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# Go ahead, check us out.

We got a makeover – did you notice? Our goal is to improve and deliver quality services and publications consistently and we're excited to unveil new user-friendly Mid-Atlantic quarterly reports. Explore some of the changes we made and how to take advantage of the new layout below.

#### **KEEP IT MOVING •**

Get where you need to be at the push of a button - no, not Uber, our internal navigation menu, of course! Hover over the icon at the top left corner to expand the menu, then click to go easily to a desired section of the report. Click the icon to compress.

#### TAKE IT EASY •

We've reoriented our reports so each page fits completely (and legibly) on your screen. Get all the information without having to lift a finger.



#### Solid Start to the Year for the Region's Economy

Building on the growth schieved in 2015, the Nebbington area emocory confessed to ruly in 1st quietter 2016. Not growth, remained strong, with 70,000 one jobs added in the region during the 13 manths ending Jonasey 2016. The Professional Parisases Services senter again and the way with \$1,000 one job additions. On the public side, Pederal and estate/and employment and persuavased howeath and obtained after several years of declines.

The regional compalyment risk has continued to decline, and excel at 4.2% or of pionary 2011. This is 70 beam points believe both the region's 4.8% contral/growner risk in pinnary 2011 and the current material risk of 4.9%. Commons prices in the region have begun to increase where being first through 2010. The regional Cytincreased 5.4% during the Li months ending hereiny 2016, thereby happy to many bounting, medical case, and education contact the risk of growth for home prices has trained the national energy between 100 per pinner in the same increased by jour 1.7% in 2015, well below that tustional growth rate of 5.7%.

Staggish wags growth continues to be an area of concern, although we appert it to pick up later this year that to reasoned growth in the metro sent high-wags Professional-Business Environments. The pursues of a belieful bright in late 2005 reasoned a major source of where term uncertainty and should help bolister the region's economic growth prospects. As economic output and labor thousand increases, competition among firms for top takent will also drive wags growth.

The passage of a Federal budget in late ross removed a major source of short-term uncertainty and should help bolster the region's economic growth prospects.



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### → SAME INFO, NEW GRAPHICS

You'll find the same data and information as before, plus some. We've balanced data and graphics to bring you a more visually interesting and informative report.



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**DELTA ASSOCIATES** is a firm of experienced professionals providing advisory services and subscription market data publications. Our clients are active in all aspects of commercial real estate and land economics, including developers; banks; institutional investors; local, state, and federal government agencies; not-for-profit organizations; attorneys; educational institutions; and others.

**ADVISORY SERVICES** — Delta conducts more than 100 client assignments each year throughout the United States. Representative practice areas include:

- Market feasibility and development programming studies
- Asset repositioning and performance enhancement studies
- Highest and best use analyses
- Acquisition and financing due diligence
- Market entry strategies; metro area and submarket ranking analyses
- Valuation analyses
- Custom boardroom presentations on real estate and economic topics
- Sponsored webinars on real estate and economic topics
- Sponsored live market overview events on real estate and economic topics

**SUBSCRIPTION PUBLICATIONS** — Delta produces quarterly publications on the apartment, condo, retail, and office markets. See our Publications page elsewhere in this report.

Check out The Delta Download, Delta's blog on current topics of interest to the real estate community.



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# QUARTERLY PUBLICATIONS 6

#### **MULTIFAMILY MARKET**



MID-ATLANTIC CLASS A APARTMENT MARKET REPORT



A comprehensive report on apartment market conditions, focusing on the following indicators:

- National/regional economy analyses
- Regional condo market summary
- Regional apartment market summary
- Key market statistics for 49
  - submarkets and regional totals for:
  - Current rents and rent change
  - Vacancy
  - Concessions
  - Absorption
  - Development pipeline
  - Multifamily building and land sales



WASHINGTON METRO AREA CLASS B APARTMENT MARKET REPORT



A comprehensive report on apartment market conditions, focusing on the following indicators:

- National/regional economy analyses
- Regional apartment market summary
- Key market statistics for 30 submarkets and regional totals for:
  - Current rents and regional totals for
  - Vacancy
  - Concessions
- Renovation information including budget and timetable
- Multifamily building sales



WASHINGTON/BALTIMORE CONDOMINIUM MARKET REPORT



A comprehensive report on condominium market conditions, focusing on the following indicators:

- National/regional economy analyses
- Regional apartment market summary
- Regional condo market summary
- Key market statistics for 12 submarkets and regional totals for:
  - Sales trends for new and resale condo units
  - Historic condo unit price changes
  - Development pipeline
- Additional data including:
  - Absorption pace
  - Multifamily building and land sales



PHILADELPHIA
CLASS A APARTMENT
MARKET REPORT



An executive summary-style report on apartment market conditions, focusing on the following indicators:

- National/Regional economy analyes
- Regional apartment market summary
- Key market statistics for all major submarkets and regional totals for:
   Current rents and rent change
  - Guiteiit feilts alla feilt ch
  - Vacancy
  - Concessions
  - $^{\circ}$  Absorption
  - Development pipeline
  - Multifamily building sales





WASHINGTON/BALTIMORE OFFICE MARKET REPORT



A comprehensive report on office market conditions, focusing on the following indicators:

- National/regional economy analyses
- Metropolitan area and substate area office market summaries
- Key market statistics (All Space and Class A Space) for all major submarkets
- Additional data including:
  - Supply/demand analysis
  - Rental rate and tenant improvements data
  - Average lease terms and operating expenses
  - Delivered, planned and proposed SF space
  - Building and land sales
  - Investment returns
  - Cap rate trends

# ADDITIONAL OFFERINGS

#### **COMPLIMENTARY REPORTS**



### WASHINGTON AREA RETAIL OUTLOOK

In this quarterly report, Delta provides a quantitative and qualitative assessment of the Washington area retail market, with a focus on grocery-anchored shopping centers. Information is included on vacancy rates, rents, investment sales, projects of interest, and key trends in the retail market.



### WASHINGTON AREA HOUSING OUTLOOK

The Washington Area Housing Outlook is a quarterly report in which Delta provides an assessment of the region's single-family housing market, including data on pricing, sales volume, and days on market.

#### SUBSCRIPTION-BASED



#### **ECONOMY REPORTS**

Delta's newest offering, these quarterly overviews take an indepth look at the national and Mid-Atlantic metro area economies—Washington, Baltimore, and Philadelphia. Available individually or together, the overviews examine labor force data, GDP growth, interest rates, and employment changes from year to year.



#### MARKET MAKER SURVEY

This report is based on an annual survey of real estate, finance, and development experts and leaders in the Washington metro area. The results from the survey comprise this year-end report, which also addresses property performance, cap rate trends, investment returns, development costs, and business outlooks.



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#### **Renovation of 360 State Street Apartments**

The goal was to create a memorable first impression and increase the building amenities by utilizing the large lobby space. Working within budget constraints, HDG refaced, refinished, and refurnished the existing lobby – transforming this simple, austere space into a warm, homey common area for the residents (mostly professors and graduate students) to gather. This transformed 360 State Street into a multi-family property with great appeal and functionality.

We help people love where they live.













### annual events

# [21<sup>ST</sup> ANNUAL] WASHINGTON TRENDLINES FEBRUARY 1, 2018

The 21st annual Washington TrendLines® event is planned for the evening of February 1, 2018 at the Ronald Reagan Building and International Trade Center in Washington, DC. TrendLines® is an invitation-only, annual presentation on the national and regional economy and commercial real estate market conditions, with an outlook for investment and development opportunities. This event will be co-sponsored by PNC Bank, Baker Tilly, and Transwestern. For an invitation to the 2018 event, or to learn more about our TrendLines presentations and reports, please send an email to Info@DeltaAssociates.com or visit TrendLinesDC.com.

[21<sup>ST</sup> ANNUAL]

WASHINGTON/ BALTIMORE
MULTIFAMILY MARKET
OVERVIEW & AWARDS FOR
EXCELLENCE

OCTOBER 25, 2017

The 21st annual Washington/Baltimore Multifamily Market Overview and Awards will be held on October 2017 at the National Housing Center in Washington, DC. To see the list of last year's award winners, or to download the market presentation, please visit the Multifamily Awards page on our website. Please send an email to Info@DeltaAssociates.com for an application to submit your project for our consideration for the 2017 awards.

#### UPCOMING SPEECHES & PRESENTATIONS BY DELTA EXECUTIVES

- Lecture at GMU: October 4, 2017
- Delta's 21st Annual Washington / Baltimore Multifamily Market Overview & Awards: October 25, 2017
- NVBIA: December 2017
- 5th Tysons Real Estate Breakfast Panel: January 2018
- Annual Washington TrendLines®: February 1, 2018

#### RECENT SPEECHES & PRESENTATIONS GIVEN BY DELTA EXECUTIVES

- Presentation to Vanke: June 20, 2017
- Presentation to the Government of the District of Columbia, Office of the Chief Financial Officer: February 8, 2017
- Annual Washington TrendLines® 2017: February 2, 2017
- Real Estate Market Update: Economic Outlook for Metro DC Real Estate 2017 and Beyond: January 19, 2017
- Cornell University Real Estate Council: January 10, 2017
- 5th Annual Future of Downtown Baltimore: Rejuvenating Baltimore's CBD: December 13, 2016
- On the Waterfront: The Sequel: November 10, 2016
- Delta's 20th Annual Washington / Baltimore Multifamily Market Overview & Awards: October 19, 2016





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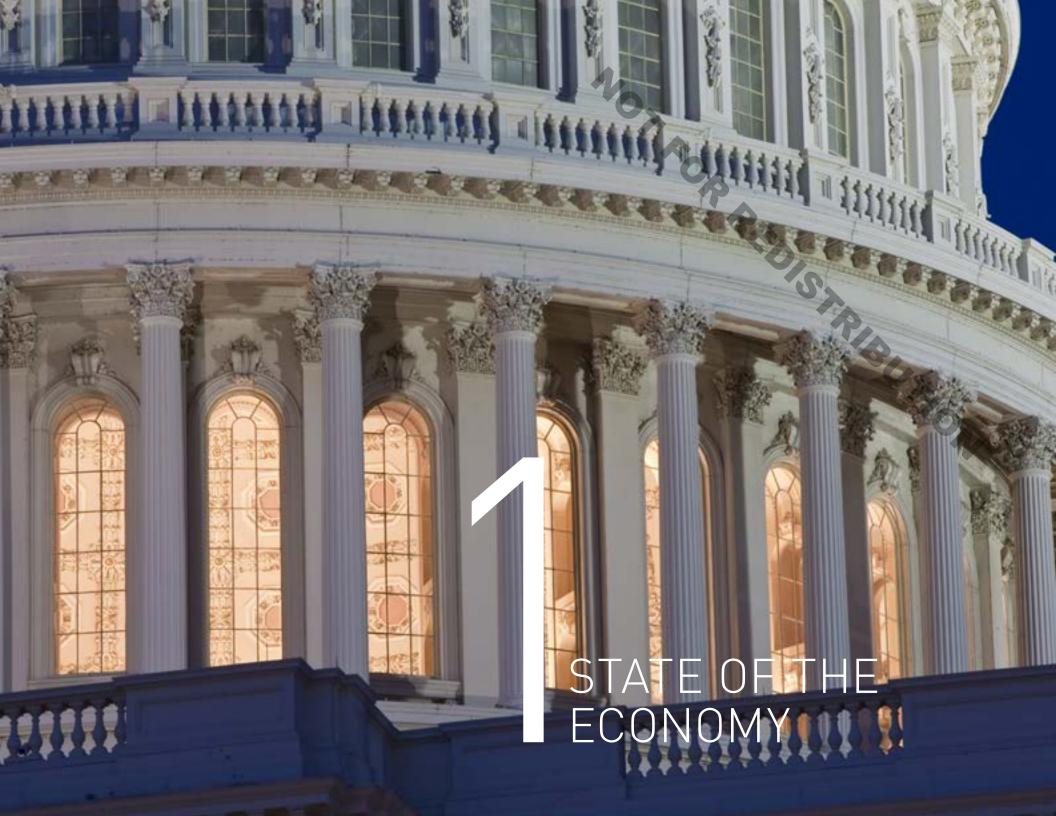
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#### U.S. Economy Rebounds But Policy Uncertainty Remains

As of the end of the third quarter of 2017, the U.S. economy remains in good shape thanks to strong consumer spending and job creation. During the 12 months ending August 2017, the national economy added a total of 2.1 million new jobs, including 156,000 in August 2017. Most employment sectors continue to see positive growth, and have been consistently adding new positions to meet renewed demand. Meanwhile, initial unemployment claims jumped to 268,750 in mid-September, and the national unemployment rate (seasonally adjusted) ticked up 10 basis points in August to 4.4%.

After yet another disappointing first quarter, real GDP rebounded markedly in the second quarter to 3.0%—the fastest pace of national economic expansion since the first quarter of 2015 and in line with our prior predictions. Consumers continue to propel the economy forward, with personal consumption increasing by 3.3% during the quarter. Looking ahead, we expect the disruption and damage caused by hurricanes Harvey, Irma, and Maria (HIM for short) to have an impact on economic growth in the third quarter, but the GDP growth rate will still be around 2.5%.

The Federal Open Market Committee (FOMC) has so far followed through on its plans for regular increases to the federal funds benchmark rate this year. It hiked interest rates by a quarter percent at both its March and June meetings, with another increase likely coming in December. In addition, the Fed has indicated that it will shortly proceed to normalize its balance sheets by winding down its security-purchase program. After an underwhelming spring, price inflation rebounded during the summer. The CPI for all urban consumers increased 1.9% over the 12 months ending August 2017, just shy of the Fed's 2.0% target.

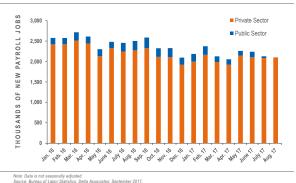
Our economic outlook for the next several months remains bullish. The largest unknown regarding the future performance of the economy is public policy. After repeated failed attempts to repeal the Affordable Care Act (AKA Obamacare), congressional Republicans and President Trump have shifted their focus to long-awaited tax reform. The president's proposal to cut corporate taxes drastically from over 40% to 20% is likely to be watered down, as it would cost the government roughly \$1.5 trillion over a decade according to most estimates.

Job growth, while still robust, appears to be slowing to a less aggressive pace as labor slack shrinks. We expect positive payroll growth to continue for the time being, but believe that the days of 200,000 monthly net additions are in the rear-view mirror. Based on the Fed's schedule of future



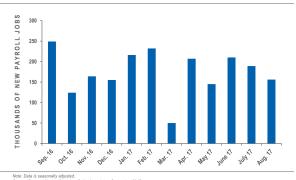
#### **PAYROLL JOB GROWTH**

United States | Year-Over-Year



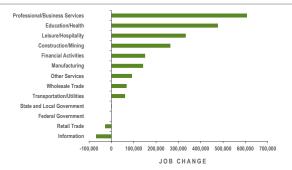
#### **PAYROLL JOB GROWTH**

United States | Monthly



#### PAYROLL JOB GROWTH

United States | 12 Months Ending August 2017



Note: Data are not seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates; September 2017

funds rate hikes and plans to shrink its balance sheet, higher interest rates in the near future is a given. However, relatively flat price inflation and continued uncertainty should keep long-term interest rate increases modest. Despite the higher cost of borrowing, we expect consumer spending to remain robust and remain the cornerstone of the national economy for the foreseeable future.

#### **JOBS**

The national economy continues to add jobs rapidly, but the pace is beginning to display signs of slowing. We have held the belief that the current rate of job creation is unsustainable in the long-term, and the economy does look to be losing some steam in that regard. July and August were the only consecutive months to experience declines in job additions (on a seasonally adjusted basis) during the 12-month period ending August 2017. In sum, the economy added 2.1 million new jobs during the period.

While the private sector has dominated the public sector in job creation throughout the recovery period, the public-sector contribution seems to be shrinking even further. Only a meager 2,000 jobs were added to government payrolls through the entire 12-month period—the lowest in any 12-month period since May 2014.

During the 12 months ending in August, monthly job growth has averaged 175,000 new positions. Seasonally-adjusted monthly job growth over the last three months are as follows:

- June 2017: 210.000
- July 2017: 189,000 (Preliminary)
- August 2017: 156,000 (Preliminary)

Most employment sectors continue to see positive growth, and have been consistently adding new positions to meet strengthened demand. This is especially true for the Professional/Business Services

and Education/Health sectors which have a pronounced shortage of qualified workers. Recently, the labor market has been tightening in the resurging Leisure/ Hospitality sector. These three sectors alone account for exactly one-third of the national job growth over the 12 months ending in August.

On the other side of the coin are the struggling Retail Trade and Information sectors, both of which are struggling from disruptive competition via the Internet. Combined, the two sectors saw payrolls drop by just under 100,000 during the year ending August. Unfortunately, there doesn't seem to be an end in sight to the hemorrhaging in either sector, as the parade of store closures and newspaper staff reductions continue apace. It's not all doom and gloom though. In the Retail sector, some brick-and-mortar retailers, such as Walmart and Kohl's, seem to be adapting to the shifting market successfully. In addition, niche retailers continue to outperform the overall industry.

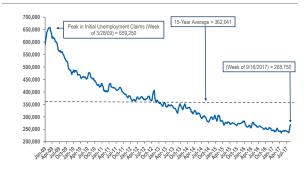
Another area to watch is public sector job growth, which has been trending downward for months, due in no small measure to the federal government. President Trump may not have been successful in implementing wholesale layoffs of federal employees, but seems to be partially accomplishing his federal workforce reduction goals through attrition. The federal government has only recorded a single month of positive job growth in all of 2017 so far.

The Construction/Mining sector continues to be the turnaround story of the year, particularly the Mining subsector. After staggering job losses in 2015 and 2016, thanks to plunging fuel prices, the Mining subsector has entered a period of solid recovery. Unfortunately, the oil refining component suffered a significant setback in August and September caused by the disruptive and destructive effects of Hurricane Harvey along the Gulf

#### THE NATIONAL ECONOMY

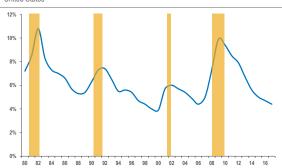
#### **INITIAL UNEMPLOYMENT CLAIMS**

United States | Four-Week Moving Average



#### **UNEMPLOYMENT RATE**

United States



#### **AVERAGE HOURLY EARNINGS**

Note: \*Through August 2017; seasonally adjusted; shaded bars represent n

12-Month Percentage Growth | 2007- August 2017



\* Data available starting March 2007 Source: Bureau of Labor Statistics, Delta Associates; September 2017. Coast. Mining aside, real estate construction continued to be the main driver of growth in the sector, as housing demand remains robust. In sum, the Construction/Mining sector has added 264,000 new jobs to the economy over the 12 months ending August 2017.

#### LABOR FORCE AND WAGES

Initial unemployment claims continued to hover around three-decade lows through most of August 2017, but jumped nearly 32,000 by mid-September. This hike is ostensibly due to the negative economic effects caused by both hurricanes Harvey and Irma in Texas and Florida, respectively. Per the Federal Reserve Bank of St. Louis, the four-week moving average of unemployment claims was 268,750 during the week ending September 16. As Florida and the Gulf Coast begin the recovery process in the near-term, we expect jobless claims to tick down some before flattening through the end of 2017 as there is little slack remaining in the labor market.

After falling to a 17-year low of 4.3% in May 2017, **the national unemployment rate** (seasonally adjusted) ticked back up 10 basis points in August to 4.4%. We expect the unusually low level of unemployment to climb above 4.5% before the end of the year.

In spite of the ever-tightening labor market, wage growth has failed to catch up. While there have been some gains in wages over the past year, much of this has been lost in recent months. During the 12-month period ending August 2017, the **national average hourly wage** increased by 2.5%. This is still lower than 3.0%+ annualized gains prior to the recession.

There are several theories explaining the lagging wage growth, including fundamental shifts in the labor market. Perhaps most apparent is an increasingly younger workforce, created in part by the retirement of baby boomers with considerably more seniority and who have been earning higher compensation. Competition from

less expensive foreign labor has also been an issue, as it creates downward pressure on domestic wages. There is also a mismatch between high-paying open positions and a lower-skilled workforce. Existing wage growth is largely being driven by high demand for skilled workers; there remains a shortage of workers with the technical skills required for positions in many industries, including Healthcare, Life Sciences, and Construction.

As of August 2017, there were 125.8 million persons employed in full-time jobs in the U.S., and 27.6 million persons employed in part-time jobs. During the 12 months ending August 2017, the number of full-time jobs increased by 1.5 million, while the number of part-time jobs increased by 347,000.

One recent trend in the U.S. economy is full-time workers receiving substantial amounts of supplemental income



from participation in the "gig" or "sharing" economy. According to the JPMorgan Chase Institute, nearly 1% of U.S. adults earned income through a digital sharing platform in October 2015, compared to just 0.1% of adults in October 2012. Examples of popular income sources include: part-time driving for Uber, renting out a room on Airbnb, or selling products on eBay.

As of August 2017, the national job availability ratio (not seasonally adjusted) remains at 1.1. The job availability ratio measures the relationship between the number of potential applicants and the number of jobs available. On average, the fast-growing Education/Health Services, Professional/Business Services, and Financial Activities sectors had the highest number of job openings relative to the number of unemployed, each with job availability ratios lower than 1.0.

#### GROSS DOMESTIC PRODUCT (GDP)

After yet another disappointing first quarter, real GDP rebounded markedly in the second guarter to 3.0%—the fastest pace of national economic expansion since the first quarter of 2015 and in line with our prior predictions. Consumers continue to propel the economy forward, with personal consumption increasing by 3.3% during the quarter. Unfortunately, strong consumer spending has done little to lessen the turmoil in the brick and mortar retail sector.

Nonresidential fixed investment, federal spending, and private inventory investment also contributed to robust GDP growth. Holding back the expansion were slowdowns in residential fixed investment and state and local government expenditures.

Looking ahead, we expect the disruption and damage caused by HIM to have an impact on economic growth in the third quarter, but the GDP growth rate will still be around 2.5%. The most recent report from the Federal Reserve Bank of Philadelphia's Survey of Professional

Forecasters projects real GDP growth at 2.6% in the third quarter of 2017. Looking further ahead, GDP growth is expected to be 2.1% in 2017, 2.4% in 2018, and 2.2% in 2019.

#### **CORPORATE PROFITS**

Following a first quarter decline, corporate profits (before taxes) were back on the upswing during the second quarter of 2017, ending the period at \$2.14 trillion (annualized and seasonally adjusted). Healthy domestic consumer spending continues to be the major driving force behind corporate earnings across most industries, while weak exports and meager productivity growth have weighed on margins. Looking forward, profit growth will remain muted as continued low unemployment places upward pressure on wage growth, increasing unit costs. However, a weaker U.S. dollar should boost real net income from business conducted overseas.

#### REVOLVING CREDIT

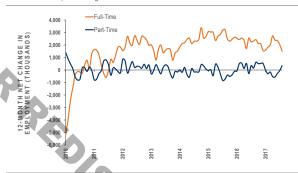
Revolving consumer credit increased at an annual rate of 3.2% in July 2017 hitting the \$1 trillion mark as personal consumption picked up again during the middle part of the year. Non-revolving credit accelerated markedly at a 6.9% annual rate in July 2017, even as interest rates have steadily climbed, reflecting the resilience of the recovery. Looking forward, we expect consumer credit growth to flatten out as interest rate hikes counterbalance strong consumer spending. Outstanding revolving credit will be most affected as it is inherently less stable than longerterm non-revolving credit.

#### HOUSING MARKET

Home prices in the 20 major metro areas covered by the S&P/Case-Shiller index continued their hot streak, increasing 5.8% in the 12 months ending July 2017. The Pacific Northwest cities of Seattle and Portland claimed the highest rates of appreciation over the year at 12.9% and 9.3%, respectively. The continued strong growth in home prices is causing some speculation of an

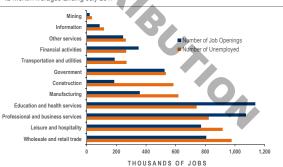
#### **EMPLOYMENT GROWTH BY JOB STATUS**

United States | 2010 - August 2017



#### NUMBER OF UNEMPLOYED VS. JOB OPENINGS

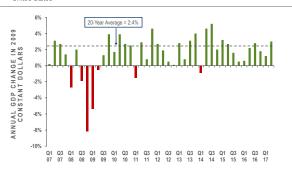
12-Month Averages Ending July 20



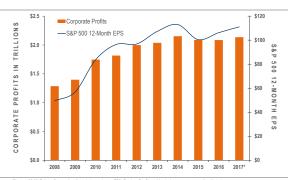
Note: Based on 12-month trailing average. Data are not seasonally adjuster Source: Bureau of Labor Statistics, Delta Associates; September 2017.

#### **GDP PERCENT CHANGE**

United States



#### **U.S. CORPORATE PRE-TAX PROFITS**



"Through Q2 2017; Note: Seasonally adjusted at annual rates. EPS=Eamings Per Share. Yearly data are not seasonally adjusted Source: Bureau of Economic Analysis. Standard and Poor's. Delta Associates: September 2017.

impending bubble. However, the combined effects of the rebounding labor market and continued low mortgage rates has kept demand high. Even with the acceleration of construction activity, supply has struggled to keep pace. The number of homes on the market relative to the number of households is still at its lowest level since the 1980s.

According to the National Association of Realtors, the annualized pace of existing home sales was 5.35 million in August 2017, up from 5.34 million a year prior. The current sales pace is the fastest seen since before the national housing crash in 2007. Sales would likely be even higher if not for a severe lack of inventory. The average sale price for an existing home was \$294,600 in August 2017, up 4.5% from \$282,000 in August 2016.

Mortgage rates have consistently been in decline since March 2017, but trended upward midway through September. Per Freddie Mac, the average commitment rate for a 30-year, conventional, fixed-rate mortgage rose to 3.83% as of September 21, up from a 2017 low of 3.78% in the two weeks prior. The increase mirrored a corresponding seven basis-point hike in the 10-year Treasury yield. We expect rates to rebound back above

4% shortly as the Fed winds down its expansionary policy in the coming period. The 2017 annual average is expected to be significantly higher than 2016's, when 30-year rates bottomed out at 3.42% in October, which was the lowest since April 2013.

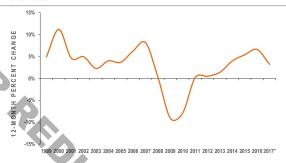
#### THE FEDERAL BUDGET

The Federal budget deficit for the 2016 fiscal year, which ended on September 30th of 2016, was \$587 billion (or 3.2% of GDP), up from 2.5% in FY2015. The budget shortfall in FY2016 was a \$148 billion increase over the deficit in FY2015, and marked the first federal budget deficit increase since FY2009. While the Congressional Budget Office (CBO) projects that the deficit to decline in fiscal years 2017 and 2018, it will resume its upward trajectory over at least the following eight years. The growing shortfalls would occur mainly because, under current law, growth in revenue would be outpaced by growth in spending for large federal benefit programs (primarily retirement and health care programs targeted to older people) and for interest payments on the federal debt.

Prior to being elected, President Trump proposed major increases to infrastructure and defense spending, and he has already attempted to follow through on the latter of these promises in his initial FY2018 budget proposal, which increases military spending by \$54 billion. In order to fund the increase in defense spending, as well as \$2.6 billion to construct a wall on the U.S.-Mexico border and \$1.4 billion to fund a new private "school choice" program without increasing revenues, the budget proposes an equivalent amount of cuts in discretionary spending across nearly every federal department. Under the president's proposal, only the departments of Veteran Affairs, Homeland Security, and Defense would see funding increases. The Environmental Protection Agency, State, Agriculture, and Labor departments would see massive cuts exceeding 20% of their current budgets. The scale and timeline of the administration's

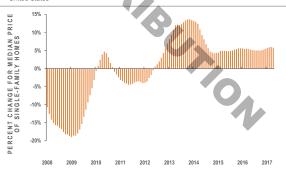
#### REVOLVING CREDIT

United States



#### ANNUAL CHANGE IN EXISTING HOME SALE PRICES

United States



#### U.S. EXISTING HOME SALES VS. SALE PRICE



\*Data as of August 2017. \*\* Seasonally adjusted annual sales rate.

Source: National Association of Realfors, Delta Associates; September 2017

proposed infrastructure investment remains up in the air, and the president recently abandoned his plans to focus on P3 partnerships, claiming that "they're more trouble than they're worth."

In September, congressional Republicans and the Trump administration presented a tax reform plan with steep rate cuts. Specifically, the proposal:

- 1. Reduces the corporate tax rate from 35% to 20%.
- 2. Reduces and consolidates the individual tax rates into three brackets: 12%, 25% and 35%, doubles the standard deduction, and eliminates the personal exemption.
- 3. Reduces the tax on S corporations, partnerships, and sole proprietorships to 25%.

Most economists contend that the tax plan is unrealistic as proposed, since it would drastically widen the federal deficit even more than projected. This makes it unlikely that it will pass Congress in its current form.

#### INTEREST RATES AND INFLATION

The Federal Open Market Committee (FOMC) has so far followed through on its plans for regular increases to the federal funds benchmark rate this year. It hiked interest rates by a quarter percent at both its March and June meetings, with another increase likely coming in December. In addition, the Fed has indicated that it will shortly proceed to normalize its balance sheets by winding down its security-purchase program. The decision to end quantitative easing is driven mainly by strong consumer spending and the tight labor market. Unfortunately, weak inflation continues to be a concern, at least in the short term.

Consumer price inflation started off the year strong, but weakened in the spring. However, the rate of price growth has shown signs of rebounding over the summer. The CPI for all urban consumers increased 1.9% over the 12 months

ending August 2017, just shy of the Fed's 2.0% target. The increase was driven heavily by a sizeable 10.4% increase in gas prices as well as 3.3% increase in shelter costs. The personal consumption expenditure price index (PCEPI), which takes into account changes in consumption habits as people substitute some goods and services for others, experienced a lesser increase of 1.4% during the 12 months ending July 2017.

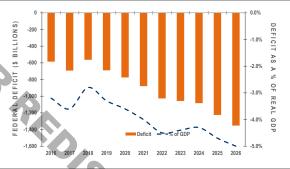
#### FINANCIAL MARKETS

U.S. financial markets have continued the strong bull market run through 2017, and the third quarter was no exception. The stock market returned to stability for much of 2016 as the economic recovery continued unhindered by turmoil overseas. Immediately following the presidential election, the stock market began a strong rally, in the process breaking record highs. On August 2, 2017, the Dow Jones Industrial Average crested 22,000 for the first time. The S&P 500 index stood at 2,496.84 as of market close on September 26, 2017, up 16.3% from a year ago. By comparison, total S&P 500 price returns in 2016 were 12.0%.

Much of the recent stock market gains can be attributed to the promises of President Trump to cut corporate taxes and alleviate federal regulations in the coming years. As such, continued positive performance in the marketplace is heavily dependent on the timing and framework of the new administration's policies. In September, the Trump administration proposed a tax reform plan that would lower the corporate tax rate to 20% and the pass-through business rate to 25%. The plan already faces stiff opposition from Democrats in Congress and skepticism from analysts. If promised tax cuts, which are a major factor behind the current lofty market caps, don't materialize as planned, there could be a profoundly negative reaction in financial markets.

#### **BASELINE BUDGET PROJECTIONS**

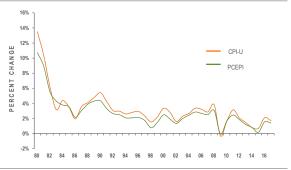
United States



#### SELECTED U.S. GOVERNMENT INTEREST RATES



### U.S. INFLATION AND PERSONAL CONSUMPTION EXPENDITURE INDEX



Note: "CPI-U and PCEPI through July 2017. Data reflects 12-month percent change.

The looming U.S. debt ceiling could also have major market implications in the latter part of the year if Congress does not act preemptively, presenting a major downside risk. In what mostly amounts to just kicking the can down the road, Congress raised the debt ceiling in September to allow the federal government to pay its obligations for the next three months.

#### **ECONOMIC OUTLOOK**

Our economic outlook for the next several months remains bullish. Consumer sales, the labor market, and business spending remain fundamentally strong. Lost economic activity due to severe weather in some parts of the country will result in a modest pullback in GDP growth in the third quarter, but we expect it to rebound. Overseas, the outlook is murkier and less upbeat, but a number of G7 nations—particularly Canada, Japan, and Germany-have recorded robust economic growth so far this year.

Domestically, the largest unknown regarding the future performance of the economy is public policy. After repeated failed attempts to repeal Obamacare, congressional Republicans and President Trump have shifted their focus to long-awaited tax reform. However, the president's proposal to cut corporate taxes drastically from over 40% to 20% is likely to be watered down, as it would cost the government roughly \$1.5 trillion over a decade according to most estimates. The administration has also pledged to boost infrastructure spending across the nation, which would provide another considerable boost to the economy. However, in September, President Trump abandoned his preference for public-private partnerships in rebuilding the nation's infrastructure, preferring instead to increase the burden of states and localities. Overall, non-defense federal spending is expected to be flat in the period ahead.

Job growth, while still robust, appears to be slowing

to a less aggressive pace as labor slack shrinks. We expect positive payroll growth to continue for the time being, but believe that the days of 200,000 monthly net additions are in the rear-view mirror. With a prolonged recovery cycle comes a prolonged wait for wage increases, but as discussed previously, there remain other fundamental factors at play that could be placing downward pressure on wage growth. Nevertheless, we believe material wage growth will arrive before the end of the cycle.

Based on the Fed's schedule of future funds rate hikes and plans to shrink its balance sheet, higher interest rates in the near future is a given. However, relatively flat price inflation and continued uncertainty should keep long-term interest rate increases modest. Despite the higher cost of borrowing, we expect consumer spending to remain robust and remain the cornerstone of the national economy for the foreseeable future.

#### Specifically, we believe the economic outlook is as follows:

- Real GDP growth: 2.5% in 2017.
- Payroll jobs: 1.8 million additions in 2017.
- **Housing:** Price appreciation between 4.5% and 5.0% in 2017.
- Unemployment rate: 4.7% at end of 2017.
- Federal funds rate: Three 25 basis-point increases in 2017.
- Interest rates: Moderately up in 2017.
- Inflation: 1.9% in 2017.

#### NATIONAL PAYROLL JOB GROWTH SUMMARY

The U.S. economy gained 2.10 million payroll jobs over the 12 months ending August 2017 at an annual rate of 1.4%. This compares to the 25-year annual average of 1.3 million jobs at a 1.1% average growth rate.

#### S&P 500 INDEX





US PAYROLL JOB GROWTH							
YEAR	JOB CHANGE	% CHANGE					
2017*	2,097,000	1.4%					
2016	2,463,000	1.7%					
2015	2,885,000	2.1%					
2014	2,577,000	1.9%					
2013	2,206,000	1.6%					
2012	2,243,000	1.7%					
2011	1,571,000	1.2%					
2010	-952,000	-0.7%					
2009	-5,929,000	-4.3%					
2008	-757,000	-0.5%					
2007	1,546,000	1.1%					
2006	2,402,000	1.8%					
2005	2,264,000	1.7%					
2004	1,440,000	1.1%					
2003	-302,000	-0.2%					
2002	-1,438,000	-1.1%					

<sup>\* 12</sup> months ending in August 2017.

12-MONTH PAYROLL ÉMPLOYMENT CHANGE THROUGH AUGUST 2017							
JOB CHANGE					NGE		
METRO AREA	#		METRO AREA				
New York	145,900	1.5%	Tampa-St. Petersburg	39,600	3.1%		
Dallas/Ft. Worth	96,700	2.8%	Phoenix	34,900	1.8%		
Atlanta	86,400	3.2%	Denver-Boulder	33,900	2.1%		
LA Basin			Las Vegas	30,300	3.2%		
Los Angeles/Long Beach/Glendale	37,200	0.9%	Charlotte	30,200	2.6%		
Orange County (Santa Ana/Anaheim/Irvine)	900	0.1%	Raleigh-Durham	30,100	3.3%		
Riverside/San Bernardino/Ontario	34,100	2.5%	Cincinnati	29,900	2.8%		
Total LA Basin	72,200	1.0%	Portland (OR)	29,100	2.5%		
Washington, DC	67,600	2.1%	Nashville	28,700	3.0%		
Boston (Metropolitan NECTA)	63,400	2.3%	Chicago	24,700	0.5%		
South Florida			San Antonio	23,000	2.3%		
West Palm Beach/Boca Raton	15,700	2.6%	Columbus (OH)	22,300	2.1%		
Fort Lauderdale	26,200	3.2%	Austin	21,200	2.1%		
Miami/Miami Beach/Kendall	19,300	1.7%	Indianapolis	19,200	1.8%		
Total South Florida	61,200	2.4%	San Diego	19,200	1.3%		
Houston	53,500	1.8%	Baltimore	19,100	1.4%		
Seattle	52,400	2.7%	Kansas City	17,200	1.6%		
Philadelphia	51,500	1.8%	Jacksonville	16,900	2.5%		
San Francisco Bay Area			Salt Lake City	16,800	2.4%		
San Jose/Sunnyvale/Santa Clara	11,000	1.0%	Sacramento	16,000	1.7%		
San Francisco/San Mateo/Redwood City	19,000	1.7%	St. Louis	15,500	1.1%		
Oakland/Fremont/Hayward	19,400	1.7%	Pittsburgh	10,300	0.9%		
Total Bay Area	49,400	1.5%	Cleveland	9,700	0.9%		
Detroit (Detroit/Warren/Livonia)	44,900	2.3%	Memphis	9,500	1.5%		
Minneapolis-St. Paul	44,800	2.3%	Oklahoma City	9,200	1.5%		
Orlando	40,000	3.3%	New Orleans	1,600	0.3%		



#### Fconomic Growth Accelerates in Third Quarter

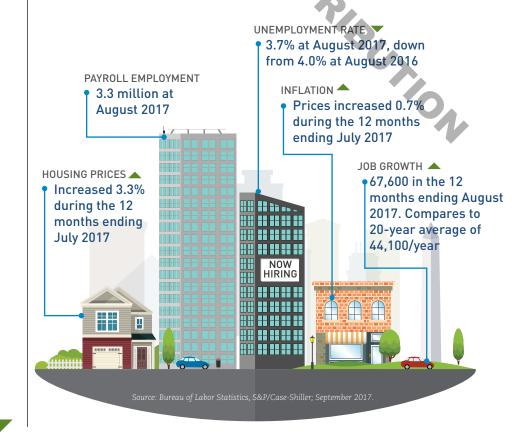
After slowing down somewhat earlier in the year, the pace of job growth has picked up again in the Washington metro area. A net total of 67,600 jobs were added to the Washington area economy during the 12 months ending August 2017, led again by the Education/Health Services and Professional/Business Services sectors. During the 12-month period ending August 2017, the total number of jobs in the Washington region grew at an annual rate of 2.1%, compared to a national rate of 1.4%. The unemployment rate in the Washington metro area stood at 3.7% as of August 2017, down 30 basis points from August 2016.

Consumer price growth in the Baltimore/Washington region showed little movement in the third quarter, reflecting national price stagnation. Consumer prices across the region in July 2017 were just 0.7% higher than they were a year prior, compared to 1.7% nationally. Regional gasoline prices stalled in the third quarter, after an extended period of robust growth, increasing just 1.6% over the 12 months ending July 2017. Home prices in the region increased 3.3% in the 12 months ending August 2017, compared to 5.8% nationwide.

We expect additional growth through the end of the year, as job growth remains robust and consumer spending strong. That said, there does remain significant downside potential regarding the policies of the new presidential administration and their effects on the region's economy, which is still heavily dependent on federal spending.

Amazon's RFP announcement for a second headquarters has sent regional economic development officials in a frenzy, as they rush to put together proposals for the highly-sought after award.

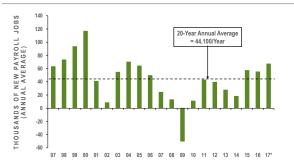
#### **ECONOMIC HIGHLIGHTS** WASHINGTON METRO AREA



The tech industry has become a bright spot for the Washington region in recent years. In 2016 alone, tech firms 2U, RainKing Software, Optoro, and Opower expanded their operations in the region and committed to hiring additional workers in the near future. Likewise, coworking firms, which cater to tech startups, have been on a path of rapid expansion in the Washington area. Amazon's RFP announcement for a second headquarters has sent regional economic development officials in a frenzy, as they rush to put together proposals for the highly-sought after award. If selected, the tech behemoth's second headquarters would bring 50,000 new well-paying jobs to the region over a decade, and would undoubtedly have positive spillover effects for the entire regional economy.

#### **PAYROLL JOB GROWTH**

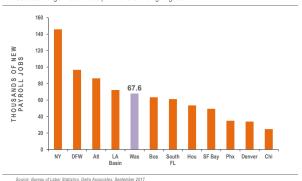
Washington Metro Area



\*12 months ending in August 201

#### **PAYROLL JOB GROWTH**

Selected Large Metro Areas | 12 Months Ending August 2017



**PAYROLL JOBS** 

After slowing down somewhat earlier in the year, the pace of job growth has picked up again in the Washington metro area. This falls in line with our predictions last quarter of a coming "resurgence in job growth." A net total of 67,600 jobs were added to the Washington area economy during the 12 months ending August 2017, which was well above the long-term annual average of 44,300. During the 12-month period ending August 2017, the total number of jobs in the Washington region grew at an annual rate of 2.1%, compared to a national rate of 1.5%. The Washington region ranked 5th among its peers in total job growth. As of August 2017, the total non-farm payroll in the Washington metro area stood at 3.3 million.

#### PAYROLL JOBS BY SECTOR

As has been the case through most of the recovery period, the booming Education/Health and Professional/ Business Services sectors lead job growth in the 12 months ending August 2017, totaling 36,200 combined. The resurging Washington area Leisure/Hospitality sector augmented that total with 14,400 jobs over the 12-month period. Payroll additions in most of the region's other employment sectors was positive, but below 10,000.

Job losses in the local Information sector continued to pile up in the third quarter, mirroring national trends as traditional publishing and media industries continue to rapidly contract. The sector experienced a 3,300 reduction in payroll positions during the 12 months ending August 2017. As we projected last quarter, the 12-month Federal Government job growth figure turned negative (-900) as of August. If President Trump follows through on his policy goals, we can certainly expect even more reductions in the size of the regional federal workforce in future periods. On the bright side, State and Local Governments picked up the slack in the public sector adding 5,100 jobs in the 12 months ending August 2017.

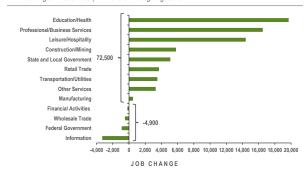
#### TRENDS IN EMPLOYMENT BY MAJOR SECTOR Washington Metro Area

	AUGUST 2017	12-MONTH CHANGE	20-YEAR ANNUAL AVERAGE
Education/Health	444.9	19.7	1.4
Professional/Bus. Svcs.	762.7	16.5	6.4
Leisure/Hospitality	346.4	14.4	1.9
Construction/Mining	165	5.8	15.2
State and Local Govt.	312.4	5.1	10.0
Retail Trade	282.5	3.7	1.8
Transportation/Utilities	67.8	3.5	1.7
Other Services	199.9	3.3	-0.1
Manufacturing	54.7	0.5	-1.0
Financial Activities	159.1	-0.2	0.2
Wholesale Trade	62.4	-0.5	-1.0
Federal Government	365.9	-0.9	4.3
Information	71.2	-3.3	3.5
Total	3,294.90	67.6	44.1

Note: In thousands of payroll jobs. Data are not seasonally adjusted. Source: BLS, Delta Associates; September 2017.

#### **PAYROLL JOB GROWTH**

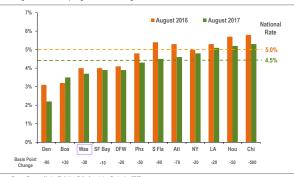
Washington Metro Area | 12 Months Ending August 2017



Source: Bureau of Labor Statistics. Delta Associates: September 2017

#### **UNEMPLOYMENT RATE**

Large Metro Areas | August 2016 vs. August 2017



#### **CONSUMER PRICE INDEX (CPI)**

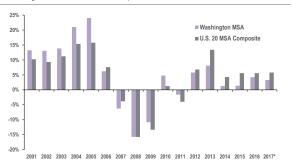
Washington/Baltimore Region



Note: Data is 12 month change ending in each period, through July 201

#### **CHANGE IN HOUSE PRICES**

Washington MSA vs. U.S. 20-MSA Composite



"12 months ending July 2017. Source: S&P/Case-Shiller, Delta Associates; September 201.

#### **UNEMPLOYMENT RATE**

The unemployment rate in the Washington metro area stood at 3.7% as of August 2017, down 30 basis points from August 2016. The region's unemployment rate is currently the third lowest among its peer metropolitan areas, trailing Denver and Boston. The rate is also 80 basis points lower than the national rate of 4.5% as of August 2017. We expect the Washington metro area's unemployment rate to continue to decline into the 3.0% - 3.3% range before the end of the year, then tick upwards as the federal workforce shrinks.

#### REGIONAL CONSUMER PRICE INDEX

Consumer price growth in the Baltimore/Washington region showed little movement in the third quarter, reflecting national price stagnation. Consumer prices across the region in July 2017 were just 0.7% higher than they were a year prior, compared to 1.7% nationally. After several quarters of robust growth, regional gasoline prices stalled in the third quarter, up just 1.6% over the 12 months ending July 2017. Household energy costs showed more significant appreciation over the period, rising 3.4%. We expect future CPI reports will show considerable increases in energy prices in reflection of rising gas prices following energy infrastructure damage caused by Hurricane Harvey in late August.

#### **HOUSING PRICES**

After lagging the rest of the country by a wide margin in terms of growth, home prices in the Washington metro area have been very slow to catch up. According to the S&P/Case-Shiller Home Price Index, home prices in the region increased 3.3% in the 12 months ending July 2017, compared to 5.8% nationwide. Looking ahead, we expect steady growth in home prices, although rising inventory and interest rates will place some downward pressure on prices.





#### **REGIONAL GDP**

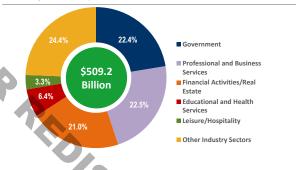
The total GDP produced in the Washington metro area in 2016 was \$509.2 billion (in current dollars). This was a 3.2% increase from the estimated \$493.7 billion in 2015, and just matched the 3.2% annual growth rate for all metro areas in the United States. Economic activity in the private sector totaled \$394.9 billion in 2016, which was a 3.3% increase over 2015, while total activity in the public sector was \$114.3 billion, just 2.8% higher than in 2015. The fastest growing economic sector in the Washington area during 2016 was Leisure/Hospitality which grew 4.6%, contributing \$16.6 billion to regional GDP.

While the Federal government remains the largest single contributor to the Washington area economy, its share of spending is shrinking. Federal government spending (direct expenditures and procurement) was 36% of GRP in 2015 (2016 figures were not directly reported). We expect this share to be reduced to 27% by 2020, as private sector economic growth will accelerate while Federal spending will remain flat, or possibly contract.

A major share of Federal spending in the Washington metro area economy is for procurement – the government's purchase of goods and services from the private sector. After decreasing slightly in 2015, procurement spending in the Washington region increased 3.8% to \$73.8 billion in 2016. Because these dollars drive private sector investment and job growth, they have a much greater secondary economic impact than dollars spent on Federal payroll.

#### SHARE OF REGIONAL GDP

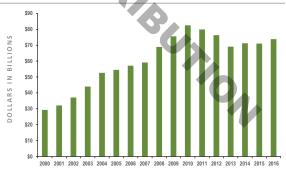
Washington Metro Area | 2016



Note: Percentages may not total to 100% due to rounding Source: Bureau of Economic Analysis, Delta Associates, September 2017.

#### FEDERAL PROCUREMENT SPENDING

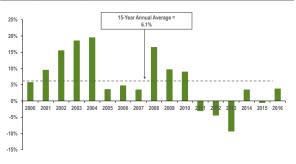
Washington Metro Area 2000-2016



Source: US Census, Consolidated Federal Funds Report and USAspending.gov, Delta Associates; September 2017.

### ANNUAL CHANGE IN FEDERAL PROCUREMENT SPENDING

hington Metro Area (Current Dollars) 2000-2016



Source: George Mason University Center for Regional Analysis, Delta Associates; September 2017

# TOX

#### SIDEBAR: THE COMPETITION TO SECURE AMAZON'S HQ2

In early September, Amazon released a RFP for the development of a second national headquarters somewhere in North America (note that this means it could be located outside of the U.S.). The new headquarters would be a \$5 billion investment and provide 50,000 new full-time jobs paying an average of over \$100,000 a year. Amazon's existing headquarters in Seattle has been a boon to the city, with over \$85.8 billion in direct and indirect economic activity since Amazon moved their headquarters to Seattle in 2010.

Therefore, it comes as no surprise that hundreds of large cities and counties across the country are scrambling to put together RFP responses for submission by the October 19 deadline. Of course, this includes many of the Washington region's jurisdictions. While discussion of a single bid for the entire metro area surfaced early in the process, things quickly devolved into most jurisdictions submitting their own response in addition to a regional bid. WMATA has also thrown its hat into the ring, offering to join any regional bid by leveraging its valuable portfolio of transit-adjacent real estate.

Here is a brief overview of the building/site "preferences" specified in the HQ2 RFP:

- Within 30 miles of a population center.
- Within 45 minutes of an international airport.
- No more than two miles from "major highways and arterials."
- Must have direct access to rail, subway/metro, and/or bus routes.
- Provide for 500,000 SF of office space in 2019 and eight million SF of office space by 2027+.

While these are not strict requirements, the selection of available development sites in the densely-populated Washington region that satisfy all of them is actually very slim. Nevertheless, at least five jurisdictions (likely more) in the region have stated that they plan to submit bids to Amazon, including: the District of Columbia, Montgomery and Prince George's counties in Maryland, and Loudoun and Arlington counties in Virginia. This doesn't include other proposals in Maryland and Virginia from cities and counties outside of the immediate Washington area, including Baltimore City and Virginia Beach. Regardless of the separate bids coming from the region, it's clear that the Washington area has distinct advantages over most other metro areas including: a highly-educated workforce, a plethora of transit options, and three major airports.



The University of Maryland's Discover District in College Park. Future home of Amazon's HQ 2? (Source: COPT)

#### WASHINGTON AREA ECONOMIC OUTLOOK

The Washington area economy continues to expand, although the rate of growth has ebbed and flowed so far this year, mirroring national patterns. We expect additional growth through the end of the year, as job growth remains robust and consumer spending strong. That said, there does remain significant downside potential regarding the policies of the new presidential administration and their effects on the region's economy, which is still heavily dependent on federal spending.

President Trump's initial FY2018 budget proposal to Congress prompts immediate cause for concern since it calls for steep budget cuts to nearly every federal agency. Some agencies stand to lose over 20% of their current budgets, including the Environmental Protection Agency, State, Agriculture, and Labor departments. Under the president's proposal, only the departments of Veteran Affairs, Homeland Security, and Defense would see funding increases. On top of the budget uncertainty is the looming debt ceiling which will need to be raised again before the end of the year, after a brief reprieve was passed by Congress in September.

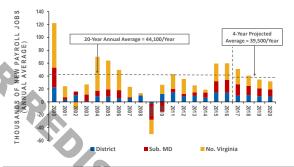
The tech industry has become a bright spot for the Washington region in recent years. In 2016 alone, tech firms 2U, RainKing Software, Optoro, and Opower expanded their operations in the region and committed to hiring additional workers in the near future. Likewise, coworking firms, which cater to tech startups, have been on a path of rapid expansion in the Washington area. No doubt the most lucrative potential prize for the region is Amazon's planned second headquarters. If selected, the tech behemoth's second headquarters would bring 50,000 new well-paying jobs to the region over a decade, and would undoubtedly have positive spillover effects for the entire regional economy. A number of area jurisdictions have already indicated plans to submit bids (see sidebar).

Overall, we predict that 51,000 new jobs will be created in the region in 2017 (primarily in the private sector) with the pace of annual job growth slowly declining in subsequent years. Overall, we expect annual job growth in the metro area to average 39,500 over the next four years. The Washington metro area has a wealth of assets - a highly skilled workforce, access to international markets, high-quality education, and vast cultural resources - that will continue to give it a competitive advantage over other large metro areas in the long-run.

# The tech industry has become a bright spot for the Washington region in recent years.

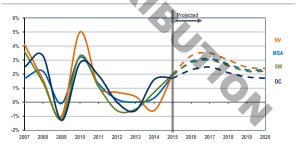
#### **PAYROLL JOB GROWTH**

Washington Metro Area



#### ECONOMIC OUTLOOK (GRP), 2007-2020

Washington Area and Sub-State Areas (Annual % Change)



#### U.S. GDP AND WASHINGTON AREA GRP

2007 - 2020 (Annual % Change)



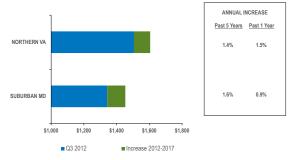


# A Snapshot of the Class B Apartment Market

#### ANNUAL AVERAGE EFFECTIVE RENT GROWTH

#### **CLASS B LOW-RISE APARTMENTS**

WASHINGTON METRO AREA | THIRD QUARTER 2017

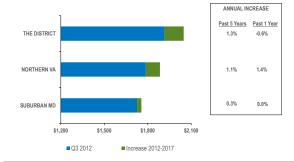


Source: Delta Associates, September 2017.

#### ANNUAL AVERAGE EFFECTIVE RENT GROWTH

#### **CLASS B HIGH-RISE APARTMENTS**

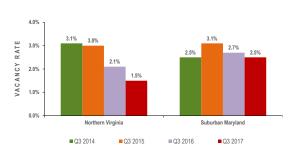
WASHINGTON METRO AREA | THIRD QUARTER 2017



Source: Delta Associates, September 2017

#### **VACANCY RATES**

### CLASS B LOW-RISE APARTMENTS WASHINGTON METRO AREA



Source: Delta Associates, September 2017.

#### **VACANCY RATES**

### CLASS B HIGH-RISE APARTMENTS WASHINGTON METRO AREA

Source: Delta Associates, September 201





#### Low-Rise Product Outperforms

Due to the strong performance of the suburbs, Class B rent growth in the Washington metro area over the past 12 months outpaced the Class A market and vacancy continued to decline. Class B rents metro-wide grew 1.0% in the twelve months ending September 2017 and vacancy decreased by 10 basis points over the year to 2.2%. However, the large number of new units coming on the market in the District has had an adverse impact on the Class B market in that substate area, where rents have again declined while vacancy increased.

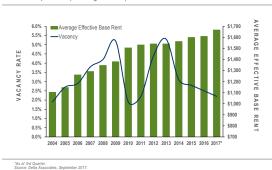
As metro-wide vacancy decreased, over-the-year rents increased in Northern Virginia and in Suburban Maryland, but declined slightly in the District:

- Suburban Maryland up 0.7%
- Northern Virginia up 1.5%
- District down 0.6%

- Metro-wide low-rise up 1.2%
- Metro-wide high-rise up 0.7%

#### EFFECTIVE RENT AND VACANCY RATE

Class B Apartments | Washington Metro | 4th Quarter 2004 - 2017

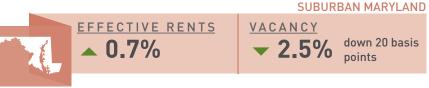


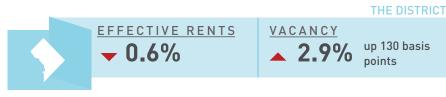
An Overview of the Class B Apartment Market at Third Quarter 2017 by Sub-state Area: The Trend Since Third Quarter 2016

# EFFECTIVE RENTS **1.5%**









#### **OUTLOOK FOR CLASS B APARTMENTS**

Class B apartments once again outpaced Class A in terms of rent growth over the past year at 1.0% in the Washington metro area, and vacancy remains low. Local economic and demographic forces will benefit the Class B market in the period ahead. While rents will continue to rise, vacancy is still likely to remain unchanged over the remainder of 2017 from its current level. Several contributing factors will continue to impact vacancy and rents in the coming year:

- Washington metropolitan area job growth remains healthy. We estimate that job growth will support a sturdy Class B apartment market in the coming years. Strong job growth is expected in the Leisure/ Hospitality and Retail Trade sectors. These industries tend to have lower-wage jobs than other sectors, generating demand for Class B apartments.
- Washington area home prices increased 3.3% during the 12-months ending July 2017. This is not as strong as the 5.8% increase seen by the US 20-MSA Composite, but we expect to see modest gains in this market through the remainder of 2017. Even with slight increases, we will see people deciding to rent rather than own. The share of renter households has increased substantially in the Washington region over the past few years, and we expect this trend to continue.
- New apartment deliveries remain high, putting pressure on rents. Delivery of new Class A units will continue to be historically high over the next year. Concessions for newly-leasing properties will suppress rent growth in selected Class A submarkets as property managers struggle to maintain occupancy. Even with historically-high absorption helping to offset the newly delivered product, we expect to see declines in Class A rents in some submarkets which will in turn limit Class B rents in order to maintain a reasonable spread between the two asset classes.

Renovation activity is slowing, but will continue to have an impact on rents. Nearly 10,000 units are under renovation in the metro area, and as these improvements are completed, rent premiums will be achieved at properties with revamped units.

#### **VACANCY RATES DECREASE**

The Washington metro area Class B apartment vacancy rate is 2.2% as of September 2017, down from 2.3% one year ago.

CLASS B LOW-RISE VACANCY RATES Third Quarter 2016 & Third Quarter 2017					
SUB-STATE AREA Q3 2016 Q3 201					
Northern Virginia	2.1%	1.5%			
Suburban Maryland	2.7%	2.5%			
Washington Metro Average 2.4% 2.0%					

Source: Delta Associates, September 2017.

Class B low-rise vacancy is 2.0% - down 40 basis points from a year ago. Among the low-rise submarkets in Northern Virginia, vacancy is lowest in the Route 1 Corridor of Alexandria – down to 0.4% from 1.3% this time last year. The submarket in Northern Virginia with the highest vacancy rate is Annandale at 3.2%. In Suburban Maryland, there is a tie for the lowest vacancy rate – both Silver Spring/Wheaton and the Landover/New Carrollton submarkets are at 1.6%, and the highest rate is found in Rockville, which has a vacancy of 4.1%.

CLASS B MID- AND HIGH-RISE VACANCY RATES Third Quarter 2016 & Third Quarter 2017					
SUBSTATE AREA	Q3 2016	Q3 2017			
Northern Virginia	2.2%	2.6%			
Suburban Maryland	2.6%	2.3%			
District of Columbia	1.6%	2.9%			
Washington Metro Average 2.2% 2.6%					

Source: Delta Associates, September 2017.

Class B mid- and high-rise vacancy is 2.5% - 30 basis points higher than September 2016. In Northern

Virginia, vacancy is lowest in Arlandria (0.9%) and highest in Crystal City (3.4%). Vacancy in Suburban Maryland is lowest in Silver Spring (1.8%), which has seen a 120-basis point decrease in vacancy since September 2016. Bethesda/Chevy Chase had the highest vacancy rate (3.1%), with vacancy increasing 170 basis points since September 2016. Vacancy in the District (2.9%) increased by 130 basis points compared to a year ago and is up in all three submarkets. This wholesale increase is likely due to the large amount of new product available in the market - some Class B renters are moving into newer buildings. For example, vacancy increased by 190 basis points in Southwest, an area of the city where new buildings have recently opened with more under construction.

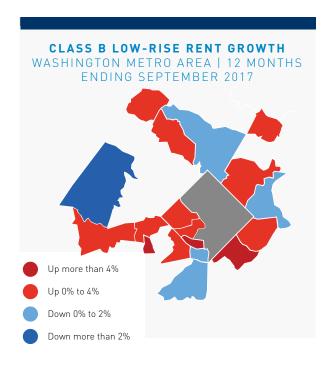
#### RENT GROWTH STRONGER IN NORTHERN VIRGINIA

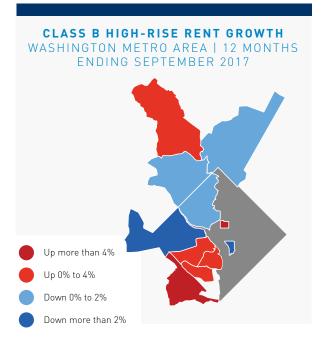
Effective rents at Class B properties are up 1.0% over the year in the Washington metro area compared to the five-year average of 1.2%. Of the three substate areas, rent growth is strongest in Northern Virginia, which recently has surpassed its five-year average. While effective rents at Class B properties in the District are down by 0.6%, Northern Virginia has seen a rent increase of 1.5% since September 2016.

CLASS B LOW-RISE RENT CHANGE 12 Months Ending September 2017				
SUBSTATE AREA	EFFECTIVE RENT CHANGE			
Northern Virginia	1.5%			
Suburban Maryland	0.9%			
Washington Metro Average	1.2%			

Source: Delta Associates, September 2017.

Class B low-rise apartment effective rents in the Washington metro area are up 1.2% since September 2016. The average effective rent for Class B low-rise apartments is currently \$1,528 per month.





#### Northern Virginia:

Class B low-rise apartment rents are up 1.5% since last year with an average effective rent of \$1,605, or \$1.85 per square foot. All but three Northern Virginia submarkets experienced positive rent growth since September 2016, with half of the submarkets recording annual rent growth above the five-year average. The Annandale submarket experienced the strongest rent growth over the last twelve months at 14.4%, followed by Arlandria with rent growth of 10.4%. Only three submarkets experienced negative rent growth – Reston (down 3.0%), the Route 1 Corridor of Alexandria (down 1.4%), and East Alexandria (down 0.3%).

#### Suburban Maryland:

Meanwhile, Class B low-rise apartment rents in Suburban Maryland are up 0.9%, with all but two submarkets experiencing positive rent growth from the previous year. Oxon Hill/Camp Springs low-rise rents are currently the best-performing of all low-rise submarkets in Suburban Maryland with an increase of 4.9% over the year. Rockville, Andrews, Oxon Hill/Camp Springs, and Greenbelt/Takoma Park all surpassed their five-year averages. Decreases in rent over the past year occurred in Silver Spring/Wheaton (down 1.6%) and Landover/New Carrollton (down 0.7%).



Vornado: River House, Arlington, VA

Class B mid- and high-rise rents continued to increase overall in the metro area with average effective monthly rent rising by 0.7% over the year to \$1,889. The positive growth was driven by a 1.4% increase in rents in Northern Virginia, which experienced rent growth across all but one submarket. In Suburban Maryland, the most sizable drop in rents over the year were in Silver Spring (down 0.7%), which was not as severe as the annual change recorded last quarter. In Northern Virginia, rents increased the most in the West Alexandria submarket (5.7%) and decreased by 2.3% in Falls Church/North Arlington. The District was the only substate area where effective rent growth decreased as there was a significant drop in Southwest (down 3.7%) as well as a decrease in Upper Northwest (down 1.5%), just outweighing the positive growth seen in Mt. Vernon Square, NW (up 6.0%). Among all mid- and high-rise submarkets, Crystal City reported the highest average effective rent (\$2,334), followed by Upper Northwest (\$2,163) and Mount Vernon Square, NW (\$2,103). At the other end of the spectrum, Arlandria has the lowest average monthly rent - currently at \$1,558. On a per-square-foot-basis, Mt. Vernon Square, NW is highest at \$3.03 while Silver Spring is the lowest at \$1.68.

CLASS B MID- AND HIGH- 12 Months Ending S	
SUBSTATE AREA	EFFECTIVE RENT CHANGE

SUBSTATE AREA	EFFECTIVE RENT CHANGE
Northern Virginia	1.4%
Suburban Maryland	0.0%
District of Columbia	-0.6%
Washington Metro Average	0.7%

Source: Delta Associates, September 2017.

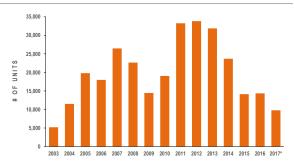
#### STATE OF THE WASHINGTON CLASS B APARTMENT MARKET



Greystar: Cascade at Landmark, Alexandria, VA

#### **CLASS B PROPERTIES UNDERGOING RENOVATION**

Washington Metro Area



#### **RENOVATION VOLUME COMPARISONS** TO PRIOR PERIODS AS OF # UNITS IN RENOVATION Third Ouarter 2017 9.780 Third Quarter 2016 13,677 Third Quarter 2015 15,285

#### RENOVATION/REPOSITIONING ACTIVITY CONTINUES TO DECREASE

Renovation activity continues to be relatively stable throughout the past year but is well below its highest level in the previous cycle. Renovation remains crucial as a means to keep the Class B market competitive with the lower end of the Class A market. With upgrades underway in at least 25 projects across the metro area, more than 9,700 units are in renovation as of September 2017. This is considerably lower than the third quarter of 2016 when 13,677 units were undergoing renovations. These improvements to the existing Class B housing stock allow rents to continue to increase in spite of the increasing housing supply as a whole.

Opportunities continue for renovating existing Class B and C grade properties. In our view, renovation can be most profitable in submarkets where the rent spread is widest between Class A and Class B or Class C apartments.

In dollar terms, the largest current rent spreads between Class A and B product are in high-rise properties. The spread is most pronounced in the District (average Class B rents are over \$530 lower than Class A) and high-rise product in Suburban Maryland (almost \$440 lower). High-rise product in Northern Virginia a bit lower with a rent spread of nearly \$380.

Properties renovated to Class B+ quality generally can achieve rents more than \$200 per month higher than the lower Class B's. This generates additional revenue sufficient to allow for a renovation budget of roughly \$15,000 per unit at a 15%+ return on investment.

"Value-add" efforts in the Washington apartment market are still competitive, as illustrated by our representative sample of renovation projects (see Table 10).

Value-add activity for low-rise product is concentrated in Northern Virginia, especially along the Route 1 Corridor of Alexandria, West Alexandria, and Fairfax City where nearly 3,700 units are in various stages of renovation. Silver Spring and Crystal City are the highrise submarkets that lead the Washington metro area in repositioning with nearly over 2,500 units currently under renovation. See maps on pages 34 and 35.

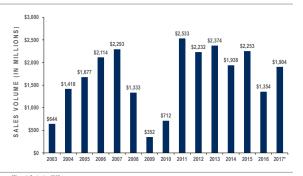
#### 2017 SALES TRANSACTIONS

Through September 2017, there were a total of 36 Class B sales in the metro area (31 low-rise/mid-rise properties and five high-rise properties), totaling 11,042 units for \$1.9 billion in sales, or \$172,403 per unit. In 2016 through the same time period, numbers were much lower with 17 low-rise/mid-rise Class B property sales and eight high-rise property sales.

CLASS B APARTMENT PROPERTY SALES: 2017 Through September							
	NUMBER OF TRANSACTIONS	TYPE OF PROPERTY	AVERAGE PRICE PER UNIT				
	31	Low- and Mid-Rise	\$160,538				
	5	High-Rise	\$239,221				

#### **TOTAL SALES VOLUME**

Class B Apartments | Washington Metro Area



\*Through September 2017. Source: Delta Associates, September 2017.

#### A WORD ABOUT OUR **DEFINITION OF VACANCY RATE**

We sometimes hear from apartment developers and managers that their portfolio vacancy rate is 200 to 400 basis points higher than the numbers we report, which places them under unfair investor scrutiny. While we state methodological matters at the end of our report (Section 5), we thought it appropriate to describe here our term "vacancy."

When we conduct our quarterly surveys, we obtain information on "units available to lease" - that is, physical vacancy. Obtaining the information this way, of course, may produce several important differences from "vacancy" as reported in your financial statements. Simply stated, the difference can be characterized as:

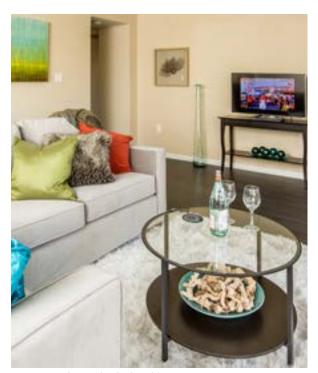
Delta's Definition: Available units to lease Operating Statement Vacancy: Economic vacancy

Our definition (available units) may therefore be understated compared to yours (economically vacant) by our exclusion of units occupied by non-paying tenants (which we cannot know), and of units not available for lease, such as employee units and model apartments. We estimate that this adds about 100 to 150 basis points to your definition of vacancy, as compared to ours. Our vacancy rate may also be understated, compared to yours, by our exclusion of what at present are economically vacant, on-notice units for which a lease to occupy in the future has been signed (hence, they are not currently available to lease). We estimate that this potentially adds another 150 to 200 basis points to your definition of vacancy, as compared to ours.

#### WHAT DOES THE FUTURE HOLD?

Through the third quarter of 2017, the Class B market continued to experience overall positive rent growth and declining vacancy from third quarter 2016 despite. predictions of increasing vacancy. While Class B vacancy is down slightly from a year ago, it is up 20 basis points from last quarter and we expect this trend to continue through the remainder of 2017, especially in the District as the large pipeline of Class A product is brought to market. With vacancy edging up, Class B rents will be under pressure in more and more submarkets.

With continued growth in lower-wage job categories like Leisure/Hospitality, Retail Trade, and other service industries in the Washington metro area, demand will likely be sustained for Class B apartments.



Greystar: Cascade at Landmark, Alexandria, VA

Here are specific opportunities we see for Class B projects:



#### Keep Class B competitive

supply will continue to remain elevated in the coming quarters and may dampen Class B rent growth opportunities because of the concessions that many Class A apartment communities are offering in addition to amenities, especially in the District. Renovation and repositioning is a key defensive strategy.



#### Access to employment centers

and areas with thriving job growth. For example, South Arlington, Annandale, Silver Spring/Wheaton, Arlandria, Rockville, Southwest, and Mount Vernon Square benefit due to their potential for easy commutes.



#### Value-add acquisitions

Submarkets that have higher Class A rents and lower Class B rents have the potential to see a larger return on investment—they can afford to increase the rents of renovated Class B apartments without pricing out Class B renters.



**TABLE 1** 

#### EFFECTIVE RENT AND STABILIZED VACANCY RATE FOR INVESTMENT GRADE CLASS A AND CLASS B APARTMENTS

#### Washington Metropolitan Area Third Quarter 2017

	GEOGRAPHIC AREA			WASHINGTON METRO AREA				
	NORTHER	N VIRGINIA	SUBURBAN MARYLAND		THE DISTRICT		AVERAGE	
CLASS A APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Low-Rise	3.5%	\$1,702	4.8%	\$1,665	N/A	N/A	4.0%	\$1,687
Mid & High-Rise	3.5%	\$2,288	4.2%	\$2,188	4.7%	\$2,585	4.1%	\$2,387
Total Class A	3.5%	\$1,952	4.6%	\$1,828	4.7%	\$2,585	4.0%	\$2,044
Comparison at 9/16:	4.2%	\$1,921	3.4%	\$1,814	4.1%	\$2,625	3.9%	\$2,018
Comparison at 9/12:	3.0%	\$1,825	5.2%	\$1,697	3.5%	\$2,627	3.9%	\$1,867
CLASS B APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Low-Rise	1.5%	\$1,605	2.5%	\$1,453	N/A	N/A	2.0%	\$1,528
Mid & High-Rise	2.6%	\$1,884	2.3%	\$1,756	2.9%	\$2,048	2.6%	\$1,889
Total Class B	2.0%	\$1,731	2.5%	\$1,513	2.9%	\$2,048	2.2%	\$1,669
Comparison at 9/16:	2.2%	\$1,706	2.7%	\$1,502	1.6%	\$2,060	2.3%	\$1,652
Comparison at 9/12:	3.2%	\$1,632	4.8%	\$1,423	1.5%	\$1,915	3.6%	\$1,573
CLASS A & B APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Total Class A and B	2.5%	\$1,813	3.2%	\$1,612	4.0%	\$2,393	2.9%	\$1,814
Comparison at 9/16:	3.4%	\$1,840	3.1%	\$1,677	3.6%	\$2,531	3.3%	\$1,883
Comparison at 9/12:	3.1%	\$1,740	5.0%	\$1,582	2.9%	\$2,416	3.8%	\$1,744

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: 9/2017

#### RENT GROWTH FOR INVESTMENT GRADE CLASS A AND CLASS B APARTMENTS

#### Washington Metropolitan Area Third Quarter 2017

		GEOGRAPHIC AREA		WASHINGTON METRO AREA
	NORTHERN VIRGINIA	SUBURBAN MARYLAND	THE DISTRICT	AVERAGE
CLASS A APARTMENTS			74	
Annual Rent Growth Since September 2016 $^{\rm 1}$				
Low-Rise	1.1%	0.4%	N/A	0.8%
Mid & High-Rise	-0.1%	1.3%	-1.3%	-0.3%
Total Class A	0.5%	0.7%	-1.3%	0.2%
Annual Rent Growth Since September 2012				49
Total Class A	1.4%	1.5%	-0.3%	1.8%
CLASS B APARTMENTS				
Annual Rent Growth Since September 2016 $^{\rm 1}$				
Low-Rise	1.5%	0.9%	N/A	1.2%
Mid & High-Rise	1.4%	0.0%	-0.6%	0.7%
Total Class B	1.5%	0.7%	-0.6%	1.0%
Annual Rent Growth Since September 2012				
Total Class B	1.2%	1.2%	1.4%	1.2%
CLASS A & B APARTMENTS				
Annual Rent Growth Since September 2016 $^{\rm 1}$				
Low-Rise	1.4%	0.8%	N/A	1.1%
Mid & High-Rise	0.9%	0.5%	-1.0%	0.3%
Total Class A and B	1.1%	0.7%	-1.0%	0.7%
Annual Rent Growth Since September 2012				
Total Class A and B	0.8%	0.4%	-0.2%	0.8%

<sup>&</sup>lt;sup>1</sup> Same-store rent comparison.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: 9/2017

# TABLE 3 KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL LOW-RISE APARTMENTS

Summary | Suburban Washington Area Third Quarter 2017

	GEOGRA	PHIC AREA	
MARKET INDICATOR	NORTHERN VIRGINIA	SUBURBAN MARYLAND <sup>1</sup>	SUBURBAN WASHINGTON AREA TOTAL/AVERAGE
Number of Units Surveyed	21,898	22,341	44,239
Rent Levels (Avg. of All Unit Sizes) <sup>2</sup>			
Face Rent	\$1,606	\$1,455	\$1,530
Concession as a % of Face Rents	0.1%	0.2%	0.1%
Effective Rent	\$1,605	\$1,453	\$1,528
Effective Rent per Square Foot	\$1.85	\$1.58	\$1.71
<b>Annual Effective Rent Increase</b>			
Since September 2016	1.5%	0.9%	1.2%
Since September 2012	1.4%	1.6%	1.5%
Vacancy			
September 2017	1.5%	2.5%	2.0%
September 2016	2.1%	2.7%	2.4%

<sup>&</sup>lt;sup>1</sup> Includes all surveyed submarkets in Prince George's County, Montgomery County, and Columbia.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: 9/2017

<sup>&</sup>lt;sup>2</sup> Rents include/assume landlord-paid utilities.



#### KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL LOW-RISE APARTMENTS

Selected Submarkets | Northern Virginia Third Quarter 2017

					S	UBMARKET					
MARKET INDICATOR	RESTON	FAIRFAX CITY	FALLS CH./ MERRIFIELD	ROSSLYN/ BALLSTON	SOUTH ARLINGTON	EAST ALEXANDRIA <sup>1</sup>	ARLANDRIA	RT. 1 CORRIDOR ALEXANDRIA	WEST ALEXANDRIA	ANNANDALE	NORTHERN VIRGINIA TOTAL/AVERAGE
Number of Units Surveyed	1,387	4,192	2,893	1,311	1,451	706	1,171	3,679	4,237	871	21,898
Average Year Built of Product Surveyed	1979	1980	1966	1944	1954	1948	1945	1973	1971	1968	1968
Rent Levels (Avg. of All Unit Sizes) <sup>2</sup>									<b>70</b>		
Face Rent	\$1,639	\$1,650	\$1,680	\$1,735	\$1,557	\$1,513	\$1,489	\$1,470	\$1,599	\$1,830	<b>\$1,606</b>
Concession as a % of Face Rents	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.1%
Effective Rent	\$1,632	\$1,650	\$1,680	\$1,735	\$1,557	\$1,513	\$1,489	\$1,470	\$1,597	\$1,825	\$1,605
Effective Rent per Square Foot	\$1.71	\$1.88	\$1.78	\$2.40	\$2.06	\$2.12	\$2.16	\$1.72	\$1.64	\$1.83	\$1.85
<b>Annual Effective Rent Increase</b>										<b>1699</b>	
Since September 2016	-3.0%	0.4%	1.2%	3.6%	3.0%	-0.3%	10.4%	-1.4%	1.2%	14.4%	1.5%
Since September 2012	1.8%	1.7%	0.8%	0.2%	2.1%	1.6%	1.9%	1.5%	1.2%	1.6%	1.4%
Vacancy											
September 2017	2.7%	1.4%	1.1%	1.4%	0.6%	1.1%	1.2%	0.4%	2.4%	3.2%	1.5%
September 2016	3.2%	1.9%	1.9%	2.0%	1.1%	1.3%	1.5%	1.3%	3.0%	3.8%	2.1%

<sup>&</sup>lt;sup>1</sup> Formerly the Old Town Alexandria submarket.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

<sup>&</sup>lt;sup>2</sup> Rents include/assume landlord-paid utilities.

#### KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL LOW-RISE APARTMENTS

Selected Submarkets | Suburban Maryland

					ı mıra	Quarter 2017						
		SUBMARKET					SUBMARKET					
MARKET INDICATOR	ROCKVILLE	GAITHERSBURG	SILVER SPRING/ WHEATON	SUBTOTAL- MONTGOMERY COUNTY	ANDREWS	OXON HILL/ CAMP SPRINGS	LANDOVER/ NEW CAROLLTON	GREENBELT/ TAKOMA PARK	LAUREL	SUBTOTAL - PRINCE GEORGE'S COUNTY	COLUMBIA	SUBURBAN MARYLAND TOTAL/AVERAGE
Number of Units Surveyed	1,498	2,744	3,368	7,610	1,945	2,039	2,617	2,108	2,310	11,019	3,712	22,341
Average Year Built of Projects Surveyed	1976	1981	1970	1975	1964	1972	1968	1967	1967	1968	1981	1972
Rent Levels (Avg. of all Unit Sizes) 1												
Face Rent	\$1,687	\$1,560	\$1,593	\$1,600	\$1,294	\$1,260	\$1,282	\$1,466	\$1,342	\$1,328	\$1,537	\$1,455
Concession as a % of Face Rents	0.1%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.1%	0.8%	0.2%
Effective Rent	\$1,685	\$1,560	\$1,593	\$1,599	\$1,289	\$1,260	\$1,282	\$1,466	\$1,342	\$1,327	\$1,525	\$1,453
Effective Rent per Square Foot	\$1.84	\$1.57	\$1.69	\$1.67	\$1.66	\$1.31	\$1.49	\$1.60	\$1.52	\$1.51	\$1.58	\$1.58
Annual Effective Rent Increase												
Since September 2016	2.8%	0.6%	-1.6%	0.1%	3.5%	4.9%	-0.7%	2.3%	1.0%	2.0%	0.3%	0.9%
Since September 2012	0.4%	3.1%	0.8%	1.6%	3.1%	2.7%	0.6%	1.6%	2.2%	2.0%	0.6%	1.6%
Vacancy												
September 2017	4.1%	2.3%	1.6%	2.4%	3.5%	2.4%	1.6%	2.0%	2.3%	2.3%	3.6%	2.5%
September 2016	4.7%	2.7%	2.3%	2.9%	3.7%	1.9%	2.1%	2.1%	1.3%	2.2%	4.1%	2.7%

<sup>&</sup>lt;sup>1</sup> Rents include/assume landlord-paid utilities.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: 9/2017

# KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL MID- AND HIGH-RISE APARTMENTS

Summary | Washington Metropolitan Area Third Quarter 2017

		GEOGRAPHIC AREA	<b>7</b> 0	
MARKET INDICATOR	NORTHERN VIRGINIA	SUBURBAN MARYLAND	THE DISTRICT	WASHINGTON METRO AREA TOTAL/AVERAGE
Number of Units Surveyed	17,910	5,549	5,062	28,521
Rent Levels (Avg. of All Unit Sizes) 1				
Face Rent	\$1,896	\$1,775	\$2,063	\$1,902
Concession as a % of Face Rents	0.7%	1.0%	0.8%	0.8%
Effective Rent	\$1,884	\$1,756	\$2,048	\$1,889
Effective Rent per Square Foot	\$2.08	\$1.84	\$2.59	\$2.12
Annual Effective Rent Increase				
Since September 2016	1.4%	0.0%	-0.6%	0.7%
Since September 2012	1.1%	0.3%	1.3%	1.0%
Vacancy				
September 2017	2.6%	2.3%	2.9%	2.6%
September 2016	2.2%	2.6%	1.6%	2.2%

<sup>&</sup>lt;sup>1</sup> Rents include/assume landlord-paid utilities.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

# KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL MID- AND HIGH-RISE APARTMENTS

Selected Submarkets | Northern Virginia Third Quarter 2017

			SUBMARKET	P		
MARKET INDICATOR	FALLS CHURCH/ NORTH ARLINGTON	SOUTH ARLINGTON	ARLANDRIA	WEST ALEXANDRIA	CRYSTAL CITY	NORTHERN VIRGINIA TOTAL/AVERAGE
Number of Units Surveyed	5,628	2,755	981	5,132	3,414	17,910
Average Year Built of Projects Surveyed	1981	1964	1963	1981	1981	1977
Rent Levels (Avg. of All Unit Sizes) 1						
Face Rent	\$2,074	\$1,666	\$1,558	\$1,597	\$2,334	\$1,896
Concession as a % of Face Rents	0.2%	2.2%	0.0%	1.0%	0.0%	0.7%
Effective Rent	\$2,070	\$1,630	\$1,558	\$1,581	\$2,334	\$1,884
Effective Rent per Square Foot	\$2.32	\$1.95	\$2.06	\$1.77	\$2.25	\$2.08
<b>Annual Effective Rent Increase</b>						
Since September 2016	-2.3%	1.6%	4.1%	5.7%	2.1%	1.4%
Since September 2012	0.2%	1.4%	2.1%	1.0%	1.9%	1.1%
Vacancy						
September 2017	1.9%	3.0%	0.9%	2.9%	3.4%	2.6%
September 2016	1.9%	1.5%	2.1%	3.6%	1.4%	2.2%

<sup>&</sup>lt;sup>1</sup> Rents include/assume landlord-paid utilities.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

# KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL MID- AND HIGH-RISE APARTMENTS

Selected Submarkets | Suburban Maryland Third Quarter 2017

		SUBMARKETS	P	
MARKET INDICATOR	SILVER SPRING	BETHESDA/ CHEVY CHASE	ROCKVILLE	SUBURBAN MARYLAND TOTAL/AVERAGE
Number of Units Surveyed	2,957	1,544	1,048	5,549
Average Year Built of Projects Surveyed	1974	1972	1974	1973
Rent Levels (Avg. of All Unit Sizes) 1			O.	<b>\</b>
Face Rent	\$1,651	\$2,063	\$1,699	\$1,775
Concession as a % of Face Rents	0.9%	1.8%	0.0%	1.0%
Effective Rent	\$1,636	\$2,025	\$1,699	\$1,756
Effective Rent per Square Foot	\$1.68	\$2.18	\$1.81	\$1.84
Annual Effective Rent Increase				
Since September 2016	-0.7%	-0.2%	2.3%	0.0%
Since September 2012	0.4%	0.8%	-0.6%	0.3%
Vacancy				
September 2017	1.8%	3.1%	2.7%	2.3%
September 2016	3.0%	1.4%	3.4%	2.6%

<sup>&</sup>lt;sup>1</sup> Rents include/assume landlord-paid utilities.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

# KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS B RENTAL MID- AND HIGH-RISE APARTMENTS

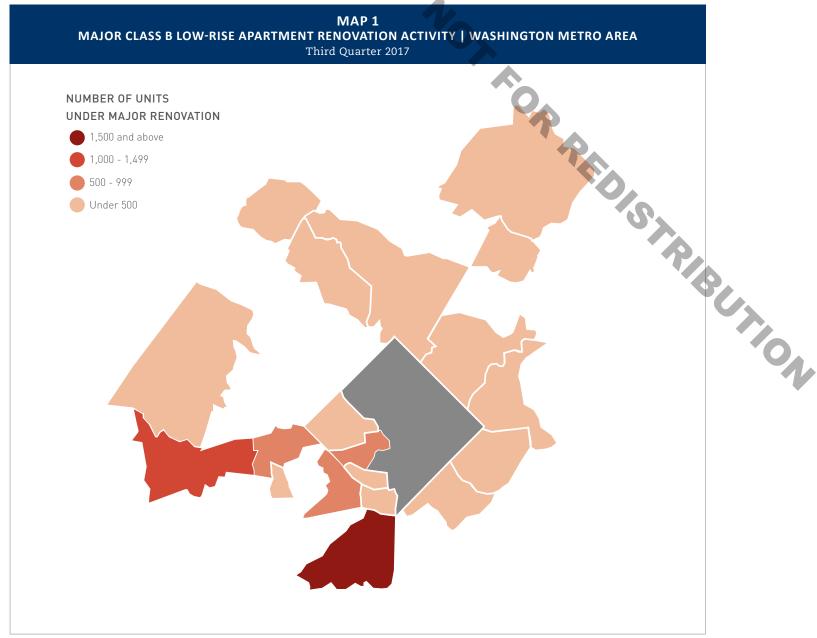
Selected Submarkets | The District Third Quarter 2017

		SUBMARKETS	P	
MARKET INDICATOR	UPPER NORTHWEST	MT. VERNON SQUARE, NW	SOUTHWEST	THE DISTRICT TOTAL/AVERAGE
Number of Units Surveyed	2,577	1,039	1,446	5,062
Average Year Built of Projects Surveyed	1971	1967	1974	1971
Rent Levels (Avg. of All Unit Sizes) 1			0	<b>\</b>
Face Rent	\$2,163	\$2,103	\$1,857	\$2,063
Concession as a % of Face Rents	0.0%	0.0%	2.9%	0.8%
Effective Rent	\$2,163	\$2,103	\$1,803	\$2,048
Effective Rent per Square Foot	\$2.49	\$3.03	\$2.44	\$2.59
<b>Annual Effective Rent Increase</b>				
Since September 2016	-1.5%	6.0%	-3.7%	-0.6%
Since September 2012	-0.1%	3.5%	2.0%	1.3%
Vacancy				
September 2017	3.1%	2.1%	3.0%	2.9%
September 2016	2.1%	1.1%	1.1%	1.6%

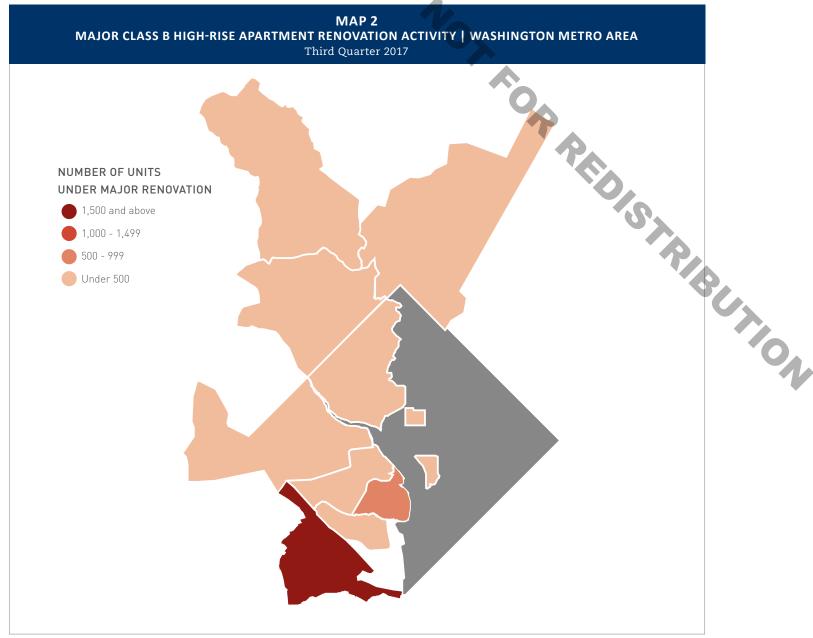
<sup>&</sup>lt;sup>1</sup> Rents include/assume landlord-paid utilities

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.





Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100. Last update: September 2017.



Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100. Last update: September 2017.

Page 1 of 2

RENOVATION REPORT

	TABLE 10  MAJOR CLASS B APARTMENT RENOVATIONS  Washington Metropolitan Area  Third Quarter 2017											
COMP#	PROJECT NAME/LOCATION	# OF UNITS	SPONSOR	TYPE	DATE OF ORIGINAL CONST.	TOTAL REN. COST	REN. COST PER UNIT	COMMENTS				
1.	Merrifield at Dunn Loring Fairfax, VA	706	Malkin Properties	Low-Rise	1968	N/A	N/A	Units: Kitchen upgrades as units become available				
2.	Takoma Landing Takoma Park, MD	222	McKinney Properties	Mid-Rise	N/A	\$4,500,000	\$20,270	Units: updating kitchens and bathrooms; TH units: full renovation & installing W/D				
3.	The Sycamores Reston, VA	185	Home Properties	Low-Rise	1978	N/A	N/A	Units: Renovated as units become available. Upgraded kitchens, new appliances. Also upgrading some of the bathrooms, tiles and lighting				
4.	Beacon Hill Alexandria, VA	727	Zuckerman Gravely	Low-Rise	1965	N/A	N/A	Units: kitchen, bathrooms, floors, fixtures, appliances.				
5.	Lerner Excelsior Tower Alexandria, VA	357	Lerner Residential	High-Rise	1975	N/A	N/A	Units: Upgrade kitchens. Install hardwood floors, new balconies, etc.				
6.	Newport Village Apartments Alexandria, VA	937	Home Properties	Low-Rise	1967	N/A	N/A	Units: Mocha cabinets, brushed nickel appliances, breakfast bar, new windows and doors.				
7.	Park Vue of Alexandria Alexandria, VA	196	Ross	High-Rise	1962	N/A	N/A	Units: Renovating entire unit as they are vacant				
8.	Residences at Belmont Fredericksburg, VA	300	Bozzuto	Low-Rise	1987	\$750,000	\$5,000	Units: Updating bathrooms and kitchens with faux-granite black countertops, black appliances, and new cabinets.				
9.	Meadow Woods Alexandria, VA	764	Scott Management	Low-Rise	1968	N/A	N/A	As vacant, renovating interiors				
10.	Crystal Plaza Apartments Arlington, VA	540	Gates Hudson	High-Rise	1966	\$23,000,000	\$42,593	Renovating units and updating amenities and lobby. Lawn games being put in the courtyard.				
11.	Shenandoah Crossing Fairfax, VA	640	Aimco	Low-Rise	1985	N/A	N/A	Upgrading bathroom and kitchens				
12.	2200 Columbia Pike Arlington, VA	218	B.M. Smith	High-Rise	1971	\$2,400,000	\$11,009	Renovating corridors, elevator lobbies, lobby, reception area, fitness room, mailroom, elevators and leasing office				

Page 2 of 2

RENOVATION REPORT

	TABLE 10  MAJOR CLASS B APARTMENT RENOVATIONS  Washington Metropolitan Area  Third Quarter 2017										
COMP#	PROJECT NAME/LOCATION	# OF UNITS	SPONSOR	TYPE	DATE OF ORIGINAL CONST.	TOTAL REN. COST	REN. COST PER UNIT	COMMENTS			
13.	The Aspen Alexandria, VA	348	Aspen House Associates LP	High-Rise	1964	N/A	N/A	Renovating kitchens upon turnover: installing wood-plank flooring, granite counter tops, maple cabinetry.			
14.	Water Park Towers Arlington, VA	442	Equity Residential	High-Rise	1972	N/A	N/A	Renovating common areas including the lobby; updating units.			
15.	The Century Washington, DC	88	Four Points	Mid-Rise	1937	\$5,280,000	\$60,000	Upgrading finishes in common areas and amenities, adding roof terrace. Renovating kitchens and bathrooms, updating finishes in apartment interiors.			
16.	Oaks of Woodlawn Alexandria, VA	175	Amurcon	Low-Rise	1986	N/A	N/A	Renovating interiors as units are vacated.			
17.	Elms at Kingstowne Alexandria, VA	294	Elms Living	Low-Rise	1988	N/A	N/A	Replacing siding and windows.			
18.	Horizon East Arlington, VA	152	Gates Hudson	High-Rise	1965	N/A	N/A	Renovating interiors as units are vacated.			
19.	Kendall Ridge Columbia, MD	184	Legend	Low-Rise	1990	\$736,000	\$4,000	Units: Renovating as tenants move out.			
20.	Kilburn Crossing Fredericksburg, VA	220	Chandler Management	Low-Rise	1996	N/A	N/A	Units: Upgrading kitchens as people vacate.			
21.	Brandywine Apartments Washington, DC	306	McCaffery Interests	High-Rise	1956	N/A	N/A	Units: updating kitchens and bathrooms; Common Areas: upgrades including front entrance renovation			
22.	Fillmore Gardens Arlington, VA	559	Scott Management	Low-Rise	1948	N/A	N/A	Units: renovations as tenants move out Common Areas: upgrades to common areas			
23.	The Ellipse at Government Center Fairfax, VA	404	Greystar	Garden	1990	\$3,636,000	\$9,000	Renovating units as tenants move out			
24.	Cedar Place Apartments Columbia, MD	156	JRK	Garden	1972	N/A	N/A	New clubhouse, pool, renovating apartments			
25.	Riverside Apartments Alexandria, VA	660	WashREIT	High-Rise	1973	N/A	N/A	Units: upgrading kitchens and bathrooms, installing hardwood flooring $ \\$			
	Total/Average:	9,780									

Note: If you have any major renovations planned or underway which we have overlooked, please call or fax us.

Source: Compiled by Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100. Last update 9/2017.



				TAI	BLE 11			
			CL	ASS B APARTM	ENT BUILDING SA	ALES		
				Washington N	Metropolitan Area			
				2	2016			
	COMPARABLE	CITY	STATE	DATE	# OF	YEAR	SALE PRI	CE
	00m / 4 d tBLL	0.11	0.7.12	OF SALE	UNITS	BUILT	TOTAL	PER UNIT
CLASS B L	OW-RISE/MID-RISE							
1.	Comparable #1	Temple Hills	MD	1/16	450	1966	\$48,725,000	\$108,278
2.	Comparable #2	Reston	VA	4/16	259	1978	\$51,800,000	\$200,000
3.	Comparable #3	Greenbelt	MD	5/16	591	1966	\$81,966,283	\$138,691
4.	Comparable #4	Fort Belvoir	VA	6/16	64	1964	\$9,700,000	\$151,563
5.	Comparable #5	Alexandria	VA	6/16	340	1966	\$39,000,000	\$114,706
6.	Comparable #6	Lexington Park	MD	6/16	282	1986	\$26,213,782	\$92,957
7.	Comparable #7	Lexington Park	MD	6/16	76	1992	\$7,064,707	\$92,957
8.	Comparable #8	Laurel	MD	6/16	254	1967	\$32,100,000	\$126,378
9.	Comparable #9	Waldorf	MD	8/16	144	1974	\$13,600,000	\$94,444
10.	Comparable #10	Leesburg	VA	8/16	384	1987	\$69,250,000	\$180,339
11.	Comparable #11	Gaithersburg	MD	8/16	107	1965	\$13,950,000	\$130,374
12.	Comparable #12	Reston	VA	8/16	200	1974	\$29,820,000	\$149,100
13.	Comparable #13	Woodbridge	VA	9/16	408	1987	\$60,500,000	\$148,284
14.	Comparable #14	Alexandria	VA	9/16	216	1986	\$37,750,000	\$174,769
15.	Comparable #15	Woodbridge	VA	9/16	138	1985	\$20,150,000	\$146,014
16.	Comparable #16	Frederick	MD	9/16	432	1979	\$45,200,000	\$104,630
17.	Comparable #17	Woodbridge	VA	9/16	150	1970	\$21,250,000	\$141,667
18.	Comparable #18	Laurel	MD	10/16	389	1970	\$55,750,000	\$143,316
	Total/Average:				4,884		\$663,789,772	\$135,911
CLASS B H	IGH-RISE							
1.	Comparable #1	Silver Spring	MD	3/16	392	1967	\$89,800,000	\$229,082
2.	Comparable #2	Washington	DC	3/16	43	1988	\$8,500,000	\$197,674
3.	Comparable #3	Washington	DC	4/16	88	1937	\$16,500,000	\$187,500
4.	Comparable #4	Alexandria	VA	4/16	1,222	1970	\$244,000,000	\$199,673
5.	Comparable #5	Silver Spring	MD	6/16	50	1962	\$4,700,000	\$94,000
6.	Comparable #6	Washington	DC	8/16	200	1962	\$36,000,000	\$180,000
7.	Comparable #7	Silver Spring	MD	8/16	1,119	1965	\$209,000,000	\$186,774
8.	Comparable #8	Alexandria	VA	9/16	113	1950	\$18,500,000	\$163,717
9.	Comparable #9	Arlington	VA	10/16	330	1957	\$63,500,000	\$192,424
	Total/Average:				3,557		\$690,500,000	\$194,124

8,441

\$1,354,289,772

\$160,442

 $Note: Delta\ Associates\ no\ longer\ provides\ the\ name\ of\ each\ project\ listed\ above\ except\ to\ appraisal\ clients\ of\ the\ firm$  $and\ those\ who\ provide\ this\ type\ of\ transaction\ data\ to\ Delta.\ If\ you\ wish\ to\ obtain\ a\ list\ of\ project\ names\ and\ you\ qualify\ to\ receive$  $same, email\ your\ request\ to: in fo@Delta Associates.com.$ 

Source: Compiled by Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last update: September 2017.

Grand Total/Average:

			CL	ASS B APARTM Washington M	BLE 12 ENT BUILDING SALE Metropolitan Area ugh September	SO <sub>2</sub>		
	COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE TOTAL	DED UNIT
CLASS B L	DW-RISE/MID-RISE			OF SALE	UNITS	BUILT	TOTAL	PER UNIT
1.	Comparable #1	Reston	VA	1/17	200	1974	\$32,000,000	\$160,000
2.	Comparable #2	Leesburg	VA	2/17	405	1973	\$55,250,000	\$136,420
3.	Comparable #3	Laurel	MD	2/17	1,088	1972	\$187,250,000	\$172,105
4.	Comparable #4	Gaithersburg	MD	2/17	684	1974	\$117,000,000	\$171,053
5.	Comparable #5	Brentwood	MD	2/17	115	1943	\$9,300,000	\$80,870
6.	Comparable #6	Washington	DC	3/17	105	1953	\$14,000,000	\$133,333
7.	Comparable #7	Greenbelt	MD	3/17	320	1966	\$49,600,000	\$155,000
8.	Comparable #8	Reston	VA	3/17	273	1985	\$61,867,030	\$226,619
9.	Comparable #9	Frederick	MD	4/17	290	1981	\$27,500,000	\$94,828
10.	Comparable #10	Washington	DC	5/17	74	1950	\$5,500,000	\$74,324
11.	Comparable #11	Temple Hills	MD	6/17	125	1972	\$15,100,000	\$120,800
12.	Comparable #12	Hyattsville	MD	6/17	94	1947	\$10,300,000	\$109,574
13.	Comparable #13	Fairfax	VA	6/17	221	1949	\$34,500,000	\$156,109
14.	Comparable #14	Temple Hills	MD	7/17	105	1997	\$13,500,000	\$128,571
15.	Comparable #15	Temple Hills	MD	7/17	105	1994	\$13,500,000	\$128,571
16.	Comparable #16	Washington	DC	7/17	120	1930	\$25,700,000	\$214,167
17.	Comparable #17	Washington	DC	7/17	56	1963	\$5,200,000	\$92,857
18.	Comparable #18	Laurel	MD	7/17	562	1969	\$77,800,000	\$138,434
19.	Comparable #19	Laurel	MD	7/17	420	1968	\$58,200,000	\$138,571
20.	Comparable #20	Washington	DC	7/17	48	1999	\$8,300,000	\$172,917
21.	Comparable #21	Silver Hill	MD	7/17	240	1987	\$39,600,000	\$165,000
22.	Comparable #22	Alexandria	VA	8/17	575	1958	\$105,600,000	\$183,652
23.	Comparable #23	Alexandria	VA	8/17	399	1962	\$73,300,000	\$183,709
24.	Comparable #24	Alexandria	VA	8/17	416	1964	\$77,500,000	\$186,298
25.	Comparable #25	Alexandria	VA	8/17	198	1973	\$36,200,000	\$182,828
26.	Comparable #26	Alexandria	VA	8/17	604	1975	\$110,100,000	\$182,285
27.	Comparable #27	Silver Hill	MD	8/17	58	1960	\$7,700,000	\$132,759
28.	Comparable #28	Silver Hill	MD	8/17	222	1960	\$29,600,000	\$133,333
29.	Comparable #29	Silver Hill	MD	8/17	395	1960	\$52,700,000	\$133,418
30.	Comparable #30	Annandale	VA	9/17	388	1962	\$65,000,000	\$167,526
31.	Comparable #31	Alexandria	VA	9/17	472	1960	\$86,700,000	\$183,686
	Total/Average:				9,377		\$1,505,367,030	\$160,538
CLASS B H	GH-RISE							
1.	Comparable #1	Arlington	VA	1/17	49	1958	\$13,500,000	\$275,510
2.	Comparable #2	Arlington	VA	3/17	828	1965	\$211,203,111	\$255,076
3.	Comparable #3	Washington	DC	4/17	160	1965	\$22,000,000	\$137,500
4.	Comparable #4	Arlington	VA	7/17	378	1975	\$135,000,000	\$357,143
5.	Comparable #5	Washington	DC	8/17	250	1990	\$16,600,000	\$66,400
	Total/Average:				1,665		\$398,303,111	\$239,221
	Grand Total/Average	e:			11,042		\$1,903,670,141	\$172,403

 $Note: Delta\ Associates\ no\ longer\ provides\ the\ name\ of\ each\ project\ listed\ above\ except\ to\ appraisal\ clients\ of\ the\ firm$  $and\ those\ who\ provide\ this\ type\ of\ transaction\ data\ to\ Delta.\ If\ you\ wish\ to\ obtain\ a\ list\ of\ project\ names\ and\ you\ qualify\ to\ receive$ same, email your request to: info@DeltaAssociates.com.

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# METHODOLOGY AND GLOSSARY

#### Market Area Definition

Delta Associates currently surveys 30 Class B garden and high-rise apartment submarkets in the Washington Metropolitan Area. The ten Northern Virginia garden apartment submarkets included are: Reston, Fairfax City, Falls Church/Merrifield, Rosslyn/Ballston, South Arlington, Old Town Alexandria, Arlandria, Route 1 Corridor of Alexandria, West Alexandria, and Annandale. The nine Class B garden apartment submarkets included in Suburban Maryland are: Rockville, Gaithersburg, Columbia, Landover/New Carrollton, Andrews, Oxon Hill/Camp Springs, Greenbelt/Takoma Park, Laurel, and Silver Spring. The eleven high-rise Class B apartment submarkets are: Arlandria, West Alexandria, Falls Church/North Arlington, South Arlington, and Crystal City, Virginia; Rockville, Silver Spring and Bethesda/Chevy Chase, Suburban Maryland; Upper Northwest, Mount Vernon Square, and Southwest, Washington, D.C.

# Coverage

Delta Associates inspects and collects data on a representative sampling of the Class B product in each submarket. To date, a total of approximately 200 Class B properties are surveyed by Delta Associates each quarter – accounting for nearly 70,000 units.

#### **Product Definition**

"Class B" product is defined by Delta Associates as well maintained, older product, generally built in the 1960's or 1970's (some submarkets only have product older than 1960, so that is surveyed), and which does not offer a separate clubhouse nor decorated model unit nor two bedroom/two bathroom floor plans. Class B communities typically offer limited project amenities. The landlord typically pays gas and/or electric for the common areas and individual units. The projects are typically 200+ units except in submarkets where product is scarce.

#### Effective Rent

Effective rent is face rent adjusted downward for concessions or rent specials. Typically, concessions are used selectively to lease weaker floor plans or surplus units.

# Face Rent/Utilities

Face rent is the asking rent for each unit, excluding any concessions or rent specials. Delta Associates quotes the weighted average asking base rent for each submarket—the asking rent for a first floor unit without any premiums for fireplace, view, etc. A few Class B projects are separately metered and tenants pay their own utilities. In these cases, rents are adjusted to include all utilities as follows:

Beginning with the 2nd Quarter 2006 publication, Delta Associates has utilized one utility adjustment for all projects that require tenants to pay their own utilities, regardless of the type of utilities. Delta has found that the variety of utility arrangements varies much more widely and changes more often than previously recognized. This reporting change will help to eliminate inconsistencies due to these variances.

# Stabilized Vacancy

"Stabilized Vacancy" as used herein is the rate of "available units" in stabilized properties. Once a property achieves 95% occupancy, it is considered "stabilized" and stays in our pool of stabilized properties even if it falls below 95% at a subsequent reporting date.

We obtain information on "available units" when conducting our surveys. Obtaining the information this way may produce several important differences from "vacancy" as reported in financial statements. Simply stated, the difference can be characterized as:

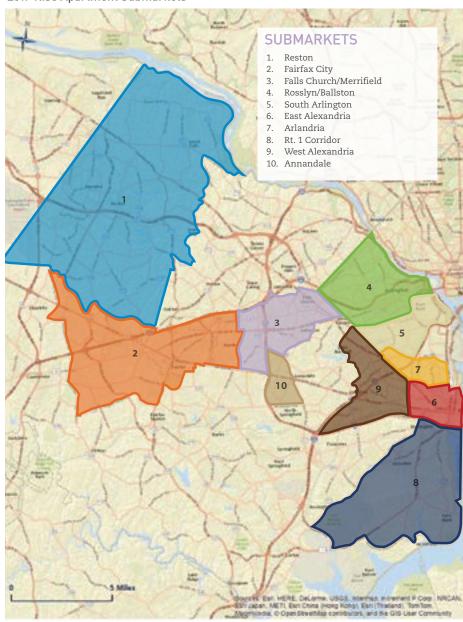
- Delta's: Available units to lease
- Financial statement: Economic vacancy

"Available units" is understated compared to "economically vacant" by our exclusion of units occupied by dead-beat tenants and units not available for lease, such as employee units and model apartments. Our occupancy rate is overstated compared to financial reporting by our exclusion of economically vacant, on-notice units for which a lease to occupy in the future has been signed. As compared to the "vacancy rate" as used in financial reports, we estimate that the former reduces our "available units" (vacancy rate) estimate by about 100 to 150 basis-points and the latter another 150 to 200 basis-points.

	STUDIO	1 BEDROOM	2 BEDROOM	3 BEDROOM
Utility Adjustment	\$28	\$39	\$50	\$61

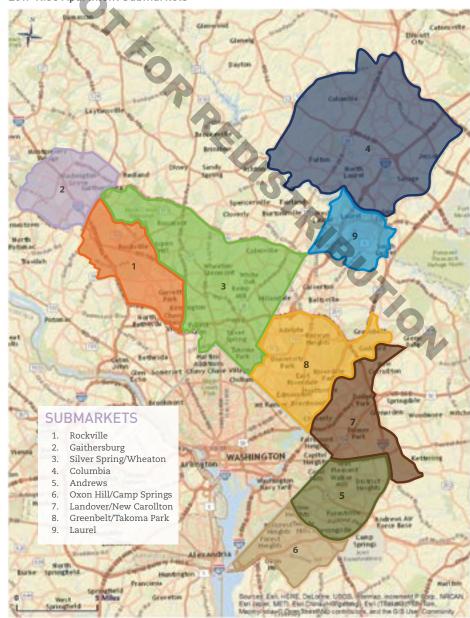
#### **NORTHERN VIRGINIA**

Low-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017.

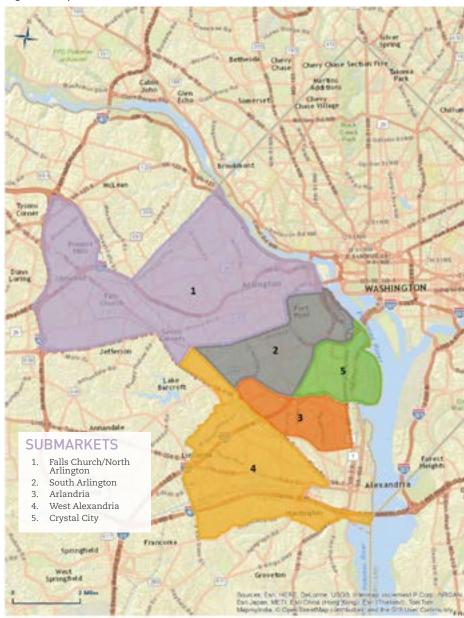
# SUBURBAN MARYLAND Low-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017.

#### **NORTHERN VIRGINIA**

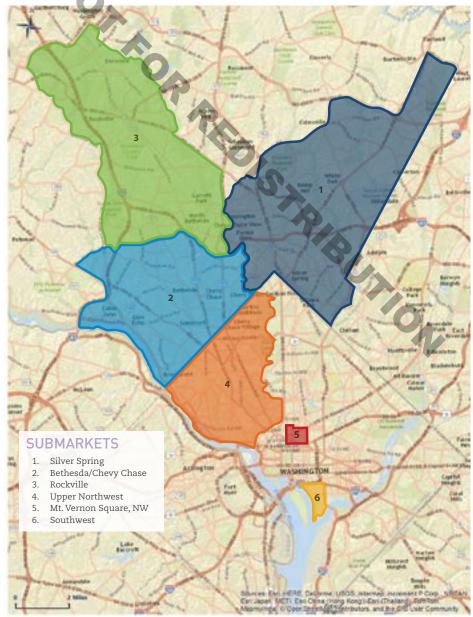
High-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017.

# **SUBURBAN MARYLAND & DISTRICT OF COLUMBIA**

High-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017.

# PHOTOGRAPHY CREDITS

[PAGE 20]

River House, Arlington, VA

Delta Associates' 2014 Winner of Best Washington/Baltimore Interior Design Apartment Community

[PAGES 21 & 22]

Cascade at Landmark, Alexandria, VA

Delta Associates' 2014 Winner of Best Washington/Baltimore Apartment Renovation Community





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