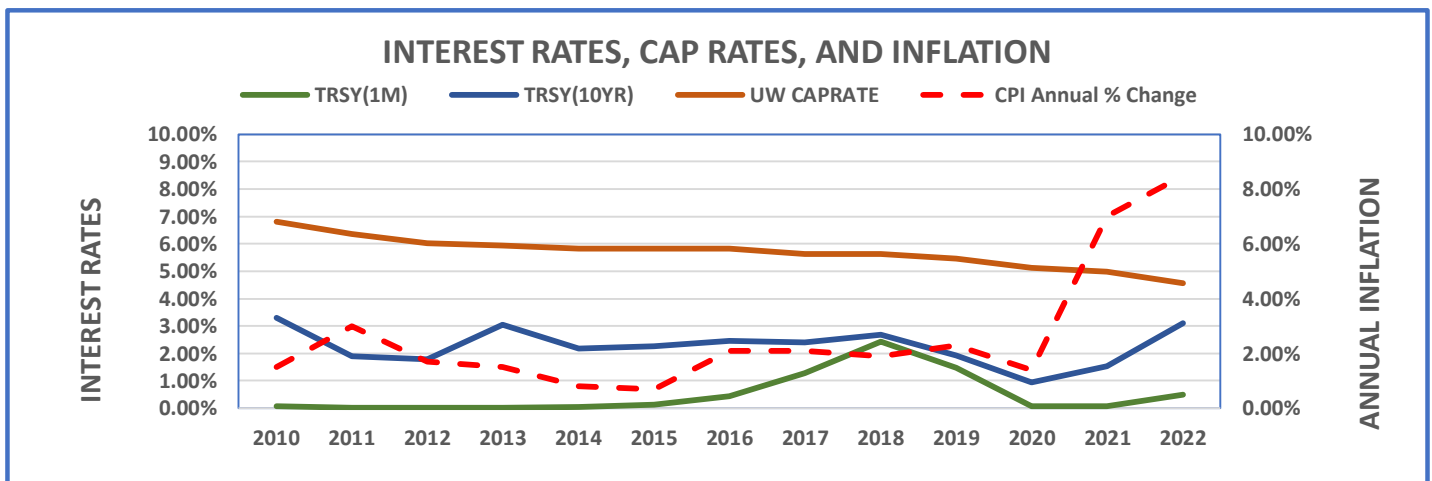


Underwriting Multifamily with Inflation and Rising Interest Rates

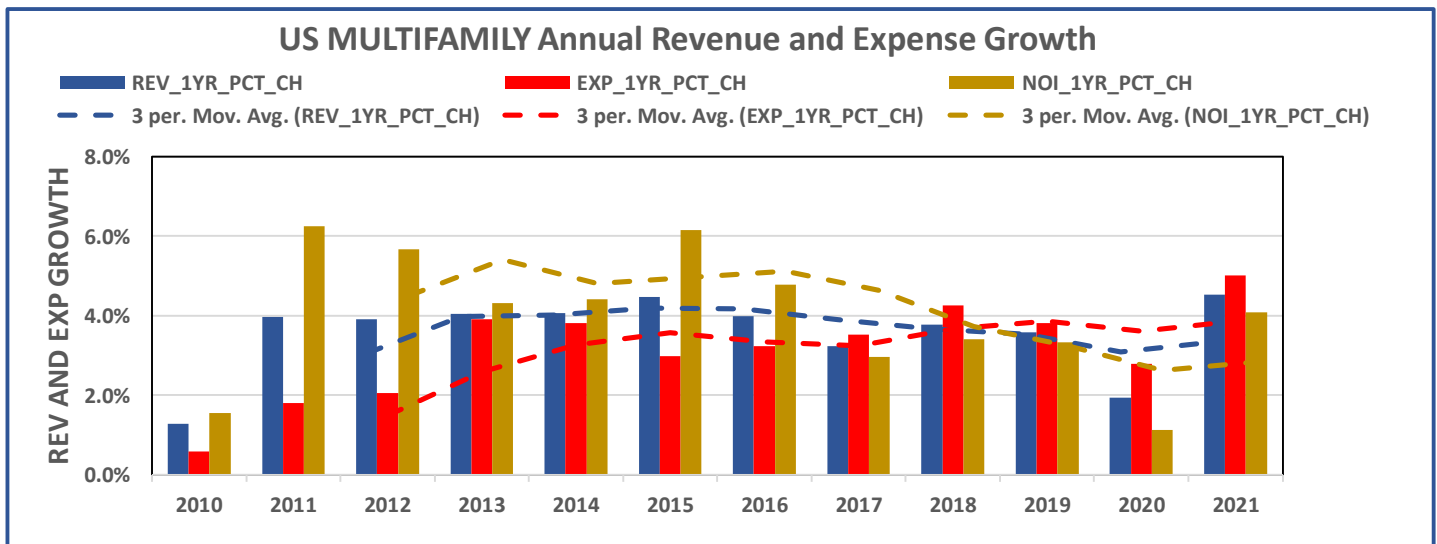
Article 2: Expense Growth and Inflation by CMSA

May 16, 2022

RECAP: In ARTICLE 1 of this research series, we viewed macro changes in the Interest Rate, Cap Rates, and Inflation alongside Median Property-Level Revenue and Expense Growth across the Multifamily Comps (MFC) Database of properties backing Agency CMBS (see MFC Database description below). We showed the following 2 charts.



Sources: Fed, BLS, Multifamily Comps



Source: Multifamily Comps LLC

Our 2 primary takeaways were:

- Investors appear to be willing to accept low absolute and levered income returns based on the expectation of strong future NOI Growth attributable to expected rent increases.
- Starting in 2017, Expense Growth has exceeded Revenue Growth, and in an inflationary environment we should expect Expense Growth to accelerate. Given the strong NOI Growth baked into today's CAP Rates, investors need to carefully consider Expense Growth assumptions when underwriting properties in an inflationary environment.

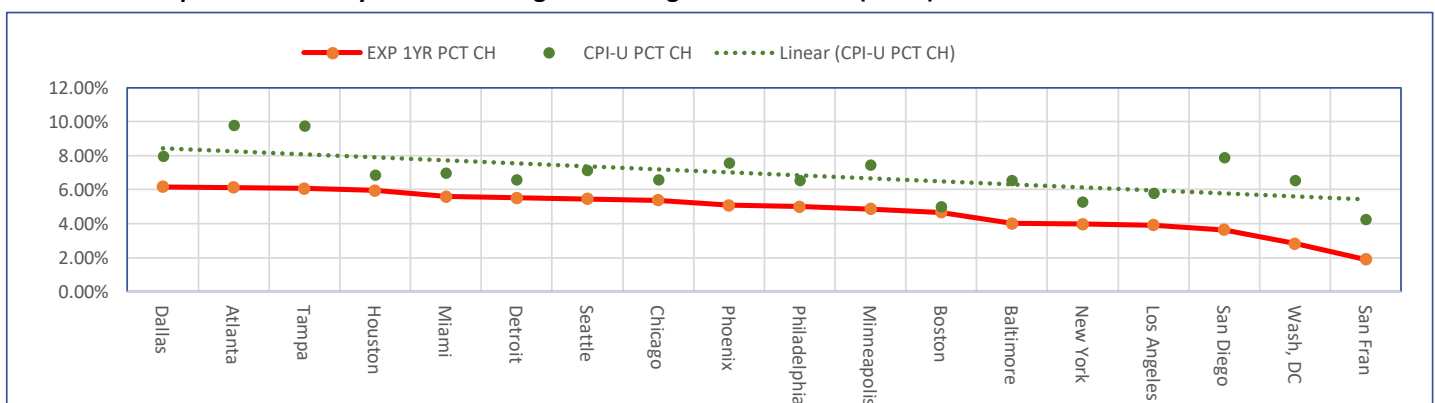
In this article, we explore differences in 2021 Revenue and Expense Growth by CMSA. In Chart 1 below, we show Median 2021 Revenue and Expense Growth across CMSA's with the largest number of properties reporting 2020-2021 full-year Operating Data. The table is sorted highest to lowest 2021 Expense Growth.

Chart 1: 2021 Median Annual Revenue and Expense Growth by CMSA

DATASET	REV PERUNIT	EXP PERUNIT	REV 1YR PCT CH	EXP 1YR PCT CH	NOI 1YR PCT CH
US MULTIFAMILY	\$1,168	\$505	4.53%	5.01%	4.08%
TX-Dallas-Fort Worth-Arlington	\$1,075	\$572	5.36%	6.17%	3.72%
GA-Atlanta-Sandy Springs-Marietta	\$1,102	\$512	6.22%	6.13%	6.91%
FL-Tampa-St. Petersburg-Clearwater	\$1,098	\$535	8.67%	6.06%	9.51%
TX-Houston-Sugar Land-Baytown	\$990	\$532	4.32%	5.95%	2.03%
FL-Miami-Fort Lauderdale-Pompano Beach	\$1,258	\$564	5.30%	5.59%	6.00%
MI-Detroit-Warren-Livonia	\$855	\$444	5.06%	5.52%	3.68%
WA-Seattle-Tacoma-Bellevue	\$1,511	\$622	0.98%	5.46%	-3.00%
IL-IN-WI-Chicago-Naperville-Joliet	\$1,258	\$543	1.74%	5.38%	-1.61%
AZ-Phoenix-Mesa-Scottsdale	\$1,169	\$409	8.58%	5.08%	10.62%
PA-NJ-DE-MD-Philadelphia-Camden-Wilmington	\$1,292	\$555	4.99%	5.00%	4.51%
MN-WI-Minneapolis-St. Paul-Bloomington	\$1,075	\$516	3.15%	4.86%	2.96%
MA-NH-Boston-Cambridge-Quincy	\$1,892	\$807	0.81%	4.67%	-2.44%
MD-Baltimore-Towson	\$1,244	\$550	3.44%	4.02%	3.27%
NY-NJ-PA-New York-Northern New Jersey-Long Island	\$1,693	\$613	2.05%	3.97%	0.51%
CA-Los Angeles-Long Beach-Santa Ana	\$1,586	\$606	2.80%	3.91%	2.14%
CA-San Diego-Carlsbad-San Marcos	\$1,711	\$625	4.50%	3.64%	4.72%
DC-VA-MD-WV-Washington-Arlington-Alexandria	\$1,500	\$645	1.27%	2.83%	0.74%
CA-San Francisco-Oakland-Fremont	\$1,915	\$780	-0.60%	1.89%	-4.98%

Our first takeaway from Chart 1 is the significant dispersion in Expense Growth across markets. We expect there to be significant differences in Revenue Growth across markets due to a variety of location-specific and supply-driven factors. However, we tend to think of inflation as a national macroeconomic indicator measured by the US Consumer Price Index. In fact, inflation as measured by CPI varies significantly across geographies, with prices of goods and services rising fastest in areas that were relatively cheaper to live and work prior to the pandemic and rising more slowly in the country's more expensive locales. To corroborate the relationship between Expense Growth and CPI, we created a scatter plot showing Expense Growth alongside the Bureau of Labor Statistics (BLS) All-Urban CPI indices (CPI-U) for the CMSA's listed in Chart 1 above. The side-by-side scatter plot is shown in Chart 2 below.

Chart 2: 2021 Expense Growth by CMSA vs Change in BLS Regional Urban CPI (CPI-U)



Source: Multifamily Comps, <https://www.bls.gov/regions/>

Statistically Chart 1 shows a 65% correlation between 2021 Annual Expense Growth and the Regional CPI Index. Practically it emphasizes the importance of economic and demographic analysis when projecting forward Expense Growth for markets and/or individual properties. The BLS regional indices also include useful breakouts of CPI-U by categories and industry. For further regional CPI analysis go to <https://www.bls.gov/regions/>.

Article 3 of this series will explore the breakout of the Expense Growth by line-item: Taxes, Insurance, Repairs, Utilities, Payroll, Marketing, G&A.

Multifamily Comps LLC (MFC): The MFC Database is comprised of 45,000+ Lender Underwritten Financials and Appraised Values, and 150,000+ serialized Operating Statements extracted from Multifamily CMBS Offering Circulars and Trustee Reports. The primary database concentration is Garden style apartments serving middle income households. The database also includes significant groupings of Mid-Rise, High-Rise, Senior, Healthcare, Student, and Manufactured Housing. The Multifamily Comps (MFC) Statistical Valuation (STATVAL™) Application provides an automated and cost-effective method to perform a Benchmark Underwriting using the Income Capitalization Method in a manner that statistically matches underwriting assumptions on recent Loan Originations. Once a Subject Property has been entered into STATVAL™, a Benchmark Underwriting may be executed in as little as 5-10 minutes and cost as little as \$200-\$300 per Property for Clients who take advantage of volume pricing discounts.

For further information, demos, and/or to set up a STATVAL™ User Account please contact our sales representatives:

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