

Moderate-Income Rental Housing



Executive Summary

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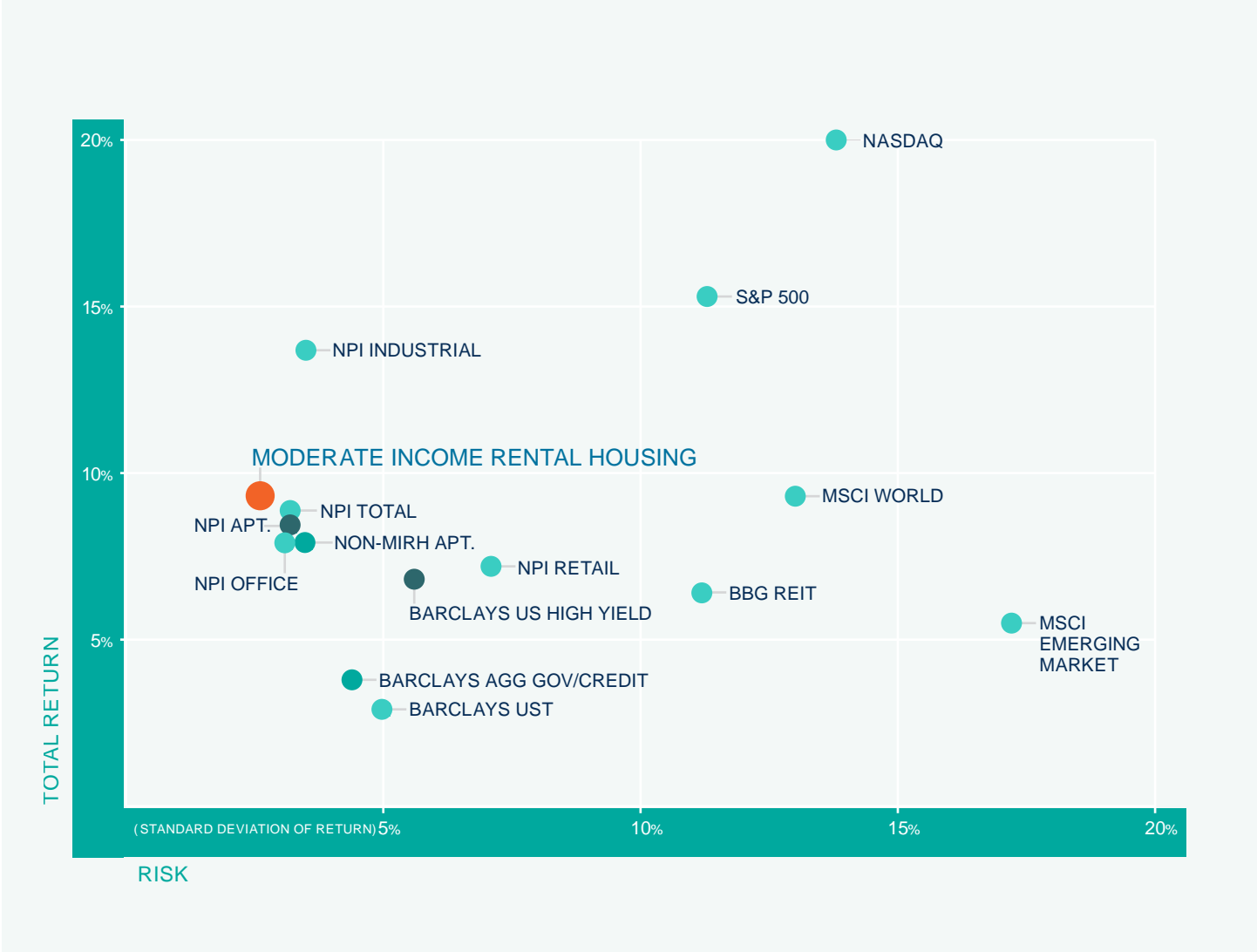
Methodology

The data for this chart was collected through a survey of moderate-income rental housing residents and all residents in the area. The survey was conducted from [Month] to [Month] and included questions about community festivities. The results show that moderate-income rental housing residents are more likely to enjoy community festivities compared to all residents.

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Topline Findings

Moderate Income Rental Housing () compares favorably in terms of

Since 2011, **moderate-income rental apartment assets** has outperformed otherwise similar “above-**moderate-income** rental apartment assets,” i.e., rental apartment assets that are also captured within **moderate-income**’s data set but whose rents exceed the 80% of **moderate-income** threshold.



moderate-income returns since 2011 have exhibited relatively low correlations with indices of other mainstream asset classes, i.e., **stocks, government bonds, and high yield bonds**.



Despite generally tightening rental market conditions over the last decade, particularly at the lower end, **moderate-income** assets since 2011 in our dataset have somewhat counterintuitively exhibited slightly lower average occupancy rates (93.3 %) than above-**moderate-income** assets (94.0%).

moderate-income assets since 2011 have required higher capital expenditures (1.5 % on average) than above-**moderate-income** properties (0.88%).



1) Rent all of its compliant apartments to households earning less than $X\%$ of the median family income for its metro area adjusted by household size and

- 2) For those units charge rent that when combined with utility costs is less than $Y\%$ of the median household size adjusted income corresponding to $Z\%$ of

All of its compliant apartments will be rented to households earning less than $X\%$ of the median family income for its metro area adjusted by household size and for those units charge rent that when combined with utility costs is less than $Y\%$ of the median household size adjusted income corresponding to $Z\%$ of

Moderate-Income Rental Housing: Assessing its Viability as an Asset Class for Real Estate Investment with Environmental, Social, and Governance (ESG) Criteria

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The opinions expressed in this report are the views of Mark G. Roberts REA, LLC and Jake Wegmann New Trails Research, LLC, as individuals and should not be construed as the positions of the institutions with which they are affiliated. This research project is intended to provide perspectives and insights based on information and data available over the time period studied and does not constitute advice and recommendations. The authors at Wells Fargo disclaim any liability for actions taken as a result of this research and its findings.

EXECUTIVE SUMMARY

Interest among institutional real estate investors in what is often referred to as workforce housing² rental housing that receives either few or no governmental subsidies, yet is priced low enough to be affordable to moderate income households is surging. There is no consistent characterization of this type of housing, although one common definition is a large, institutional grade multifamily asset occupied by tenants earning between 60% and 120% of the Median Family Income (MFI) in the metropolitan area where it is located. Demand from tenants for this type of housing is increasing concurrently with the nationwide surge in home prices that has occurred amidst the COVID-19 pandemic, with many moderate income renter households now unable to transition to homeownership, and with fewer such households vacating their existing housing units than in past periods.

Meanwhile, although Environmental, Social, and Governance (ESG) focused investments have increased globally in the 21st century, arguably interest has intensified still further during the current pandemic. In the wake of the murder of George Floyd and the ensuing wave of protests that followed in 2020, investor appetite is particularly high for socially focused investments. The field of ESG research, however, is underdeveloped. This is in part due to the difficulty of quantifying and defining what exactly qualifies as a socially focused investment, unlike, for instance, environmentally focused investments (such as solar farms) where ecological benefits (such as avoided carbon dioxide emissions) are easily quantified, measured, and reported.

The convergence of these two trends—surging demand for the apartments on the part of tenants and for the properties enveloping them on the part of investors—suggests a natural opening for a new asset class to which we apply the phrase Moderate-Income Rental Housing (MIRH).³ Known previously only to this emergent asset class, it has substantial drawbacks, including the likelihood of being confused with employer provided housing. It also inaccurately insinuates that the majority of tenants of subsidized rental housing (such as rental buildings subsidized with federal government Low Income Housing Tax Credits) lack employment. Meanwhile, other commonly used terms, such as Affordable Housing, Rental Housing, and Workforce Housing, are either too broad or too narrow.

MIRH, for each unit of analysis. MIRH properties, as we defined them in our analysis, are those in which the mean asset side rent is below the threshold rent; above-MIRH properties are those in which it is equal to or above the threshold.

To compute the threshold rent, we approximated an affordable rent, net of typical utility costs, for a household earning 80% of the MFI for the metro area. We adopted the typical federal housing affordability standard in which rent plus utility expenditures are deemed to be affordable when they are below 30% of gross household income. To compute the data needed for the threshold rent calculations, we drew MFI data from the US Department of Housing and Urban Development (HUD) and utility cost data from the American Housing Survey and the US Energy Information Agency.

We compared above-MIRH versus below-MIRH assets in terms of total return, the variation or uncertainty of total returns from year to year (otherwise known as risk), standard deviation of total return, capital expenditures, occupancy, and other metrics. We did this at three levels of aggregation: nationwide, vintage year, and metro. For the nationwide analysis, we included data

- x MIRH returns since 2011 have exhibited relatively low correlations with indices of other mainstream asset classes, i.e., stocks, government bonds, and high yield bonds. For instance, the correlation was +0.029 for total returns for MIRH assets with the S&P500, 0.04 with Nasdaq, 0.12 with BBG Barclays US Treasury bonds, and +0.41 with BBG Barclays High Yield bonds.
- x Despite generally tightening rental market conditions over the last decade, particularly at the lower end, MIRH assets since 2011 in our dataset have somewhat counterintuitively exhibited slightly lower average occupancy rates (93.3%) than above MIRH assets (94.0%).
- x MIRH assets since 2011 have required higher capex (1.5% on average) than above MIRH properties (0.88%). However, these higher capital requirements are more than R I I V H W E \ W K H D V V H W V \ K L J K H U L Q F R P H D Q G W R W D O U
- x Analyses of individual metros with sufficient data coverage to permit comparison between MIRH and above MIRH assets reveal that the patterns enumerated above hold up almost without exception. This is true in Sunbelt metros (Atlanta, Austin, Houston, and Phoenix), gateway metros (Washington, DC and Seattle), and Denver.

10-Year Total Return and Risk of National MIRH vs Major Asset Classes



Implications

One of the unique challenges facing MIRH as a potential defined asset class is that success in the very return metrics that ~~find~~ is likely to fuel suspicion among the broad spectrum of the public that is concerned about housing affordability, and the policymakers who respond to such concerns. With MIRH, there is a risk of a perceived conflict between financial success for investors and the wellbeing of the tenants being served.

OVERVIEW

For several decades, interest in moderate-income rental housing as a distinct asset class for institutional investment has risen

BACKGROUND AND DEFINITIONS

A significant challenge in establishing moderate income rental housing as a recognized asset class is a lack of consistent definitions. As a contrasting example, the housing industry (both for and nonprofit) that has grown up around the Low-Income Housing Tax Credit (LIHTC) benefits from the clear definition established by the US Congress when the LIHTC was passed in 1986, and the Internal Revenue Code⁶. For the past several decades, there has been no doubt about which multifamily assets could be eligible for LIHTC: only those that included income and rent-restricted units affordable to households earning 50% or 60% of Median Family Income (MFI)⁷, as defined by the US Department of Housing and Urban Development⁸. This clarity has helped the LIHTC gain industry acceptance to the point where 2 million units⁹ had been built or rehabbed from inception through 2018, all of them with private investment capital.

By contrast, clear definitions for rental housing that is designed to serve households at higher income levels than LIHTC housing, but for whom market rate housing would be a strain or out of reach, have been elusive. We begin by proposing such a definition. Next, we define the metropolitan areas that this report uses as its geographical unit of analysis. We then review some other definitions and nomenclatures for what we refer to as moderate income rental housing that have been proposed in the past, and make the case for our terminology.

Defining moderate income rental housing (MIRH)

Our idealized definition of moderate-income rental housing (MIRH) is rental housing that serves tenants earning between 60% and 100% of Median Family Income (MFI) for the metropolitan or micropolitan area or rural county in which it is located. However, because of data limitations, in this report we approximate and operationalize the definition of MIRH as an apartment complex in which the median apartment rent plus average utility costs is 80% or less of MFI.

for LIHTCs, but that is less likely to be produced by market rate development. Although there are some metros in which market rate development may produce rental housing affordable to tenants earning 100% MFI, there are fewer of them than metros in which such development yields rental housing for households earning 120%. As Ford and Schuetz note, in past decades workforce housing efforts were primarily conceived as middle income housing to big cities; today, in a growing number of locations, the emphasis has flipped to preventing the loss of such residents from increasingly expensive cities. In short, a narrower band of incomes for 0,5+ PDNHV WKH FRQFHSW PRUH PHDQLQJIXO LQ PRUH SODI issues of concern, and therefore we adopt the narrower, 60% of MFI definition.

At least two other terms are sometimes used interchangeably with what we refer to in this UHSRUW Missing Middle Housing (NOAH). We find both of them to be at least somewhat off the mark for what we describe and quantify in this report. Missing Middle housing is an increasingly well-recognized term that describes medium density, small parcel forms of housing such as bungalow courts and fourplexes² KRXVLQJ WKQW IEVFDXWH LW ZDV FRPPRQO\ EXLOW L century or more ago in many US cities but no longer is.

W K R W H e incomes are between 81 percent and 95 percent of the median income for the area, as determined by HUD¹⁹

No terminology is perfect; every possible choice has its limitations. However, in this report we eschew the alternative terms reviewed above and instead use the nomenclature of MIRH, since it provides a straightforward description of the subset of multifamily housing that we aim to analyze) X U W K H U P R U H Z H G H I L Q H ³ P R G H U D W H L Q F R P H ' D generally too high to be served by most formal subsidized housing programs but low enough to meaningfully reflect a recognized need in most markets. It is possible that as MIRH grows in popularity and recognition as a distinct asset class, the industry will coalesce around a different term or precise definition. For the time being, however, we use MIRH to mean rental housing reserved for and affordable to those earning under 80% of MFI

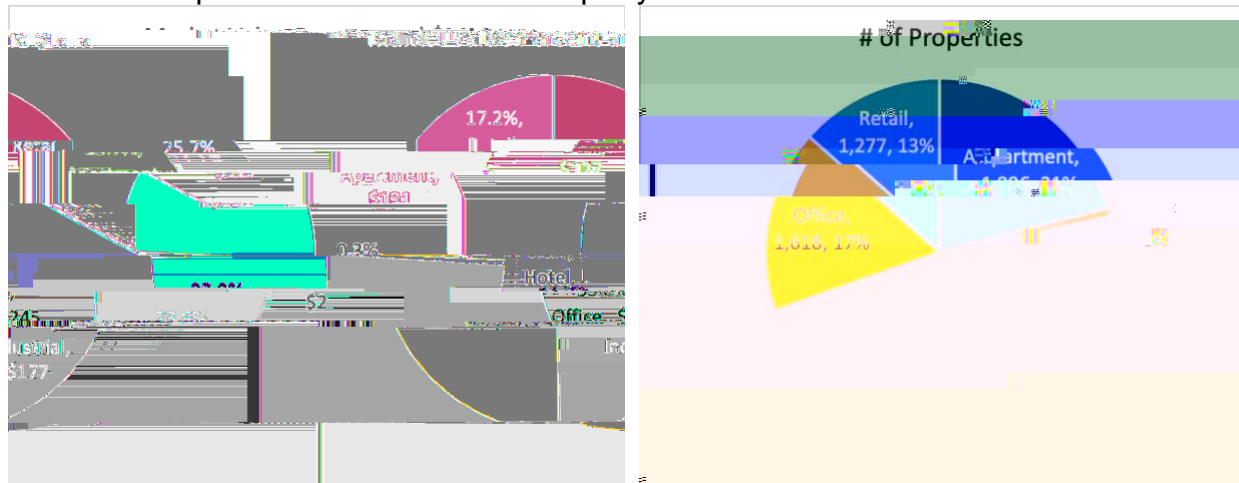
¹⁹For moderate income definition under CRA, see: https://www.federalreserve.gov/consumerscommunities/cra_resource.html For definition under CHAS, see: <https://www.tdhca.state.tx.us/glossary.htm>

Exhibit 1: Methodology Flow Chart



NCREIF is the leading provider in the U.S. of investment performance indices for non listed, directly held commercial and residential properties. At the end of the second quarter of 2021 and as highlighted in Exhibit 2, NCREIF provided quarterly return performance data for over 9,500 properties which had a combined market value in excess of \$742 billion.

Exhibit 2: Composition of the NCREIF Property Index of 2Q 2021



NCREIF aggregates property level return performance from over 100 contributing members each quarter. These contributing members consist of institutional investment managers who have a minimum of \$50 million in net listed real estate assets under management. The performance indices which are created for the NPI are the quarterly

appraised performance of individual buildings on a ~~tax~~ exempt and unleveraged basis. For a property to be included in the NPI, it must have an occupancy rate of at least 60% or, for a newly developed or renovated property, a year ~~has~~ must have passed since the certificate of occupancy was issued.

In regards to the total returns within the NCREIF database, our knowledge of the income on the assets ~~is~~ not restricted due to deed restrictions or other limitations ~~place~~ the properties. In theory, if there were such restrictions, appraisers might use higher ~~cap~~ rates lower growth rates compared to non-restricted assets to arrive at a determination of value which is used to calculate the total return on a property. Such restrictions could distort the

and was inconsistent. Nevertheless, these metros may provide areas for further research in the future.

Also, two notable exceptions to our metro level analysis are San Francisco and Boston.

FINDINGS

In this section we review the results of our analysis. Throughout this section we refer to the National MIRH index against various asset classes. We will then review the performance characteristics of our equity and vintage year indices.

level which can accommodate a moderate income household could provide similar performance attributes. Thus, removing these large metros did not alter our basic conclusions.

Exhibit 12 Periodic Annual Total Returns - MIRH vs Other Apartment Market Segments

As seen in the chart regarding the periodic returns, the MIRH Property Index outperformed each of the other indices shown and, in some cases, by a substantial amount. Given the discussion above, the NPI Apartment Large market is likely biased higher because it includes better performing MIRH properties but excludes worse performing above-MIRH housing from three large metros. Admittedly, there may be metro selection bias in the National Analysis. For this reason, we wanted to isolate metro selection bias by comparing MIRH assets and above-MIRH properties at the metro level as highlighted below.

Metro Level and Vintage Year Analysis

Exhibit 13: 10-Year Total Return & Risk by National and Vintage Year MIRH vs above MIRH

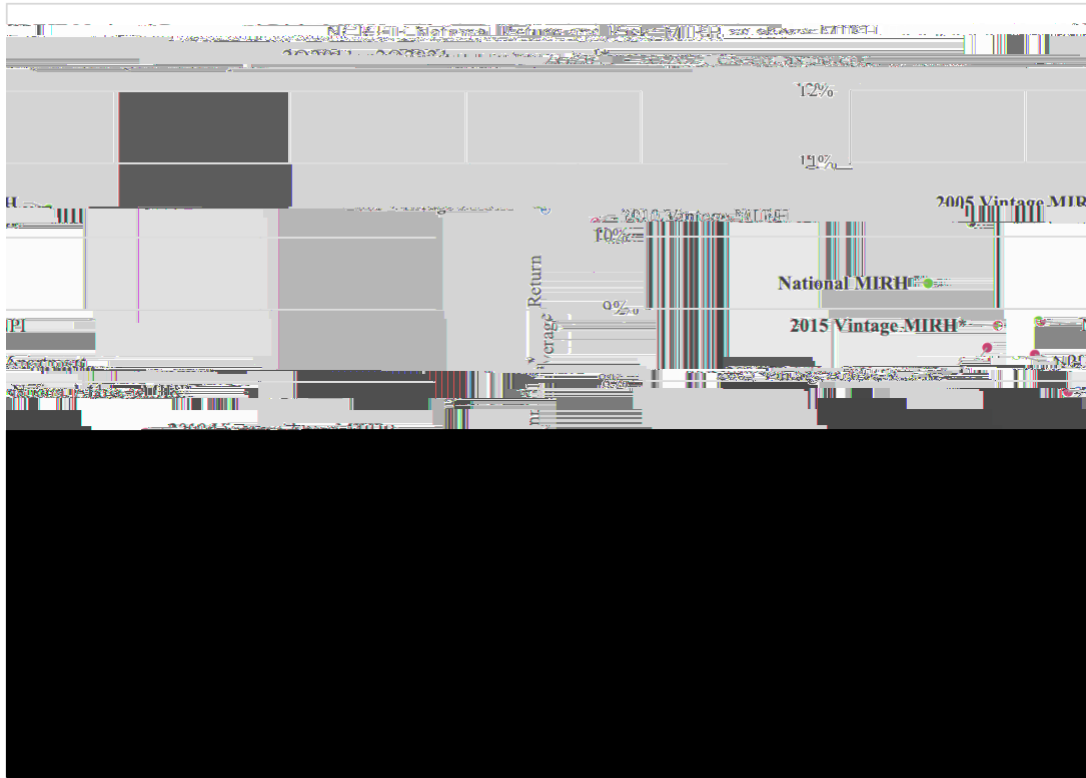
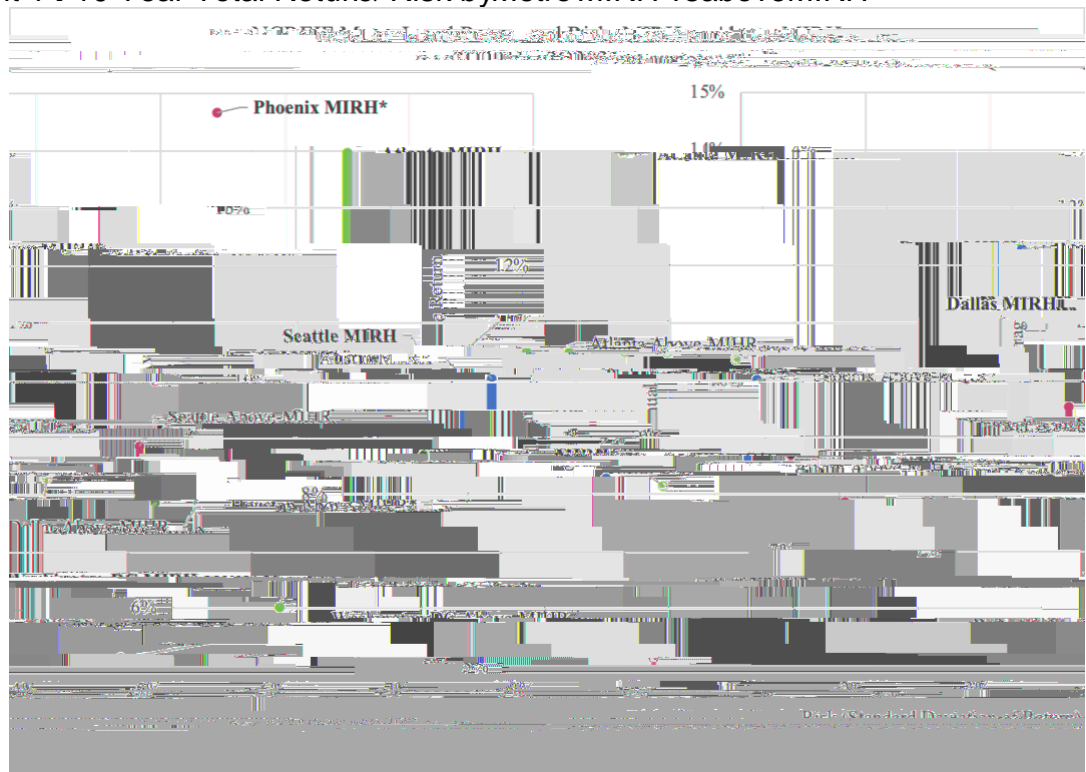


Exhibit 14: 10-Year Total Return & Risk by Metro MIRH vs above MIRH



A casual observation from the exhibit highlights the outperformance of the MIRH assets at a metro level or vintage year compared to the aboveMIRH property indices. Also, because the vintage year indices reflect a compilation of ~~retail~~ assets, the diversification of holding assets in multiple metros serves to reduce risk. As the periodic returns of each category reported in Exhibit 15 show, in every instance except one, the MIRH index outperformed the aboveMIRH housing index. The one exception was the trailing year performance in Seattle where the MIRH index lagged by 60 basis points over the last year as of 2Q 20

Exhibit 15 Periodic Returns by National, Vintage Year and Metro - MIRH vs aboveMIRH

In addition to producing higher total returns, in most cases, the MIRH index also produced lower risk, which we defined in the customary way as standard deviation of returns. the sections below, it appears the earnings yield for MIRH indices were significantly greater than the aboveMIRH indices which may provide some explanation for the outperformance. There were four exceptions, namely Atlanta, Denver, Phoenix and the 2015 Vintage year. In the case of Atlanta and Denver there was a positive deviation in performance. This occurred in 2017/18 in Atlanta and in 2014/15 for D0 0 1 7Rnver

Phoenix and the 2015 Vintage year, there was an increase in outperformance in 2021 which may be due to COVID-19. In the case of Phoenix, there was a large increase in returns. In the case of the 2015 Vintage, recall that the MIRH Index did not include properties from three large metros. In turn, returns may have been biased higher. Or conversely, the MIRH returns for the 2015 Vintage year index were biased lower because the index included those metros which performed quite poorly in 2021.

Despite the apparent outperformance and lower risk for MIRH across most of the indices considered, from a statistical perspective the question arises, are the returns between MIRH and above-MIRH properties statistically different from one another? Furthermore, even though they may or may not be statistically different, do MIRH properties produce higher returns? To answer these questions, we ran a statistical test on the data, the results of which are depicted in Table

Exhibit 16 Are Total Returns Between MIRH and above-MIRH Significantly Different?

The first grouping of columns in the table depicts the since inception returns for that category as also reflected in Exhibit 15. The second set of columns asks the question, are the average returns between the two indices for a given category equal to one another? A low p-value (known as the probability value), such as below 0.10 (10%) as highlighted in the column suggests that the chance of the returns being equal is so small (and less than 10%) that they can be considered statistically different from one another.³³

There were only two instances where the returns were statistically different from one another. The 2015 Vintage year shows a distinct likelihood that the returns are different. However, as has been discussed, the significant difference in performance is likely a function of metro-level composition (Chicago, Los Angeles and New York) versus the effects of MIRH versus above-MIRH properties. At a significance level of 10%, we found a statistically significant difference in performance in Phoenix MIRH and

statistically significant difference in the average returns. The more appropriate viewpoint might be, since the performance is not significantly different, why overlook the opportunity to invest in properties which seemingly provide competitive pe

Similar to our total return analysis, the table describes the historical average occupancy rate for each index within a given category. For example, over the time frame analyzed, the average occupancy rate for MIRH in Atlanta was 93.3% while aboveMIRH had a higher occupancy rate of 94.2%. In Atlanta, was there a statistically significant difference in the R FFXSDQF\ UDWHV EHWZHHQ WKH WZR LQGLFHV" \$V LW WXU the 0.05 probability level because the p-value was 0.06. However, at a less stringent significance level of 0.10 probability, there was a significant difference in the occupancy rates of the two series. From a directional perspective, we can determine from the analysis that there is a 1% chance that aboveMIRH housing had a higher occupancy rate when it did not. Thus, in the

DISCUSSION AND RECOMMENDATIONS

Although many results are presented in the previous section, we can summarize the topline findings as follows:

- x Moderate Income Rental Housing (MIRH) compares favorably in terms of its return and risk profiles since 2011 as compared to other comparable asset classes.
- x Since 2011, MIRH has outperformed otherwise similar above-MIRH assets, i.e., rental

Establishing MIRH as a recognized asset class

success of the LIHTC is its clear and transparent criteria for

comes to be widely known.) In addition, a productive and mutually beneficial collaboration with the public sector, particularly local governments, will be essential to maximizing the potential investment and social benefits that a new MIRH asset class can yield. The opportunity awaits; now it is time to seize it.



DABLE