

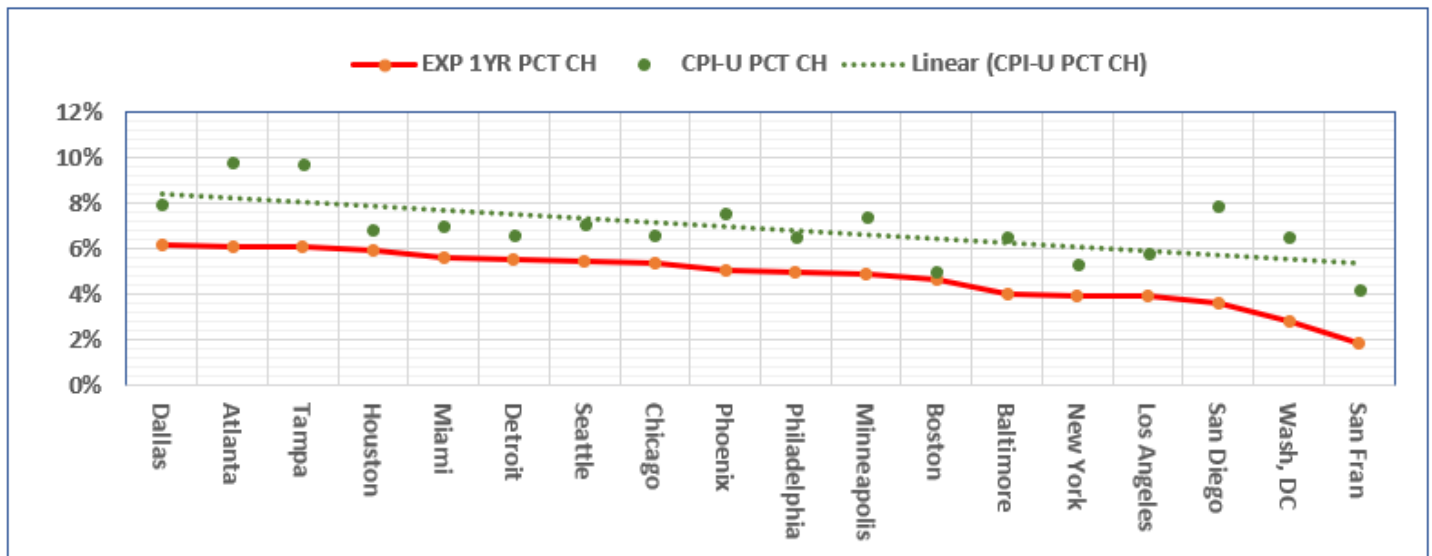
Underwriting Multifamily with Inflation and Rising Interest Rates

Article 3: Expense Growth by Operating Statement Line-item

May 30, 2022

RECAP: In Article 1 of this series, we reviewed Charts showing Interest Rates, CAP Rates, and Inflation (CPI) alongside Annual Growth in Multifamily Property-Level Revenue, Expense, and NOI. We noted that since 2017 Expense Growth incrementally outpaced Revenue Growth across properties in the MFC Dataset, and we would expect it to accelerate in an inflationary environment. In Article 2 we broke out Revenue, Expense, and NOI Growth by CMSA and noted significant dispersion between the highest and lowest Expense Growth. Additionally, we noted that this dispersion was consistent with differences in CMSA level CPI as measured by the BLS. This is illustrated in the Chart 1 below from Article 2.

Chart 1: 2021 Median Annual Revenue and Expense Growth versus 2021/2021 CPI-U Change



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

In this Article 3, we analyze Operating Statement Line-Items which most contributed to Expense Growth. Charts 2, 3, 4 below show 2021 Percentage Contribution to Total Expenses and Annual Growth for the 5 Operating Statement Line-Items comprising the largest percentage of Total Expenses for the full US Multifamily dataset, Dallas (highest 2021 Expense Growth), and San Francisco (lowest 2021 Expense Growth).

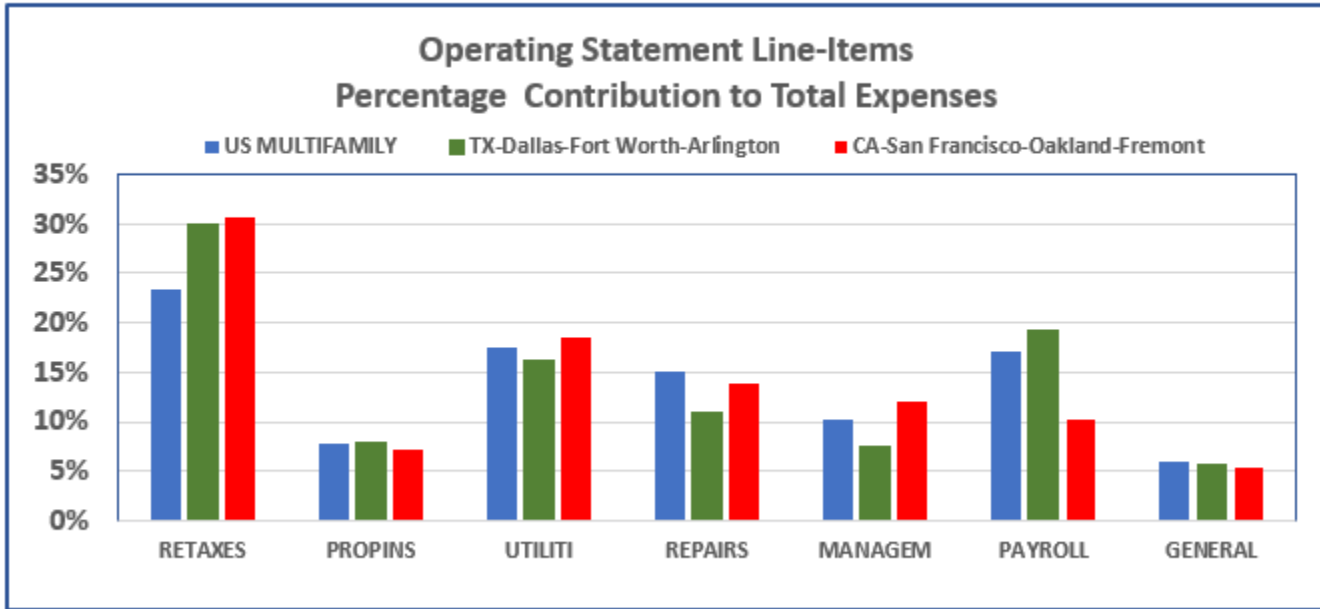
Chart 2: 2021 Percentage Contribution to Total Expenses and Growth by Operating Statement Line-Item

DATASET	EXP PERUNIT	RETAXES	PROPINS	UTILITI	REPAIRS	MANAGEM	PAYROLL	GENERAL
US MULTIFAMILY	\$637	23.42%	7.86%	17.48%	14.98%	10.32%	17.04%	6.04%
TX-Dallas-Fort Worth-Arlington	\$654	29.88%	7.83%	16.10%	10.92%	7.46%	19.30%	5.73%
CA-San Francisco-Oakland-Frem	\$902	30.54%	7.23%	18.59%	13.88%	11.96%	10.22%	5.37%
DATASET	EXP PCT CH	RETAXES	PROPINS	UTILITI	REPAIRS	MANAGEM	PAYROLL	GENERAL
US MULTIFAMILY	4.21%	3.35%	9.95%	5.26%	5.67%	4.84%	2.85%	3.42%
TX-Dallas-Fort Worth-Arlington	6.06%	6.28%	15.97%	5.69%	6.33%	5.27%	2.55%	5.08%
CA-San Francisco-Oakland-Frem	1.19%	0.92%	7.36%	3.53%	-3.72%	-1.19%	2.08%	-2.14%

Source: Multifamily Comps

Chart 3 is a visualization of the first section of Chart 2. Chart 4 is a visualization of the second section

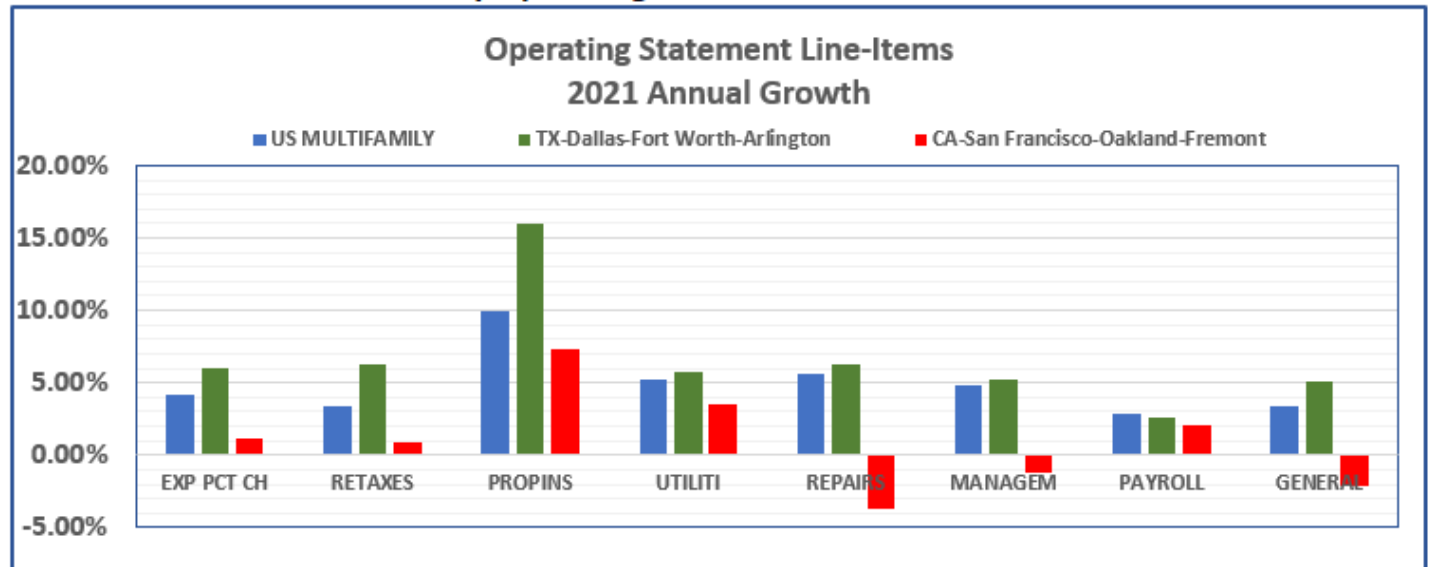
Chart 3: 2021 Percentage Contributions to Total Expenses



Source: Multifamily Comps

Notice that for both Dallas and San Francisco, the Real Estate Taxes line-item represents both the largest percentage of total expenses and a larger percentage than the overall US Multifamily market. Across other line-items the most notable difference is San Francisco's relatively higher percentage of the Property Management line-item and correspondingly lower percentage to Payroll. This is most likely due to the San Francisco dataset having a higher concentration of smaller complexes (<100 units) which tend to have higher property management fees and limited on-site staff.

Chart 4: 2021 Annual Growth by Operating Statement Line-item



Source: Multifamily Comps

Our first takeaway is that Property Insurance experienced the highest percentage growth across all line-items. This has been a multi-year trend that accelerated in 2021 due to a variety of factors including natural disasters, higher costs of rebuilding, and reinsurance companies seeking to increase margins. Our final takeaway is the distinctive across-the-board higher growth in Dallas and lower growth in San Francisco than the overall US Multifamily market. Reflecting again on Chart 1 above, we see the importance of following localized inflation trends when underwriting multifamily assets. The

key takeaways for owners, underwriters, and appraisers are: 1) study CMSA-level inflation trends in www.bls.gov/regions/; 2) carefully think through the impact of localized inflation for each Operating Statement line-item.

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