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Spring 2016

Center for Real Estate Quarterly, Volume 10, Number

Portland State University. Center for Real Estate

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Citation Details

Portland State University. Center for Real Estate, "Center for Real Estate Quarterly, Volume 10, Number 2" (2016). Center for Real Estate Quarterly. 38.

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CENTER FOR REAL ESTATE

Quarterly Report

Volume 10, Number 2

Spring 2016

CENTER FOR REAL ESTATE Quarterly Report

A publication of

Portland State University Center for Real Estate P.O. Box 751-SBA Portland, Oregon 97207-0751

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CONTENTS

Summary and Editorial Eric Fruits	3
Portland's Unreinforced Masonry Seismic Retrofit Project Walt McMonies	5
State of the Economy Adam Seidman	14
Residential Market Analysis Alex Joyce	26
Multifamily Market Analysis Marc Strabic	51
Office Market Analysis Alec Lawrence	64
Industrial Market Analysis Adam Seidman	74
Retail Market Analysis Alec Lawrence	82

SUMMARY AND EDITORIAL

ERIC FRUITS

Editor and Oregon Association of Realtors Faculty Fellow Portland State University

The *Quarterly* is now in its 10th year of publication. Over the years, the report has provided one-of-a-kind research and analysis of Oregon's real estate markets. Through the generous contributions of our sponsors, the *Quarterly* now supports three student fellows who provide in-depth reviews of single family, multifamily, and commercial real estate. Former fellows have entered into the real estate profession and many are now successfully contributing to the industry.

The *Quarterly* covers a wide range of topics written by real estate professionals and researchers. In this issue **Walt McMonies** examines unreinforced masonry buildings in Portland the potential costs associated with a large earthquake—"The Big One." He evaluates the cost and benefits of seismic retrofitting of these buildings and concludes that any mandatory URM retrofit program adopted by the City be flexible in its impositions on URM owners and include substantial financial help to the owners to make the investments viable.

Portland's **residential market** experienced a substantial 19 percent increase in new home permits, bucking statewide slowdown in permits this quarter. Most Oregon cities saw a small uptick in median home prices, with Portland leading slightly

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among the cities analyzed this quarter. Year over year growth in home prices and reductions in average days on market continued to be trend strong but have moderated compared to the last few quarters for most markets.

In Portland's **multifamily market**, rents continue to uptick while a sharp increase in new supply is expected to start increasing the vacancy rate. Some softening in rent growth is anticipated, but no major changes are expected to the region's rental market for the remainder of the year.

The **office market** has been dubbed "Boomtown" with growing demand and stable-toward-shrinking inventories. While urban and close-in space continues strong growth, there are some reports that tenants may have begun to abandon the central business deistrict for the affordability and flexibility of the suburbs, especially among Class B and C tenants.

Portland's **industrial market** kept on rolling in the first quarter of 2016, with a continuation of trends seen throughout the past year: strong tenant demand and limited supply pushing rents to historic highs and vacancies to historic lows. Demand continued across the size spectrum, and three new leases of over 100,000 square feet per lease were inked. All of these dynamics continued to attract institutional investors, who drove down capitalization rates to all-time lows, pushing sales prices even higher.

The Portland **retail market** vacancy continued a steady but slow decline, with the direct vacancy rate ending at 4.4 percent for the first quarter. Each quarter over the last year has continued to set a record low since the recession. The first quarter rate is 70 basis points below the four-year average quarterly vacancy rate of 5.1 percent.

I hope you enjoy this latest issue of the Center for Real Estate *Quarterly Report* and find it useful. The *Report* is grateful to the Oregon Association of Realtors and RMLS for their continued support. ■

PORTLAND'S UNREINFORCED MASONRY SEISMIC RETROFIT PROJECT

WALT MCMONIES

Lane Powell P.C.

In late 2014, the City of Portland set up a taskforce intended to expedite the seismic retrofitting of unreinforced masonry ("URM") buildings in Portland.¹

There is a one in three (37 percent) probability of Portland experiencing a massive (magnitude 8.7 to 9.2) subduction earthquake (the "Big One") in the next 50 years,² although the epicenter will likely be at least 100 kilometers distant along the Cascade Subduction Zone. Because of proximity, a large (M 6.5) crustal quake on the

¹ A URM building is defined by the City of Portland as a building with at least one masonry bearing wall containing little or no reinforcement.

² "Anticipating the Next Mega Quake" CBS NEWS, 3/6/2016 quoting Prof. Chris Goldfinger, OSU Paleo Seismologist and leading researcher on the Cascade Subduction Zone.

[■] Walt McMonies focuses on real estate and business transactions, including acquisitions of real estate, commercial leasing, mortgage finance, LLC formation and structuring, Section 1031 exchanges, condominiums and family farms. He has substantial experience representing real estate developers, family trusts, and apartment, office and retail property investors. He has a special interest in historic buildings and their renovation and seismic upgrading. Any opinions expressed are those of the author solely and do not represent the opinions of any other person or entity.

Portland Hills fault, although much more localized, might be as damaging to the inner west side of Portland.

URM buildings are vulnerable to a high level of damage or collapse in a large magnitude earthquake,³ and they can suffer parapet wall damage and wall/floor separation even in a moderate magnitude earthquake.⁴ The City's some 1,800 URM buildings⁵ include some of the City's most historically significant structures, and provide cultural character, moderate-rate housing for 8,000 to 10,000 people and incubator office and creative commercial space for thousands more.

Fortunately, it is technically feasible to seismically retrofit a URM.⁶ However, is it cost effective to do so? Whether as an individual owner or as public policy (risk management)? The City anticipated this question and is relying on a 1995 analysis prepared for the City by Geologist Ken Goettel (the "Goettel Study") which found that retrofitting URMs sufficiently to allow occupants to survive a quake and to exit a building (Life/Safety standard) will cost less than the benefits in terms of lives saved and economic losses avoided in an earthquake, i.e. the upgrade cost will be less than the public (including owner) benefits which result in terms of lives saved and economic losses avoided in an earthquake.⁷ Unfortunately the Goettel Study is so dated in methodology and data that it is not a reliable basis for the conclusion in 2016, that seismic retrofitting of a URM building in Portland to Life/Safety standards is cost beneficial.⁸

³ URMs are vulnerable to earthquakes because (a) brick, cinderblocks, etc. tend to shear and crack under the lateral and uplift forces of an earthquake; (b) most URMs in Portland were constructed at least 80 years ago and typically their mortar has not been well maintained; (c) non-structural elements like parapet walls, chimneys and building ornamentation abound and are prone to falling off in a quake and injuring fleeing residents and bystanders; (d) floor and roof joists typically rest in but are not attached to notches of bearing walls; (e) floor and roof diaphragms are often overly flexible, such that in a quake the floors deflect and joists pull free causing floors to collapse ("pancake"); and (f) bearing walls typically lack steel or other reinforcement and therefore are not resistant to lateral loads such that they sometimes collapse.

⁴ Written comments to Author from Amit Kumar, SE, PE, Senior Structural Engineer, Portland Bureau of Development Services, March 28, 2016.

⁵ Unreinforced Masonry Database published by Michael R. Hagerty, SE, then Chief Engineer, Office of Planning, April 23, 2001.

⁶ In Los Angeles, that City's mandatory URM upgrading program was tested in the 1994 Northridge Earthquake (M 6.7), and the retrofitted buildings performed well and far better than un-upgraded URMs. See FEMA Publication P-774, Unreinforced Masonry Buildings and Earthquakes (2009). In the 2003 San Simeon quake (M. 6.5): "[Of the] 53 unreinforced masonry buildings in Paso Robles...none of the nine URM buildings that had been retrofitted experienced major damage. Many of the others were damaged so extensively that they were subsequently demolished."

⁷ K. Goettel & G. Horner, Earthquake Risk Analysis, Final Report to the City of Portland, Vol. One (1995); see also FEMA Publication-156, Typical Cost for Seismic Rehabilitation of Existing Buildings (1994).

⁸ Conversation on April 6, 2016, between the Author and Goettel.

In contrast to the public benefit analysis of Goettel, the typical URM building owner would analyze a major expenditure like a seismic upgrade on a more limited "money invested, money repaid" ("Payback") basis. Looking at seismic upgrading on a Payback basis, URM Life/Safety upgrades in Portland are currently at best marginally cost effective as upgrading will take in the range of 20 to 25 years to payback the owner's investment through higher rents and lower expenses (in particular, less costly earthquake insurance and a lower cost of mortgage funds).

In contrast, retrofitting an older apartment building with in-unit washer dryers might have a five-year Payback. Also, the 20 to 25 year Payback assumes that the building owner has or can borrow sufficient funds to pay seismic retrofit cost of (say) \$35 to \$45 a square foot, a doubtful assumption for those URM owners who have significant debt relative to the value of their buildings.

Focusing to the public benefit analysis used by Goettel, he concluded that: 9

- For buildings of any construction type (including URM) on rock sites, the earthquake death risk was very low. So arguably no seismic upgrading of URM buildings in rock soils need occur;
- For URM and precast concrete buildings on firm soils, the earthquake death risk is about 2 times higher than an acceptable level; and
- For buildings of any of the most vulnerable building types (including URM), on soft soils, the earthquake death risk is 2 to 6 times higher than an acceptable level.

Assuming *arguendo* that a Life/Safety seismic retrofit of most URM buildings is called for in Portland, what progress has been made in retrofit efforts?

CURRENT UPGRADE SYSTEM AND ALTERNATIVES

Title 24.85 of the Portland City Code adopted in 1995, and modified in 2004, gives a building owner an alternative to compliance with the seismic rehabilitation requirements of the Oregon Structural Specialty Code. Under current Title 24.85, seismic upgrades to an existing building are required only when the owner activates a "passive trigger," for instance (1) when the owner changes the occupancy or use¹⁰, or (2) when the owner undertakes a major renovation which exceeds a specific cost

⁹ Goettel considers two main kinds of benefits: (a) life safety benefits which are the dollar value of avoided casualties and (b) non-life safety benefits which are the value of avoided or reduced economic damages and losses, specifically building damages, contents damages, displacement costs, business income losses, rental income losses, and loss of non-profit services. Using this approach Goettel concluded that the benefits of a seismic rehabilitation of a URM building outweigh the costs, unless occupancy is less than one person per 1,000 sq. ft. or unless the building is built on solid rock and hence will suffer little damage.

¹⁰ Resulting in more than 33 percent of the building's changing to a higher seismic hazard classification or resulting in an increased occupant load of more than 149 people.

threshold, etc. Also, roof upgrades, in particular parapet wall bracing, is required or (3) when more than 50 percent of the roof is re-roofed within five years.

Contrast with Mandatory System. The City's Bureau of Development Services ("BDS") estimates that in the 20 years since Title 24.85 was adopted less than 20 percent of the identified URMs in Portland have been seismically upgraded or demolished. Portland's slow rate of URM upgrading is consistent with the data on those California cities that, in response to that state's Unreinforced Masonry Building Law (1986)¹², elected to employ a voluntary system, establishing retrofit standards and only requiring owners to evaluate the seismic risks in their buildings rather than mandating the owners to make seismic upgrades of URMs. These voluntary programs were only 19 percent effective at achieving compliance, while California cities which chose to mandate seismic upgrades of URMs had an overall compliance rate of 81 percent as of 2003. 13

RECOMMENDATION OF PORTLAND TO ADOPT A MANDATORY SYSTEM

The City, desiring to keep its citizens safe and to increase post-quake resilience, and encouraged by Goettel's conclusion that the seismic upgrading of URMs to a Life/Safety standard is cost effective and BDS's finding that URMs are not being seismically upgraded quickly with a voluntary compliance system, set up the URM Seismic Retrofit Project ("Taskforce").

The initial step was to appoint a Retrofit Standards Committee to determine what upgrades should be made to what URM buildings in what timeframes. After deliberation, the Standards Committee recommended the City modify Title 24.85 Seismic Design Standards for Existing Buildings, to mandate some level of seismic upgrade for all URMs, except one and two family dwellings, with the degree of upgrade depending on occupancy load, the use or function of the building, building height and size. (Notable in their absence from the matrix were soil stability and/or liquefaction risk.) The Committee also recommended closing loopholes in Title 24.85, including that which allows owners to avoid parapet wall bracing by replacing a roof incrementally over more than five years. As modified, bracing would be required if a roof is replaced within 15 years.

¹¹ This conclusion was corroborated by a 2015 BDS pilot study of 147 presumed URM buildings. In three areas of the City (E. Burnside, S.E. Foster Road and Chinatown) the study found that of 147 buildings, 13 had been demolished and 13 had received some upgrading, but only 4 had received a full upgrade (at best an 18 percent compliance rate).

¹² Section 8875 et seq. of California's Government Code (CA, 1986) required local governments to inventory URMs, establish a loss reduction program to their own specifications and report progress to the State.

¹³ "Status of URM Building Law," 2003 Report to the Legislature of the Seismic Safety Commission at page 8. Note that cities with voluntary programs without any incentives had only a 12 percent compliance rate.

The Standards Committee divided commercial URM buildings into five classes.¹⁴ Private owners will typically find their buildings falling into Classes 3, 4 and 5.

- Class 3, taller (4 or more stories) or high occupancy (300 or more) structures or large apartments (100 or more units) (estimate 188 buildings) would be retrofitted to Life/Safety standards.
- Class 4, lower buildings (1-3 stories) with fewer (10-300) occupants (estimate 736 to 800 buildings of which 650 would require upgrading) would be retrofitted either to Life/ Safety or less stringent "Bolts Plus" standards.¹⁵
- Class 5, one or two stories, low risk occupancy (usually 10 or fewer) (estimate 700 buildings) are given ten years to brace parapets and if needed to attach exterior and bearing walls to floors and roof. Wall bracing will only be required if the building is deemed a collapse risk.

Exemptions. If a building is of masonry construction but had significant¹⁶ reinforcement throughout dating from its construction, it is not a URM and as a result would not be subject to the City's proposed mandatory seismic upgrade requirements. Also, previously retrofitted URM buildings would be excluded from the new mandatory upgrade requirements ("Grandfathered").¹⁷

What is A Life/Safety Retrofit? A Life/Safety retrofit is designed to ensure that building occupants survive a quake and can exit the building.¹⁸

¹⁴ Class 1 consists of hospitals and emergency facilities (estimate 10 buildings). These need to be upgraded so they will be ready for "Immediate Occupancy" after a quake. Class 2, schools and public assembly facilities (estimated to be more than 40 buildings). These need to be upgraded beyond Life/ Safety, to the "Damage Control Standard."

¹⁵ "Bolts Plus" is a standard developed in San Francisco that allows the owner to forego strengthening of exterior walls as required to achieve Life/Safety because the building has characteristics generally shown to provide improved seismic performance and increased safety from collapse, specifically if the height to thickness ratio of the walls is sufficient and the building qualifies as "rugged."

¹⁶ Albeit less than would be required in a new building by current Code.

¹⁷ The Grandfathered buildings: (a) Buildings in URM Classes 3, 4 and 5 that have undergone a "full seismic upgrade to ASCE 31 or 41 (or equivalent) standards"; (b) Buildings that have been fully upgraded to Seismic Zone 3 standards under the Oregon Structural Specialty Code; and (c) Buildings with a currently approved Phased Seismic Agreement with the City for a full seismic upgrade as long as the Building remains in the same or "lower" URM Class.

¹⁸ Life/Safety status often entails (a) strengthening the floor and roof diaphragms, as needed, (b) attaching most floor and roof joists to the exterior or load bearing walls, (c) tying back and bracing parapet walls, ornamentation, and reinforcing chimneys, (d) reinforcing bay windows, entrance canopies and skylights, (e) bringing masonry and mortar into a well maintained condition, using a flexible mortar, (f) securing the load bearing walls to the footings or foundation, and (g) reinforcing the exterior and load bearing walls to survive substantial lateral force.

Retrofit Timeline. For the typical three or four story URM apartment building, whether URM Class 3 or 4, the Retrofit Standards Committee proposes that the owner will be given three years from notification that the City classifies his/her building as a URM to complete an ASCE 41 seismic assessment, 10 years to brace parapets and tie the roof to the walls and 25 years or (if a hardship is demonstrated) 30 years to complete all mandatory upgrades. ¹⁹ Note that as originally proposed the timeframes were significantly less favorable to owners. ²⁰

A retrofit to Life/Safety standards is not a guaranty that building damage can be readily repaired, much less that the building can be immediately occupied after a large quake. If it is a high priority to an owner either to avoid major damage or to retain rental income, then the owner may determine to retrofit to (say) the Class 2 standard ("Damage Control"). Note, the City will encourage Class 3 and 4 buildings to upgrade beyond Life/Safety through incentives, but will not require such additional upgrades.

Proposed Financial Assistance. The Retrofit Standards Committee's report was presented to the Support (or aka Incentives) Committee which commenced work in June 2015; the author served on that Committee. That Committee eventually had two charges, namely: (1) to determine the cost of a typical seismic upgrade and (2) to make recommendations as to appropriate financial assistance to owners to make an upgrade economically feasible.

As to the cost of a seismic retrofit, BDS had developed some retrofit costs, relying on an updating of the same 20 year old FEMA study used by Goettel.²¹ Surprisingly, the resultant numbers adjusted for inflation were fairly consistent with the hard costs of some current Portland seismic retrofit projects. Seismic upgrade hard costs (ignoring soft costs like tenant relocation, rent loss, debt service, etc.) to bring a typical URM to Life/Safety standards were estimated to be \$35 to \$40 a gross square

• Step 1. An ASCE 41 seismic assessment and geotechnical report, if in a high liquefaction zone, is to be completed within three years of notification from the City that it believes the owner's building is a URM;

¹⁹ Deadlines as follows:

[•] Step 2. Parapet, cornice, and chimney bracing and wall to roof attachment are to be completed within 10 years of notification;

[•] Step 3. All bearing and exterior walls to floor joist attachments and wall strengthening within 20 years; and

[•] Step 4. Full retrofit within 25 years (or within 30 on a showing of hardship).

²⁰ The draft proposal of the City first proposed to the Retrofit Standards Committee would have imposed a higher standard of retrofitting, a much shorter timeframe for compliance (15 years) and no hardship extension. The final upgrade proposal from Retrofit Standards reduced the required standard of upgrading to Bolts Plus for some buildings with characteristics generally shown to provide improved seismic performance and increased safety from collapse, lengthened the time to come into compliance for most buildings to 25 years, proposed a five-year hardship extension and strongly recommended financial assistance to owners.

²¹ see FEMA Publication 156. Typical Costs for Seismic Rehabilitation of Existing Buildings, Second Edition (1994).

foot, or for a 40,000 square foot Class 3 building, \$1.4 million to \$1.6 million. The cost to bring a URM to the higher Damage Control standard were estimated to be \$44 to \$51 a square foot and the cost to bring a URM to the even higher "Immediate Occupancy" standard was \$63 to \$74. Total cost including soft costs is typically the hard cost plus \$30 a square foot.

Regarding financial assistance to owners, the committee recommended various proposals, including a state tax credit for a percentage of seismic expenditures, a property tax abatement or assessment freeze, a grant to cover initial expenses, possible low interest loans and allowing owners of non-historic buildings to sell their excess FAR.²² The City, in the 2015 Legislature, did manage to get SB 85 passed, allowing local jurisdictions to use the proceeds of general revenue bonds to make seismic retrofit loans. The Committee spent time discussing both affordable housing and historic properties. The tax credit and property tax freeze do not help affordable housing as typically the developer is a non-profit. Historic properties already have access to the federal historic tax credit and a property tax assessment freeze.

WHAT LIES AHEAD?

In early 2016, the work of the Standards and Support Committees was given to the Seismic Policy Committee to consider and balance all these issues and develop a final set of recommendations to City Council by early summer 2016. Council intends to adopt a final package of regulatory changes for URMs over the summer.

So what could all this mean to a URM building owner? Prospective owner? Lender? or Insurer?

Effect on Individual Building Values. If and when the City mandates URM retrofitting, lenders, buyers and insurers of apartments and commercial buildings will

²² A grant program to pay some of the cost of a seismic retrofit, such as the cost of an ASCE 41 seismic analysis and upgrade plan; a low interest loan program possibly through private lenders and/or SBA utilizing revenue bond funds, such loans to supplement private loans so as to achieve a low, blended rate construction/mini-perm loan; a fund to provide credit enhancement for privately financed retrofits; a fund to be used to buy-down the interest rate on seismic retrofit loans; a permit fee reduction on seismic work; a broader FAR transfer program, expanded so any URM building, not just an historic building, could sell its excess FAR; a broader "no piggy backing" stricture aimed in particular to prevent Water Bureau impositions at the time of a seismic permit application; a 25 percent state seismic upgrade tax credit, allowing the owner a saving of Oregon income taxes equal to one quarter of seismic upgrade expenditures once the work is completed (similar to bill SB 565 introduced by Restore Oregon in the 2015 session); a property tax abatement, once a seismic upgrade has been completed, running for (say) 10 years such that the assessed value of the property cannot increase; a LEED-like rating system showcasing completion of seismic upgrades, either the new program administered by the US Resiliency Council or a similar one sponsored by the City; an incentive to owners who comply ahead of time (early adopt); and a BDS fast track for seismic permits and an ombudsman or concierge to assist in the approval process, and post disaster expedited permit issuance to support recovery, waiver of non-conforming use limitations on rebuilding, etc.

likely want to know the seismic condition of any Portland URM buildings with which they are dealing. This, in turn, will create an incentive for URM owners to have a structural engineer prepare an ASCE 41-13 seismic assessment of their buildings.

If the ASCE 41 indicates a need for major upgrades, one might assume that, as with hazards disclosed by an environmental Phase One, the owner may be asked to commit to perform the prescribed seismic upgrading work prior to a purchase or loan closing or at least obtain bids for such work and potentially escrow funds to pay for it.

Unless or until cured, identified seismic deficiencies may arguably reduce the building's value. For instance, assume a 4-story, 48 unit URM apartment building of 40,000 square feet, with a seismic retrofit cost of \$35 a gross square foot, or \$1.4 million. One could argue that the building's value would be reduced by a 50 to 90 percent of said cost until the retrofit was substantially completed.²³

Financial Impact on City's Housing Stock. Of the some 1,800 URMs in Portland, by the Author's count about 200 of these are multistory apartment buildings. There are about another 95 historic apartments which are not URMs, as they have some seismic reinforcing, but less than needed to meet the Life/Safety standard, seismic reinforcing. Together, these nearly 300 apartment buildings, totaling approximately 6.0 million square feet, are worth something like \$650 million.²⁴

Of course some URM buildings will end up being demolished, but even 200 apartment buildings averaging 20,500 square feet each would cost at a minimum \$103 million to upgrade to a Bolts Plus standard (\$25 a square foot) and \$185 million to upgrade to a Life/Safety standard (\$45 a square foot) all in 2016 Dollars. That is a lot of money, but the alternative of losing 300 apartment buildings valued at \$650 million and averaging 30 units each (9,000 units), as well as the cultural impact of their loss, would be devastating to the housing inventory and aesthetics of the City, costing upwards of \$1 Billion to replace the units alone, ignoring the aesthetic loss, the deaths and injuries and the loss of productivity.

CONCLUSION

Obviously it is essential that any mandatory URM retrofit program adopted by the City be flexible in its impositions on URM owners and include substantial financial help to the owners so the Payback is positive. Still, given the credible and peer-reviewed science indicating an impending "Big One," it is likely that an owner of a Class 3 or 4 URM building not situated on rock or firm soil will eventually have to do one of the following: (1) seismically upgrade; (2) sell to or joint venture with

 $^{^{23}}$ Why not 100 percent of the cost? Because some buyers will not take the earthquake threat seriously.

²⁴ According to the Multnomah County Assessor they were worth \$579.1 million in 2010 Dollars (or \$96.50 per square foot). So assuming 3 percent appreciation annually they are worth something like \$651.8 million in 2015 Dollars (or \$108.60 per square foot).

someone who can afford to and will seismically upgrade; or (3) demolish the building.

Lenders and Insurers. Lenders and insurance companies, especially given the wide dissemination among opinion leaders of The New Yorker Magazine article by Kathryn Schulz entitled "The Really Big One," 25 may, absent seismic upgrading, in the future become more hesitant respectively to loan on URM buildings or to insure them against earthquakes.

The lenders and insurers on URM buildings may in future want to see an ASCE 41 report on each. If a lender determines to make a loan on a URM, he/she may modify the loan terms to lower their risk and increase the return. ²⁶ Insurers will have similar goals and adjustments. ²⁷

URM owners who want to weigh in and express their views should follow City Council agendas and the project website: http://www.portlandoregon.gov/pbem/66418. ■

²⁵ June 28, 2015.

²⁶ Lower the allowed loan to value ratio and insist upon greater debt coverage, a shorter amortization and term, and a higher interest rate. Also lenders making loans collateralized by URM apartments will likely want the owners; (b) to carry earthquake insurance; (c) to complete a seismic upgrade; and/or (d) to be personally liable on the loan and have a net worth well in excess of the loan.

²⁷ Insurance companies will likely (a) require an ASCE 41 seismic analysis on any URM buildings to be insured, (b) reduce the amount and scope of earthquake coverage on Portland URMs, (c) increase the premiums, (d) increase the deductible, and potentially (e) require the seismic upgrades to be commenced.

THE STATE OF THE ECONOMY

ADAM SEIDMAN

Portland State University

Employment continued to strengthen in the first quarter. Nationally, job growth continued and the unemployment rate remained steady at 5 percent. Oregon and the Portland MSA saw strong employment growth (at rates above national levels) and unemployment at or near historic lows. Importantly, the strong job market in Oregon is finally translating to wage gains across a diverse set of industries.

Despite the strengthening employment market, significant uncertainty remains about the state of the economy. At the national level, GDP growth was the lowest in two years as consumers and businesses reigned in spending. Volatility in the financial and oil markets have impacted projections for economic growth domestically and internationally. The IMF again revised its growth estimates downwards for the next two years for the global economy.

In Oregon and Portland, housing affordability remains a key concern for politicians and economists. And although job growth is described as at "full throttle" for the state, its largest private employer, Intel, announced significant layoffs after the end of the first quarter in response to a changing technology market.

■ Adam Seidman is a Master of Real Estate Development candidate and has been awarded the Center for Real Estate Fellowship. Any errors or omissions are the author's responsibility. Any opinions expressed are those of the author solely and do not represent the opinions of any other person or entity.

Table 1: Key Economic Indicators, Portland MSA, Oregon, and US Q1 2016

	Q1 2016/ Mar 2015	Q4 2015/ Dec 2015	Q1 2015/ Mar 2015
GDP Growth (annualized)			
US	0.5%	1.4%	0.6%
Unemployment Rate			
US	5.0%	5.0%	5.5%
OR	4.5%	5.4%	5.4%
Portland MSA	4.2%	4.9%	4.9%
Job Growth Rate (12-mo growth)			
US	2.0%	2.0%	2.1%
OR	3.3%	3.2%	3.4%
Portland MSA	3.2%	3.1%	3.3%
Inflation (12-mo unadjusted)			
US	0.9%	0.7%	-0.1%
Interest Rates			
Federal Funds Rate	0.4%	0.2%	0.1%
10-Year Treasury	1.9%	2.2%	2.0%

Sources: BEA, BLS, Federal Reserve, Oregon Employment Department

GLOBAL TRENDS

The International Monetary Fund (IMF) revised its global growth projection down yet again for 2016 and 2017 to annual rates of 3.2 percent and 3.5 percent, respectively. In its April World Economic Outlook report, the IMF noted that uncertainty had increased and that "risks of weaker growth scenarios are becoming more tangible." The major macroeconomic factors impacting global growth, according to the IMF, include: a continuing slowdown and rebalancing of the Chinese economy, further declines in energy and commodity prices, a related slowdown in investment and trade, and declining capital flows to emerging markets.

However, global growth is expected to pick up in 2017 "as conditions in stressed economies start gradually to normalize," according to the IMF report. Recessions in Russia and Brazil are expected to continue in the near-term but to recover over the next 8 quarters. Importantly, growth in China has been stronger than anticipated, due in large part to Chinese consumer spending. This has prompted the IMF to upwardly revise its forecasts of growth in China over the next 2 years.

Interest rates remained unchanged in the first quarter after the United States Federal Reserve raised its target rate in December after 7 years of zero interest rates. Some analysts believe that the Fed will raise interest rates one or two more times this year, with the soonest hike potentially happening at the Fed's June meeting. The Wall Street Journal's survey economists predicts a rate of 0.84 percent by the end of the year (versus the current 0.38 percent).

Oil prices slid to under \$30 a barrel in the first half of the quarter, but rebounded in the latter half to end up virtually unchanged in price. Still down over 20 percent year-over-year at the quarter's end, low oil prices have hurt oil-dependent economies across the world, including Russia and Brazil, both of which are currently in recession. The U.S. economy has also been impacted as its oil industry has grown significantly over the past decade with the shale boom. Major oil producing nations have discussed output freezes to help stem the price declines, but as of this writing no agreements have been reached.

Following a strong showing in 2015, the dollar weakened in the first quarter, ending down 4 percent versus foreign currencies, with notable weakness against the Japanese yen. This was due in part to uncertainty from the Federal Reserve regarding future interest rate hikes.

GDP/OUTPUT

The Bureau of Economic Analysis (BEA) reported that their "advance" estimate for U.S. annualized GDP growth was 0.5 percent in the first quarter. This follows growth of 1.4 percent in the fourth quarter (revised upwards from the prior "advance" estimate of 0.7 percent) and represents the slowest growth in two years. The slow growth was driven by deceleration in both consumer and corporate spending, and corporate fixed investment dropped nearly 6 percent, its biggest decline since 2009.

It should be noted that the past two years have seen slow growth in the first quarter followed by stronger growth in the following quarters, and some analysts believe that will be the case in 2016, helped along by a strong employment market and calming financial markets. It should also be noted that there is a likely chance of an upward revision in the estimate as we've seen the past few quarters. Looking ahead, The Wall Street Journal Economic Forecasting Survey projects annualized GDP growth of 2.4 percent for the next two quarters, in-line with previous forecasts.

6.0% 4.0% 2.0% -2.0% -4.0% -6.0% -8.0% -10.0% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016

Figure 1: Gross Domestic Product, United States, Annualized Percent Change, 2005–2016 Q3 (Forecast)

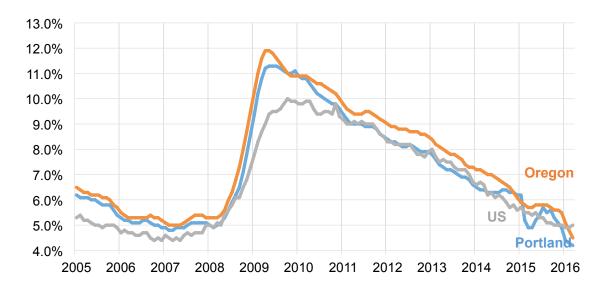
Source: Bureau of Economic Analysis (blue bars) and Wall Street Journal Economic Forecasting Survey (orange bars)

EMPLOYMENT

The Bureau of Labor Statistics (BLS) reported that total U.S. nonfarm employment increased by 215,000 in March and 628,000 for the first quarter. This compares with growth of 84,000 in March 2015 and 552,000 for the first quarter of 2015. National unemployment figures remained steady at 5.0 percent, matching lows not seen since April 2008.

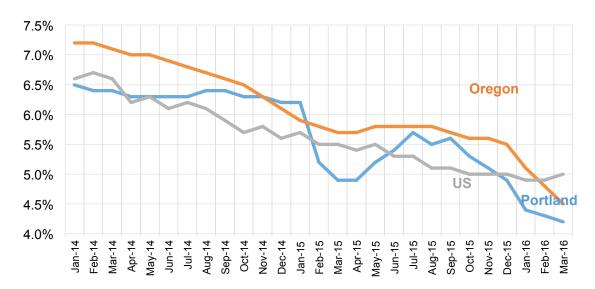
The unemployment rate for both Oregon and the Portland Metropolitan Statistical Area (MSA) continued to decline in the first quarter to near historic lows. Oregon's unemployment rate dropped to 4.5 percent in March – the lowest point since comparable records began in 1976. In Portland, the unemployment rate dropped to 4.2 percent in March, a rate not seen since 2000. At both the state and metro level, unemployment is now lower than the national rate of 5.0 percent.

Figure 2A: Unemployment Rate, Portland MSA, Oregon and United States, 2005-2016 Q1



Source: Bureau of Labor Statistics

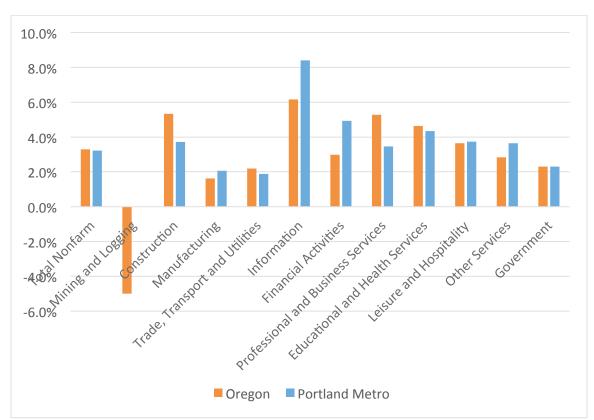
Figure 2B: Unemployment Rate, Portland MSA, Oregon and United States, Jan 2014-Mar 2016



Source: Bureau of Labor Statistics

Job gains continued their strong trajectory in both Oregon and the Portland MSA in the first quarter. Year-over-year, Oregon added nearly 59,000 jobs and the Portland MSA grew by over 35,000 jobs, representing growth rates of 3.3 percent and 3.2 percent, respectively—remaining notably above the national rate of 2.0 percent. According to Oregon's Office of Economic Analysis (OEA), this job growth rate represents "full throttle" growth. After the end of the first quarter, Intel, Oregon's largest private employer, announced significant layoffs as the firm seeks to re-orient to changing dynamics in the technology markets. The firm will lay off nearly 800 Oregon workers, or 4 percent of its state workforce, and will also pursue an undisclosed number of early retirements and buyouts.

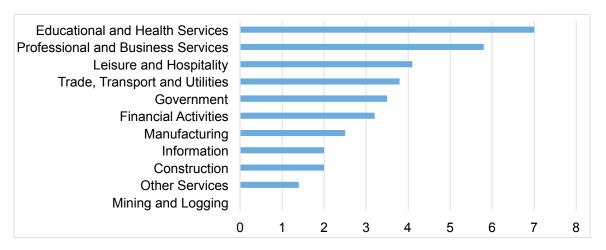
Figure 3: Employment Growth Rate by Sector, Portland MSA and Oregon, 12 Months to March 2016



Source: Oregon Employment Department

Job growth in Oregon and the Portland MSA has been broad-based over the past 12 months. In the Portland metro, every sector added at least 1,400 jobs in the past 4 quarters (except for Mining and Logging, which only has a total base of 1,200 jobs in the MSA).

Figure 4: Employment Growth by Sector, Portland MSA, 12 Months to March 2016 (000s)



Source: Oregon Employment Department

Strong job gains have helped lead to relatively wage gains. According to Oregon's Office of Economic Analysis, "while Oregonian income and wages are below the typical state, average wages today in Oregon are at their highest relative point since the severe early 1980s recession when the timber industry restructured. Much of this improvement has come in the past 2-3 years when Oregon wage growth, much like job growth, has outstripped the average state." Statewide, wage growth has been broad-based across various industries and not just driven by high-paying technology jobs. The OEA projects that wages and salaries will grow at a faster rate in Oregon compared to the national average in 2016, as was seen in 2015.

Growth Rates: Oregon and U.S. 8% 2015 2016 - Projected 6% ■ Oregon ■ United States 5% 4% 3% 2% 1% 0% Wages and Nonfarm Population Wages and Nonfarm Population Employment Salaries Employment Salaries Source: Office of Economic Analysis, March 2016 forecast

Figure 5: Growth in Wages, Employment, and Population, Oregon and US, 2015-2016

Source: From Oregon Labor Trends April 2016 Report

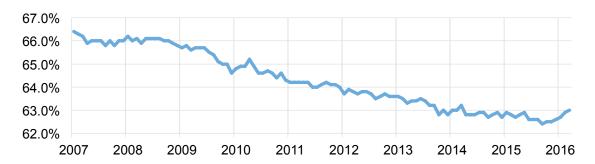
Wage growth has been strong in the Portland MSA as well, and according to the Oregon Employment Department the metro area's hourly wage of over \$19 is 14th highest among the 50 largest U.S. metro areas and 11 percent higher than the national average. As noted here the past few quarters, in the Portland MSA much of the growth in average wages has been driven by high-paying jobs, especially those in the software sector in Multnomah County.

Job growth in Oregon and Portland is expected to continue, driven by projected population growth and in-migration trends. However, the rate of growth is expected to moderate over the next two years. The Oregon Office of Economic Analysis expects job growth of 2.7 percent in 2016 and 2.6 percent in 2017, representing a slight downward revision from their prior forecast. This would translate to nearly 50,000 new jobs per year in the state over the next two years.

22

Although still near historically low levels, the labor force participation rate has improved nationally and in Oregon. Analysts note that these gains likely reflect a short-term cyclical rebound in the economy but that demographic pressures, especially of an aging population, will continue to weight on this measure in the longer-term.

Figure 6: Labor Force Participation Rate, United States, 2007-2016 Q1



Source: Bureau of Labor Statistics

INFLATION

The United States Consumer Price Index (CPI-U) increased 0.1 percent in March on a seasonally-adjusted basis and for the year saw a gain of 0.9 percent on a nonadjusted basis. Rising energy prices, after 3 months of declines, offset declines in food prices in March. However, the energy index is still down nearly 13 percent over the past year, and volatility is projected to continue as uncertainty remains in the oil market. The Wall Street Journal's Economic Forecasting Survey projects that the unadjusted 12-month CPI will increase by 1.1 percent in June and 1.8 percent in December.

INTEREST RATES

After raising the overnight rate for the first time in 7 years in December, the Federal Reserve stood pat in the first quarter, keeping rates at 0.36 percent. However, many analysts believe the Fed officials have signaled that they are likely to raise rates once or twice this year, potentially at their next meeting in June. The Wall Street Journal's Economic Forecasting Survey projects that the rate will increase to 0.56 percent by June and to 0.84 percent by the end of 2016 (both are downward revisions since last quarter).

The 10-year Treasury and the 30-year mortgage rate both declined in the first quarter and are slightly below their March 2015 levels.

8.00% 7.00% 6.00% 30 Year 5.00% Mortgage 4.00% 3.00% 2.00% 10 Year 1.00% Treasury 0.00% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2015 2016

Figure 7: Treasury and Mortgage Rates, United States, 2005-2016 Q1

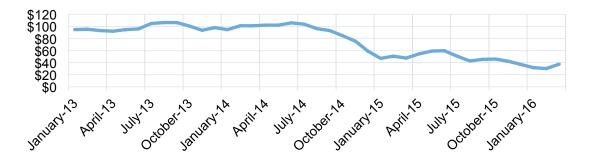
Source: Federal Reserve

CAPITAL MARKETS

There was significant volatility in capital markets in the first quarter. The first half of the quarter saw big declines in equity markets and U.S. bond prices over concerns about global economic conditions, but markets rebounded in the second half of the quarter to post small overall gains. Bonds turned in returns close to 3 percent for the quarter, better than those seen for large- and small-cap stock indices. However, the core issues that partly caused the swoon in the first half of the quarter have not gone away, and many analysts believe that the remainder of the year will see increased volatility in capital markets.

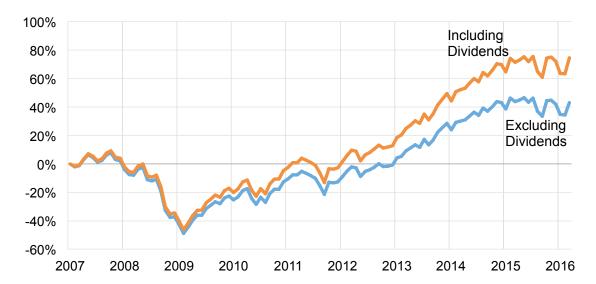
Part of the market's volatility is due to declines in the price of oil. The price per barrel dipped below \$30 in the first half of the quarter, but rebounded by the end of the quarter to remain virtually unchanged from the end of 2015. However, prices have been on a steady decline, impacting countries dependent on oil revenue, such as Russia and Venezuela. This group now includes the United States, whose shale industry has grown significantly over the past decade and whose many smaller players cannot sustain oil prices below \$50 per barrel.

Figure 8: Oil Price per Barrel (WTI Spot), 2013–2016 Q1



Source: US Energy Information Administration

Figure 9A: Standard & Poor's 500 Index, 2007-2016 Q1



Source: S&P Dow Jones Indices, McGraw Hill Financial

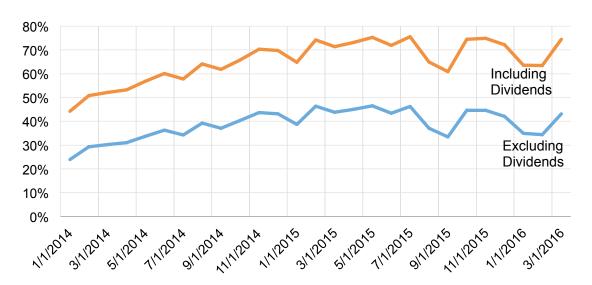


Figure 9B: Standard & Poor's 500 Index, Jan 2014-Mar 2016

LOOKING AHEAD

Oregon and Portland's economies continued to show strength in the first quarter, following a banner year in 2015, and the OEA forecasts strong growth to continue for the next two years. The state and metro area are grappling with issues such as housing affordability and minimum wage, which will impact local economies in upcoming quarters.

On a national and international level, uncertainty and volatility look set to continue, with even greater swings in financial markets predicted by many analysts. In addition to issues such as the interest rate, oil prices, and China's growth, 2016 will also see national elections in the United States, adding yet another level of uncertainty. \blacksquare

RESIDENTIAL MARKET ANALYSIS

ALEX JOYCE

RMLS Student Fellow Master of Real Estate Development Candidate

Single family trends saw a continuation of seasonal slowdowns in the first quarter of 2016. However, year-over-year trends, in most cases, continue to show a strong but moderating single family real estate market across Oregon and at the national level.

Portland experienced a substantial 19 percent increase in new home permits which bucked the statewide slowdown in permits this quarter. Most cities experienced a small uptick in median home prices, with Portland leading slightly among the cities analyzed this quarter. Year over year growth in home prices and reductions in average days on market continued to be trend strong but have moderated compared to the last 3 or 4 quarters for most markets.

The National Association of Realtors (NAR) reports similar trends at the national level. While home prices continue to rise in many markets, the appreciation has moderated. Perhaps the red hot single family housing market is cooling ever so slightly. The next two quarters, which represent the peak home buying and selling markets, will provide a better indication.

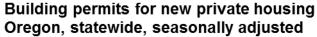
The <u>March Existing Home Sale Report</u> from NAR shows existing home sales continuing to rise in all four regional US markets in March and up 1.5 percent from

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March of last year. The national existing median single family home price is \$224,300. A quarter of all sales of existing homes are cash, which is an increase of 24 percent from a year ago. Thirty percent of existing home sales are first-time home buyers, which has remained unchanged for all of 2015.

LOCAL PERMITTING

In the first quarter of 2016, 5,152 building permits for new private housing units were issued in total across Oregon. This is 3.5 percent more permits than were issued in the prior quarter and 51 percent more than were issued in the first quarter of 2015.

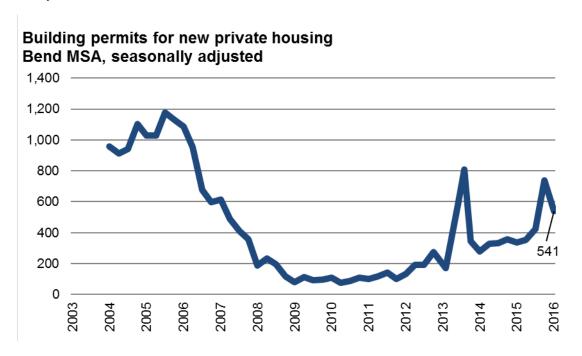




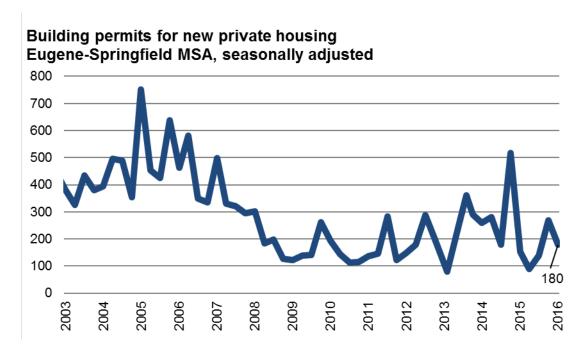
3,905 permits for new private housing units were issued in the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) in the first quarter. This represents an 19.8 percent increase in permits compared to the first quarter of 2015, and a 49.7 percent increase in year-over-year permitting. The increase in statewide permits are due to the increase in Portland permits. The rest of the state saw fewer permits compared to last quarter.



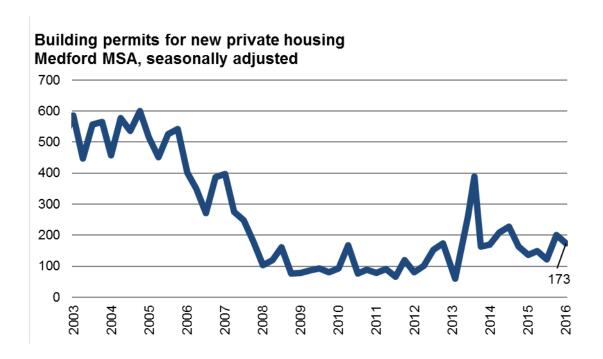
The Bend MSA saw a 27 percent drop in permits compared to last quarter, falling from 740 to 541 this quarter. Year-over-year increases moderated compare to last quarter but were still substantial at 61 percent higher than the same quarter last year.



The Eugene-Springfield MSA's first quarter results reversed the last two quarters of substantial growth dropping 33 percent compared to last quarter. Permitting for new private housing units totaled 180, which while a decline from last quarter still represents a 17 percent increase over the same period a year ago.



New permits in Medford MSA moderated this quarter compared to the relatively high number last quarter, falling 13.5 percent. Similar to other markets, even the moderate permit figure this quarter is higher than the same quarter last year, increasing 26 percent.



LOCAL TRANSACTIONS

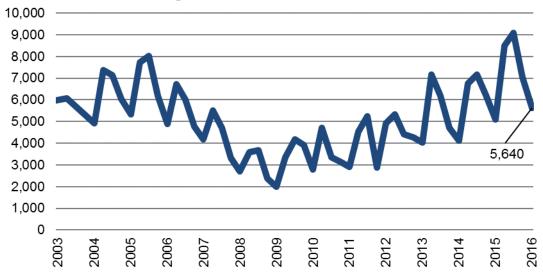
PORTLAND

Similar to last quarter, the seasonal slowdown in home sales is still evident this quarter. Compared to last quarter, 20 percent fewer homes were sold in Portland. Also similar to last quarter, the trend of 20+ percent increases in year-over-year increases in home sales have moderated to just under 11 percent.

Prices ticked up a modest 3.3 percent compared to last quarter, reversing the flat and even slight negative trend over the past two quarters. Compared to the same quarter last year home prices have increased just shy of 14 percent. Final sales prices were at 100.27 percent of asking this quarter, reversing the 99.36 percent figure from last quarter. Average days on market edged up only slightly to 41, compared to 39 last quarter.

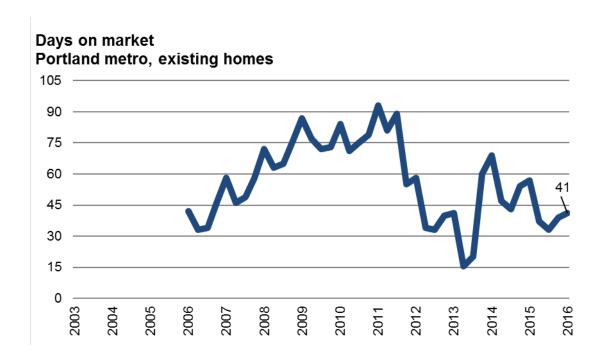
In the market for newly built detached single-family units, sales volume fell 7.26 percent compared to the 14 percent uptick last quarter. Similar to sales for existing homes, new home sales increased 11 percent compared to the same quarter last year. Prices for new homes edged up only 2 percent compared to the sustained growth of about 9 percent in the previous three quarters.

Number of transactions Portland metro, existing homes

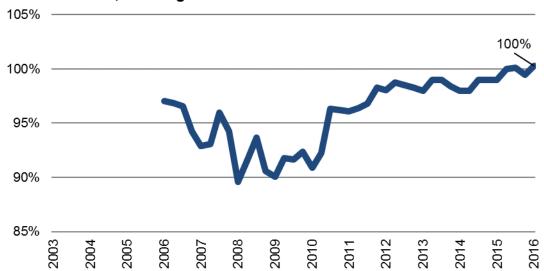


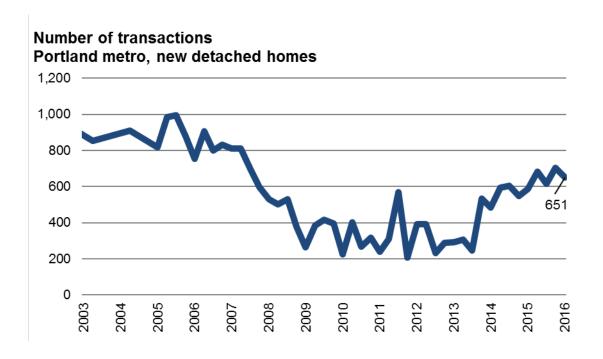
Median sales price Portland metro, existing homes





Ratio of sales price to list price Portland metro, existing homes







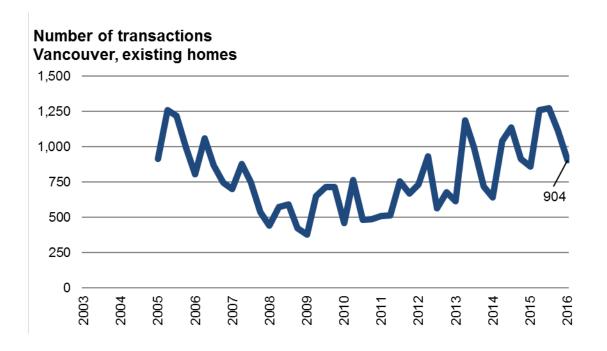
VANCOUVER AND CLARK COUNTY

The trend in Vancouver and Clark County is similar to Portland with continued seasonal slowing in sales and a moderated year over year sales volume. Clark County recorded 605 transactions, which represents a 23 percent decline from the previous quarter. Vancouver recorded 904 transactions, which represents a 18.7 percent decline.

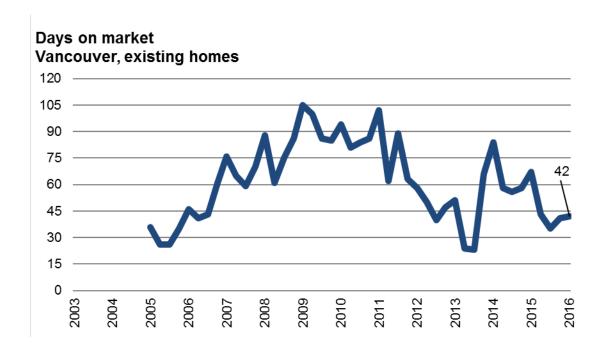
Compared to the same quarter last year, both Clark Count and Vancouver experienced increased sales but notably moderated compared to recent quarters. Clark County saw an 8 percent increase in sales this quarter compared to the first quarter of 2015. Vancouver experienced only a 5 percent increase, down from over 21 percent last quarter.

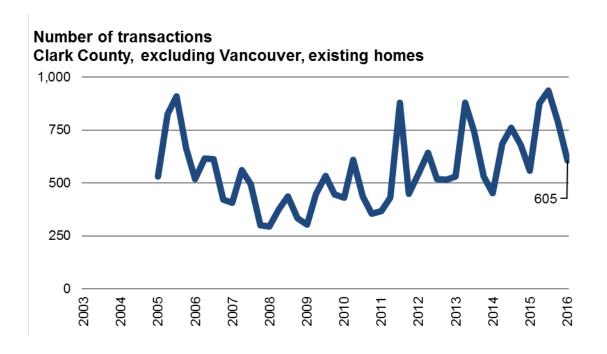
Again, similar to the Portland market, median sale price in Clark County increased slightly by 1.6 percent in the first quarter compared to last quarter. Vancouver also saw a slight increase of 2 percent to \$249,900. Both Clark County and Vancouver continued a trend of steady, year over year median home price increases near 10 percent. Clark County median prices were up 10.4 percent, while Vancouver increased 11 percent.

Average days on market have experienced a sustained and substantial downward trend, year-over-year, for both Clark County and Vancouver. While the average days on market in Clark County climbed 13 days or nearly 23 percent compared to last quarter to 57 days, that represents a 16.7 percent decline in average days on market compared to the first quarter in 2015 when the average was 84 days. Vancouver's days on market edged up only slightly by 2.4 percent, which represented a continuation of rapidly falling, year over year average days on market. Days on market are down 37 percent compared to the same quarter last year.

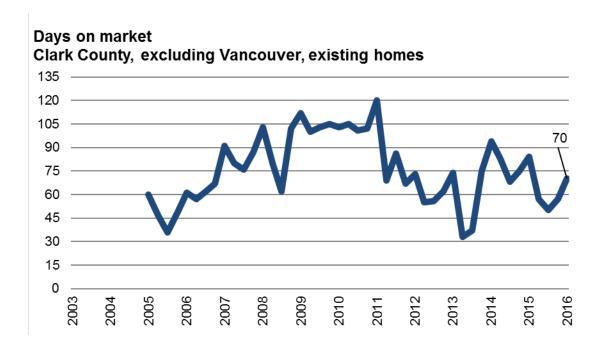








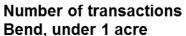


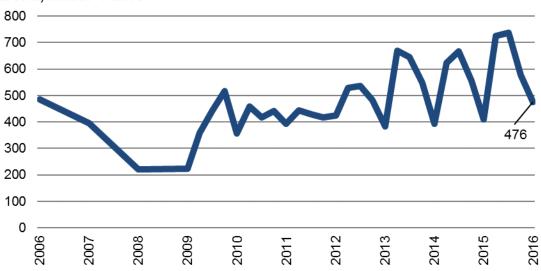


CENTRAL OREGON

Sales volumes continued their seasonal slowdown in Bend, declining 17.6 percent compared to last quarter. This still represents a 15.8 percent increase compared to the first quarter last year, however. Prices ticked up 1.7 percent to \$333,170 compared to last quarter, which was flat. Year over year price increases have moderated compared to recent quarters, increasing only 5.7 percent compared to the consistent double digit year over year increases seen during the last four quarters.

Average days on market jumped 12 percent from 114 last quarter to 128 this quarter, an increase of 14 days. This reverses a consistent decline in days on market since the same quarter last year. Even with the uptick, days on market are still 8 percent fewer than the first quarter of 2015.

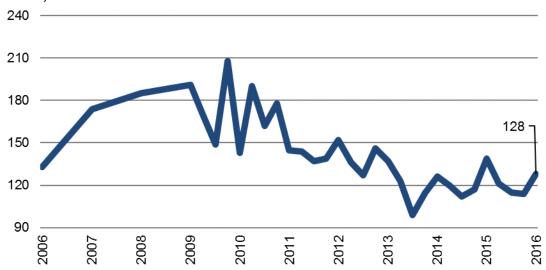




Median sales price Bend, under 1 acre



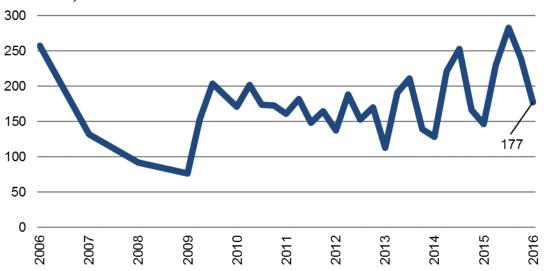
Days on market Bend, under 1 acre



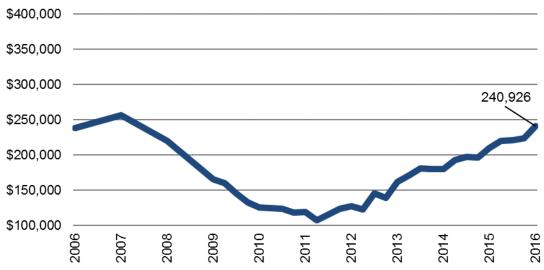
Redmond again tracked with Bend but showed a steeper seasonal decline in sales volume with sales falling over 26 percent compared to last quarter. Even with this sharp quarterly decline, sales volume is still up 21 percent compared to a year ago.

Prices saw a sizeable increase of nearly 8 percent compared to last quarter. That represents an increase in the median sale price of \$17,660 bringing prices to \$240,926 compared to \$223,266 last quarter. Average days on market declined 2.7 percent to 106 days compared to 109 days last quarter. This continues a trend of double digit declines in year over year average days on market.

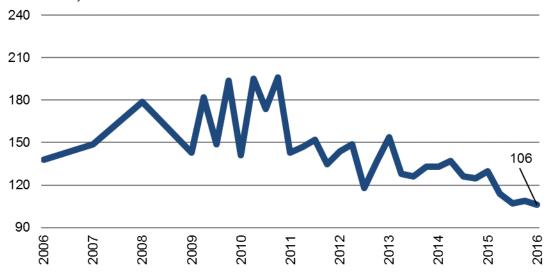
Number of transactions Redmond, under 1 acre



Median sales price Redmond, under 1 acre



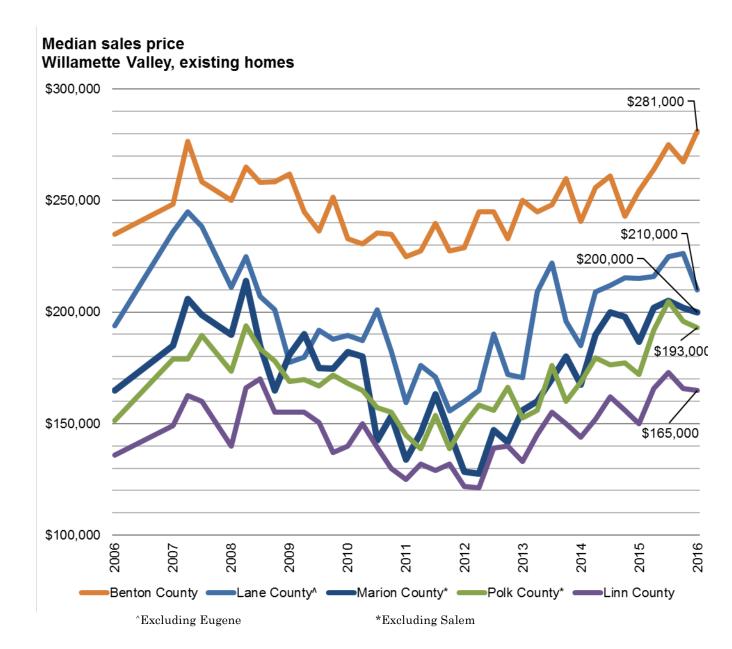
Days on market Redmond, under 1 acre



WILLAMETTE VALLEY

The reversal in median sale price growth seen last quarter continued this quarter in counties across the Willamette Valley except for Benton County which experienced a 5 percent increase. The seasonal slowdowns continue to be evident. A longer term look shows continued increases compared to the same quarter last year, except for Lane County.

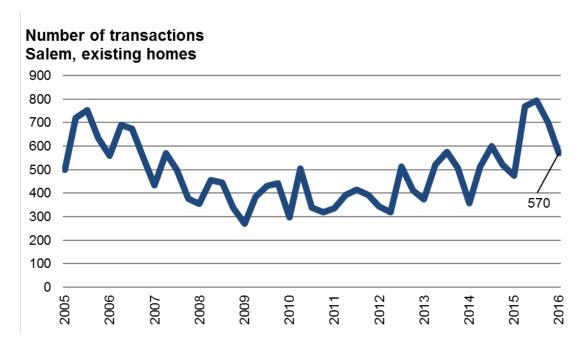
- Benton County: \$281,000 median price, a 5 percent increase from the prior quarter and a 10 percent increase year-over-year, which is the same year over year increase as last quarter
- Lane County (excluding Eugene): \$210,000 median price, a 7.2 percent decline from the prior quarter and a 2.3 percent decline year-over-year
- Marion County (excluding Salem): \$200,000 median price, a 1 percent decline from the prior quarter and a 7 percent increase year-over-year
- Polk County (excluding Salem): \$193,000 median price, a 1.5 percent decline from the prior quarter and a 12 percent increase year-over-year
- Linn County: \$165,000 median price, a 0.4 percent decline from the prior quarter and a 10 percent increase year-over-year

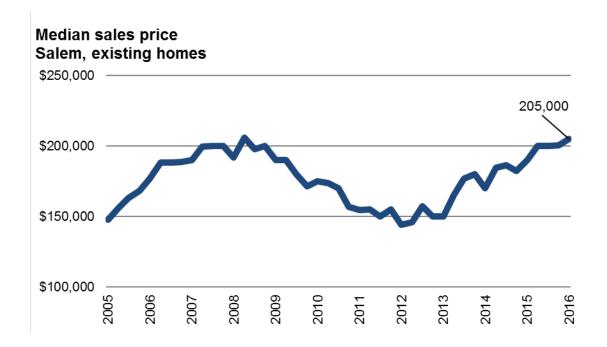


SALEM

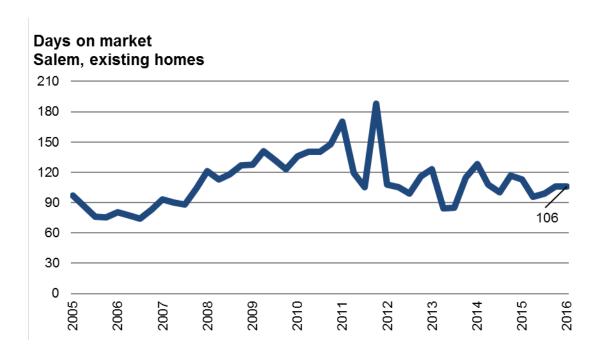
Transaction volume in Salem experienced a continued seasonal decline in the first quarter compared to last quarter. 570 sales were recorded this quarter, which represents a 18.8 percent decline compared to the 702 sales recorded last quarter. However, Salem continued a strong year-over-year trend of increased sales volume. Compared to the 474 sales in the first quarter last year, Salem saw an increase of 20 percent.

Median sales prices ticked up 2.4 percent to \$205,000 this quarter compared to \$200.250 last quarter. Compared to the first quarter of 2015 when the median sales price was \$189,950, prices this quarter have increased nearly 8 percent. Average days on market remained flat at 107 days. However, compared to the first quarter of 2015, average days on market declined 6 percent, continuing a trend seen for the past year.





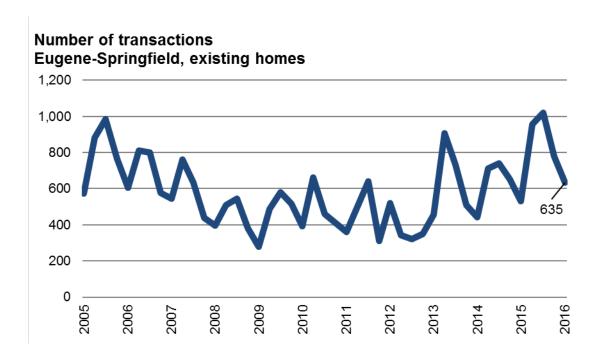
JOYCE



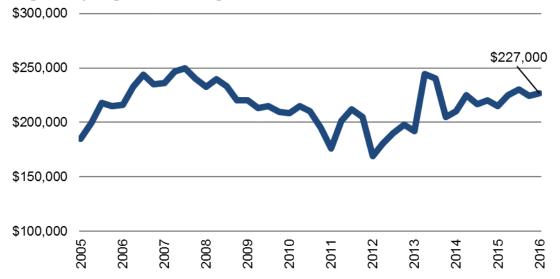
EUGENE-SPRINGFIELD

Eugene-Springfield also experienced a seasonal slowdown in sales volume in the first quarter. Eugene-Springfield sales volume declined 18 percent compared to last quarter from 779 to 635. However, also like many of the markets analyzed, Eugene-Springfield continued to experience strong longer term sales volumes. Compared to the same quarter last year, sales volume is up nearly 20 percent, which is the same increase as last quarter.

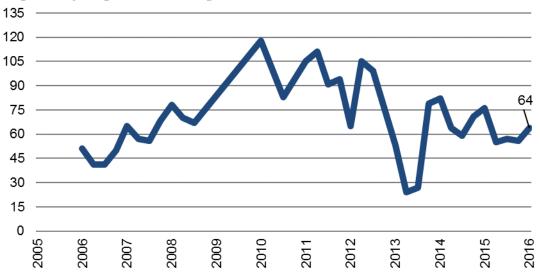
Median home prices ticked up slightly compared to last quarter, rising from \$224,550 to \$227,000, which represents a 1 percent increase. Year-over-year change also rose, up over 5 percent compared to the same quarter last year. Days on market rose by eight days or 14 percent from 56 to 64 days compared to last quarter. Even with this increase in days on market, 64 days is still over 15 percent fewer than the same quarter last year.



Median sales price Eugene-Springfield, existing homes

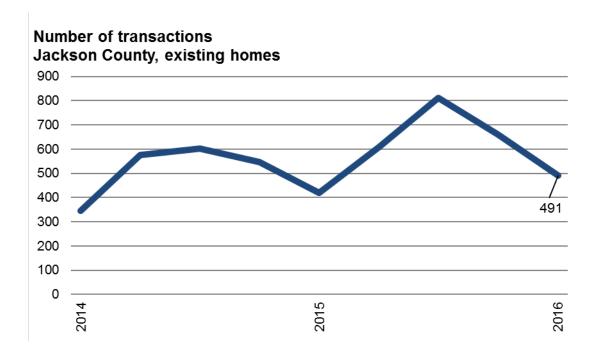


Days on market Eugene-Springfield, existing homes

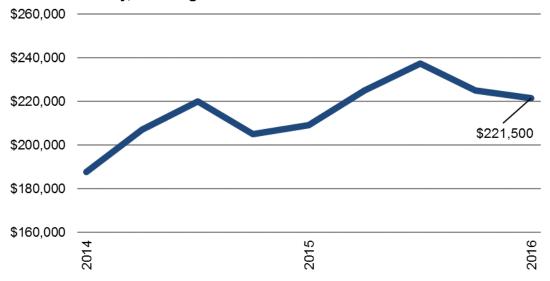


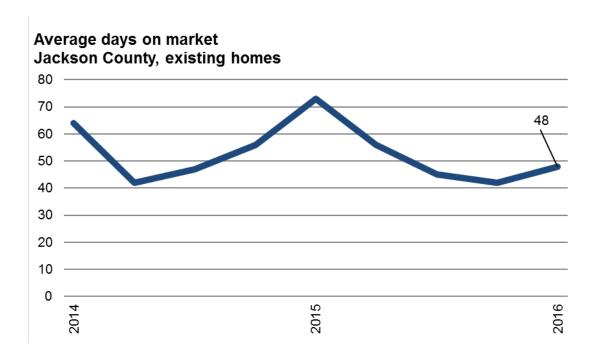
SOUTHERN OREGON

Data for southern Oregon is provided in rolling three-month groupings, and the most recent dataset available for this region covers the December 1, 2015 – February 29, 2016 time period. The following figures display the data for Jackson County.

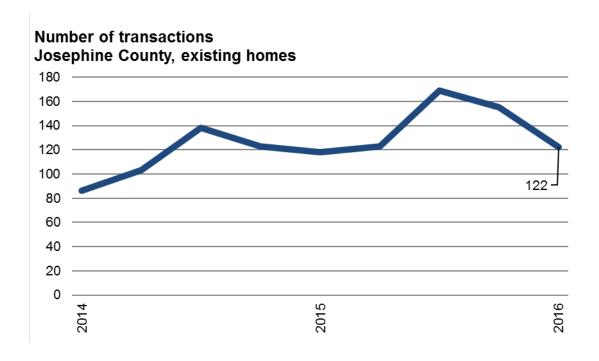


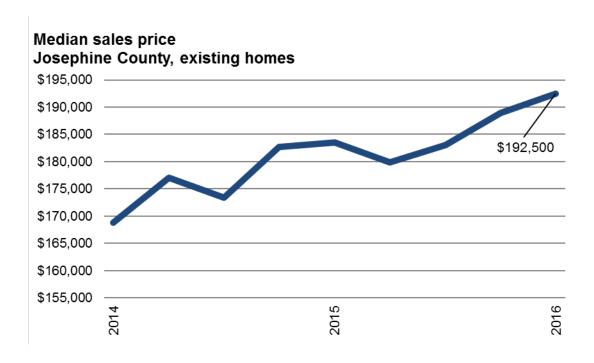
Median sales price Jackson County, existing homes



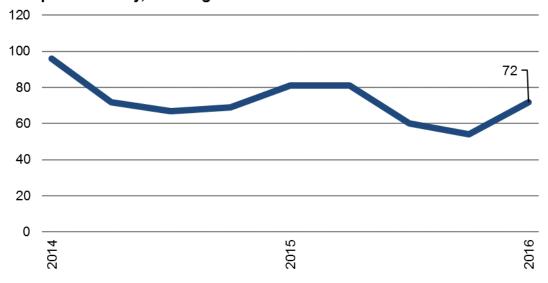


The following figures display the data for Josephine County.





Average days on market Josephine County, existing homes



MULTIFAMILY MARKET ANALYSIS

MARC STRABIC

Multifamily Student Fellow Master of Real Estate Development Candidate

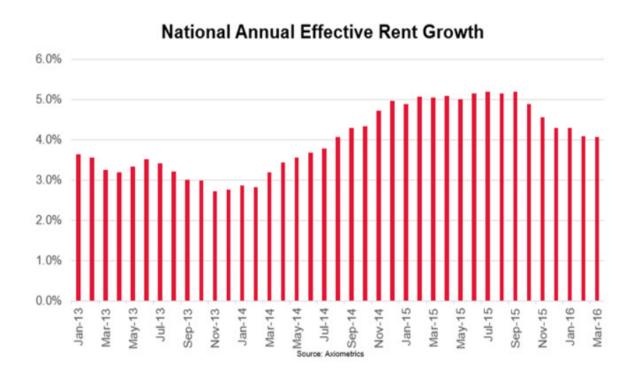
On a national basis, 2015 will be remembered as a record year in multi-family for investment sales, new construction, absorption and occupancy growth. Yet the fourth quarter of 2015 started to show signs of slowing rent growth. 2016 has started out like 2015 ended, with continuing moderation in rent growth through the first quarter of the year. According to Axiometrics, the national annual effective rate of rent growth for first quarter of 2016 was 4.1 percent, an 89 basis-point decrease from February 2015. It also represents a 52 basis-point drop from fourth quarter of 2015. First quarter's rate, regardless of its dip from the previous year, remains well above the 20-year long-term average (2.0 percent) and it makes the 19th straight month of 4.0 percent growth or higher. The national average for rents increased to \$1248, a 3.9 percent year-over-year increase from 2015. Stabilization in rent growth nationally is likely attributed to two years of record supply now impacting demand in most major markets in the U.S.

■ Marc Strabic is a current Master of Real Estate Development candidate through a joint program of Portland State University's School of Business Administration and School of Urban Studies and Planning, as well as a commercial broker with HSM Pacific Realty. He is the 2016 Multi-Family Student Fellow at PSU's Center for Real Estate. Any errors or omissions are the author's responsibility. Any opinions expressed are those of the author solely and do not represent the opinions of any other person or entity.

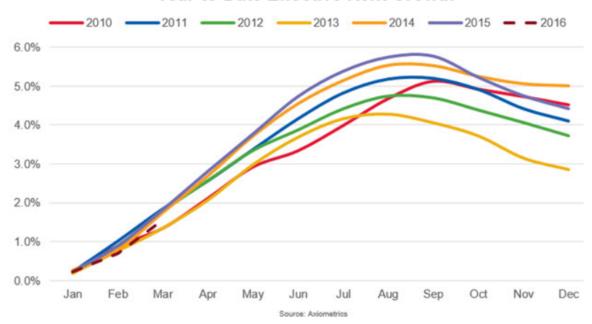
In Portland, 2015 ended the year with historic sales volumes in multifamily and Portland sitting atop Axiometrics' Top 50 U.S. Markets for annual effective rent growth for fourth quarter of 2015 (12.0 percent). We predicted some softening in rent growth for first quarter of 2016 and the data has shown this to be accurate, as Portland loses its top position nationally and posts an annual effective rent growth rate of 10.1 percent for the first quarter—although still a very impressive tally historically speaking. While rents continue to uptick, the sharp increase in new supply is expected to start increasing the vacancy rate for the MSA and we expect further softening in rents as a result. This stated, we do not anticipate major changes to the region's rental market for the remainder of the year.

THE NATIONAL PICTURE IN MULTIFAMILY

Nationally, effective rent growth seems to be decreasing in many U.S. markets, but occupancy rates continue to rise. As with the previous quarter, rent growth and occupancy rates remain well above their historic national averages. Axiometrics notes that rent growth has been above 4.7 percent for five continuous quarters through 2015, a first in the 20 year period the national data service provider has been researching rent growth trends. The first quarter of 2016 ends this streak, with a quarterly annual effective rent growth rate of 4.1 percent. quarter over quarter effective rent growth is down 65 basis points.



Year-to-Date Effective Rent Growth

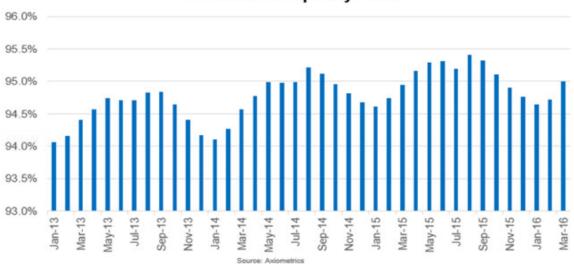


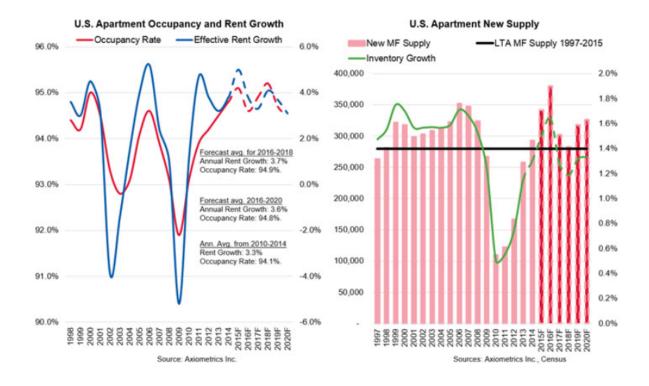
Regarding national economic trends, the overall the numbers remain optimistic: U.S. Bureau of Labor Statistics, seasonally adjusted unemployment ended 2015 at 5.0 percent; it remains at 5.0 percent through March of 2016 and it represents the best ongoing trend in unemployment figures since first quarter of 2008. The U.S. economy added 242,000 jobs in February and averaged about 222,000 jobs per month for the proceeding 12 month cycle. In the past 12 months, unemployment has decreased by 831,000; long-term unemployment has decreased by 233,000. Additionally, the Bureau upwardly revised their job-gain figures for December (2015) and January (2016). These numbers will help ease concerns of a pending recession, or at least give pause to any concerns of a 2008-2009 repeat.

Occupancy rates provide an effective way to evaluate the overall health of the market, and while we are seeing an uptick in occupancy rates, a large amount of new units are being added nationally and we should see some slight softening in occupancy and a continuation in the moderating of effective annual rent growth in the near-term, According to Axiometrics, the national average in occupancy rates for first quarter of 2016 is 94.8 percent. The year-end totals for the past 5 years are as follows:

Yr. 2010	Yr.	Yr.	Yr.	Yr.	Yr.
	2011	2012	2013	2014	2015
93.16 percent	93.55	94.14	94.18	94.67	94.75

National Occupancy Rate





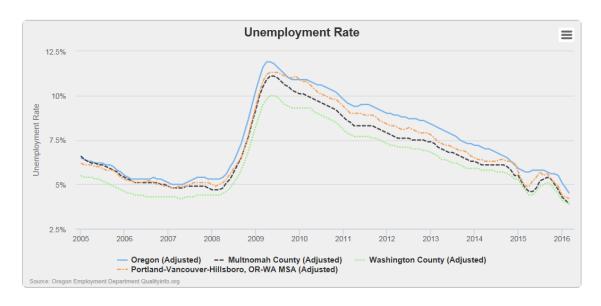
In summary, national apartment rent growth has been at or above 4.0 percent for seven continuous quarters, a record for the past 20 years of compiling this data. As stated in our snapshot, the national average for rents increased \$49 to \$1,248, a 3.9 percent year-over-year increase from 2014. The takeaway for 2016 is: expect softening in apartment fundamentals nationally, but do not mistake the downturn in growth rates to indicate a weakening market overall, or the harbinger of a major shift in national trends in apartments. For the immediate future, upticks in vacancies and softening rents are reflected more in increased supply, not a lack of demand.

PORTLAND APARTMENT MARKET OVERVIEW

In the first quarter of 2016, the multifamily market in the Portland-Vancouver-Hillsboro Metropolitan Statistical Area (MSA) is showing that new construction is starting to meet demand, a welcome sign for many renters in the market. Multifamily NW is reporting a 3.52 percent vacancy factor for the MSA, an increase of 65 basis-points from their Fall report.

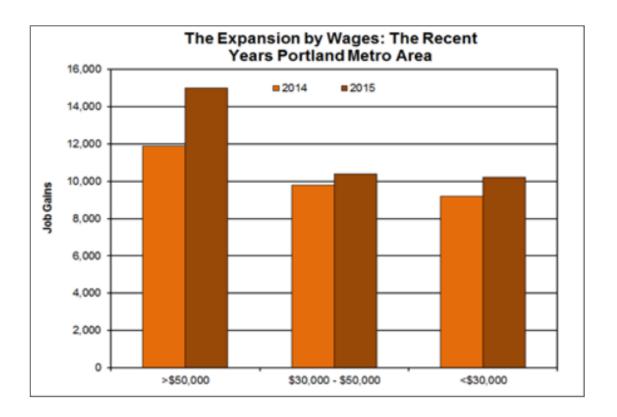
Axiometrics measured the Portland-Vancouver-Hillsboro MSA's annual effective rent growth for March 2016 at 10.1 percent, a drop from 11.3 percent from December 2015. This ends Portland's run as the national leader in annualized rent growth amongst the 50 metros studied by the research firm. Portland is now ranked second behind Sacramento, CA. Axiometrics also shows a year over year increase in the market's vacancy factor (4.3 percent March 2016 versus 3.7 percent March 2015). Revenue growth is also slowing (9.5 percent March 2016 versus 9.9 percent March 2015). As with national data, this change is relected in new supply, not weakening demand.

Oregon's economy continues to improve. Oregon's Employment Department shows a current unemployment rate of 4.5 percent; 4.2 percent for the Portland MSA.



The U.S. Bureau of Labor Statitics show a Portland MSA unemployment rate of 4.9 percent at the end of February 2016, which represents a year over year 80 basis-point drop (5.7 percent in February 2015). The local economy also posted a year-over-year increse of 3.2 percent, or over 35,000 jobs created (February 2015 to 2016). Through March of this year, Portland is now seen economic output increase each month (year-over-year basis) for 13 consecutive months, numbers not seen since the 1990's. Portland continues to add jobs in manufacturing, technology and athletic apparel design, but financial services and manufacturing are also now adding jobs at rates above their historic performance in the region.

The Portland Market has now made a complete recovery from the Great Recession in terms of jobs, with 100 percent replacement of all jobs lost during the downturn. Since 2014, the Portland MSA has added over 60,000 new jobs to the market, and maybe as important, these job gains are occuring across all income levels. Surprising to some, the Oregon Employment Department notes that the Portland MSA job growth is increasing across all wage scales, including higher wage jobs (those over \$50,000 per year).



TRANSACTIONS

Listed below is a table of significant mutifamily transactions, courtesy of Colliers International, that have occurred in the Portland MSA/first quarter of 2016:

PROJECT	CITY	SALE DATE	SALES PRICE	# UNITS	PRICE/UNIT	PRICE/SF	CAP RATE
Waterline	Portland	3/31/2016	\$94,000,000	243	\$386,831	\$269.23	4.20
Russellville Commons Apartments	Portland	2/26/2016	\$57,850,000	283	\$204,417	\$234.21	
Platform 14	Hillsboro	2/10/2016	\$45,000,000	178	\$254,237	\$229.83	
Park 19	Portland	3/18/2016	\$42,500,000	103	\$412,621	\$448.66	4.00
Meadows at Cascade Park	Vancouver	1/29/2016	\$35,250,000	198	\$178,030	\$176.80	5.60
Terra at Murryhill	Beaverton	3/11/2016	\$25,350,000	137	\$185,036	\$207.69	5.20
Lower Burnside Lofts	Portland	2/1/2016	\$18,500,000	63	\$293,651	\$360.01	4.30
The Park at Fox Pointe	Vancouver	1/8/2016	\$16,245,000	200	\$81,225	\$110.60	
City View	Portland	1/7/2016	\$13,250,000	87	\$152,299	\$254.81	
Village 185	Beaverton	3/14/2016	\$13,100,000	93	\$140,860	\$162.58	6.10

Measuring these sales, we show an average sales price of \$36,104,500 with an average unit price of \$228,920 and price/SF of \$245.44. The total value of these transactions exceeds \$360 million; the total number of units equals 1,585.

Sperry Van Ness/Bluestone & Hockley shows first quarter of 2016 totals of sales transactions (all product types sales over 450K) equating to \$546,316,705 in sales

volume, this represents a 26 percent increase year over year from March 2015. Their report shows an average price/SF of \$151.76 and an average cap rate of 5.73 percent.

Below is an useful breakout of sales by county, as well as a sales average summary dating back to 2001. This chart is being used curteousy of Norris & Stevens.

01/01/2015 - 12/31/2015 Sales Activity by County											
Median Values - Sales over 10 Units											
County Sales Avg # Units GRM Cap Rate Price/Unit Price/SF											
Clackamas	30	65	N/A	5.50%	\$116,947	\$136.27					
Clark	20	38	8.78	6.00%	\$75,926	\$85.29					
Lane	21	18	10.40	6.08%	\$85,396	\$87.96					
Marion	22	32	9.07	6.65%	\$61,180	\$69.13					
Multnomah	116	24	9.04	5.55%	\$101,996	\$133.72					
Washington	38	40	N/A	5.50%	\$106,667	\$119.76					

Information contained herein has been obtained from others and considered to be reliable: however, a prospective purchaser or lessee is expected to verify all information to his/her satisfaction.

Portland Metro Ave	Portland Metro Average Sale Price/Unit											Average				
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Increase
New Construction	\$77,574	\$65,826	\$66,899	\$76,286	\$82,792	\$90,339	\$116,677	\$252,936	\$155,355	\$233,022	\$181,240	\$121,369	\$154,150	\$197,253	\$195,910	13.4%
Construction > 10 years old	\$54,689	\$56,628	\$47,709	\$55,293	\$66,056	\$65,288	\$89,196	\$90,187	\$67,365	\$87,734	\$86,373	\$94,054	\$81,781	\$117,262	\$139,479	12.9%
5 to 10 Units	\$55,052	\$58,472	\$64,442	\$64,676	\$87,365	\$79,411	\$88,774	\$80,099	\$86,701	\$69,676	\$85,321	\$77,587	\$82,790	\$92,796	\$114,443	9.0%
4-Plex	\$66,097	\$74,039	\$80,772	\$84,431	\$100,131	\$107,808	\$113,813	\$105,013	\$85,589	\$86,593	\$85,425	\$89,875	\$105,934	\$107,995	\$124,521	6.8%
Single Family	\$201,000	\$210,700	\$222,500	\$246,000	\$282,900	\$322,500	\$342,900	\$332,000	\$289,800	\$282,600	\$263,300	\$275,000	\$310,800	\$333,000	\$354,500	5.2%
Information from RMLS, Co	Star															

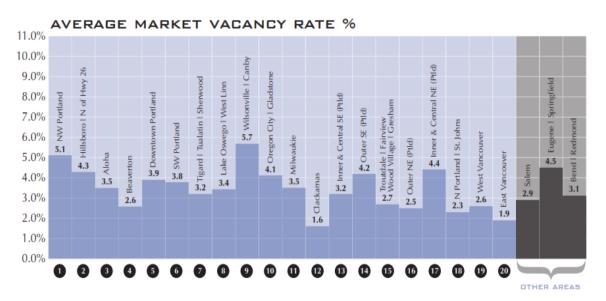
EFFECTIVE RENTS

Below are representations of average rents per square foot and average vacancy rates for the Portland MSA submarkets, as compiled by Multifamily NW in its most recently published survey.

Rent/SF by Submarket, first quarter of 2016:



Vacancy Rate by Submarket, first quarter of 216:



PERMITS & CONSTRUCTION

The following information pertains to building permit issuances for the last quarter of 2015/year-end totals for projects with five or more private housing units only, as tracked by the U.S. Census Bureau.

Year-end totals show the Portland-Vancouver MSA issued 220 building permits for structures of five units or more, equaling to 6,391 units. Total housing unit figures (all structures) show 13,829 units permitted in 2015.

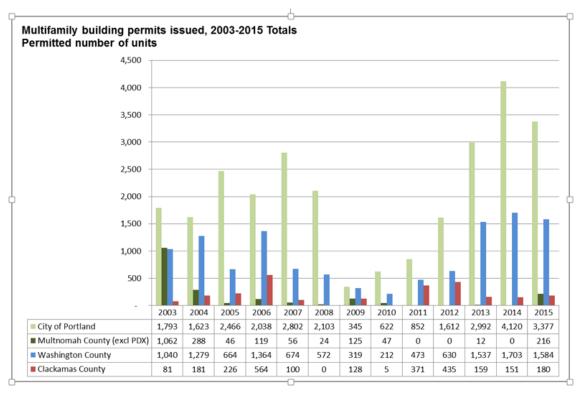
Fourth-quarter and year-to-date permit totals (including Clark Co.) for the five areas surveyed are:

Area	4Q Total Permits	4Q Total # ofUnits
City of Portland	20	1,234
Multnomah County	1	44
Clackamas County	4	60
Washington County	14	350
Clark County, WA	10	225

Area	YTD Permits	YTD # ofUnits
City of Portland	72	3,377
Multnomah County	3	216
Clackamas County	15	180
Washington County	50	1584
Clark County, WA	57	1,003

Note: The USA Census data for the Portland MSA permit totals for first quarter of 2016 was not complete as of the date of this report.

Year-to-date permit totals (excluding Clark Co.) for the four areas surveyed are:



Source: U.S. Census Bureau

NEW CONSTRUCTION

The following totals and samples are courtesy of the Spring 2016 Barry Apartment Construction Report.

Total Units Proposed and Under Construction

Area	Proposed	Under Construction	Total
North Portland	1,878	462	2,340
Close in East Portland	4,850	2,154	7,004
Close in West Portland	5,225	3,542	8,767
Suburban West	3,750	1,364	5,114
Suburban East	1,325	242	1,567
Suburban South	1,067	899	1,966
Clark County	3,488	498	3,986
Total	21,583	9,161	30,744

Total Projects Proposed and Under Construction

Area	Proposed	Under Construction	Total
North Portland	49	12	61
Close in East Portland	81	36	117
Close in West Portland	58	26	84
Suburban West	20	7	27
Suburban East	26	9	35
Suburban South	9	6	15
Clark County	33	9	42
Total	276	105	381

Sampling of New Construction Underway

Name	Address	City	Units	Complete	Notes
	***************************************	City			
Peloton Apartments	4134 N Vancouver Ave.	Portland	265	2016	6-store mixed use.
Cook St. Lofts	3270 N Vancouver Ave.	Portland	104	2016	5-story mixed use.
New Overlook	3711 N Overlook	Portland	63	2016	6-story
Close-in Eastside					
Name	Address	City		Complete	
Modera Belmont	818 SE 6th	Portland	214	2017	6-story mixed use
419 E Burnside	55 NE Grand Ave	Portland	158	2017	6-story mixed use
Goat Blocks	SE 10th & Belmont	Portland	257	2016	Multi-site, mixed use with signifcant retail
D50 Lofts	4975 SE Division St.	Portland	134	2017	Mixed use development
Close-in Westside					
Name	Address	City	Units	Complete	Notes
PNCA Block	1333 NW 12th Ave.	Portland	285	2016	15&5 story buildings
Block 43	3850 SW Moody Ave	Portland	199	2016	6-story mixed use
Jefferson Apts.	1221 SW 11th Ave	Portland	196	2016	6-story development
John's Landing Apts.	4850 SW Macadam	Portland	189	2016	15-story development
Suburban Wests ide			•		
Name	Address	City	Units	Complete	Notes
Amberlen on the Park	20150 NW Amberglen Ct.	Portland	277	2017	Planned residential development
Sequoia Village	21575 W Baseline Rd.	Hills boro	242	2016	Multi-phased residential development
North Bethany Crest	NW Kaiser & NW Brugger	Portland	251	2016	Planned residential development
Sunset View	16251 SW Jenkins	Beaverton	236	2016	Planned residential development
Suburban Eastside		•	•	•	
Name	Address	City	Units	Complete	Notes
Station 162	306 SE 162nd	Gresham	44	2016	4-story project
Lents Apts.	5205 SE 86th Ave.	Portland	40	2016	Subsidized project
Suburban South		•	•		
Name	Address	City	Units	Complete	Notes
Clackamette Cove	South Agnes Rd	Oregon City	400	2017	Planned residential development
Wizer Block	330 1st Street	Lake Oswego	207	2017	4-story mixed use.
Clark County	000 101 011 011			20	
Name	Address	City	Units	Complete	Notes
West Ridge Lofts	192nd & 20th Street	Vancouver	110	2016	To include a hotel use.
13 West	1314 SW Columbia Street	Vancouver	92	2016	10 morado difeterado.

OFFICE MARKET ANALYSIS

ALEC LAWRENCE

Portland State University

The State of Oregon gained recognition as one of the strongest economies in the nation during 2015, with Bloomberg's Economic Evaluation of States declaring Oregon as the best-performing economy in the US over the year and with JLL reporting total 2015 job growth at 3.3 percent for the Portland region. This compares to just 1.8 percent for the US as a whole. While the fallout of Intel's job cuts is still unknown, 2016 looks poised to continue recent trends, with the economy showing strong signs of continued expansion. Oregon's Office of Economic Analysis (OEA) reported a 4.4 percent seasonally adjusted unemployment rate for the Portland Metro economy in January 2016—a 15-year low and decreasing from 5.7 percent a year ago.

The first quarter brokerage reports focused on strong economic fundamentals underpinning continued strength in the office market.

- **JLL** points to Portland and Oregon's historic levels of economic growth, with its headline labeling Portland as "Boomtown, USA." JLL data show 4 million square feet of tenants in the market—11 percent higher than any previous month on record—with 32 percent of this demand from high tech/information services tenants and 12 percent from professional and business services tenants. 66 percent of this demand is for close-in urban areas—continuing the focus on urban office expansion seen so far during this cycle.
- Alec Lawrence is a Master of Real Estate Development candidate and has been awarded the Center for Real Estate Fellowship. Any errors or omissions are the author's responsibility. Any opinions are those of the author solely and do not represent the opinions of any other person or entity.

- Colliers emphasized Portland's strong economic fundamentals, highlighting the 50 percent job growth for professional, technical, and business services office-users since 2011—four times the rate of growth for semiconductor manufacturing officer users. However, Colliers suggests that some tenants may have begun to abandon the CBD for the affordability and flexibility of the suburbs, with its data showing Class B and C vacancies increasing in the CBD during the quarter.
- CBRE looks to Portland's 2.2 million square feet of ground up and fully renovated office space in the development pipeline scheduled to deliver over the next 24-months. Finding 50 active tenants looking for 1.94 million square feet of office space, CBRE suggests that Portland's appetite for additional office space will support strong office market fundamentals through 2016. Leading the way, and marking Portland's first new high-rise in six years, Park Avenue West delivered during the first quarter and was 80 percent preleased. Downtown Class A rental rates continue to shine, gaining 11.4 percent year-over-year, compared to 3.9 percent growth for suburban markets.

VACANCY

Table 1: Total Vacancy Rates by Brokerage and Class, First Quarter 2016

Brokerage	Total	CBD	CBD Class A	CBD Class B	CBD Class C	Suburban
CBRE	10.6%	8.7%	9.5%	8.5%	7.8%	12.3%
Colliers	8.6%	9.4%	9.0%	10.3%	8.3%	8.3%
\mathbf{JLL}	8.3%	6.9%	7.1%	6.9%	6.3%	9.7%

Source: Brokerage Quarterly Reports

CBRE's data show vacancy holding below pre-recession levels, with total rate of 10.6 percent for the Portland metro region. Downtown vacancy increased slightly to 8.7 percent from 8.5 percent, while the Lloyd district continued to shine with a 3.6 percent vacancy rate. The Suburban market vacancy rate continued its impressive downward movement, ending at 12.3 percent for the first quarter. JLL reported total vacancy at 8.3—according to JLL, this is the lowest value on record since before 2000 and one of the lowest rates in the country. JLL predicts demand will far outpace supply in 2016, with strong pent up demand waiting for projects to deliver during the second and third quarters.

Table 2: Portland Vacancy Rate by Market area and Submarket, First Quarter 2016

Location	Q1	Change from Q4
Portland CBD	6.6%	-0.1%
Lloyd District	3.8%	-0.7%
Portland Central City	6.3%	-0.1%
Clackamas / Milwaukie Totals	9.5%	-0.7%
Airport Way/Columbia Corridor	6.8%	-0.6%
Close In Eastside	4.2%	-0.1%
Outer Eastside	12.2%	-2.1%
Portland Eastside Suburbs	7.2%	-0.5%
217 Corridor / Beaverton	13.9%	0.3%
I-5 South Corridor	13.4%	1.2%
Kruse Way	7.6%	-0.5%
Northwest	3.7%	-10.8%
Sunset Corridor	7.8%	0.2%
SW Close In	6.8%	-1.9%
Portland Westside	9.8%	-0.8%
Cascade Park/Camas	6.3%	-1.6%
CBD/West Vancouver	9.8%	-1.2%
Hazel Dell / Salmon Creek	6.0%	-2.0%
Orchards/Outer Clark	11.7%	-0.5%
St. John's Central Vancouver	24.8%	-0.3%
Vancouver Mall	5.7%	0.4%
Vancouver Suburbs	9.3%	-1.1%
Portland Metro	7.9%	-0.6%

Source: JLL

RENTAL RATES

CBRE data show overall average FSG asking rates hitting new highs during each of the last quarters, with average rates across the Portland metro increasing 8 percent on a year-over-year basis, by 11.4 percent in the Downtown submarket, and by 3.9 percent in the Suburban submarkets over the same period. JLL notes that rents for new construction Class A product hit an all-time high with asking rents from \$37.50 to \$41.50 full service gross. Class B rents, though, increased at the quickest rate, increasing by 14.2 percent year-over-year to \$23.67.

Table 3: Average Quoted Rates (\$/SF FSG) by Brokerage and Class, First Quarter 2016

Brokerage	Average	CBD	Suburban	CBD Class A	CBD Class B	CBD Class C
CBRE	\$25.07	\$28.78	\$21.78	\$31.28	\$26.92	\$25.76
Colliers	\$23.89	\$28.41		\$31.31	\$27.64	\$22.02
JLL	\$25.12	\$30.28		\$31.14	\$30.53	\$26.91

Source: Brokerage Quarterly Reports

Table 4: Portland Average Direct Asking Rent (\$/p.s.f.) Ranked by Market Area and Submarket, First Quarter 2016

Location	Q1	Change from Q4
Portland CBD	\$30.28	\$0.42
Lloyd District	\$25.95	(\$0.30)
Portland Central City	\$29.96	\$0.36
Clackamas / Milwaukie Totals	\$21.35	\$0.02
Airport Way/Columbia Corridor	\$19.78	\$0.19
Close In Eastside	\$25.44	(\$0.15)
Outer Eastside	\$19.83	\$1.51
Portland Eastside Suburbs	\$21.59	\$0.61
217 Corridor / Beaverton	\$21.25	(\$0.17)
I-5 South Corridor	\$22.26	\$0.42
Kruse Way	\$28.94	\$0.13
Northwest	\$33.98	(\$1.19)
Sunset Corridor	\$20.60	\$0.04
SW Close In	\$19.29	\$0.86
Portland Westside	\$23.61	\$0.47
Cascade Park/Camas	\$19.77	\$0.12
CBD/West Vancouver	\$20.63	\$0.38
Hazel Dell / Salmon Creek	\$21.46	\$0.48
Orchards/Outer Clark	\$19.74	\$0.34
St. John's Central Vancouver	\$19.89	(\$0.01)
Vancouver Mall	\$18.26	\$0.57
Vancouver Suburbs	\$19.99	\$0.12
Portland Metro	\$25.12	\$0.53

Source: JLL

ABSORPTION AND LEASING

Portland continued to experience strong absorption during the first quarter. CBRE data show the Downtown submarket accounting for 85 percent of total absorption, largely as a result of the delivery of Park Avenue West. However, the suburban submarkets also continued to experience positive absorption growth, with absorption increasing on a year-over-year basis. JLL is tracking 4 million square feet of tenants in the market while CBRE is tracking 1.94 million square feet of tenants in the market. Expect high levels of absorption as deliveries pick up during the second and third quarters.

Table 5: Net Absorption (square feet) by Brokerage and Area, First Quarter 2016

Brokerage	Overall	CBD	Suburban
CBRE	248,470	198,439	36,409
Colliers	256,843	(36,554)	293,427
JLL	178,251	30,299	128,209

Source: Brokerage Quarterly Reports

Table 6: Notable Lease Transactions, First Quarter 2016

Tenant	Building/Address	Market	Square Feet
DAT Solutions	Creekside Corporate Park	217 Corridor/Beaverton	53,793
Simple	Killian, Phase II	SE Close In	50,000
Vacasa	RiverTec	CBD	37,441
Puppet Labs	Block 300	CBD	37,389
Qmedtrix	8909 SW Barbur Blvd.	SW Close In	35,945
Bank of America (Merrill Lynch)	Pacwest Center	CBD	35,197
Greatbatch LTD	Nimbus Corporate Center - Bldg 10	217 Corridor/Beaverton	34,987
CTS Language Link	Evergreen Place	Cascade Park/Camas	34,834
Zoom+	Pearl West	CBD	30,193
nLight Photonics	Panther Building	St. Johns Central Vancouver	30,000
Ruby Receptionist	The Lovejoy	CBD	27,621
EmpRes Healthcare	Parkway Plaza III	Vancouver Mall	25,648
Vectrus Systems	InfoMart Hillsboro	Sunset Corridor	24,178
Alliant Systems LLC	351 NW 12th	CBD	23,000
Act-On Software, Inc	Bank of America Financial Center	CBD	18,197
DexCom	Block 300	CBD	16,501
Centrl Office	Block 75	Lloyd District	15,268

 $Source: JLL; \ Colliers\ International$

SALES TRANSACTIONS

CBRE reported a total of \$175 million in sales activity during the first quarter with an average capitalization rate of 5.3 percent. JLL reported a total of \$177.7 million in sales during the quarter.

Table 7: Notable Sales Transactions, First Quarter 2016

Building Address	Submarket	Price	Price/SF	SF
RiverEast Center	Close In Eastside	\$33,500,000	\$335	99,860
Tanasbourne Commerce Center	Sunset Corridor	\$31,100,000	\$169	183,907
The Round	217 Corridor/Beaverton	\$29,325,000	\$201	146,028
Rock Creek Corporate Center	Sunset Corridor	\$23,000,000	\$161	142,661
Sunset Corporate Park	Sunset Corridor	\$22,000,000	\$108	203,244
Ballou & Wright Building	CBD	\$14,000,000	\$252	55,500
811 @ Waterfront	CBD	\$12,600,000	\$222	56,700
Merchant Hotel Building	CBD	\$12,188,000	\$134	90,810

Source: JLL; Colliers International

DELIVERIES AND CONSTRUCTION

Colliers expects 1.6 million square feet to deliver during the remainder of 2016. JLL also reports a total of 1.6 million square feet under construction, with 57 percent already preleased. Furthermore, JLL reports that a lease signed during the second quarter by Elemental Technologies, a video encoding company purchased by Amazon in 2015, for the top four floors of the 1320 Broadway Building, has pushed preleasing for 2016 deliveries to 73 percent. CBRE reports a total of over 2 million square feet in the pipeline. Of this, 1.3 million square feet is expected during 2016 and CBRE reports 69.2 percent of this space has been preleased. 854,497 square feet is expected during 2017. None of the deliveries slated for 2017 are reported to be preleased.

Killian Pacific completed its 48,000 square foot Hudson Building in Vancouver this quarter. While the delivery points to a possible renaissance underway in Downtown Vancouver, the three-story structure built with load bearing brick and exposed heavy timber also lays further precedence for renewed use of these historic building materials in the region.

Use of exposed heavy timber caters to demand for a creative office feel, provides potential stimulus to rural Oregon economies dependent on timber, and reportedly has net environmental benefits through its sequestration of carbon. Cross-laminated timber (CLT), a particular type of heavy timber, promises to allow for expanded use of heavy timber products, with the potential for timber high-rise construction. However, its use has thus far been limited as a result of supply and engineering obstacles. With Oregon's D.R. Johnson now manufacturing CLT panels, the federal government providing grant funding to early adopters, and support from the State of Oregon, costs should begin to decrease to a point where the material becomes more competitive.

Table 8: Portland Office Market Construction and Deliveries by Submarket, First Quarter 2016

Location	Deliveries	% of Total Deliveries	Under Construction	% of Total Construction
Portland CBD	34,749	54%	740,413	46%
Lloyd District			216,038	13%
Portland Central City	34,749	54%	956,451	59%
Clackamas / Milwaukie Totals				
Airport Way/Columbia Corridor				
Close In Eastside			277,059	17%
Outer Eastside				
Portland Eastside Suburbs			277,059	17%
217 Corridor / Beaverton				
I-5 South Corridor				
Kruse Way				
Northwest	29,933	46%	71,600	4%
Sunset Corridor				
SW Close In			96,681	6%
Portland Westside	29,933	46%	168,281	10%
Cascade Park/Camas			206,000	13%
CBD/West Vancouver				
Hazel Dell / Salmon Creek				
Orchards/Outer Clark				
St. John's Central Vancouver				
Vancouver Mall				
Vancouver Suburbs			206,000	13%
Portland Metro	64,682	100%	1,607,791	100%

Source: JLL

INDUSTRIAL MARKET ANALYSIS

ADAM SEIDMAN

Portland State University

The Portland metro's industrial market kept on rolling in the first quarter of 2016, with a continuation of trends seen throughout the past year: strong tenant demand and limited supply pushing rents to historic highs and vacancies to historic lows. After seeing deliveries of over 2.6 million square feet in 2015, 2016 opened up with deliveries of just 300,000 square feet, two-thirds of which was in one project. With around 65 percent of all new and planned product already pre-leased, the new supply in the pipeline is not likely to significantly cool off the trends in lease rates and occupancy levels. Demand continued across the size spectrum, and three new leases of over 100,000 square feet per lease were inked. All of these dynamics continued to attract institutional investors, who drove down capitalization rates to all-time lows, pushing sales prices even higher.

■ Adam Seidman is a Master of Real Estate Development candidate and has been awarded the Center for Real Estate Fellowship. Any errors or omissions are the author's responsibility. Any opinions expressed are those of the author solely and do not represent the opinions of any other person or entity.

VACANCY AND RENTS

Metropolitan Portland's industrial market continued to show strength in the first quarter, with strong demand and limited new supply driving occupancies and asking lease rates to new historic highs. A review of quarterly research reports from four leading commercial real estate firms revealed a metro-wide average vacancy rate of 4.43 percent in the fourth quarter, 26 basis points below the prior quarter and 91 basis points below the first quarter of 2015. This drop in vacancies comes despite a significant rise in deliveries in 2015 to a seven year high. Distribution/warehouse vacancy rates dropped 28 basis points versus the prior quarter and 88 basis points below the prior year, while flex space vacancy ticked up 10 basis points above the prior quarter but remained 140 basis points below the prior year.

Table 1: Portland Metro Industrial Quarterly Report Survey Q1 2016

				Kidder	Average -	Chg vs	Chg vs
	Colliers	JLL	CBRE	Mathews	Q1 2016	Prior Qtr	Prior Year
Vacancy							
 Distribution/Warehouse 	4.60%	3.60%	4.00%	4.50%	4.18%	-28 bps	-88 bps
- Flex	10.10%	9.10%	-	-	9.60%	10 bps	-140 bps
- Weighted Average	5.10%	4.11%	4.00%	4.50%	4.43%	-26 bps	-91 bps
Rents *							
 Distribution/Warehouse 	\$0.50	\$0.52	\$0.43	\$0.51	\$0.49	5.4%	7.1%
- Flex	\$0.95	\$0.96	\$1.05	-	\$0.99	-1.0%	8.0%
- Weighted Average	\$0.54	\$0.56	\$0.49	\$0.51	\$0.52	4.5%	7.3%

^{*} Asking rents; Industrial = shell space; Flex = shell and office space Sources: Quarterly Reports

In their April forecast presentation, Capacity Commercial and Colliers noted that the true market vacancy may be closer to 3 percent. They also reported that 60 percent to 65 percent of new and under construction product in the market is already leased, so new supply will not likely lead to higher vacancy rates. According to JLL, vacancies are being pushed so low in part due to the fact that "the growing demographics of Portland are catching the eyes of national and international companies. The need for same day/next day shipping and the favorable geographic location of Portland means that Portland is perfectly situated for companies wanting to distribute throughout the Pacific Northwest."

10% 9% 8% 7% 6% 5% 4% 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2015 2015 2015 2016 Q1 Q2 Q3 Q4 Q1

Figure 1: Portland Metro Distribution/Warehouse Vacancy Rate, 2007–2016 Q1

Sources: Average of Quarterly Reports from CBRE, JLL, Colliers, and Kidder Mathews

Strong demand also pushed up asking rental rates to record high levels in the first quarter. The quarterly report survey showed monthly distribution/warehouse asking rates of \$0.49/square foot and flex rates of \$0.99/square foot, for a combined weighted market average of \$0.52/square foot. Distribution/warehouse rates were up a strong 5.4 percent from the prior quarter and 7.1 percent year-over-year. Capacity Commercial noted that asking rates for closer distribution/warehouse spaces are up to \$0.50 to \$0.55/square foot, and that close-in southeast Portland spaces are at or above \$0.75/square foot. Record rates are being seen for spaces of all sizes, and Kidder Mathews reported that LINC's new lease at Gateway Corporate Center, at \$0.46 for the shell, represents a new high water mark for warehouse spaces over 100,000 square feet. Flex rates declined 1.0 percent from the prior quarter but are still up 8.0 percent year-over-year.

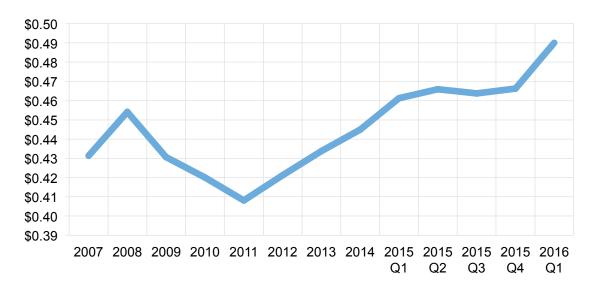


Figure 2: Portland Metro Distribution/Warehouse Asking Rents, 2007–2016 Q1

Sources: Average of Quarterly Reports from CBRE, JLL, Colliers, and Kidder Mathews

ABSORPTION AND DELIVERIES

Colliers reported positive net absorption of over 386,000 square feet in the first quarter and 2.8 million square feet for the last 4 quarters, not including Intel's new construction. The first quarter's net absorption was significantly down from the prior 2 quarters, driven by a lack of new deliveries. The quarter's deliveries totaled just over 300,000 square feet, dominated by the 210,000 square feet in Gateway Corporate Center's Buildings D and E.

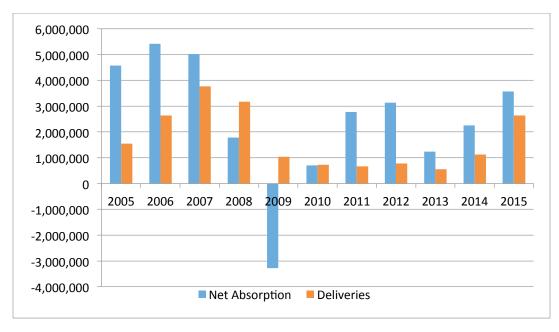
In their April forecast presentation, Capacity Commercial and Colliers estimated that only 505,000 square feet are available of the over 2.4 million square feet delivered over the past few quarters, reflecting a leased rate of over 80 percent. This available space is located in 3 projects: Specht's Interstate Crossroads, Holland's Cameron Distribution Center, and New York Life's Gateway Corporate Center. In addition, a significant amount of space was taken off the market when PDC and the City of Portland announced that they would purchase the Colwood Industrial Center site for the location of the USPS distribution facility. This took over 800,000 square feet off of planned space off the market, further exacerbating the tight rental market.

Table 2: Portland Metro Industrial Net Absorption Last 4 Quarters (Excluding Intel)

	Distribution/		
	Warehouse	Flex	Total
Q2 2015	-187,334	20,511	-166,823
Q3 2015	674,514	245,826	920,340
Q4 2015	1,564,058	78,577	1,642,635
Q1 2016	331,199	54,805	386,004
Total L4Q	2,382,437	399,719	2,782,156
AVG 2005-201	5		2,470,962
AVG 2005-200	7		5,003,616
Peak Annual	2006:		5,412,028
Trough Annual	2009:		-3,283,498

Source: Colliers International, does not include Intel absorption of 2.7 million s.f. of flex space

Figure 3: Portland Metro Industrial Net Absorption & Deliveries, 2005–2015 (Excluding Intel)



Sources: Colliers Quarterly Report and Colliers/Capacity Commercial Presentation

Colliers and JLL reported 3 lease transactions in the first quarter over 100,000. Capacity Commercial noted that lease sizes continue to get bigger, as more national and international companies look to Portland as a key distribution hub.

Table 3: Notable Portland Metro Industrial Lease Transactions Q1 2016

Tenant	Building	Submarket	Size (s.f.)	Туре
Bunzl Distribution	205 Logistics Center	Clackamas	190,600	New
OnTrac	Portside Industrial Park	West Vancouver	162,240	New
Logistics Insight Corp.	Gateway Corporate Center	East Columbia	105,535	New
Bell-Carter Foods	Rivergate Corporate Center	Rivergate	91,200	New
Amazon	The American Steel	Guilds Lake	89,481	New

Sources: Colliers and JLL

UNDER CONSTRUCTION

JLL noted that there is known tenant demand for approximately 3.4 million square feet of space, with over half of this demand coming from tenants seeking spaces over 200,000 square feet. With Colwood Industrial Center, and its over 800,000 square feet of space, now off the market, there are even fewer large spaces available compared to last quarter. At the other end of the spectrum, Kidder Mathews reported that there continues to be a severe shortage of smaller spaces (5,000 to 20,000 square feet) in the market, but noted that increasing shell rates are driving the potential for development of smaller projects with smaller spaces, which would require shell rates between \$0.55-\$0.65 to "pencil." Some larger projects in the pipeline also have the potential for divisibility for smaller spaces.

There are approximately 2.5 million square feet of space currently under construction in the Portland metropolitan area. Norris & Stevens noted that the average building size under construction is 130,000 square feet, versus a market average size of 30,000 square feet for all industrial buildings. Although 60 percent of total supply under construction is speculative, analysts reported that between 50 percent and 60 percent is already pre-leased. Notable projects in the pipeline include:

Northeast:

- PDX Logistics Center: 355,000 square feet in Building 3, due to deliver Q2 2016 (100 percent leased)
- Logisticenter 185: Approximately 230,000 planned square feet in 3 buildings, due to deliver Q4 2016
- Gresham Vista Business Park: 600,000 square foot build-to-suit for Subaru, due to deliver Q4 2016 (100 percent leased)

Other:

- Portside Industrial Center: 300,000 square feet of speculative space in Vancouver, due to deliver Q4 2016 (46 percent leased)
- Majestic Brockwood Business Park: 300,000 square feet of speculative space in Hillsboro, due to deliver Q4 2016
- Clackamas Distribution Center: 190,000 square feet of speculative space in Clackamas, due to deliver Q4 2016 (100 percent leased)

INVESTMENT ACTIVITY

Kidder Mathews reported sales volume of \$124 million for the quarter, down from \$174 million the previous quarter. They noted that strong investment interest from domestic and foreign institutional investors is pushing prices above replacement costs. According to CBRE, the overall price per square foot jumped 6 percent in the quarter to \$103/square foot.

As reported last quarter, 2015 saw a record high transactional volume (in terms of value) in the metropolitan Portland market. In fact, Capacity Commercial and Colliers noted that through the 3rd quarter of 2015 the metropolitan area saw an increase in investment sales of 105 percent, the 8th highest growth rate of any market in the country.

The most significant transaction in the quarter was the sale of PDX Logistics Center to Clarion Partners for over \$46 million, or nearly \$95/square foot. Capacity Commercial noted that capitalization rates, in the high 5 percent range on average, are at all-time lows.

Table 4: Notable Portland Metro Industrial Sales Transactions Q1 2016

Location	Size (s.f.)	Price	Pric	ce/s.f.	Туре
Portland	491,200	\$46,600,000	\$	94.87	Investment
Portland	423,300	\$22,300,000	\$	52.68	Investment
Portland	131,037	\$11,250,000	\$	85.85	Investment
Beaverton	76,500	\$ 7,407,431	\$	96.83	Investment
Tigard	49,950	\$ 4,500,000	\$	90.09	Investment
	Portland Portland Portland Beaverton	Portland 491,200 Portland 423,300 Portland 131,037 Beaverton 76,500	Portland 491,200 \$46,600,000 Portland 423,300 \$22,300,000 Portland 131,037 \$11,250,000 Beaverton 76,500 \$7,407,431	Portland 491,200 \$46,600,000 \$ Portland 423,300 \$22,300,000 \$ Portland 131,037 \$11,250,000 \$ Beaverton 76,500 \$7,407,431 \$	Portland 491,200 \$46,600,000 \$ 94.87 Portland 423,300 \$22,300,000 \$ 52.68 Portland 131,037 \$11,250,000 \$ 85.85 Beaverton 76,500 \$ 7,407,431 \$ 96.83

Sources: Colliers and Kidder Mathews

LOOKING AHEAD

There is a looming lack of close-in developable industrial land. This lack of land is set to further constrain the available supply in the market. With demand expected to continue to remain strong for space in the metropolitan area, this dynamic is set to drive rents higher, keep vacancies low, and push new development to outlying areas of the metro and also to more challenging development sites.

With the market's fundamentals likely to remain strong over the next four quarters, demand for limited supply is also set to drive industrial sales prices even higher, pushing capitalization rates to even lower levels. Most analysts expect speculative developments to continue, and some predict that future projects are likely to be smaller in overall size than those currently under development, with many targeting small- and mid-sized tenants.

RETAIL MARKET ANALYSIS

ALEC LAWRENCE

Portland State University

First quarter annualized GDP growth rate fell to 0.5 percent as the US economy slowed—that according to the advance estimate released by the US Department of Commerce. Though subject to revision, the rate falls well below the initial estimate of 1.4 percent. Looking at individual sectors, growth in personal consumption expenditures, residential fixed investment, and state and local government spending pushed the economy forward, but this growth was offset by decreases in nonresidential fixed investment, private inventory investment, exports, and federal government spending. Consumer spending grew at a 0.9 percent rate during the first quarter—a decrease from the 1.5 percent rate of growth during the fourth quarter.

The State of Oregon gained recognition as one of the strongest economies in the nation during 2015, with Bloomberg's Economic Evaluation of States declaring Oregon as the best-performing economy in the US over the year. JLL reported total 2015 job growth at 3.3 percent for the Portland region—compared to just 1.8 percent for the US as a whole. While the fallout of Intel's job cuts is still unknown, 2016 looks poised to continue recent trends, with the economy showing strong signs of continued expansion. Oregon's Office of Economic Analysis (OEA) reported a 4.4 percent seasonally adjusted unemployment rate for the Portland Metro economy in January 2016—a 15-year low and decreasing from 5.7 percent a year ago.

The *City Observatory* recently released its Storefront Index—an attempt to measure urban vitality by reviewing the number and concentration of customer-facing businesses in and around the fifty-one largest CBDs. According to the *City Observatory*, "clusters of these quasi-private spaces, which are usually neighborhood

■ Alec Lawrence is a Master of Real Estate Development candidate and has been awarded the Center for Real Estate Fellowship. Any errors or omissions are the author's responsibility. Any opinions are those of the author solely and do not represent the opinions of any other person or entity.

4.0%

3.0%

2016

businesses, activate a streetscape, both drawing life from and adding to a steady flow of people outside." The index ranked the largest CBDs by the number of storefront businesses within a three-mile radius of the center of the CBD. According to the ranking, with 1,686 such storefront businesses, Portland has the tenth most vibrant streetscape in and around its CBD of all US cities. The Seattle area ranked number nine, registering 1,694 storefront businesses—just a slight increase over Portland. For comparison, as of 2015, Portland was the 23 largest metropolitan statistical area (MSA) in the country.

VACANCY

Kidder Mathews reports that vacancy continued a steady but slow decline, with the direct vacancy rate ending at 4.4 percent for the first quarter. Each quarter over the last year has continued to set a record low since the recession. The first quarter rate is 70 basis points below the four-year average quarterly vacancy rate of 5.1 percent.

119 118 117 116

Figure 1: Portland Retail Market Net Rentable Area (square feet in millions) and Vacancy (%) by Quarter, 2013-2016

Source: Kidder Mathews

2013

115

114

113

Norris and Stevens data show an overall vacancy rate of 4.6 percent with all submarkets below the five percent level except for Clark County and the Lloyd District.

2015

2014

Table 1: Portland Retail Market Vacancy by Submarket, First Quarter 2016

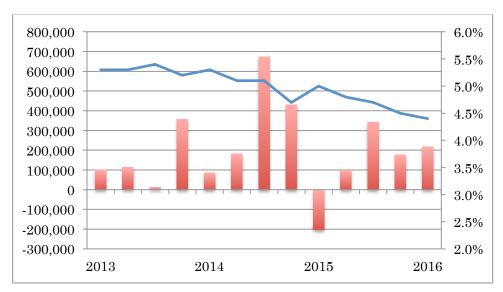
	Vacancy
Submarket	(%)
CBD	4.3%
Clark County	6.7%
I-5 Corridor	4.0%
Lloyd District	6.1%
Northeast	4.4%
Northwest	3.6%
Southeast	3.9%
Southwest	3.8%
Westside	3.7%
Total	4.6%

Source: Norris & Stevens

ABSORPTION AND LEASING

Kidder Mathews reports a strong net absorption of 216,453 square feet for the quarter, 23 percent higher than the average quarterly net absorption rate over the past four years. Food categories continue to lead the way in retail as consumers continue to seek retail destinations that offer convenience and experiential offerings.

Figure 2: Net Absorption Rate (square feet) and Vacancy (%) by Quarter, 2013-2016



Norris and Stevens reported a total of 705,712 square feet of absorption in the Portland metro region during the first quarter. Of note, the Northwest submarket performed strongly, with 122,920 square feet absorbed or 6.7 percent of total RBA, and Clark County saw the greatest number of square feet absorbed with 342,672 square feet.

Table 2: Portland Retail Market Absorption by Submarket, First Quarter 2016

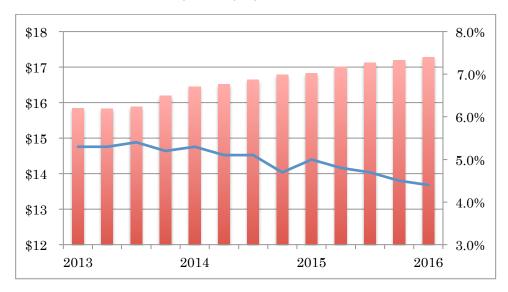
Submarket	Q1 Absorption	Absorption as a % of Total RBA
CBD	(57, 365)	(1.2%)
Clark County	342,672	1.9%
I-5 Corridor	121,787	1.1%
Lloyd District	(124,225)	(2.3%)
Northeast	119,777	0.6%
Northwest	122,920	6.7%
Southeast	134,674	0.6%
Southwest	$74,\!252$	0.5%
Westside	(28,780)	(0.3%)
Total	705,712	0.7%

Source: Norris & Stevens

RENTAL RATES

Kidder Mathews reports that rents continued an eleven-quarter climb, ending at \$17.28 per square foot NNN per year. This is 5.2 percent over the average quarterly quoted rate over the last four years.

Figure 3: Portland Retail Market Average Quoted Rates (\$/SF/Yr/NNN) and Vacancy (%) by Quarter, 2013-2016



DELIVERIES AND CONSTRUCTION

Kidder Mathews reported a total of 12 buildings delivered for a total of 144,100 square feet for the quarter. There are a total of 10 projects under construction, for a total of 230,125 square feet. This is down from 20 projects under construction last quarter. The construction pipeline continues to sit below late 2013 and early 2014 levels that stood at over 1,000,000 square feet.

Figure 4: Portland Retail Market Deliveries (square feet) and Vacancy (%), 2013-2016

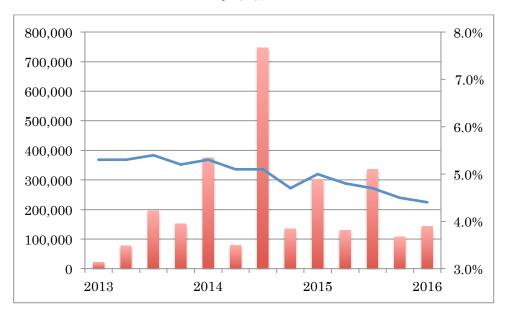
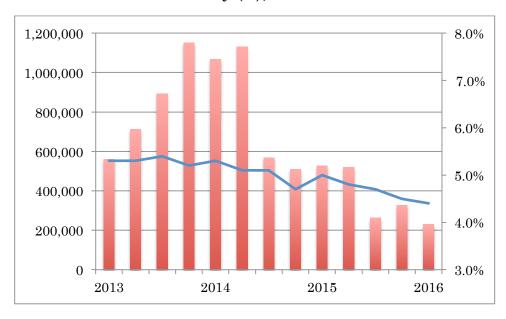


Figure 5: Portland Retail Market Construction (square feet) and Vacancy (%), 2013-2016



SALES

Kidder Mathews reported \$217.23 million in transactions during the first quarter with an average square foot sales price of \$230. This is above the first quarter 2015 average of \$205 but below the fourth quarter 2015 average of \$309. Average cap rates registered at 5.5 percent—a decrease from 6.5 percent during fourth quarter 2015.

Table 3: Notable Investment Transactions, First Quarter 2016

Property	City	Sale Price	Square Feet	Price/SF
Columbia Gorge Premium Outlets	Tualatin	\$28.43	163,815	\$174
New Seasons	Portland	\$10.62	26,500	\$401
Regal Cinema 99	Vancouver	\$5.18	34,964	\$148