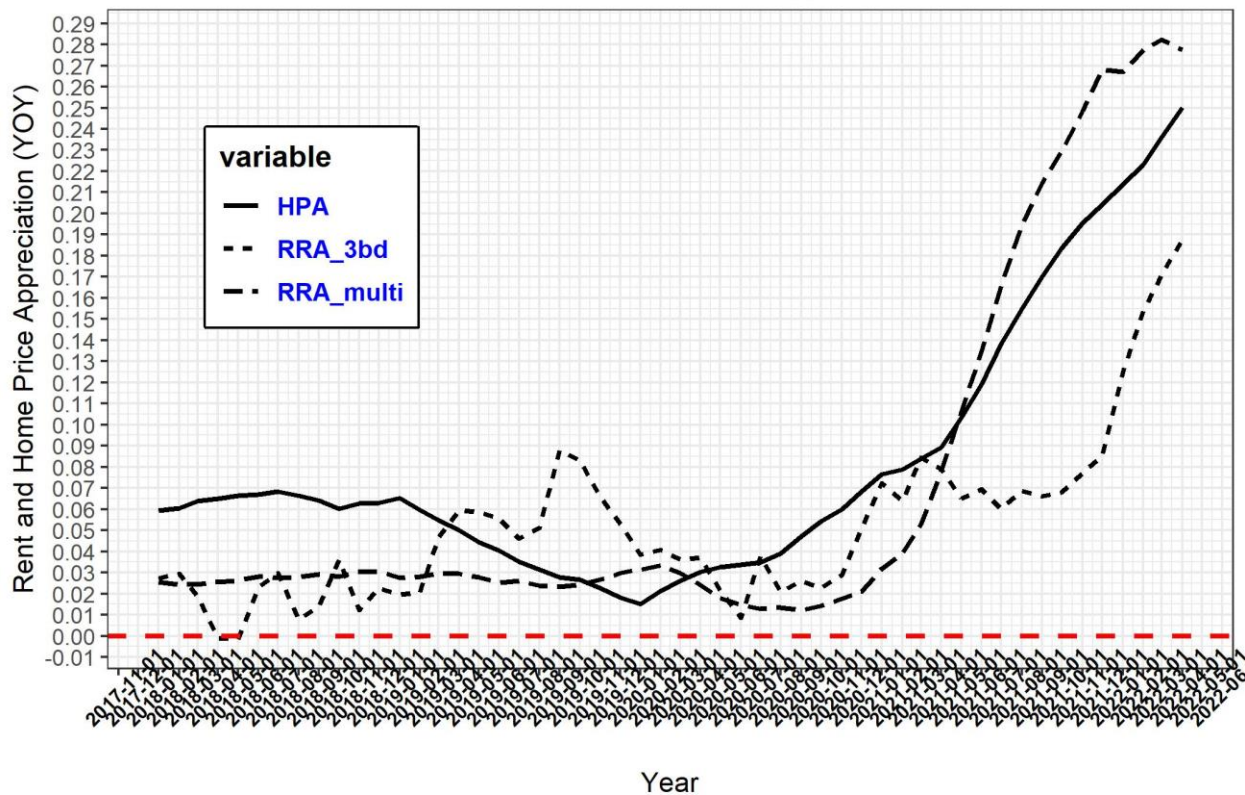


Jun-22: Miami, FL

Although, rising mortgage rate are beginning to slow home price appreciation across the nation (see Jun-22 blog), Miami, FL remains an exception. The solid line in Chart 1 shows home prices rising by 28 percent year-over-year as of May-22.

Why are the price gains so strong? Buildable land is not in short supply. There is plenty of usable land past 137th Avenue that even now is being developed. The reason for high prices in Miami, FL is that renters/buyers are not competing against their neighbors for homes, they are competing with those out of the city, and mostly out of the country. Money is arriving there from South and Central America. Many people from out of the city with incomes that are not location dependent buy/rent property here. Anecdotally, this is evidence by the creation of new expensive high rises in much of Miami that are pre-purchased for introductory prices in the \$750k-\$1m.

Chart 1. Miami, FL: 3bd Home Price & Rent Appreciation

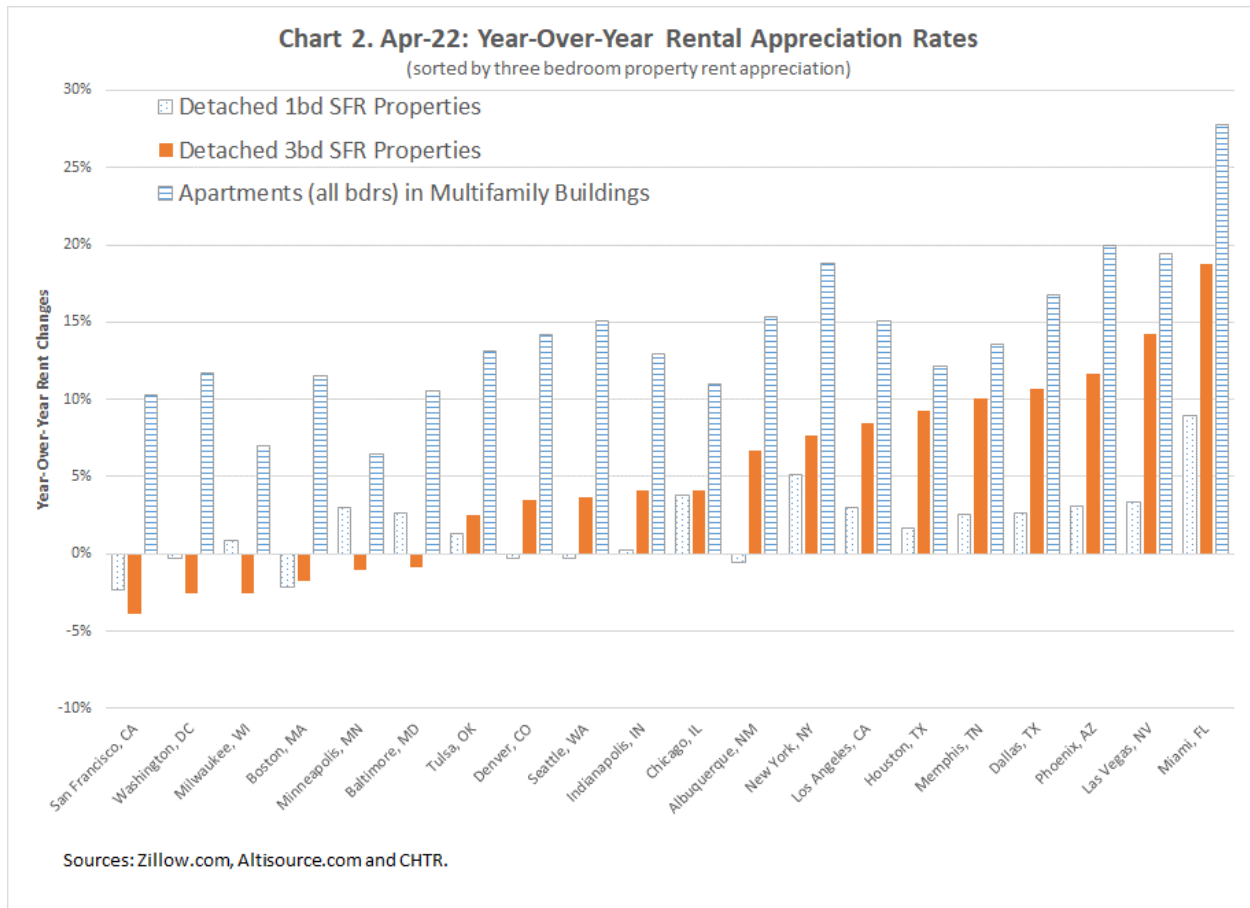


Sources: Zillow.com, Altisource.com, CHTR

The impact of money from outside the country flowing into the city is also evidenced by the fact the apartment complexes that are created, even those currently existing, can charge high rents and still get renters easily. Chart 1 shows how rent appreciation in multi-unit structures (RRA_multi, dashed lines) in Miami, FL have almost kept pace with price appreciation since the start of 2022.

In Chart 2, we see rent appreciation for apartment units and SFR properties in Miami, FL relative to nineteen other major Core Business Statistical Areas (CBSAs). Chart 2 shows

the current observations of rent appreciation for one- and three-bedroom single family residential properties (RRA_1bd, and RRA_3bd), and rent appreciation for apartments in multi-unit structures (RRA_multi) for 20 CBSAs. The data for Miami, FL is identical in both charts.



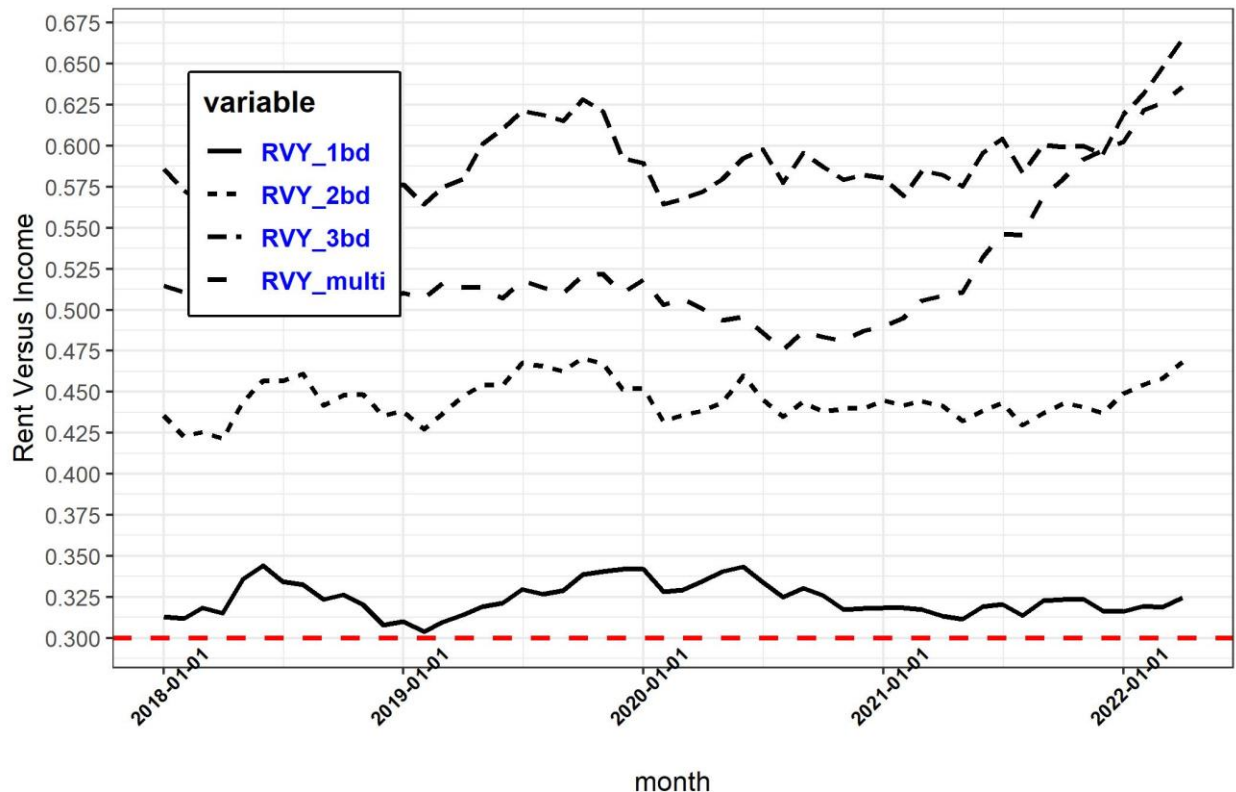
The data in Charts 1 and 2 are thus not surprising: demand for houses and rental space by foreigners drives big increases in home price appreciation (HPA) and have been matched by the large increases in rents in apartments (RRA_multi). This has happened in many Canadian cities. The investor and second home share of purchases for Miami, FL is not the highest in the nation, but it has spike up with political unrest in South and Central America. The investor and second home share for Dec-21 stood at 28% for Miami, FL, while the investor share of all homes purchased in the nation stood at 21%. The share for Miami, FL stood as low as 18% in mid-2020.

If inmigration from outside the country is expanding purchase and rental demand it makes sense that both HPA and RRA are going accelerate in unison. The large rent increases we see for apartments in multi-unit rentals also shows up in rents of 3-bedroom SFR detached properties.

Rents versus income

How have these changes impacted relative affordability in Miami, FL? If incomes in a CBSA increase as fast as home prices or rents have increased, then the denizens of that CBSA who already own their homes are better off as their wealth has increased. Renters who are domestic citizens, however, are worse off because they transfer larger amounts of wealth to the property owner each time rents increase. In Chart 3, we show the cost of renting (R) relative to income (Y) for three different bedroom counts and for apartments in multi-family buildings (all bedroom counts). This yields a RVY ratio for each property type. It is a measure of income flow and affordability.

Chart 3. Miami, FL: Rent Vs. Income By Bedroom Count



Sources: Zillow.com, Altisource.com, CHTR

A rough rule of thumb is that an RVY for new homebuyers should be around 30%. In Chart 3, three of four RVY ratios are above 30%, and only two RVY ratios seem stable. Thus, the very large increases in home prices and rents for SFR properties have not been matched by increases in incomes in Miami, FL. This makes sense because the incomes to buy and rent are being pushed up by incomes from outside the city.

This suggests that renters of SFR detached properties who are American residents are much worse off than they were before the pandemic and the influx of foreigners. One has to suspect that domestic renters of both single family detached properties and apartments are credit constrained. The incomes in the city do not allow for the possibility to rent or own a property for many people. Instead, what occurs is multiple families/people live in the same home. It has been reported that it is not unusual to see several different cars

parked outside a home. It is not that this person has a lot of money for cars, rather, there are around 3-4 grown individuals sharing the home. The reason rent stays so high is that foreigners bid up the prices. The worsening of the R/VY ratio makes it harder for domestic renters to accumulate wealth. It, in turn, makes it harder to accumulate the downpayment to potentially make a purchase in the future.