in the Houston suburbs, where 81 percent of 3.0 million square feet of new construction is pre-leased, highly attractive.

Energy companies in the most active markets such as Houston and Denver are paying a premium for space especially in the CBD, further enhancing the attractiveness of these markets for landlords and developers. An analysis of energy leasing transactions revealed that energy tenants in Denver's CBD paid 9.7 percent above asking rent on average for office space. In Houston's CBD, the rent for energy leases was 7.1 percent higher than the market average for office space. The rent premium speaks to the tightness of Houston, Denver and other energy markets which have seen steady occupancy gains the last few years combined with a lack of new construction to offset this demand.



Energy & the Multifamily sector

Following the financial crisis, economic volatility and the collapse of the housing market pushed a significant percentage of households away from home-ownership and into the renter pool. As a result of this and strong renter age demographic growth, over the last 24 months, rental demand for apartments across the U.S. increased to historical heights and rents experienced substantial gains. As employment opportunities across the country narrowed within financial and professional services, population migration toward metropolitan areas with a higher concentration of twenty-first century industries, such as energy and technology, helped to fuel household formation and growth within apartment fundamentals in those locales. According to Moody's Analytics, approximately 37.0 percent, or one million, of the new jobs created since 2002 were related to natural gas and oil drilling, much of which began late in the decade. To add some perspective, based on those job numbers, we estimate that the energy sector's impact on U.S. apartment demand likely contributed to nearly 25.0 percent of total unit absorption during this time period, an overall demand of approximately 165,000 units.

At the local market level, our top performing apartment markets of the last 12 months are consistent with the recent job growth, household formation and migration trends. In all areas Texas is a clear standout as Fort Worth, Dallas and Houston have seen household formation grow at an annualized rate of 2.0 percent or more, which is well above the national average of 1.1 percent. And interestingly, the fastest growing U.S. metro in 2012 was Midland, Texas, whose population

Household formation – top 10			
Metro	12-month increase		
Austin	2.7 %		
Raleigh-Durham	2.5 %		
Charlotte	2.3 %		
Phoenix	2.2 %		
Las Vegas	2.2 %		
Fort Worth	2.1 %		
San Antonio	2.1 %		
Dallas	2.1 %		
Houston	2.0 %		
Colorado Springs	1.9 %		
Source: REIS, Jones Lang LaSalle			

grew by 4.6 percent. While each of these metros has a well-diversified economic base, energy employment is an important component that has helped these markets lead the nation in employment gains, particularly in Houston. Over the last 12 months each of these Texas metros continuously absorbed high percentages of their multifamily inventories despite having some of the highest number of new construction deliveries across the United States. On the back of this increased demand, annual rent growth followed suit with annualized gains well above the national average of 3.4 percent.

Along with Texas, Colorado has also seen its multifamily fundamentals tighten as a result of energy sector expansion. Denver, in particular, is experiencing somewhat of a rebirth as strong population in-migration from the Millennial age cohort (adults under 34 years old), the largest renter demographic, is occurring as a result of the abundant employment opportunities within energy and other twenty-first century industries. In the last 24 months, Denver's vacancy has fallen nearly 2.0 percent and the resulting rent growth over the last 12 months is the eighth highest percentage increase in the country.

Looking ahead, we expect the U.S. energy sector to be a significant contributor to strong multifamily fundamentals. As the depth of the multifamily construction pipeline increases over the next 24 months, we expect that job growth within the sector will aid in vacancy increases and help keep U.S. apartment occupancy at healthy levels.

Annual rent growth – top 20			
Metro	Growth rate		
Seattle	6.1 %		
Houston	5.0 %		
Nashville	4.8 %		
San Francisco	4.8 %		
San Jose	4.7 %		
Baltimore	4.6 %		
Portland	4.1 %		
Denver	3.9 %		
Orlando	3.9 %		
Salt Lake City	3.9 %		
Tampa-St. Petersburg	3.8 %		
Oakland-East Bay	3.8 %		
Oklahoma City	3.8 %		
Austin	3.8 %		
Charlotte	3.8 %		
San Antonio	3.7 %		
Birmingham	3.6 %		
New York	3.6 %		
Dallas	3.6 %		
Minneapolis	3.6 %		

Energy & the Retail sector

While not as immediate, the retail sector is the eventual beneficiary of a 'red hot' energy market – as affluence from an inflated labor environment and a strong housing market have led to higher personal income growth and increased retail spending. In many of the cities and states impacted by the energy market, robust in-migration has resulted in a population boom – an added boon for retail and the sectors that support it, such as housing. Employment growth, population growth and disposable income growth have all been outstanding – first giving these cities a sense of momentum and now fueling further demographic strength relative to other parts of the country.

In addition, the burgeoning energy sector has also boosted demand for manpower, much of which has transferred from other parts of the country. As employment increases in these cities and populations swelled, household disposable incomes also increased, thanks in part to many high-paying energy sector jobs. In turn, high disposable income and robust demographics has resulted in increased leasing activity and eventually heightened retail development to accommodate growing demand for stores and restaurants, among others.

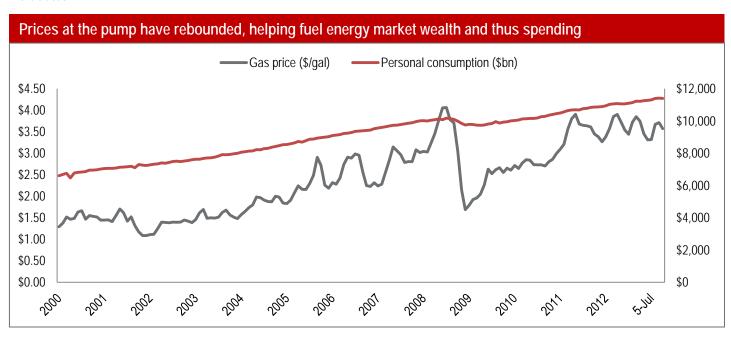
With more cash in their pockets, consumers ramp up their spending, particularly for housing-related goods such as furnishings and home improvement needs. Another category that typically sees growth is dining and entertainment. With increased retail spending comes greater net absorption and a compression in vacancy rates.

Gas prices rebounded over the last two years and helped cement the economic performance of the energy sector. At the same time, consumer spending resumed its upward trajectory and gained a bit more traction.

Highest and lowest personal income growth rates, 2012

Rank	State	Growth rate %
1	North Dakota	12.4
2	Texas	4.8
3	Utah	4.7
4	Washington	4.5
5	Montana	4.5
Rank	State	Growth rate %
Rank 47	State Nevada	Growth rate % 2.4
47	Nevada	2.4
47 48	Nevada Nebraska	2.4

Source: IHS Global Insight, U.S. Markets 2013



As an example, employment growth in Houston over the last year totaled 4.4 percent – almost triple the growth rate of the nation. Retail vacancy in the market has dropped some 160 basis points since its peak in 2008. Dallas' story is similar, with a 130-basis point drop in vacancy since 2010 and a 3.5 percent growth in employment gains. Population growth in these markets has been twice the national growth rate – not surprisingly, as many workers migrate to these markets to take advantage of available energy jobs.

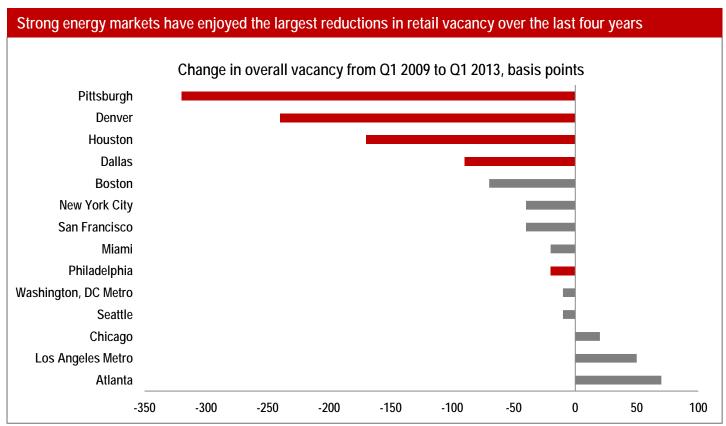
Texas motor vehicle sales and rental tax collections for April 2013 were up 6.0 percent from 12-months ago. At the national level, total new auto sales were up 5.9 percent in the first 15 days of May 2013 compared to the same time period last year.

More shoppers and greater spending levels has made an impact on retail real estate fundamentals. Markets with strong energy sectors have experienced exceedingly tightening retail property conditions since economic recovery began to take hold. Overall vacancy is down sharply when compared to major U.S. retail markets.

Construction and space delivery in these key energy markets are also rebounding, faster than many other markets around the country. Houston's construction deliveries are forecasted to more than triple their current levels by 2015. Dallas' deliveries will more than double in 2015 as well.

While it is taking rents longer to catch back up with other cyclical averages, they are showing signs of hardening and more solid, consistent growth is expected to take hold next year. Those cities supported by energy are expected to lead in rent growth going forward, quickly eclipsing both secondary as well as major markets.

With the major energy companies like Exxon Mobil investing more in markets like Houston, we expect that the trend toward robust employment, population and retail growth will continue. As more supply makes it out of the pipeline in these markets, however, we can expect vacancy compression to slow down and for the markets to reach equilibrium between supply and demand. The multiplier effects of the energy sector boom are numerous - and many often lead indirectly, but eventually – back into the retail sector. Earnings growth in the mining, gas and exploration sector fuels growth in construction, wholesale trade and transportation – which spills over into broader income growth, which in turn fuels not only personal savings, but more retail spending – and down the line an increased demand for retail space to satisfy an expanded level of purchasing power.



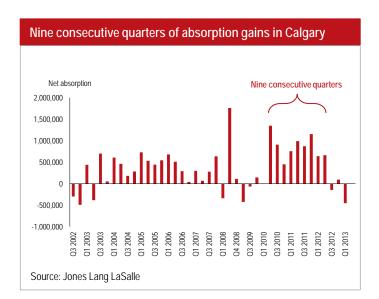
Source: PPR, Jones Lang LaSalle

Market spotlight: Calgary

Economy: As of February, Alberta's unemployment rate was the lowest in the nation at 4.5 percent and capital investment in Alberta is forecast to reach more than \$100 billion this year. Alberta experienced the strongest retail sales growth in Canada month-overmonth, growing at 2.2 percent compared to 0.8 percent nationally and also leads the nation in terms of GDP per hours worked. While this seems to paint a very healthy picture of the Alberta market, the pause in oil prices and uncertainty over approval of the Keystone XL pipeline continues to have a tempering impact for all categories of commercial real estate in Calgary.

Office market: For the first time in nine quarters, the Calgary office market experienced negative net absorption. However, most of the available space comes from the sublease market and is not due to companies relocating out of Calgary altogether. Talisman Energy currently has 118,000 square feet for sublease in First Canadian Centre and another 40,000 in Penn West Plaza. Suncor has 220,000 square feet at Sun Life Plaza. Penn West has more than 60,000 square feet available in Penn West Plaza.

Downtown Calgary key market indicators		
Supply (s.f.)	40,800,000	
Total vacancy	3.77 %	
Sublease vacancy	1.97%	
Headlease vacancy	1.7%	
Under construction (s.f.)	1.54m	
Class A overall asking rent (p.s.f.)	\$41.00 net	
Downtown Absorption Q1 2013	- 174,000	



By the end of the first quarter of 2013, there was 1.6 million square feet of new development under construction in Downtown Calgary. This includes four Class AA buildings: Eighth Avenue Place, City Centre, Eau Claire Tower and 3 Eau Claire. With the exception of 3 Eau Claire and Eighth Avenue Place, which are fully leased, the remaining projects have meaningful vacancy.

Landlords of existing A and AA buildings have strong leverage as the majority of their tenants have leases with long-term commitments. This tight market segment, with occupancy in excess of 99 percent, is expected to offset any potential market softening and reduction in asking net rents. Despite the sense that the commercial real estate sector is slowing, investors continue to be optimistic regarding the long-term outlook in Calgary. Developments, such as the LNG export off the coast of British Columbia, the prospect of approval of the Keystone project and a strong investor appetite for high grade assets, position Calgary for strong leasing activity ahead. Therefore, the current slowdown is viewed as a temporary trend before demand accelerates again.

The energy sector is a changeable place

The industry must recognize:

- The smallest firms are not always the fastest growing or the most innovative.
- Intermediates are the most highly leveraged, with the highest debt-to-equity ratios.
- While "majors" tend to have the lowest average cost per well drilled, they also (along with "emerging juniors") have the highest operating costs.
- A Blake survey showed that 71.0 percent in the industry view junior energy and petroleum companies as the most common acquisition targets this year. Junior energy and petroleum companies, especially those operating in the natural gas industry, are attractive to larger strategic buyers as they face costs pressures and consider selling off assets.

Outlook

Industry: Over the next couple of decades, the U.S. energy industry will drive employment gains, the reindustrialization of the economy, the migration of workers and income growth. The economic impact of surging natural gas and shale oil production will not only be felt by those directly in the energy industry but the numerous professional services, industrial and manufacturing sectors that support it. It will also push the U.S. to the forefront of the world's energy markets with broad political and financial implications. However, regulatory questions loom and could curtail energy growth ahead. Whether the regulatory environment will limit production or create opportunities remains uncertain.

Real estate: The energy boom will have a significant and long-term impact on the real estate market. Energy companies will demand more industrial, development and manufacturing space around shale plays, especially those with favorable transportation logistics. In addition, energy companies will require larger office footprints in hub locations to accommodate a growing workforce. Some 1.7 million people currently work in or around new energy sources.

Approximately 700,000 new jobs are expected to materialize in the next two years and by 2035 nearly 3.5 million are expected to be directly or indirectly working in the U.S. energy industry. This booming population will drive increased demand for retail, multifamily and hotel space.

We expect:

- Demand to continue to grow in already tight hub markets making existing space more costly and furthering favorable leverage for investors.
- Developers, encouraged by the strong pre-leasing underway in Houston and other pockets, to start new construction to absorb some of this demand. This will not be limited to the office market but extend to multifamily as well.
- Energy companies to pursue build-to-suit solutions to meet space and location requirements.
- Steadily rising global demand for oil combined with oil production caps to keep prices per barrel high and take some of the volatility out of the energy employment cycle.
- With less violent swings in pricing and employment expected, the energy industry to be a source of long-term economic growth and an attractive tenant group for investors and developers to target.



U.S. Energy markets



Houston

Office insight: *CBD*

Houston is known as the energy capital of the world in many circles, and the office market within Houston reflects the same opinion. Recent declines in both natural gas prices and active drilling rigs have done nothing to damper Houston's economy. Long-range growth strategies involving shale plays, international exploration and off-shore drilling continue to drive profits for a majority of energy companies in and around Houston. Energy companies within Houston include energy exploration or production companies (both oil and natural gas) and energy services firms.

Narrowing the field of view to the CBD shows a submarket that has drawn strength from energy companies' growth platforms over the past several years. Companies including Hess, Kinder Morgan, EOG Resources, ExxonMobil, Transcanada and Shell all have long-standing positions in the CBD and footprints to match. Overall within Houston's CBD, 51 percent of all tenants are energy companies or their derivatives. Within the CBD, recent transactions such as Transcanada's move into 180,000 square feet at Bank of America Center and Energy XXI's expansion into a total of 128,000 square feet at One City Centre reflect energy companies' expanding footprints and seemingly never-ending search for high-quality space. With no new high-quality Class A space expected to deliver for the next 48 months, firms (especially energy firms) are further on the alert for blocks of existing space in order to satisfy their growth requirements. The lack of new product, along with the cache of a CBD address, allows rental rates to continue impressive year over year gains, peaking at \$39.47 per-square-foot in the first quarter 2013.

Suburbs

Within major suburban submarkets in Houston, including the Galleria, the Energy Corridor along the Katy Freeway, Westchase, and the Woodlands, the adage from "Field of Dreams" holds true that "if you build it, they will come." "They" in this case being energy companies looking for headquarter space in Houston. As soon as a new building is able to be developed (or in some cases put in the design stages), an energy firm seems to be claiming the building for their new HQ or prime office location. This has led to a period of unprecedented growth in multiple portions of the Houston office market. Within the Energy Corridor and Westchase areas alone, approximately 8.3 million square feet of new construction is either in the design stages or currently underway, and perhaps more impressively, 81 percent of the 3 million square feet under construction is pre-leased. For example, Technip signed a lease agreement to take the entirety of the new Energy Tower III office building, totaling 430,000 square feet. Similarly, Cameron and Helix Energy each took 50 percent of the 227,000-square-foot 8 West Centre building. Both of these buildings were 100 percent leased prior to completion due to energy companies' rapid expansion. Perhaps the largest energy-related office development underway is Exxon Mobil's new campus just south of the Woodlands. The campus will consolidate their Texas and Virginia offices and is expected to contain at least 4 million square feet of new office buildings.

Office market snapshot	
Percentage of energy tenants in the market	53.0 %
Percentage of CBD market occupied	51.0 %
Percentage of suburban market occupied	62.0 %
Average rent for CBD space (energy transactions)	\$38.53 gross
Average rent for suburban space (energy transactions)	\$26.41 gross
Average asking rent in CBD (Q1 2013)	\$35.96 gross
Average asking rent in suburbs (Q1 2013)	\$25.11 gross
Availability rate (Q1 2013)	14.6 %
Average CBD footprint (s.f., energy tenants)	94,276
Average suburban footprint (s.f., energy tenants)	81,622
% of energy firms comprising active requirements in the market	38.0 %

Demand: Energy requirements in the market	s.f.	Туре
EP Energy	±150,000	Expansion
Spectrum Geo	±20,000	Stable
EGMS	±20,000	Expansion



Until construction comes to market, rates will continue to increase in the suburban markets, but energy companies will overlook that in order to secure high-quality large blocks of space to fit their needs. The appeal of the major suburban markets for many energy companies is pricing. Suburban space represents a value play for a company looking for a large block of space in comparison to the CBD.

Energy Center 3 and 4

Relocation, growing

850,000 s.f.

Houston

Industrial insight: Similar to the office sector in Houston, the industrial market is driven by energy firms and energy service firms.

The Houston industrial market maintains its trend as one of the hottest markets in the United States, with over 1.0 million square feet of positive absorption in the first quarter of 2013 alone. The Northwestern submarket is the strongest in Houston, responsible for approximately 50.0 percent of the absorption in the first quarter. Houston is considered a regional distribution hotspot, and certain submarkets provide industrial users a logistics route essential to their end users. By way of example, the northern submarkets surrounding the Woodlands and George Bush International Airport are more prized than ever before due to their proximity to logistical routes and the proposed Exxon Mobil campus. In addition, the large Pinto Park development, totaling over 1,000 acres, is expected to attract largescale energy services firms looking for new manufacturing and development space within the area. Additional submarkets that are driven by the energy sector include the southeast submarket due to their close proximity to the Port of Houston. Access to the Port of Houston allows energy and energy service companies multiple logistical options for both receiving and distributing their goods, making it attractive to both tenants and investors.

The main focus on speculative construction within the industrial markets in Houston relative to energy users continues to be crane-ready buildings. Buildings that are ready for cranes to lift heavy industrial materials are in demand by energy companies and are either built-to-suit for a secured tenant or leased right after construction in various submarkets throughout Houston.

As the energy sector of the Houston economy continues to grow, so will the energy services sector of the industrial market as companies look to not only expand their office base, but also their manufacturing and distribution footprint in the energy capital of the world.

Industrial market snapshot	
Average rent for space (energy transactions)	\$5.25 NNN
Average asking rent for space (Q1 2013)	\$5.04 NNN
Average annual escalation or bump (market)	2.5 %
Availability rate (Q1 2013)	7.9 %
Number of facilities under construction	41
Average facility size (s.f.)	62,341
# of owner-user purchases (last 12 months)	272
Average price per s.f. purchase	\$72.00

Supply: Large blocks	
200,000 s.f. +	34
100,000 – 199,999 s.f.	51
50,000 – 99,999 s.f.	62
25,000 – 49,999 s.f.	101



	Address	Owner/ Developer	s.f.	Yard space / Land area	Delivery date
New construction	Greenspoint Business Center - Building E 121 Esplanade Boulevard	IDI	244,557	11 acres	Q2 2013
New co	Rampart Corporate Center - Building 200 7310 Langfield Road	Avera Companies	299,840	40 acres	Q2 2013
	Point North Two 8310 Humble- Westfield Drive	Duke Realty	240,000	52 acres	Q4 2013

Houston

Hotel insight: Houston experienced the second-highest growth in revenue per available room (RevPAR) of any large urban market in the U.S. in 2012, and well above the growth rate recorded in Dallas. New supply entering the market has been constrained, and this underpinned the performance of existing hotels in Houston.

Houston's RevPAR gains have thus far been driven by occupancy increases. Since occupancy is a leading indicator, this leads us to expect that performance gains in 2013 will be driven by increases in room rates. As hotel operators now have fuller hotels, they can yield manage business and be choosier about the rates they offer. Year-to-date statistics already confirm this trend and we expect another year of double-digit RevPAR growth in Houston in 2013. Houston will thereby exceed the national growth by a wide margin, attributable to its above-average economic growth boosted in part by the energy sector.

Hotel investors are increasingly looking at Houston. During the past year, hotel deal volumes have eclipsed \$400 million, indicating a healthy pace of investment volume in a city where overall deal size has traditionally been more constrained than in New York or West Coast gateways. Asset pricing is still below what is recorded on the coasts, but several transactions over the past 18 months reached \$180,000 per room, above recent averages for the market.

The new hotel construction pipeline is still relatively tepid with no large hotels under construction. After another year of double-digit RevPAR growth we expect investors to take note and slowly increase the number of developments being conceptualized. Branded select service assets in prime suburban locations and near clusters of energy companies will represent the investment sweet spot. Given the unprecedented growth in demand and average rates, transaction volumes will undoubtedly see a lift in the near future, and due to investors' more bullish underwriting and increased debt capital, asset values should see a boost as well.

Hotel market snapshot	
Number of hotel properties / rooms in MSA	648 / 72,300
Average occupancy rate (2012)	65.0 %
Average daily rate (2012)	\$92.20
RevPAR (2012)	\$61.60
RevPAR growth (2012)	14.0 %
Transaction volume (Millions, past 24 months)	\$402.5
Average transaction price per room (past 24 months)	\$141,700
Number of hotel properties / rooms under construction	11 / 1,200

uc	Property name	Address	Owner/ Developer	Rooms	Delivery date
nstru	Comfort Suites Westchase South – Beltway 8	7601 West Sam Houston Parkway, Houston	Private owner/ operator	70	Q3 2013
	La Quinta Inn & Suites Houston NW Beltway 8	9034 West Sam Houston Parkway, Houston	Private owner/ operator	70	Q3 2013

	Location	Name	Rooms	Seller	Buyer	Price (millions)	Price per room
ons	Houston	DoubleTree Suites by Hilton Galleria	380	Westmont Hospitality	Wheelock Street Capital	\$62.5	\$164,500
transactions	Houston	Hotel Derek Houston	314	Warburg Pincus JV Crestline Hotels & Resorts	Lowe Enterprises	\$59.0	\$187,900
Recent tra	Houston	Hilton Houston Westchase Houston	297	Interstate Hotels and Resorts	Wheelock Street Capital	Undisclosed	Un- disclosed
Re	Houston	aloft Houston by the Galleria	152	AmREIT JV Songy Partners	HEI Hospitality, LLC	\$29.0	\$191,000
	Houston	Sheraton Houston West	158	MetroNational	Integrated Capital	\$22.8	\$144,300

Dallas-Fort Worth

Office insight: Even though Dallas-Fort Worth has diversified greatly into a variety of technology sectors over the last 25 years, energy continues to be a fundamental part of north Texas. One recent economic driver has been the Barnett Shale natural gas deposits, west of Fort Worth, which has helped make the Fort Worth CBD an energy hub.

While the Barnett Shale area has been known for decades, the handful of wells that existed through the early 1990s were experimental. When horizontal drilling and fracturing technologies took off after 2000, it became feasible to tap these resources. It is estimated that this resource has contributed more than \$1 billion to the local and state governments. Importantly, the timing of this sector's boom helped the Dallas-Fort Worth and Texas economies expand when most markets were struggling through the last recession.

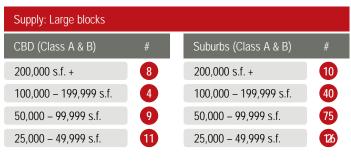
Lower natural gas prices have caused some companies to pull back from Barnett shale exploration. Even so, north Texas benefits as an energy hub. Dallas-Fort Worth has a critical mass of energy and related companies (engineering, law, accounting and banking) that serve a broader region that encompasses the booming oil and gas liquid reserves from the west Texas Permian Basin and the south Texas Eagle Ford shale reserves. In fact, in the past 15 months, a dozen Dallas-Fort Worth energy companies received \$3.5 billion in funding, a record level, from private equity companies across the globe. One example is Addison-based Venari, which recently received \$1.25 billion for continued Gulf of Mexico exploration.

On the office front, while energy companies are not expanding at the pace they did from 2005 to 2009, most are maintaining their presence in Dallas and Fort Worth.

Location needs vary given companies range in size from Exxon Mobil's corporate headquarters to start-ups. A variety of corporate headquarter expansions / relocations have occurred in the region. In Dallas, notable ones include Encana Oil & Gas' 300,000-square-foot build-to-suit in the Legacy area of Plano, Occidental Chemicals (176,000 square feet) in the LBJ submarket, and Natural Gas Partners (52,000 square feet) and Pioneer Gas (26,000 square feet) in Las Colinas. Fort Worth's CBD continues as a preferred location for energy office tenants, with Frac Tech (91,000 square feet) taking space and XTO Energy (25,000 square feet) expanding operations to its anchor parent's (Exxon Mobile) natural gas business.

Office market snapshot					
Percentage of energy tenants in the market	4.0 %				
Percentage of CBD market occupied Dallas Fort Worth	14.0 % 9.0 % 28.0 %				
Percentage of suburban market occupied	4.0 %				
Average rent for CBD space (energy transactions)	\$20.00- 22.00 gross				
Average rent for suburban space (energy transactions)	\$19.00- 21.00 gross				
Average asking rent in CBD (Q1 2013)	\$21.16 gross				
Average asking rent in suburbs (Q1 2013)	\$19.85 gross				
Availability rate (Q1 2013)	24.6 %				
Average CBD footprint (s.f., energy tenants)	66,000				
Average suburban footprint (s.f., energy tenants)	32,000				
% of energy firms comprising active requirements in the market	NA				

Demand: Energy requirements in the market	s.f.	Туре
Eland Energy	45,000	Expansion
EnExp (Energy Exploration Partners)	10,000	Expansion
Legend Energy Services	9,000	Expansion





Dallas-Fort Worth

Industrial insight: The Dallas-Fort Worth market is not a heavy user of industrial / warehouse space for the energy industry because the region is more of a corporate office location than a drilling, exploration and development hub.

Demand for space is off from its 2005 to 2009 peak due to the impact of lower natural gas prices on the high cost of developing the Barnett shale fields. While in place companies are stable, they are not expanding and some have shifted resources to other locations. The facilities that do exist tend to be traditional warehouses that vary in location, size and age. Lay-down yards are a popular option for temporary and long-term storage of large goods such as piping, tubing and heavy equipment. Facilities like these are clustered around Fort Worth, especially in the west and south industrial areas because of proximity to the Barnett Shale fields west of the city.

Oil field service facilities that support drilling, exploration and completion also exist and include companies like Schlumberger and Halliburton. A typical oil field service facility would include warehouse space for parts (10,000 to 20,000 square feet), shop space for repairs (25,000 square feet), and land for the storage of large items (10-plus acres). Rail access is an important component.

Frac sand, the proppant used to fracture the shale to release natural gas (and now oil), is a diversified business in the region. Silica sand mining is done south of Dallas, in Chippewa County. In fact, Superior Silica Sands recently applied to expand their Auburn, Texas mine from 135 to 470 acres to meet demand from the Barnett and Eagle Ford shale fields. Two other companies also want to develop 1,400 acres of sand mining in Auburn.

In addition, because of the proximity of the Barnett Shale reserves and Dallas-Fort Worth's logistic framework of rail and truck, other operations exist to transport, clean and store frac sand, as well as oil and gas equipment. For example, Quick Sand Services in Fort Worth specializes in oil and gas field logistics and has been transporting frac sand since 2006. In addition, Hulcher Services has its corporate headquarters in Denton, Texas and one of its 35 industrial facilities (46,000 square feet) in north Fort Worth. Hulcher provides railroad services, load transfer, and engineering to an array of industries, but also specializes in frac sand load transfers, bulk transfers, cleaning rail cars and disaster/derailment response. In addition, BNSF Railway, based in Forth Worth, transports frac sand and is planning a 15,000ton storage facility in San Antonio (in partnership with US Silica) to serve the Eagle Ford shale area. Although this operation is not located in our region, BNSF's Fort Worth headquarters and its intermodal facility in Alliance would be a likely location to expand when the next surge in activity takes place in the Barnett Shale fields.

Industrial market snapshot	
Average rent for space (energy transactions)	\$3.00-\$4.00 NNN
Average asking rent for space (Q1 2013)	\$3.56 NNN
Average annual escalation or bump (market)	2.0 %-3.0 %
Availability rate (Q1 2013)	13.2 %
Number of facilities under construction	4
Average facility size (s.f.)	306,000
# of owner-user purchases (last 12 months)	3
Average price per s.f. purchase	\$35.00-40.00

Supply: Large blocks	
200,000 s.f. +	61
100,000 – 199,999 s.f.	66
50,000 – 99,999 s.f.	171
25,000 – 49,999 s.f.	229



lon	Address	Owner/ Developer	s.f.	Yard space / Land area	Delivery date
New construction	2101 Danieldale Road, Lancaster	Prologis	654,000	NA	Q2 2013
	4060 East Plano Parkway, Plano	Prologis	100,000	2.9 acres	Q2 2013
	1650 Lakeside Pkwy, Flower Mound	Oakmont Industrial Group	293,000	17 acres	Q4 2013

Dallas-Fort Worth

Hotel insight: The Dallas-Fort Worth lodging market is expected to grow at an accelerated pace in 2013 compared to last year when growth in the overall MSA was kept in check due to supply increases such as the 1,001-room Omni Dallas Hotel. As these new rooms get absorbed, and the convention-oriented property induces new demand, the metro area will show higher year-over-year increases in lodging fundamentals.

Several new hotels are under construction in the market and the number is expected to rise as performance in 2013 proves out and developers seek to add product to cater to business travelers in its emerging economic sectors. As an example, the duo of Marriott-branded hotels under construction on Bass Pro Drive in Grapevine are located just a few miles from energy companies such as Natural Gas Partners and Pioneer Gas which are situated the Las Colinas area. As a whole, the Dallas-Fort Worth MSA has seen lower hotel transaction volumes as compared to Houston, and the bulk of the deal flow has been centered in Dallas itself.

Sustained increases in hotel operating performance will lead to an increased number of investors, in particular private equity funds, pursuing investments in the market as the city possesses characteristics that are expected to drive future performance: strong airlift, two large convention centers and ongoing activity in the energy sector.

Hotel market snapshot	
Number of hotel properties / rooms in MSA	893 / 112,700
Average occupancy rate (2012)	61.0 %
Average daily rate (2012)	\$86.20
RevPAR (2012)	\$52.60
RevPAR growth (2012)	5.0 %
Transaction volume (Millions, past 24 months)	\$304.5
Average transaction price per room (past 24 months)	\$105,800
Number of hotel properties / rooms under construction	7 / 810

	Property name	Address	Owner/ Developer	Rooms	Delivery date
New construction	Courtyard Dallas DFW Airport North/ Grapevine	2200 Bass Pro Drive, Grapevine	NewcrestImage, LLC	180	Q3 2013
New con	Homewood Suites Dallas Downtown	1025 Elm St, Dallas	Lowen Hospitality Management	130	Q3 2013
	TownePlace Suites Dallas Grapevine	2200 Bass Pro Drive, Grapevine	NewcrestImage, LLC	120	Q3 2013

		Location	Name	Rooms	Seller	Buyer	Price (millions)	Price per room
Suc		Dallas	Fairmont Dallas	545	Dinapoli Partners	Inland American Lodging Group, Inc.	\$69.0	\$126,600
ansactic	VIII - Minnet	Dallas	Hilton Dallas Park Cities	224	RM Crowe	Apple Nine Hospitality	\$41.0	\$183,000
Recent transactions	1 24 12 12 12 12 12 12 12 12 12 12 12 12 12	Dallas	(Former) Stoneleigh Hotel Dallas	170	Prescott Realty Group	HEI Hotels & Resorts	Undisclosed	Undisclos ed
Re	A HAR SALE TO	Irving	Embassy Suites DFW Irving	305	FelCor Lodging Trust	Sunstone Realty Advisors	\$22.3	\$73,100
		Fort Worth	Holiday Inn Express Fort Worth	132	Fort Worth D Partners Ltd	Admiral Capital Group	\$20.0	\$151,500

Sources: Smith Travel Research, Lodging Econometrics, Jones Lang LaSalle

Denver

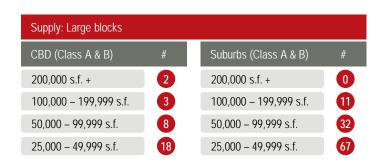
Office insight: The energy industry in Denver has been a major driver in the economic recovery for the office market over the past eight quarters. Energy companies have historically been and continue to be attracted to high-rise Class A buildings in the CBD. Many companies are moving toward more open and efficient floor plans and square footage per employee is declining, as is the case with several other industries. Companies continue to ink deals, some of which are renewals and lateral relocations, however many are expansions and new deals.

In addition, those businesses that support the industry, such as law firms and financial firms, are also growing. As employment in the energy industry itself is on the rise, companies that support the industry are subsequently creating jobs. Because of this, it is estimated that approximately one-third of Denver's CBD is occupied by energy firms and those firms that support the industry.

Energy companies continue to be active in the Denver market, comprising roughly 20.0 percent of active deals in the market and a large share of completed deals as well. In Denver's CBD, landlords have gained leverage throughout the submarket; however larger tenants with longer lease terms are still able to receive decent tenant improvement packages and free rent. Smaller tenants are likely to receive far fewer tenant incentives than the larger tenants. It is expected that rental rates will continue to rise for the foreseeable future, therefore now is a good time to reevaluate needs and renew and/or expand, if possible and necessary. Growth in the energy sector is expected to continue with high demand for office space throughout Denver's CBD.

Office market snapshot	
Percentage of energy tenants in the market	35.0 %
Percentage of CBD market occupied	30.0 %
Percentage of suburban market occupied	5.0 %
Average rent for CBD space	\$31.50 gross
(energy transactions)	
Average rent for suburban space	\$22.50 gross
(energy transactions)	
Average asking rent in CBD (Q1 2013)	\$28.72 gross
Average asking rent in suburbs (Q1 2013)	\$20.10 gross
Availability rate (Q1 2013)	14.8 %
Average CBD footprint (s.f., energy tenants)	40,000
Average suburban footprint (s.f., energy tenants)	10,000
% of energy firms comprising active requirements in the market	20.0 %

Demand: Energy requirements in the market	s.f.	Туре
DCP Midstream	170,000	Renewal with
DOF MIUSHEATH	170,000	expansion
Fidelity Exploration	70,000	Stable
Pioneer Natural Resources	52,000	Stable





Denver

Industrial insight: Denver's industrial market is coming back. Larger requirements are out in the market and sales activity is ramping back up. Energy companies and those that support the industry make up roughly 15 to 20 percent of overall activity, and a good majority of the activity is companies that support the industry, such as manufacturers.

Energy companies are concentrated largely in Weld and Adams counties, as well as in the I-70/East and Southeast submarkets. Companies within the energy industry tend to lean toward Class B flex buildings in the 15,000-square-foot range that have at least 5,000 square feet of office and three to four acres of outside storage. These properties are most often used as classroom and R&D spaces. Unfortunately, these types of buildings are tough to find and therefore, build-to-suits are often the best option in this market.

Speculative construction is starting to make a comeback, however rents are not quite at a level to justify construction just yet, but they are climbing up each quarter and are expected to continue this way. While the office market has seen and continues to see growth within the industry, the industrial market is in more of a holding pattern, partly due to a lack of the type of building that is required by most companies. For those companies who are already in place, now is a good time to complete renewals, however landlords are gaining more leverage and are often only offering tenant improvement packages and free rent on five-year (or longer) deals.

Compared with the office sector, the industry is not as boisterous in the industrial sector, however it is still considered an economic driver and will become more active as additional options are explored and provided in the marketplace.

Industrial market snapshot	
Average rent for space (energy transactions)	\$4.50 NNN
Average asking rent for space (Q1 2013)	\$4.80 NNN
Average annual escalation or bump (market)	3.0 %
Availability rate (Q1 2013)	10.0 %
Number of facilities under construction	7
Average facility size (s.f.)	193,400
# of owner-user purchases (last 12 months)	117
Average price per s.f. purchase	\$54.00

Supply: Large blocks	
200,000 s.f. +	10
100,000 – 199,999 s.f.	24
50,000 – 99,999 s.f.	62
25,000 – 49,999 s.f.	114



New construction	Address	Owner/ Developer	s.f.	Yard space / Land area	Delivery date
	Fiberspar Corporation: 3600 Ronald Reagan Boulevard	McWhinney	165,000	17 acres	Q1 2013
	UE Compression: 9461 Willow Court	UE Compression	90,000	18 acres	Q4 2012
	Baker Petrolite: 4650 Industrial Parkway	Baker Petrolite	20,000	13 acres	Q4 2012

Denver

Hotel insight: Denver's hotel sector spans 41,000 rooms in the metropolitan area. In 2012 and thus far in 2013, the market has witnessed growth rates in line with the national average. The city has seen a wave of investors including hotel real estate investment trusts, who have historically been less active in Denver, enter the market given its stable fundamentals. With transaction volumes nearly hitting \$700 million since 2011, the city is one of the country's 10 most active in terms of recent hotel deals.

During the past several months, the increase in hotel demand has picked up and hotels in the market are seeing above-average growth in occupancy. Hotel operators are therefore expected to gain more pricing power later this year.

On a national basis, the bulk of the new hotel supply pipeline is comprised of select-service hotels, as the majority of the large full-service hotels conceptualized during the previous market peak have opened by now. Denver marks somewhat of an exception to this rule, with the proposed 500-room Westin Denver International Airport on the horizon.

Denver is also seeing the trend of new branded high-quality limitedservice hotels under construction in the CBD. These hotels will provide more options for business travelers on a budget seeking quality accommodations in central locations without upscale hotel prices.

The demand fundamentals in Denver point to ongoing stability; disproportionate economic activity from the energy sector could thus provide a boost to the market and push certain submarkets to outperform.

Hotel market snapshot	
Number of hotel properties / rooms in MSA	293 / 41,300
Average occupancy rate (2012)	67.0 %
Average daily rate (2012)	\$106.00
RevPAR (2012)	\$67.30
RevPAR growth (2012)	6.0 %
Transaction volume (Millions, past 24 months)	\$697.6
Average transaction price per room (past 24 months)	\$160,000
Number of hotel properties / rooms under construction	10 / 1,820

	Property name	Address	Owner/ Developer	Rooms	Delivery date
structior	Home2 Suites Denver West Lakewood	148 Van Gordon Street, Lakewood	Undisclosed	103	Q4 2013
New constructi	Marriott Denver Westminster	7000 Church Ranch Boulevard, Broomfield	Etkin Johnson Group and White Lodging	212	Q4 2014
	Westin Denver International Airport	8500 Pena Blvd, Denver	City & County of Denver	500	2015



Pittsburgh

Office insight: Leasing demand from natural gas and other energyrelated companies is helping to drive growth and bolster the Pittsburgh office market, where rents are at their highest in more than a decade. In fact, the Pittsburgh market is outpacing national growth in rents and occupancy, thanks in large part to the energy sector.

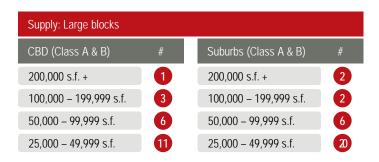
While a few of these companies have chosen to locate within the CBD, the majority reside within the suburban submarkets. The Southpointe submarket, home to 65 identified energy companies, saw its vacancy rate dip to 5.4 percent in the first quarter following a number of expansions and relocations by energy companies. The latest of which is likely to be Noble Energy, who is close to signing a 100,000-square-foot build-to-suit lease in Southpointe II. Located nearby, MarkWest and Schlumberger signed leases at the J. Barry Center, which is currently under construction and set to deliver in July. They'll join companies including Range Resources, Halliburton and Consol Energy who have established regional or national headquarters in Southpointe.

The West submarket, in the airport corridor, has become the outlet valve for the single-digit submarkets in the South and North. Williams, an energy infrastructure company, signed a lease for 112,000 square feet at Park Place II, which is in close proximity to the 61 acres Chevron just acquired to build an office campus.

With record low vacancy and large blocks of space virtually nonexistent, developers have been quick to capitalize on the landlord-favorable conditions. Currently, over 650,000 square feet of office property is under construction, much of which is build-to-suit. Despite the unprecedented market conditions, landlords have only been able to push rents up marginally over the last year, in part because of the already record-high levels. With vacancies continuing to trend downward, rent growth is expected to persist through 2013 keeping the leverage in the landlord's corner.

Office market snapshot	
Percentage of energy tenants in the market	18.0 %
Percentage of CBD market occupied	5.0 %
Percentage of suburban market occupied	20.0 %
Average rent for CBD space (energy transactions)	\$22.10 gross
Average rent for suburban space (energy transactions)	\$19.33 gross
Average asking rent in CBD (Q1 2013)	\$22.10 gross
Average asking rent in suburbs (Q1 2013)	\$19.33 gross
Availability rate (Q1 2013)	15.4 %
Average CBD footprint (s.f., energy tenants)	46,000
Average suburban footprint (s.f., energy tenants)	35,000
% of energy firms comprising active requirements in the market	15.0 %

Demand: Energy requirements in the market	s.f.	Туре
Chevron Corporation	150,000+	Expanding
Noble Energy	100,000+	Expanding
Direct Energy Business	60,000	Expanding





Pittsburgh

Industrial insight: The Marcellus shale industry continues to have a positive effect on Pittsburgh's industrial market as the drilling, processing, storage and transportation of natural gas remains strong.

Over the past few years more than 50 companies have rushed to the area, many of which are coming from Texas and Oklahoma. They include major independent companies such as Range Resources and Talisman Energy USA, but also include international oil conglomerates such as Exxon Mobile and Shell. These companies have located predominately in Washington County, within the Parkway West and Southpointe submarkets.

Energy requirements have typically been for warehouses of 10,000 to 20,000 square feet and four to five acres of lay-down yard space. Many of these companies have had a hard time finding existing properties that meet their requirements given Pittsburgh's topography and history manufacturing steel and glass, often in huge industrial facilities. Although numerous large blocks of space exist, very little is premium space. Furthermore the majority of what is available is not suitable for the energy companies; it is not the product they want nor in the location they prefer. Consequently, many of the larger companies have met their needs by coming in and developing their own build-tosuit projects. That was the case with the Westmoreland Technology Park in New Stanton, where Baker Hughes developed a new 70,000-square-foot facility that includes office and warehouse space as well as 10 open acres for storage.

Currently, the largest proposed industrial project in the Pittsburgh market is the construction of a petrochemical "cracker" facility to be owned and operated by Shell. The international oil conglomerate has 400 acres of land in Beaver County under contract and is analyzing whether to move forward with the project. If plans do move forward, construction would start within two years, with the facility being delivered approximately four years later. The cracker plant would allow Shell to break down compounds extracted from the ground and process them for use in everyday products such as clothing or carpeting. The project would provide a huge economic boost to the region, as construction of the facility would employ up to 10,000 people, and once operational, would require several hundred full-time employees.

Pittsburgh's industrial fundamentals were largely unaffected by the recession and are in solid condition, as the vacancy rate currently stands at 8.5 percent. While the tight vacancy rate will prompt some construction over the forecast, only modest demand growth is expected, which will curb developers from adding a significant amount of new supply to the market. The low vacancy rate has allowed landlords to push industrial rents up in the last few years. However, the tight vacancy rate will also induce some construction, which will place a cap on significant rent growth over the forecast.

Industrial market snapshot	
Average rent for space (energy transactions)	\$5.00 NNN
Average asking rent for space (Q1 2013)	\$4.47
Average annual escalation or bump (market)	2.5 %
Availability rate (Q1 2013)	9.0 %
Number of facilities under construction	2
Average facility size (s.f.)	37,000
# of owner-user purchases (last 12 months)	30
Average price per s.f. purchase	\$22.28

Supply: Large blocks	
200,000 s.f. +	3
100,000 – 199,999 s.f.	5
50,000 – 99,999 s.f.	15
25,000 – 49,999 s.f.	8



New construction	Address	Owner/ Developer	s.f.	Yard space / Land area	Delivery date
	1501 Bedford Avenue	Pittsburgh Gateways Corporation	130,000	6.6 acres	Q3 2014
	761 Commonwealth Drive	Redevelopment Authority Of Allegheny County	48,400	22.7 acres	Q3 2013
	2 Ehrman Road	Sampson Morris Group	26,800	10.5 acres	Q2 2013

Pittsburgh

Hotel insight: Pittsburgh is a mid-size lodging market which has seen a healthy amount of hotel investor interest and transactions activity. Deal volumes totaled \$150 million since 2011. The state of Pennsylvania as a whole is seeing growth in hotel fundamentals in line with national averages, but cities such as Pittsburgh are home to submarkets which are seeing disproportionate demand growth due to rising investment and employment growth in energy-related areas.

The hotel development pipeline in Pittsburgh consists of branded limited-service hotels in downtown and suburban locations—near corporate campuses and other demand generators which are expected to post robust growth during the next several years. Investors are taking note of the healthy prospects for Pittsburgh: the market boasts a similar number of hotel rooms under construction as Philadelphia, even though Pittsburgh is notably smaller.

Demand growth across the market is expected to vary based on the local business drivers, and we expect that hotel investors will introduce new supply in areas which show the greatest potential. Hotels with an extended stay positioning are expected to fare well, as they'll be well suited to accommodate travelers on long-term assignments in the energy sector.

Hotel market snapshot	
Number of hotel properties / rooms in MSA	208 / 24,540
Average occupancy rate (2012)	62.0 %
Average daily rate (2012)	\$107.80
RevPAR (2012)	\$66.30
RevPAR growth (2012)	3.0 %
Transaction volume (Millions, past 24 months)	\$149.4
Average transaction price per room (past 24 months)	\$114,700
Number of hotel properties / rooms under construction	8 / 960

	Property name	Address	Owner/ Developer	Rooms	Delivery date
New construction	SpringHill Suites Pittsburgh Mt. Lebanon	611 Washington Road, Mount Lebanon	Kratsa Properties	108	Q3 2013
	Hotel Indigo Pittsburgh	129 North Highland Avenue, Pittsburgh	Morgan Development	135	2014
	Home2 Suites Pittsburgh McCandles	8630 Duncan Avenue, Pittsburgh	Widewaters McCandless LLC	120	Q3 2013

SU	Location	Name	Rooms	Seller	Buyer	Price (millions)	Price per room
Recent transactions	Pittsburgh	Renaissance Pittsburgh	291	Sage Hospitality	RLJ Development, LLC	\$47.3	\$162,400
	Pittsburgh	Courtyard Pittsburgh Shadyside	132	Moody National Companies	Carey Watermark Investors	\$29.9	\$226,500
	Pittsburgh	Former Wyndham Pittsburgh University Place	198	Archon Group, L.P.	RLJ Development, LLC	\$20.8	\$104,800

Sources: Smith Travel Research, Lodging Econometrics, Jones Lang LaSalle

Philadelphia

Office insight: Long known as the headquarters for Sunoco, Philadelphia's energy market has seen distinct changes over the years as the market has changed from a producer of energy to a leader in energy innovation. In 2008, Philadelphia Mayor Michael Nutter created the city's first Office of Sustainability and released the "Greenworks Philadelphia" program as part of his pledge to make Philadelphia the Greenest City in America. The Greenworks Philadelphia program targets and tracks 14 areas of improvement, with a particular focus on two major goals of the project. The first goal outlined in the plan is to reduce the city's own energy consumption by 30 percent in 2015 and the second major goal is to reduce energy consumption in all buildings within the city by 10 percent in 2015.

Under the progressive leadership of Mayor Nutter, the Philadelphia City Council's Committee on the Environment passed a benchmarking bill in June of 2012 that would require commercial buildings in Philadelphia over 50,000 square feet to benchmark and disclose their energy and water consumption starting June 1st 2013. The passing of the benchmark bill now makes Philadelphia one of six U.S. cities to require energy benchmarking and disclosure for commercial buildings and continues Philadelphia on the path to being one of the greenest cities in America. Philadelphia's benchmarking bill will be the talk of the town in November when the U.S. Green Build Council holds the Greenbuild 2013 Conference for three days as more than 30,000 people will come to Philadelphia.

Office market snapshot	
Percentage of energy tenants in the market	1.6 %
Percentage of CBD market occupied	3.1 %
Percentage of suburban market occupied	2.9 %
Average rent for CBD space (energy transactions)	\$28.00 gross
Average rent for suburban space (energy transactions)	\$23.70 gross
Average asking rent in CBD (Q1 2013)	\$26.45 gross
Average asking rent in suburbs (Q1 2013)	\$25.26 gross
Availability rate (Q1 2013)	20.4 %
Average CBD footprint (s.f., energy tenants)	28,431
Average suburban footprint (s.f., energy tenants)	44,284
% of energy firms comprising active requirements in the market	1.9 %

Demand: Energy requirements in the market	et s.f.	Туре
Sunoco	100,000	Relocation



Philadelphia

Industrial insight: While much of western and northern Pennsylvania came alive due to drilling activity related to the natural gas boom in the Marcellus and Utica Shale formations, the Philadelphia industrial market has seen little impact until now. Recently, Sunoco Logistics took ownership of the closed Marcus Hook refinery located along the Delaware River. Sunoco Logistics' plans include repurposing the facility as a hub for shipping natural gas and butane produced from the Marcellus and Utica Shale formations. The refinery has five deep water berths, submerged storage tanks, rail access and pipeline connections. Much of the natural gas liquids will be exported for use in chemical manufacturing. The Marcus Hook refinery will become a major component for Sunoco Logistics' Mariner East project, which is intended to deliver propane and ethane from western Pennsylvania for refining. Sunoco Logistics intends to invest in the construction of additional above-ground storage tanks for the super-cooled liquid fuels.

Other energy-related developments in the region have been sparse with a minor focus on solar farms; specifically rooftop arrays utilized to supplement energy needs and "green" branding. IKEA recently installed more than 15,600 solar panels covering half a million square feet on their distribution center in Westhampton, New Jersey.

In April 2012, Delta Air Lines agreed to buy the ConocoPhillips' refinery located outside of Philadelphia International Airport for \$150 million and will spend another \$100 million more to refurbish the plant. The purchase by Delta Air Lines was driven by a need to control fuel supply and offset the risk of higher fuel prices.

Industrial market snapshot	
Average rent for space (energy transactions)	NA
Average asking rent for space (Q1 2013)	\$4.09
Average annual escalation or bump (market)	3.0 %
Availability rate (Q1 2013)	15.1 %
Number of facilities under construction	15
Average facility size (s.f.)	385,000
# of owner-user purchases (last 12 months)	34
Average price per s.f. purchase	\$42.00





New construction	Address	Owner/ Developer	s.f. Yard space / Land area		Delivery date
	Berks Park 78 Pad 1, Bethel	USAA / Seefried	870,843	87.8 acres	Q1 2014
	Berks Park 78 Pad 2, Bethel	Dollar General	906,916	109.14 acres	Q1 2014
	20 Leo Lane, York	First Industrial	708,000	55.5 acres	Q3 2013

Philadelphia

Hotel insight: Philadelphia is among the nation's 25 largest hotel markets; the bulk of the large full-service hotels are concentrated in downtown Philadelphia, with another cluster of sizeable hotels near the Philadelphia International Airport. Thus far in 2013, hotel supply additions have increased at a faster pace than demand has grown, resulting in flat revenue per available room. But this is only expected to be a temporary lull. Since leases in the hotel market are the shortest of the other real estate asset classes—nightly—the market could see quick increases in occupancy and average hotel rates as hotel accommodations demand grows as a result of rising commercial activity in the city's various business sectors such as energy.

Philadelphia's hotel transactions activity has been slow of late after record volumes in 2010. However, with no major new hotels under construction at the moment and solid economic prospects, investment volumes are poised to pick up notably in 2013 and 2014. Philadelphia is viewed as a secure investment destination and real estate investment trusts in particular have a penchant for the city.

As is the trend in many large cities in the U.S., limited-service hotels with premium brands such as Courtyard by Marriott are being developed in downtown areas where their full-service counterparts are already established. This strategy allows global hotel companies to continue to grow their presence by introducing product offerings at all tiers that they offer, from luxury to limited service. A prime example of this in Philadelphia is the future 172-room Courtyard by Marriott South Navy Yard which is slated for a 2014 opening. With energy-related business activity and investment strengthening the economic prospects for the Philadelphia area, hotel developers will increasingly determine where they can match a strong submarket or a cluster of demand generators with new lodging product.

Hotel market snapshot	
Number of hotel properties / rooms in MSA	361 / 45,390
Average occupancy rate (2012)	67.0 %
Average daily rate (2012)	\$119.10
RevPAR (2012)	\$79.70
RevPAR growth (2012)	5.0 %
Transaction volume (Millions, past 24 months)	\$42.0
Average transaction price per room (past 24 months)	\$378,400
Number of hotel properties / rooms under construction	9 / 1,140

	Property name	Address	Owner/ Developer	Rooms	Delivery date
New constructior	Hilton Garden Inn Exton	100 Route East, Exton	The Hankin Group	135	2014
	Courtyard by Marriott Philadelphia Springfield	400 West Sproul Road, Springfield	Blue Hen Development LP	92	Q4 2014
	Courtyard by Marriott South Navy Yard	Diagonal Blvd, Philadelphia	Ensemble Hotel Partners LLC	172	2014

ecent sactions	Location	Name	Rooms	Seller	Buyer	Price (millions)	Price per room
Rec	Philadelphia	The Rittenhouse Philadelphia	111	Undisclosed	Hersha Hospitality Trust	\$42.0	\$378,400

Sources: Smith Travel Research, Lodging Econometrics, Jones Lang LaSalle



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