NORTHERN VIRGINIA APARTMENT SUMMIT
PREPARING FOR A RECESSION: THE VALUE OF GROCERY STORES TO APARTMENT INVESTORS
APRIL 24, 2019

PRESENTED BY:
ALEXANDER (SANDY) PAUL, SENIOR MANAGING DIRECTOR
BETHANY SCHNEIDER, DIRECTOR
ECONOMIC AND APARTMENT MARKET CONDITIONS AND OUTLOOK
Washington area job growth is sturdy but underperforming relative to our market’s size.

Source: U.S. Bureau of Labor Statistics, NKF Research; April 2019
REGIONAL ECONOMY IS DIVERSIFYING
FEDERAL SHARE OF REGIONAL ECONOMY: 2010 VS. 2018 VS. 2030

**2010**
- Other: 60.2%
- Total Federal: 39.8%

**2018**
- Other: 69.1%
- Total Federal: 30.9%

**Projected 2030**
- Other: 73.5%
- Total Federal: 26.5%

Source: The Stephen S. Fuller Institute, NKF Research; April 2019
NEARLY 10 YEARS INTO THE CYCLE: ARE WARNING SIGNS PRESENT?
CAUSES OF PREVIOUS U.S. RECESSIONS

- Hyper-inflation
- Sharp rise in interest rates
- Financial or liquidity crisis
- Global crisis or war
- A cluster of entrepreneurial errors
- Trade war and barriers
- Lack of productivity gains
- Unsustainable debt levels

Economic expansions do not die of old age; an excess in the economy must bring them to a conclusion
Payroll Job Change (Thousands)

JOB GROWTH PROJECTED TO CONTINUE
PAYROLL JOB CHANGE
WASHINGTON METRO AREA | 1999 – 2022

WHEN IS A RECESSION COMING?
NATIONAL ASSOCIATION FOR BUSINESS ECONOMICS’ SURVEY OF ECONOMISTS

77% of economists surveyed predict a national recession by 2021.
Source: U.S. Bureau of Labor Statistics, Moody’s, NKF Research; April 2019
WASHINGTON HAS FARED WELL IN PREVIOUS U.S. RECESSIONS
20-YEAR ANNUAL AVERAGE PAYROLL JOB CHANGE

LARGEST U.S. METRO AREAS BY EMPLOYMENT BASE | 1999 – 2018

Source: U.S. Bureau of Labor Statistics, NKF Research; April 2019
APARTMENT MARKET FUNDAMENTALS
DELIVERIES, NET ABSORPTION, OCCUPANCY
WASHINGTON METRO AREA APARTMENT MARKET: 2007 – 1Q 2019

Deliveries / Net Absorption (Units)

Deliveries
Net Absorption
Occupancy Rate (%)

Source: Axiometrics, NKF Research; April 2019
**APARTMENT MARKET FUNDAMENTALS**

**DEMAND AND DELIVERY PROJECTIONS**

WASHINGTON METRO AREA APARTMENT MARKET: 2Q 2019 – 1Q 2022

**Demand**

Net Absorption: 9,922 units/year = 29,766 units

**Deliveries**

- Planned and may deliver by 1Q22: 7,917 units
- Under construction: 29,808 units
- Total = 37,725 units

**Occupancy at:**

<table>
<thead>
<tr>
<th></th>
<th>1Q 2019</th>
<th>1Q 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metro</td>
<td>95.6%</td>
<td>92.5%</td>
</tr>
<tr>
<td></td>
<td>95.3%</td>
<td>94.2%</td>
</tr>
<tr>
<td></td>
<td>95.7%</td>
<td>94.8%</td>
</tr>
</tbody>
</table>

Source: Axiometrics, NKF Research; April 2019
APARTMENT MARKET FUNDAMENTALS
ANNUAL EFFECTIVE RENT CHANGE

WASHINGTON METRO AREA APARTMENT MARKET: 2007 – 1Q 2019

Note: Values calculated using same-store method
Source: Axiometrics, NKF Research; April 2019
1Q 2019 apartment volume totaled $1.86 billion, on pace with the $1.92 billion in 1Q 2018.
APARTMENT PRICING REMAINS STURDY
AVERAGE APARTMENT PRICE PER SQUARE FOOT
WASHINGTON METRO AREA | APARTMENTS | 2008 – 2018

The average price per unit is up 53% from the trough in 2009

Source: Real Capital Analytics, NKF Research; April 2019
• Invest in renovations that are attractive to today’s renters. Invest in elite design to increase rental rates and lease-up pace.

• When the overall budget for amenities is modest, consider focusing on service amenities. Some social amenities come with diminishing returns to sales price.

• Target both millennials and boomers/seniors to maximize potential demand in an evolving market.

• Focus on flexibility – consider modular furnishings to maximize unit efficiency.

• Consider outer Northern Virginia suburbs, which have strong value in affordability and supply/demand balance.

• For ground-up development, grocery-anchored projects offer superior rent potential.

Source: NKF Research; April 2019
THE GROCERY STORE EFFECT:
HOW NEW GROCERY STORES IMPACT APARTMENT RENTS IN THE WASHINGTON METRO AREA
THE GROCERY STORE EFFECT
METHODOLOGY: WHAT YOU NEED TO KNOW

- 42 stores that opened between January 2014 and December 2018.
- Brands: Aldi, Giant, Harris Teeter, Lidl, Safeway, Trader Joe’s, Wegmans, and Whole Foods.
- Analyzed apartments within 1-mile radius in the suburbs; ½-mile radius in the District. At least two stabilized apartment properties of 50 units or more within the radius at time of store opening.
- These criteria yielded a data set of 402 apartment properties with a total of 123,331 units.
- Analyzed data in two ways:
  1. **Rent premium** for grocery-proximate apartments compared to submarket average.
  2. Basis point premium in **rent growth** surrounding store opening compared to submarket’s 5-year average rent growth.

Source: NKF Research; April 2019
RENT PREMIUM FOR PROXIMITY TO NEW GROCERY STORES
COMPApered TO SUBMARKET AVERAGE
BY JURISDICTION | AT TIME OF STORE OPENING AND AS OF FIRST QUARTER 2019

Source: Axiometrics, NKF Research; April 2019
OPENING OF A NEW GROCERY STORE SUPPORTS RENT GROWTH PREMIUM

RENT GROWTH FROM ONE YEAR BEFORE TO ONE YEAR AFTER STORE OPENING, MEASURED IN BASIS POINTS ABOVE SUBMARKET’S FIVE-YEAR AVERAGE PERCENTAGE RENT GROWTH | BY JURISDICTION

Source: Axiometrics, NKF Research; April 2019
RENT PREMIUM FOR PROXIMITY TO NEW GROCERY STORES COMPARED TO SUBMARKET AVERAGE
NORTHERN VIRGINIA SUBMARKETS | AS OF FIRST QUARTER 2019

Source: Axiometrics, NKF Research; April 2019
RENT PREMIUM FOR PROXIMITY TO NEW GROCERY STORES COMPARED TO SUBMARKET AVERAGE
BY GROCERY STORE CHAIN | AT TIME OF STORE OPENING AND AS OF FIRST QUARTER 2019

<table>
<thead>
<tr>
<th>Grocery Store Chain</th>
<th>Grocery-proximity effective rent premium at time of store opening</th>
<th>Grocery-proximity effective rent premium at 1Q19</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Foods</td>
<td>8.4%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Safeway</td>
<td>8.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>Harris Teeter</td>
<td>7.9%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Lidl</td>
<td>5.8%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Giant</td>
<td>5.9%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Trader Joe’s</td>
<td>2.4%</td>
<td>3.9%</td>
</tr>
<tr>
<td>ALDI</td>
<td>2.6%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Source: Axiometrics, NKF Research; April 2019
RENT PREMIUM FOR PROXIMITY TO NEW GROCERY STORES COMPARED TO SUBMARKET AVERAGE
BY TYPE OF REAL ESTATE | AT TIME OF STORE OPENING AND AS OF FIRST QUARTER 2019

Source: Axiometrics, NKF Research; April 2019
GROCERY-ANCHORED APARTMENTS ACHIEVE HIGHER RENTS
EFFECTIVE RENT FOR GROCERY-ANCHORED APARTMENTS COMPARED TO SUBMARKET AVERAGE

Source: Axiometrics, NKF Research; April 2019
GROCERY-ANCHORED APARTMENTS ACHIEVE HIGHER RENTS
EFFECTIVE RENT FOR GROCERY-ANCHORED APARTMENTS COMPARED TO SUBMARKET AVERAGE

12 Months After Store Opening
As of 1Q19

Source: Axiometrics, NKF Research; April 2019
THE GROCERY STORE EFFECT
KEY FINDINGS

• Proximity to a new grocery store correlates with a significant rent premium.

• Most of the properties near new grocery stores saw a rent increase correlated with the store’s opening.

• At the time of a store opening, apartments surrounding Whole Foods stores received the greatest rent premium.

• Apartments near grocery stores in mixed-use developments correlated with a rent premium much higher than those surrounding free-standing stores or stores located in shopping centers.

• Grocery-anchored apartment properties have a significant rent premium over their submarket’s average and also over the remaining properties within the store’s radius.

Source: NKF Research; April 2019
• True proximity is important. Rent premiums were less pronounced when using a larger radius.
• Correlation is not causation.
• The chicken or the egg?
• Regardless of the cause, a nearby grocery store is a strong indicator of superior rent fundamentals.
• With the rise of grocery delivery, expansion of refrigeration/freezer capacity for deliveries may be the next trend for apartments.

Source: NKF Research; April 2019
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