



Performance of the Seniors Housing Market

A stylized analysis of cash flow impacts



Seniors Housing Market Recovery

Throughout the end of 2022 and into the first half of 2023, the seniors housing market is seeing two divergent trends: occupancy rates continue to recover while new supply eases, but the higher inflation environment has created an additional headwind through rising expenses and interest rate risk. Occupancy rates are still not back to their pre-pandemic average but continue to improve on a consistent basis. Meanwhile the rate of new supply entering the market has declined since the end of 2019. However, expenses at seniors housing facilities have increased nearly 2-3 times more than average given the higher inflation rate and shortage of labor. In an effort to combat the high inflation, the Federal Reserve has increased interest rates rapidly since the beginning of 2022, which has put pressure on the financial market, especially among senior housing loans.

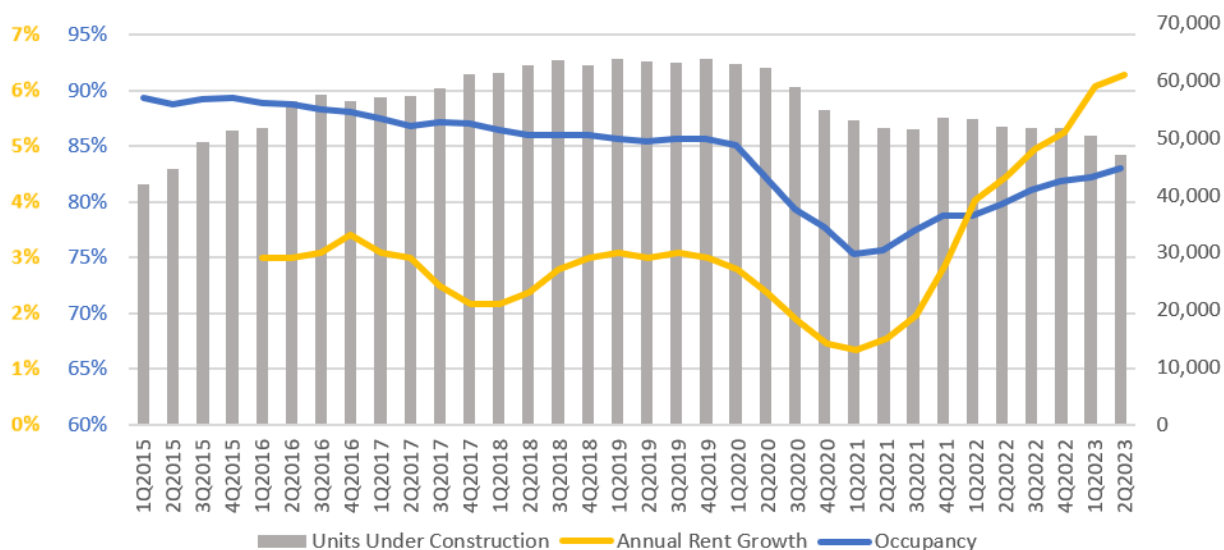
The confluence of weaker, albeit improving, fundamentals along with the higher expenses and interest rate environment has caused credit performance challenges for seniors housing loans. The National Investment Center for Seniors Housing & Care (NIC) reports that the seniors housing delinquency rate has increased meaningfully from around 1.3% as of the fourth quarter of 2022 up to 2.1% at the end of the first quarter of 2023. However, despite the recent increase as of the first quarter, the delinquency rate is lower than the high levels experienced in the third quarter of 2020. Meanwhile Bloomberg¹ reports that as of May 2023, about 7% of the \$43 billion of seniors housing municipal bonds are in default, compared with a default rate of less than 1% for all state and local government debt. The impact of the higher interest rate environment has caused new disruptions in the financial market, especially among loans financed with floating-rate debt.

Occupancy Recovering while New Supply Slows

The number of seniors housing units under construction has fallen more than 25% since the peak in 2019, and nearly 10% over the past year, to about 47,000 units, according to second-quarter data from NIC. The slowdown in construction along with strong demand has pushed occupancy rates up to 83% in the second quarter of 2023, compared with 79.8% in first quarter of 2022. Rent growth, meanwhile, hit 6.1% for the year ending in the second quarter of 2023, the highest national rent growth rate NIC has ever recorded going back to 2016. This rent growth is at least partially attributable to increases in Social Security benefits in 2022 and 2023 of 5.9% and 8.7%, respectively.

¹ <https://www.bloomberg.com/news/articles/2023-05-22/senior-living-defaults-far-outpace-the-rest-of-the-muni-market#xj4y7vzkg>

Exhibit 1: All Seniors Housing Rent Growth, Vacancy and Units Under Construction



Sources: NIC, Freddie Mac

Over the 12 months ending in June 2023, the occupancy rate has been increasing faster for majority Assisted Living (AL) than Independent Living (IL) properties, up 340 bps and 260 bps, respectively. However, IL properties have a slightly higher occupancy rate of 83.4% compared with 82.7% for AL properties. Rent growth for both seniors housing types has been exceptionally strong at 6% to 6.2%, the highest for each acuity or level of care, in NIC’s data set going back to 2016. The number of units under construction for IL decreased -6.5% for the year ending the second quarter of 2023, while the number of AL units under construction has fallen more than 13% over the past year.

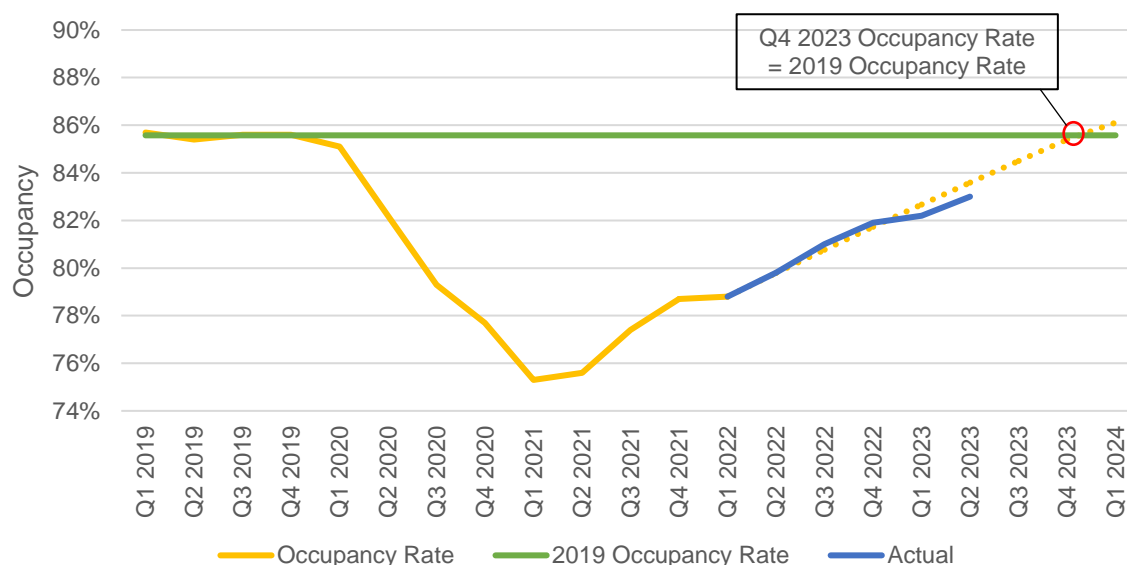
Exhibit 2: Seniors Housing Rent Growth, Vacancy and Units Under Construction by Care Level

	Occupancy		Annual Rent Growth		Units Under Construction	
	IL	AL	IL	AL	IL	AL
1Q2022	80.1%	78.2%	2.9%	4.7%	27,236	24,955
2Q2022	80.8%	79.3%	3.4%	4.9%	26,396	24,272
3Q2022	82.0%	80.5%	4.4%	5.2%	26,325	24,142
4Q2022	82.7%	81.4%	4.7%	5.4%	26,786	23,708
1Q2023	82.8%	81.8%	5.7%	6.0%	26,540	22,668
2Q2023	83.4%	82.7%	6.0%	6.2%	24,668	21,068

Sources: NIC, Freddie Mac

In our 2022 paper, [The Trajectory of the Seniors Housing Market Recovery](#), we projected supply and demand for seniors housing to forecast when occupancy would return to the pre-pandemic level. As shown in Exhibit 3, on average the actual occupancy rate from second quarter 2022 through second quarter 2023 has followed the trend of our projected recovery rate, except in the first quarter of 2023. This is partially due the seasonality during the first quarter, which typically sees fewer move-ins. Our projected trend line was a straight-line average, which does not account for seasonality. During the second quarter of 2023, the rate of increase in occupancy was nearly equal to the projected line.

Exhibit 3: Seniors Housing Occupancy Rate 2Q 2023 Projected vs. Actual



Sources: NIC, Freddie Mac

Note: NIC has revised their historic data, so charts from the previous 2022 Report may not match.

The occupancy trend shown in Exhibit 3 mostly holds when broken out into the AL segment, but is not as strong for the IL market. This divergence between the product types took hold in 2023, with AL trending almost exactly to our forecast line, while IL fell below the projected rate in the first quarter and remained below through the second quarter. For AL at the end of the second quarter of 2023, we had projected occupancy to be 82.9%, while NIC reported occupancy of 82.7%. For IL, we expected occupancy to equal 84.3% in the second quarter of 2023, while it was reported at 83.4%. Going forward, we expect continued growth in the occupancy rate for the rest of the year assuming the market holds to typical seasonality trends — but individual AL and IL market segments may perform differently.

Impact of Higher Inflation and Expenses

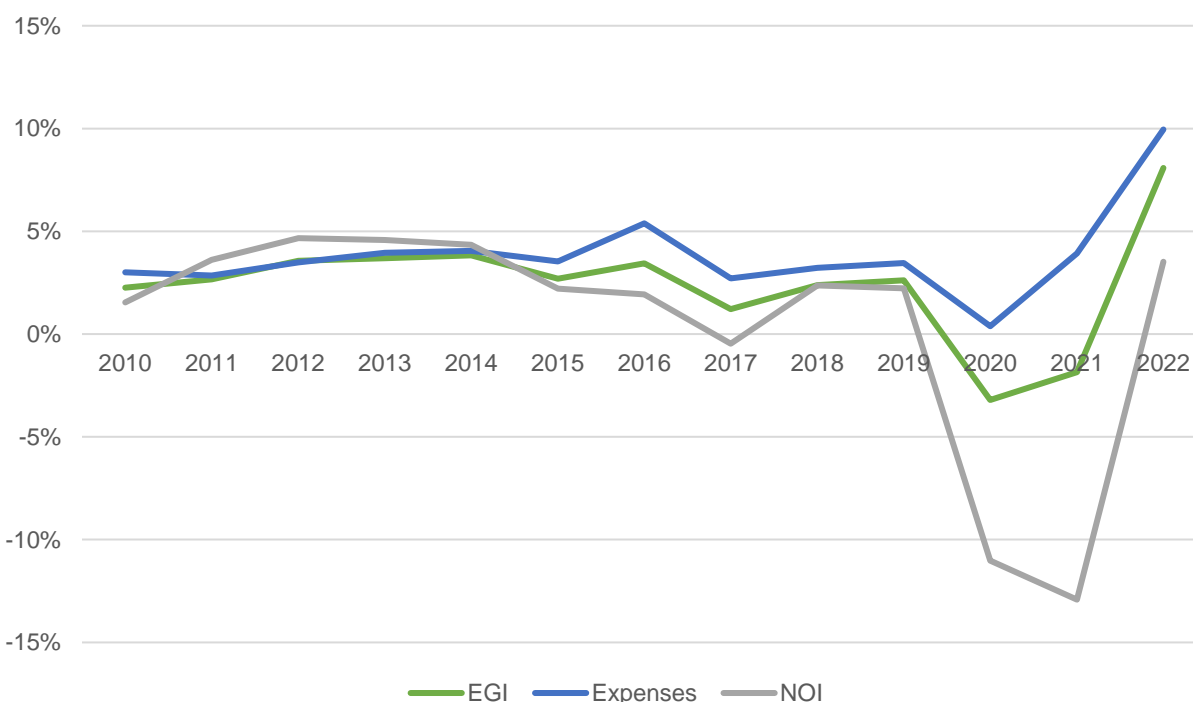
While seniors housing occupancy rates and supply were at the forefront of the discussion last year, now the story has shifted to the impact from higher expenses and interest rates. Due to the pandemic, the employment level in seniors housing dropped to some of the lowest points in the past 30 years. This caused many operators to rely on temporary employment, which typically is more costly and thus increases payroll expenses. Outside of payroll expenses, higher inflation has led to an overall increase in expenses, and while not unique to seniors housing, these higher expenses occurred at a time when

seniors housing properties were no longer operating at pre-pandemic occupancy levels. Additionally, higher interest rates in 2022 and 2023 put further pressure on assets carrying floating-rate debt or facing loan maturities. These headwinds, especially when fundamentals are still recovering, put increased stress on the seniors housing market.

At the end of 2022, employment for the AL industry returned to its pre-pandemic level, although taking longer than the overall job market, according to a NIC analysis of Bureau of Labor Statistics (BLS) data. This is good news for seniors housing, because it means the use of more costly, temporary labor to fill vacancies is waning which, all else being equal, will help ease the increase in payroll expenses. NIC highlights that BLS reports of per-hourly labor costs for the year ending in second quarter 2023, which were up 6%, an improvement compared with more than 10% in 2022. Data from NIC’s Executive Survey corroborates the easing of the pressures on the seniors housing labor market. The October 2022 survey reports that among seniors housing companies, 8.8% reported severe staffing shortages compared with April of 2022 when more than 27% reported severe staffing shortages. As of February 2023, NIC reports that two-thirds of AL operators expect to use less temporary staff in 2023 than they did in 2022.

Using Freddie Mac seniors housing funded loan data, we see the impact of the higher expenses and weaker fundamentals. Exhibit 4 shows the average annual changes in Effective Gross Income (EGI), expenses, and Net Operating Income (NOI) from 2010-2022 (where NOI is EGI less expenses and excludes debt service). The impact from the pandemic is shown by negative EGI annual changes in 2020 and 2021, driven by the lower occupancy levels, but they started to rebound in 2022. Meanwhile expense growth slowed in 2020 but remained positive, and then increased rapidly through 2021 and 2022. In 2022, expense growth of 10% was nearly three times higher than the pre-pandemic average of 3.6% (2010-2019).

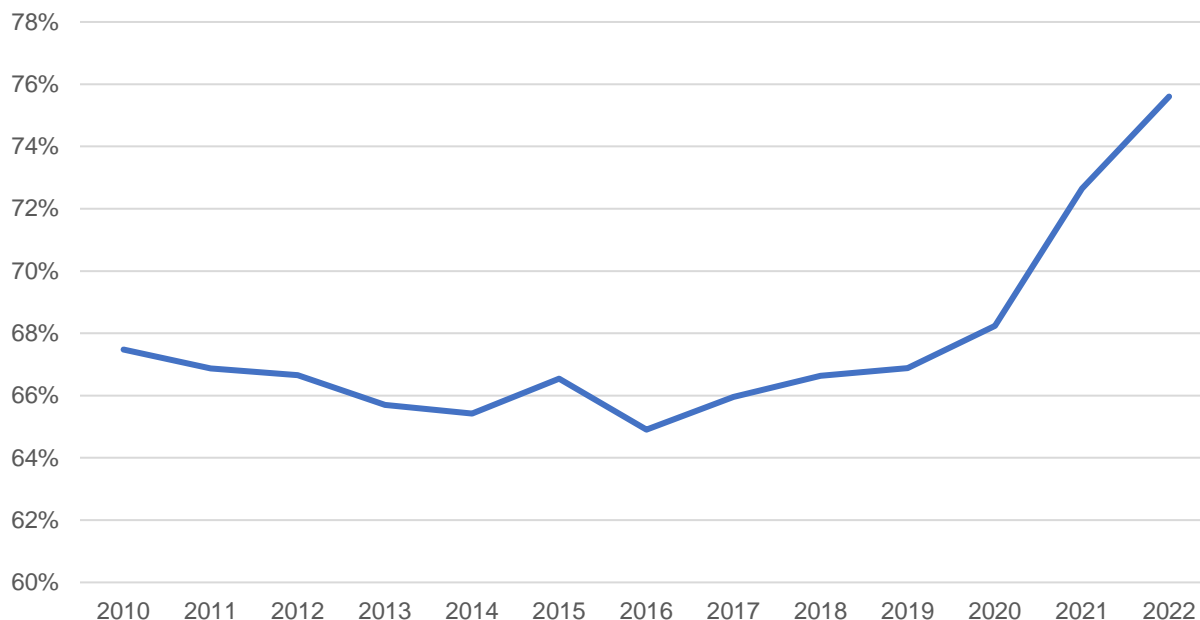
Exhibit 4: Freddie Mac Average Annual Seniors Housing EGI, Expense and NOI



Source: Freddie Mac

The impact of the higher expenses can also be seen in the expense ratio, or the ratio of expenses to total income (computed as expenses divided by EGI), shown in Exhibit 5. Prior to the pandemic, from 2010-2019, the average expense ratio was 66.3%. In 2022, the ratio increased to 75.6%. These metrics are aggregated across the Freddie Mac seniors housing portfolio. Breaking down IL and AL will show similar trends, but with higher ratios for the AL market compared with the IL market.

Exhibit 5: Freddie Mac Average Annual Seniors Housing Expense Ratio

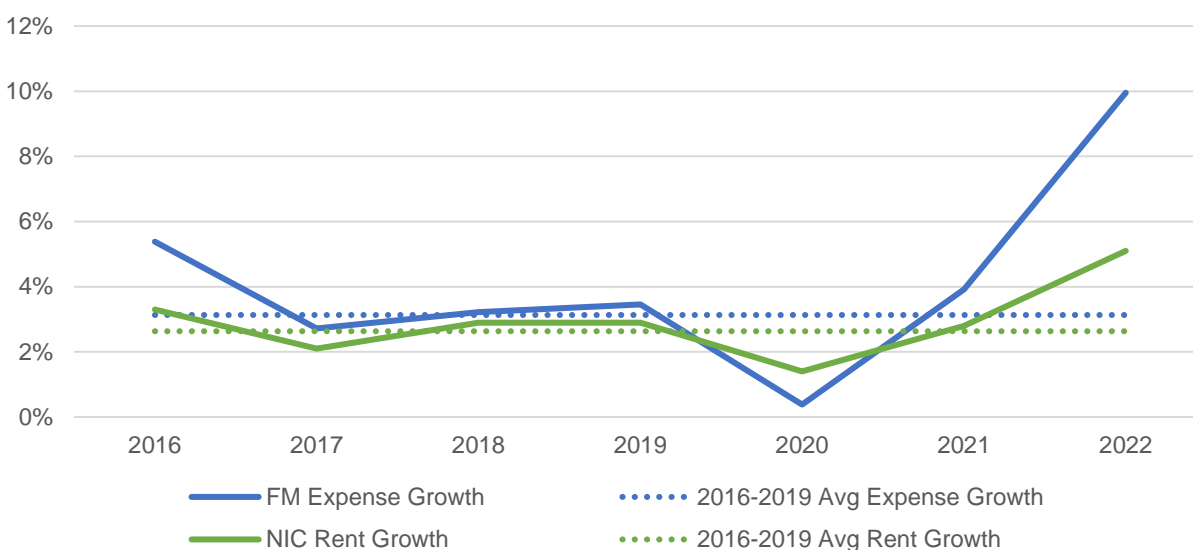


Source: Freddie Mac

In Exhibit 6, we compare annual expense growth, from Freddie Mac funded seniors housing loans, with annual rent growth rates reported by NIC. For six of the past seven years, expense growth has outpaced rent growth, although 2023 may reverse that trend as rent growth has accelerated and expense growth is expected to moderate. For example, a survey of seniors housing market participants by BBG, an independent commercial real estate services firm, found that across all of seniors housing more than 75% of respondents believed that expenses would increase between 3% and 5% in 2023.²

² <https://www.prnewswire.com/news-releases/bbg-seniors-housing-investor-survey-reveals-key-market-trends-in-2023-301764091.html>

Exhibit 6: Average Annual Change Freddie Mac Seniors Expense and NIC Rent



Sources: NIC, Freddie Mac

Financial Impacts due to Higher Interest Rates

A major part of the underwriting process for all multifamily loans, including seniors housing loans, is cash flow analysis where rental income needs to cover the associated expenses (property and debt expenses). A property’s ability to cover its debt payments is represented by the debt service coverage ratio (DSCR).³ A DSCR below a value of 1.00x would imply that the property’s income does not cover the debt payment, and the borrower would need to make up the deficit or risk default. Over the past few years, the impact of the reduction in occupancy and higher expenses among seniors housing properties has put pressure on cash flows, reducing the amount of income. At the same time, higher interest rates have increased the debt service payments for floating-rate loans. The combination of lower income and, for floating-rate loans, higher debt service payments potentially puts borrowers at risk of being unable to make their debt payments.

Using a series of stylized hypothetical loans, we examine how the annual cash flows, debt payments, and DSCRs of IL and AL properties would have performed over the past four years.⁴ These hypothetical 10-year loans include a five-year interest-only (IO) term, so there would be no principal payments until the middle of 2024, which is beyond the time frame of this analysis. The origination of the loans is set in June of 2019, before the impacts of the pandemic and higher interest rate environment. For this analysis we apply stabilized occupancy and rent growth per data from NIC for each acuity level. We then used expense growth rates observed from the Freddie Mac seniors housing loan population for IL and AL,

³ Rental income less property expenses equals the net operating income (NOI) of the property, which is divided by the debt payment for the corresponding time period to get the DSCR.

⁴ While property values would also be impacted, we kept this example focused on the changes in cash flow and debt payments. We assume a starting LTV of around 75% in our examples.

respectively. All other assumptions were removed (concessions, bad debt, etc.). For both fixed-rate and floating-rate loans we assume 200 bps of risk premium added to the 10-year Treasury rate and LIBOR rate, respectively.⁵ Based on rates as of June 2019, these assumptions produce coupon rates of about 4.1% for fixed and 4.4% for floating rate at the time of underwriting (the floating rate is higher since LIBOR was slightly higher at the time of origination). For the floating-rate loans, an interest rate cap is set at the time of underwriting so that the maximum note rate is equal to a DSCR of 1.00x.

For IL loans, we assume an expense ratio of 60%, and sized the loan to an amortizing DSCR of 1.30x at the time of origination, as shown in Exhibit 7. For AL loans we use an expense ratio of 75% while the amortized DSCR is 1.40x. Based on these assumptions, the IO DSCR ranges from 1.84x to 1.99x.

Exhibit 7: Hypothetical Loan Assumptions

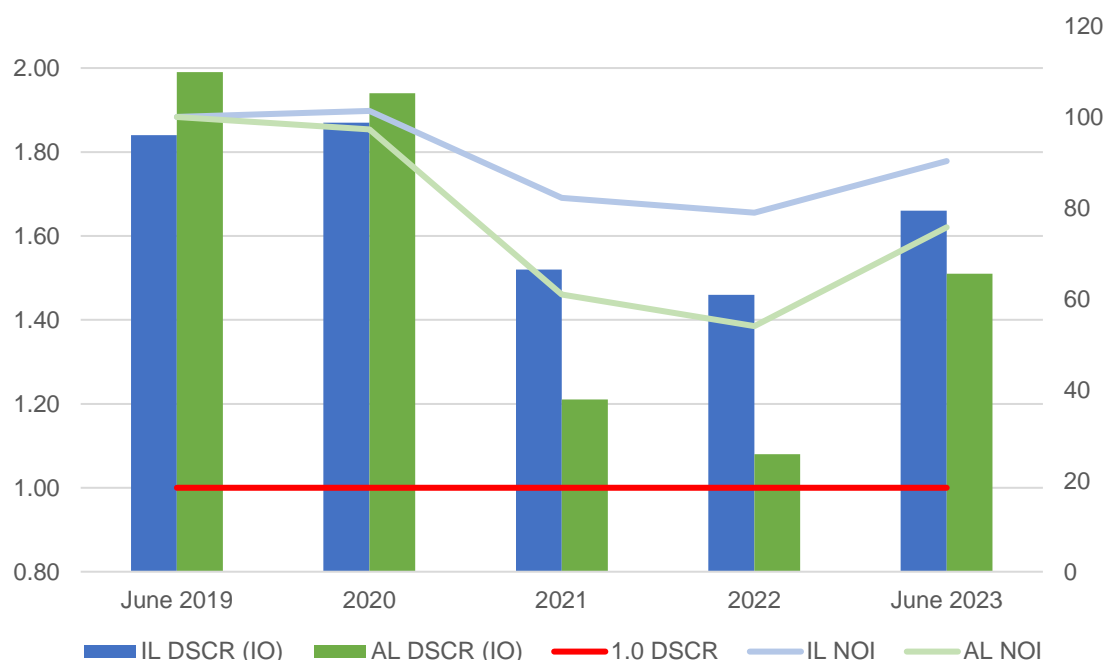
Acuity	Loan Type (all PIO)	Expense Ratio	Underwritten DSCR (Amortized)	Underwritten DSCR (IO)
IL	Fixed	60%	1.30	1.84
IL	Floating	60%	1.30	1.78
AL	Fixed	75%	1.40	1.99
AL	Floating	75%	1.40	1.92

Note: PIO stands for partial interest only. IO stands for interest only.

For fixed-rate loans the decline in occupancy and increased expenses at both IL and AL properties negatively impacted the property's income, while the debt payment remained constant throughout the past four years. As shown in Exhibit 8, DSCRs for neither the hypothetical fixed-rate IL nor the hypothetical fixed-rate AL property dropped below 1.00x coverage, although the AL property was below 1.10x in 2022. The hypothetical IL community never fell below a 1.50x IO DSCR, faring better than the AL property. This is because the pandemic hit the AL market harder than it did the IL market, with larger occupancy drops and greater increases in costs. This is seen in the significant dip in the NOI values (indexed to 2019) starting in 2021 and continuing into 2022 before rebounding modestly through the first half of 2023. By mid-2023, as market performance has strengthened, both IL and AL loans are above 1.50x IO DSCR.

⁵ For this exercise, we assume that expenses in 2023 (for which data is not yet available) grew by the average between the expense growth rate of 2022 and the pre-pandemic average. This assumption aligns with the survey results from BBG seniors housing expense expectations where the vast majority of surveyed market participants anticipated expenses increasing between 3% and 5% in 2023.

Exhibit 8: DSCR and Indexed NOI for Stylized Interest Only, Fixed Rate AL & IL Loans

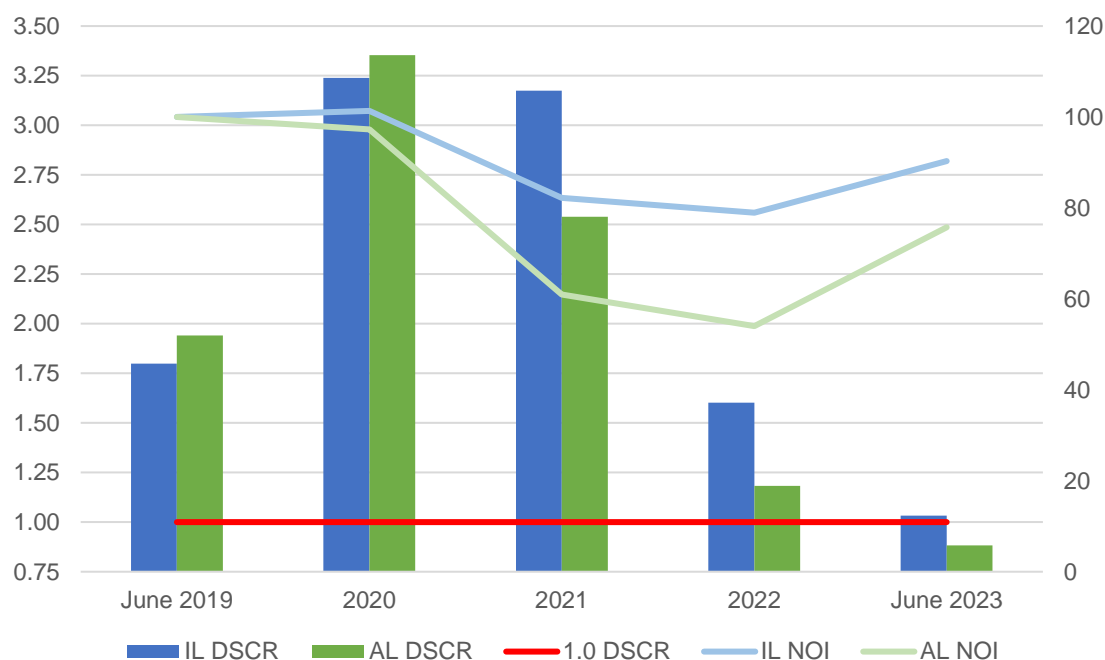


Sources: NIC, Freddie Mac

Note: In 2020, NOI, and as a result DSCR, was not materially impacted by the pandemic despite the decline in occupancy rates because rent growth remained positive and expense growth was very low.

Applying this analysis to the hypothetical floating-rate loans showcases a very different story for DSCRs, seen in Exhibit 9. As interest rates declined in 2020 and bottomed in 2021, debt payments for floating-rate loans followed suit (which is magnified in this example because no principal is being paid yet). In 2021, the annual debt service cost was less than half the amount as of June 2019, creating high savings on debt payments. This debt savings came at a time of declining income due to increased expenses and declining occupancy rates, which helped keep the DSCRs well above the 1.00x level. In 2022, the rapid rise in interest rates impacted floating-rate loans especially hard, with debt service costs up more than 300% from the lows seen in 2021, due to LIBOR rates increasing about 400 bps. Despite the improving occupancy starting in 2021, the rising expenses and, more so, rising cost of debt has outpaced income growth. In this example, the IL loan shows a DSCR just above 1.00x, while the AL loan is well below the breakeven rate at 0.88x.

Exhibit 9: DSCR and Indexed NOI for Stylized Interest Only, Floating-Rate AL & IL Loans



Sources: NIC, Freddie Mac

Exhibit 10 shows our hypothetical annual DSCR rates for the fixed- and floating-rate loans for both levels of care. Both AL and IL floating-rate loans are showing signs of potential stress in their DSCRs, with the floating-rate AL loan showing significantly more stress from the combination of higher interest rates, increased operating expenses and a slowly recovering occupancy rate when compared with IL. If market conditions continue to improve, with occupancy returning, expense growth moderating, and interest rates remaining stable, we expect that stressed DSCRs will also improve.

Exhibit 10: DSCR by Loan Type and Year

Acuity	Loan Type (all PIO)	Underwritten DSCR (Amortized)	Underwritten DSCR (IO)	2020 (IO)	2021 (IO)	2022 (IO)	June 2023 DSCR (IO)
IL	Fixed	1.30	1.84	1.87	1.52	1.46	1.66
IL	Floating	1.30	1.78	3.14	3.05	1.58	1.04
AL	Fixed	1.40	1.99	1.94	1.21	1.08	1.51
AL	Floating	1.40	1.92	3.25	2.44	1.16	0.88

Note: PIO stands for partial interest only. IO stands for interest only.

To help mitigate the risk of higher interest payments, borrowers with floating-rate loans purchase an interest rate hedge to limit the impact of higher interest rates. The hedge, predominately a cap, purchased at origination is shorter than the loan term, which means the borrower needs to purchase additional replacement caps during the life of the loan. The max note rate, and therefore the strike rate, above which the cap protects interest rate risk, is set at underwriting to a note rate that would equate to an amortizing DSCR of 1.00x and does not change during the life of the loan. The first cap is purchased at origination and is typically good for the first three years of the loan. The cost of the subsequent replacement caps change with the interest rate. As the forward curve of interest rates increase, so does the cost of an interest rate cap. The estimated cost of a replacement cap is calculated every six months, and escrows are paid based on that amount.

The impact of more expensive cap hedges was most acutely felt starting in the second half of 2022 and into 2023. In our example, a three-year cap would have expired in 2022, at which time funds sufficient to purchase a one- or two-year replacement cap would have been escrowed. If a one-year replacement cap was purchased in 2022 (at modestly higher costs), the cost to renew it in 2023 increased substantially, according to data provided by Kensington Capital Advisors — an interest rate hedge advisor. These additional costs could put further stress on a property's financials. The escrows for the cap hedge are not currently included in the DSCR calculation per the CREFC current guidelines,⁶ but, as some institutions are applying them, the impact would lower DSCRs even further. For our example loans we estimate the DSCR could decline an additional 6 to 13 bps if replacement cap escrow costs are included. Those loans with strike rates in the money would have a higher escrow cost given current interest rates are already above their strike rates.⁷ Based on our example above, this could lower the IL DSCR below the 1.00x breakeven as of June 2023, due to the lower property performance and NOI currently compared with underwriting.

Another impact from higher interest rates could come in the form of refinance risk across all term maturity loans. Seniors housing loans, like most multifamily loans, do not typically fully amortize, and instead require the balance at maturity to be repaid, either through a cash payoff or, more commonly, refinancing into a new loan. In order to refinance, loans must meet the minimum DSCR, and loan-to-value (LTV) ratios set forth by the debt lender. Loans that cannot meet those requirements and are unable to refinance, through a cash-in refinance, face increased risk of default. Although the stress observed in the DSCRs seen in Exhibit 10 means the example loans would not meet the refinance minimum, nearly all of Freddie Mac funded seniors housing debt carries 7- to 10-year terms, which provides several more years for the DSCRs to recover before a loan reaches maturity. Our analysis here focused primarily on the DSCR metric, which does not include the additional stress from rising cap rates captured by LTV ratios. However, similar to DSCRs, given the trends of improving occupancy, strong rent growth and moderating expense growth, LTVs should also improve over the next few years.

These examples are intended to show how the recent changes in occupancy, expenses and interest rates could impact a property's ability to pay its debt payment, but individual properties will vary in the severity of these variables. This analysis also assumes loan origination in 2019, immediately before the pandemic hit. Loans originated prior to 2019 would have more time for growth before the pandemic hit, potentially providing a bit more of a buffer in the DSCR. Likewise, loans originated after the pandemic would have accounted for the lower occupancy, higher expenses and higher interest rates in their underwriting.

⁶ The upcoming CREFC Investor Reporting Package v8.3 will include cap escrow costs in DSCR, while Freddie Mac required the escrow cost be included in the DSCR for 2022 financial reporting.

⁷ In our example loans, the IL loans have a lower strike rate than AL loans because they are underwritten to a lower DSCR, therefore, we'd expect a greater impact on an IL DSCR than an AL DSCR, given the rate environment at the time of publication.

Seniors Housing Demographics: 2024 and Beyond

As we explored in our report in 2022, the demographics supporting seniors housing will remain robust over the next 10 or more years, which will help support demand for seniors housing. According to data from Moody's Analytics, at the end of 2022 there were about 13 million seniors over the age of 80, the age when most people begin to make changes in their housing situation and are more likely to move into dedicated seniors housing. By the fourth quarter of 2026 that number is expected to total more than 14.9 million. And that trend is expected to continue, with more than 17 million seniors over 80 by the end of the decade, and nearly 25 million by 2040. Each year between 2026 and 2040, an average of about 750,000 more seniors will be aged 80 or more. Prior [Freddie Mac research](#) has indicated that most people 55 and older would prefer to age in place, and seem to be staying in their existing homes longer than previously anticipated. Many seniors also opt to live with their adult children, if possible, and the number of multigenerational households is on the rise. However, a sizable population will require alternative housing, which, given the rising population size, will likely continue to support seniors housing.

Those 65 and older have a homeownership rate of just below 80%, more than 10 percentage points higher than the overall U.S. average, according to the U.S. Census Bureau. These older homeowners have likely been in their homes for many years and will likely have significant equity built up, especially after the run up in home prices over the past few years. For many, the equity in their homes combined with retirement income provides a financial cushion, which will allow them to access the care they need as they age, whether it's in their own homes, with family or in a dedicated seniors housing facility.

Conclusion

The seniors housing market was profoundly impacted by the pandemic but has been recovering at a steady pace. Occupancy has been increasing and is expected to return to pre-pandemic levels by late 2023 or early 2024, while new supply has been trending down, further helping the recovery of occupancy rates. Rent growth has also been exceptionally strong recently, which combined with the increasing occupancy rates has led to increasing property income. Meanwhile, overall expenses are expected to moderate from the highs seen last year, particularly employee costs which are expected to decline meaningfully as the use of temporary staff declines.

While these trends have impacted a property's net income, on average it was generally not enough to impact the ability to cover debt expenses, as we saw in the fixed-rate example. The added stress from the higher interest rates environment, coupled with the weaker — albeit improving — fundamentals have threatened the ability of floating-rate properties to cover debt payments. However, those floating-rate loans saw significant debt savings in 2020 and 2021, whereas fixed-rate debt was more impacted by the market slowdown. Over the next several years, age demographics are favorable as the number of seniors aged 80 or more is expected to increase rapidly. While these seniors have many options as to where they will spend their golden years, many will need to find dedicated seniors housing as their needs change.

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