YOUR CASTLE
REAL ESTATE

ARE WE IN A BUBBLE? WILL THE MARKET CRASH?

Executive Summary: Are we in a bubble? Will there be a crash? What will happen to prices?

- Despite the media hype, we are not in a bubble.
  - Per capita income in Denver has grown as a strong pace.
  - This enables buyers to afford higher RE prices.

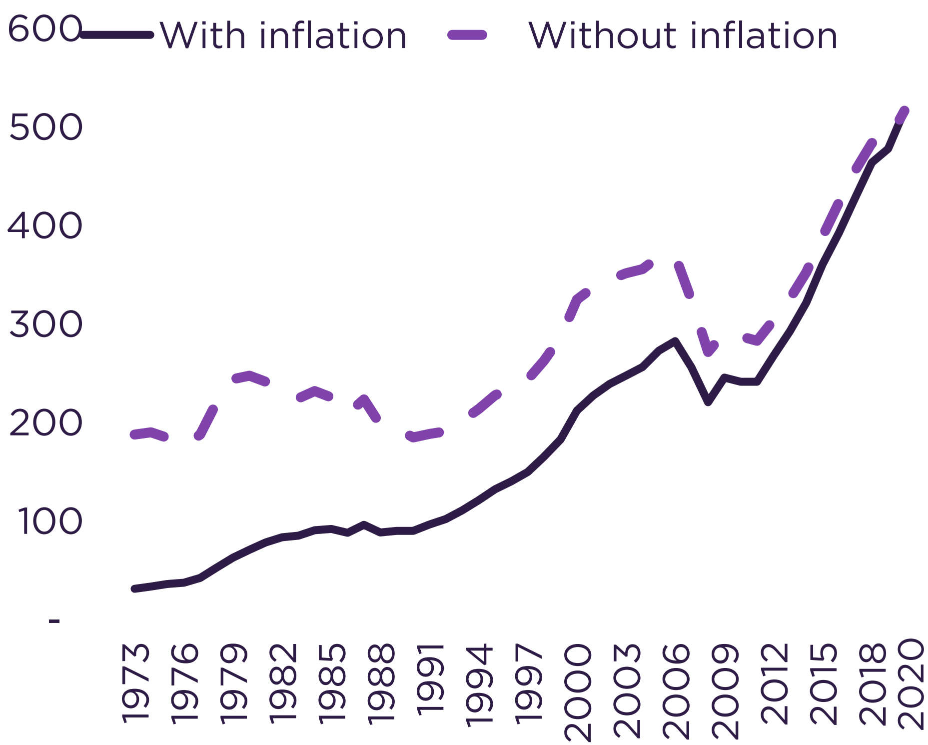
- With realistic assumptions, prices are not likely to decline in the next five years.

- Mortgage rates likely will rise, and that will not force down prices. Historically, it should not impact the number of transactions, either.

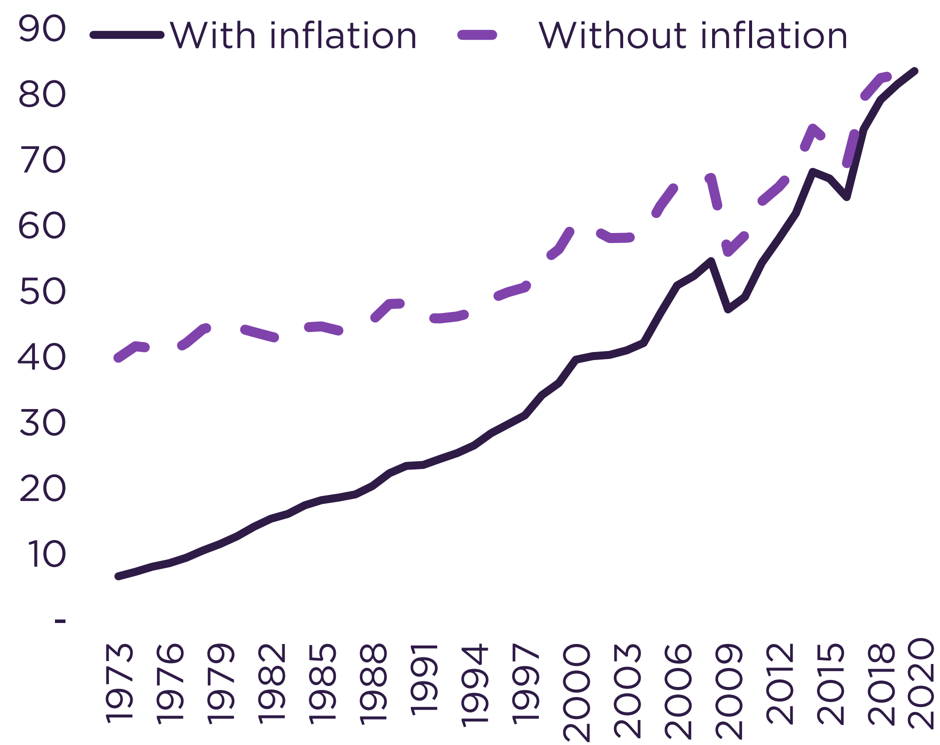
- Demographics, affordability, and construction prices will conspire to make the next 5-10 years very attractive to landlords.

Denver Metro home prices have increased 15-fold since the early 1970's (from $35.5Kto $516K) with inflation, and 3-fold without inflation. Real estate is an excellent hedge against inflation! Meanwhile, per capita incomes grew 13-fold with inflation and doubled without inflation (from $6,500 to $83,400).

DENVER METRO PRICE APPRECIATION (HOMES AND CONDOS) $000



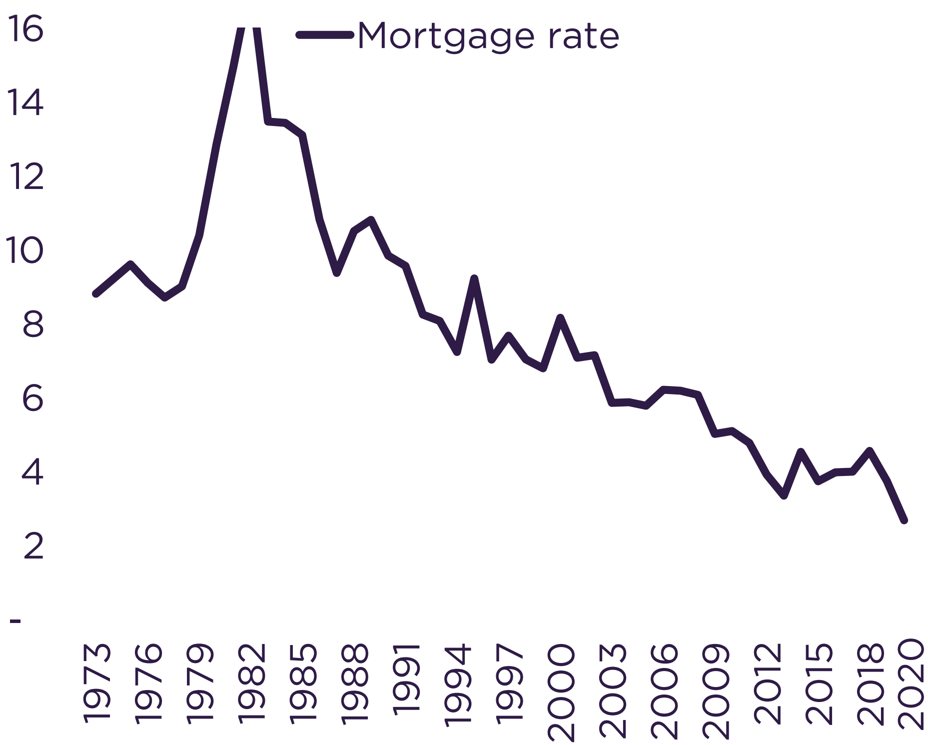
DENVER METRO PER CAPITA INCOME $000



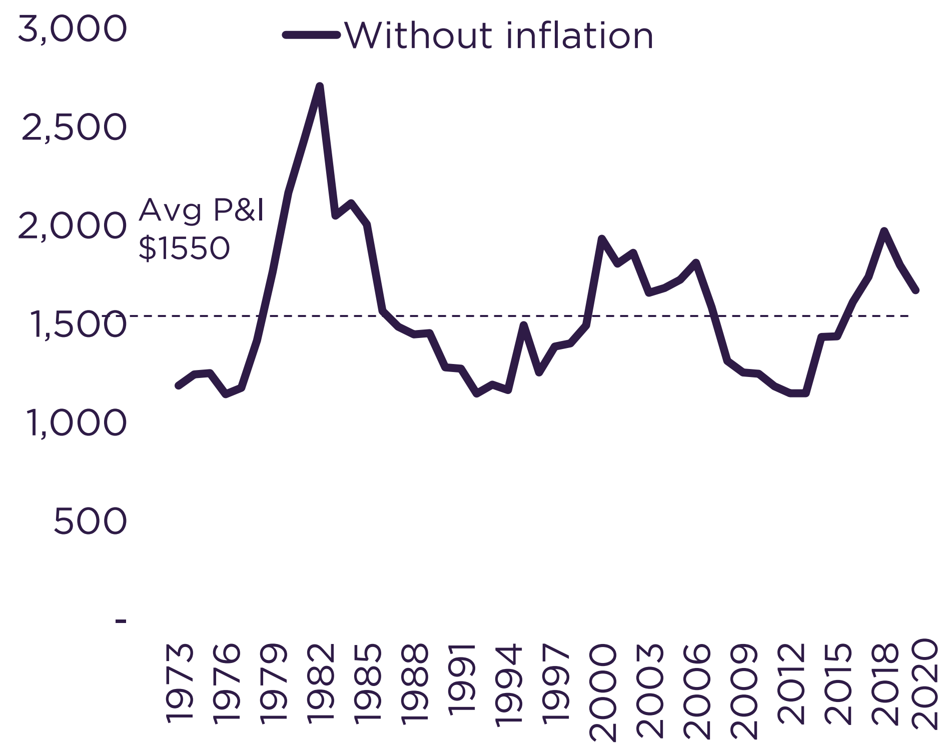
Data Source: YCRE analysis, Recolorado.com, FRED Federal Reserve Economic Database https://fred.stlouisfed.org/series/PCPI08031

Mortgage rates have come down a lot since 1973. They are likely to increase from the current 40-year lows, but certainly not back to 9.5%. Next, let's look at the inflation adjusted mortgage payment each year, based on the home price and mortgage rate that year. Today's payment of $1670 is just a little above the long-term average of $1550.

30 YEAR MORTGAGE RATE TREND



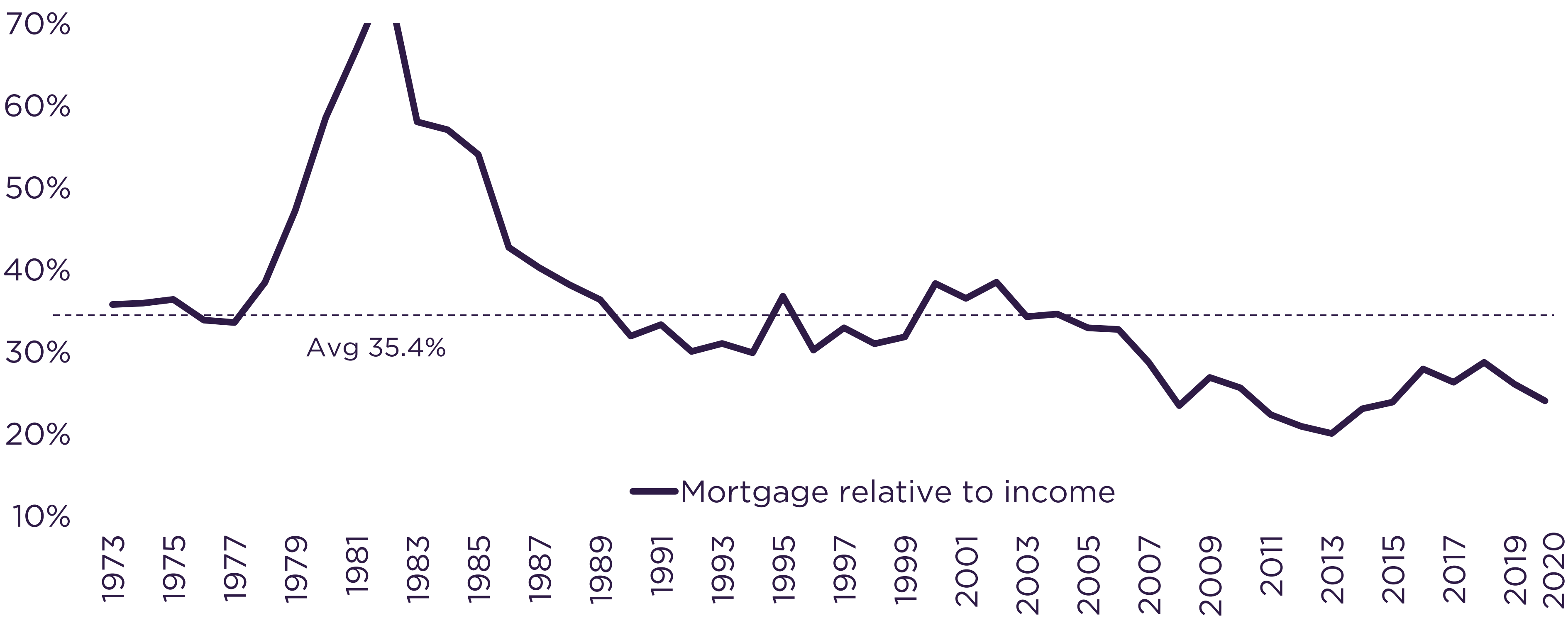
AVERAGE MORTGAGE PAYMENT



Data Source: YCRE analysis, Recolorado.com, FRED Federal Reserve Economic Database

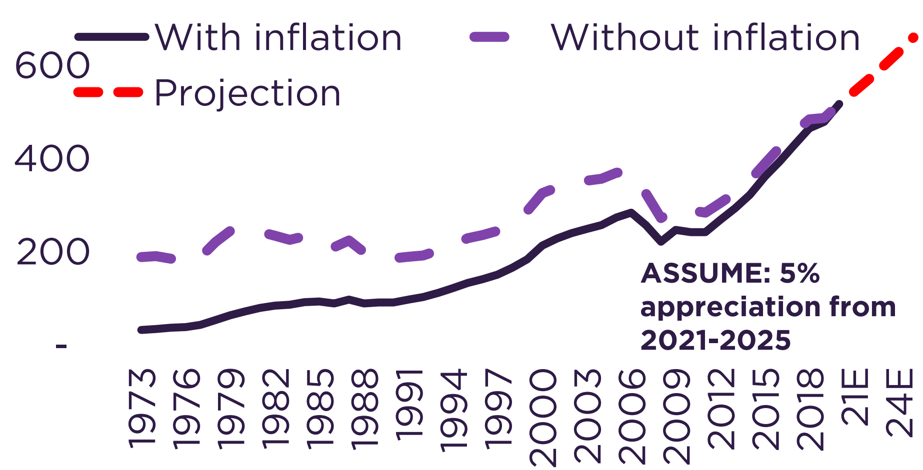
Mortgage underwriters like to look at the mortgage payment relative to the income. (In reality, they include tax and insurance, too, but we have omitted for simplicity). Notice: we're using per capita income, and many households have two wage earners. Thus, the actual debt cover ratio is better (lower) than indicated here. With today's low mortgage rates, the typical mortgage payment is lower than the historical average, despite higher home prices.

MORTGAGE PAYMENT AS % PER CAPITA INCOME

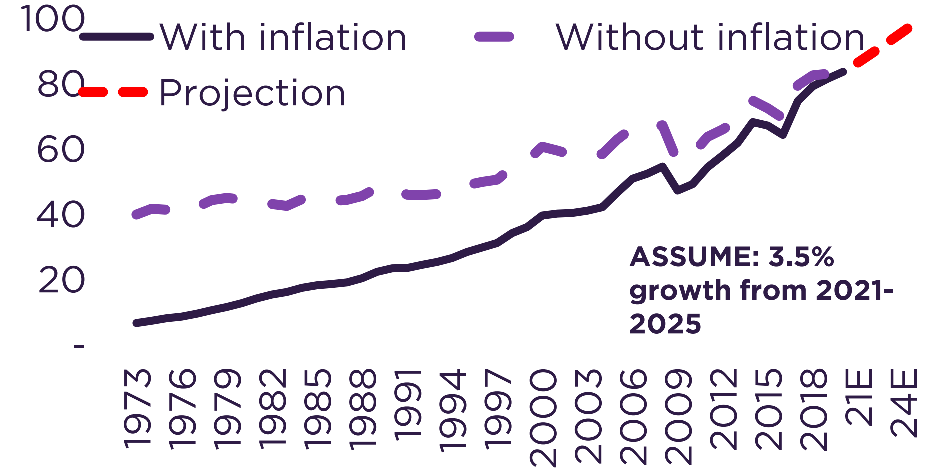


Data Source: YCRE analysis, Recolorado.com, FRED Federal Reserve Economic Database

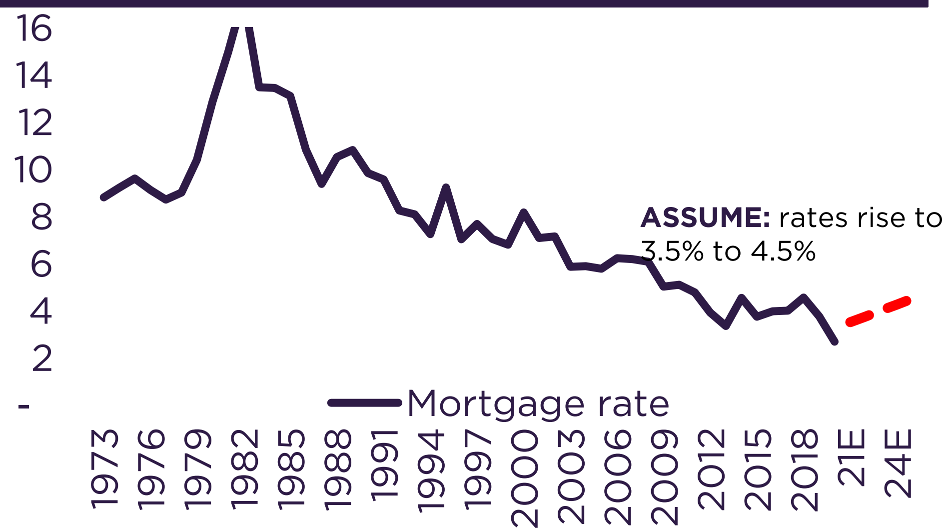
DENVER METRO PRICE APPRECIATION (HOMES AND CONDOS) $000



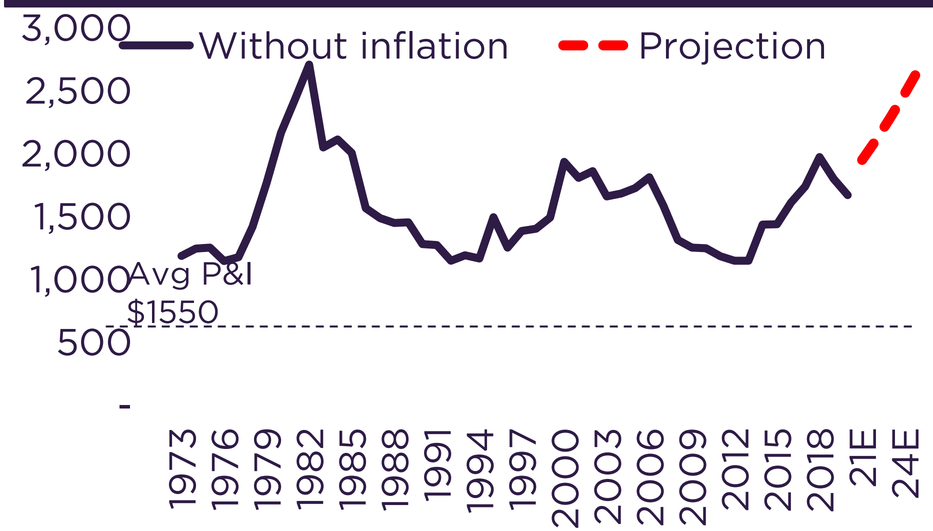
DENVER METRO PER CAPITA INCOME $000



30-YEAR MORTGAGE RATE TREND



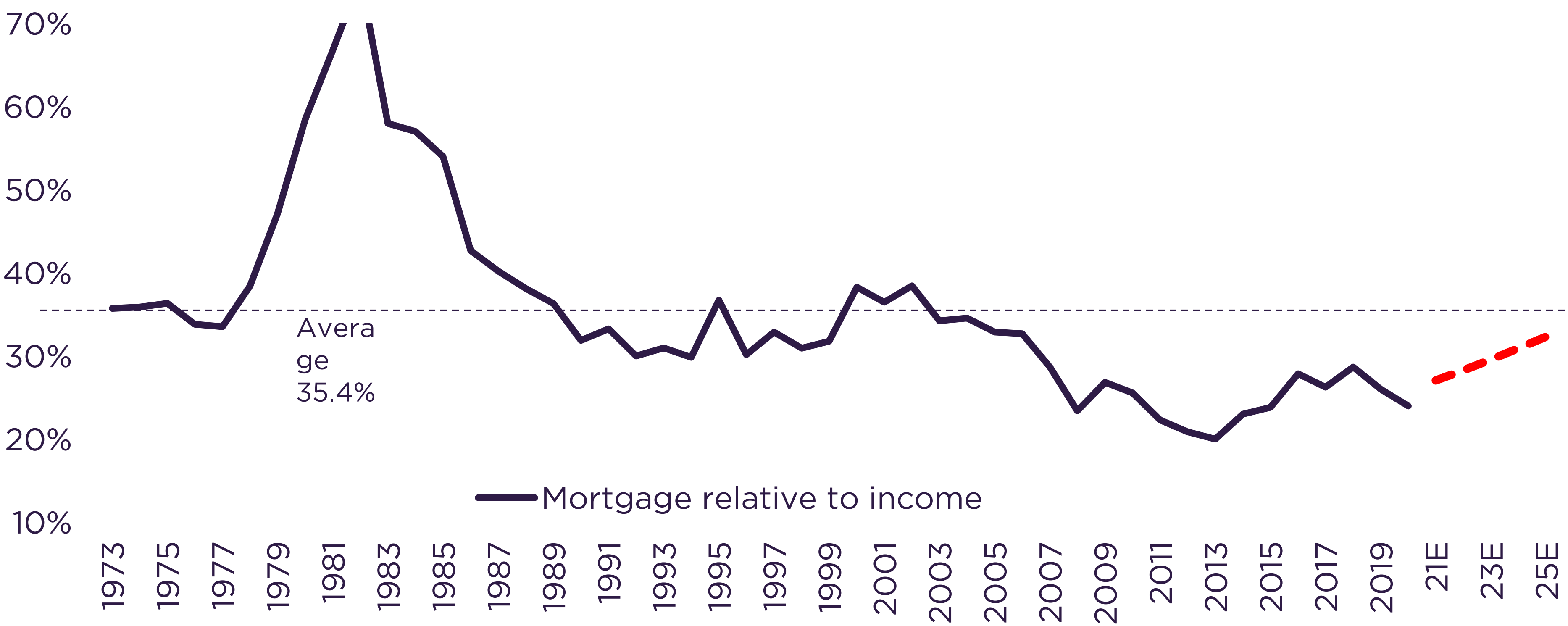
AVERAGE MORTGAGE PAYMENT



Data Source: YCRE analysis, Recolorado.com, FRED Federal Reserve Economic Database

That big increase in the mortgage payments over the next five years means the debt coverage will increase. However, it would still be a little less than the 50-year average in 2025. The high incomes in Denver enable high real estate prices, even in the face of increasing mortgage rates. The home prices can (and likely will) increase while rates go up. It's unlikely that we'll see decreasing prices in the next five years since homes will still be affordable (as a % of income).

MORTGAGE PAYMENT AS % PER CAPITA INCOME



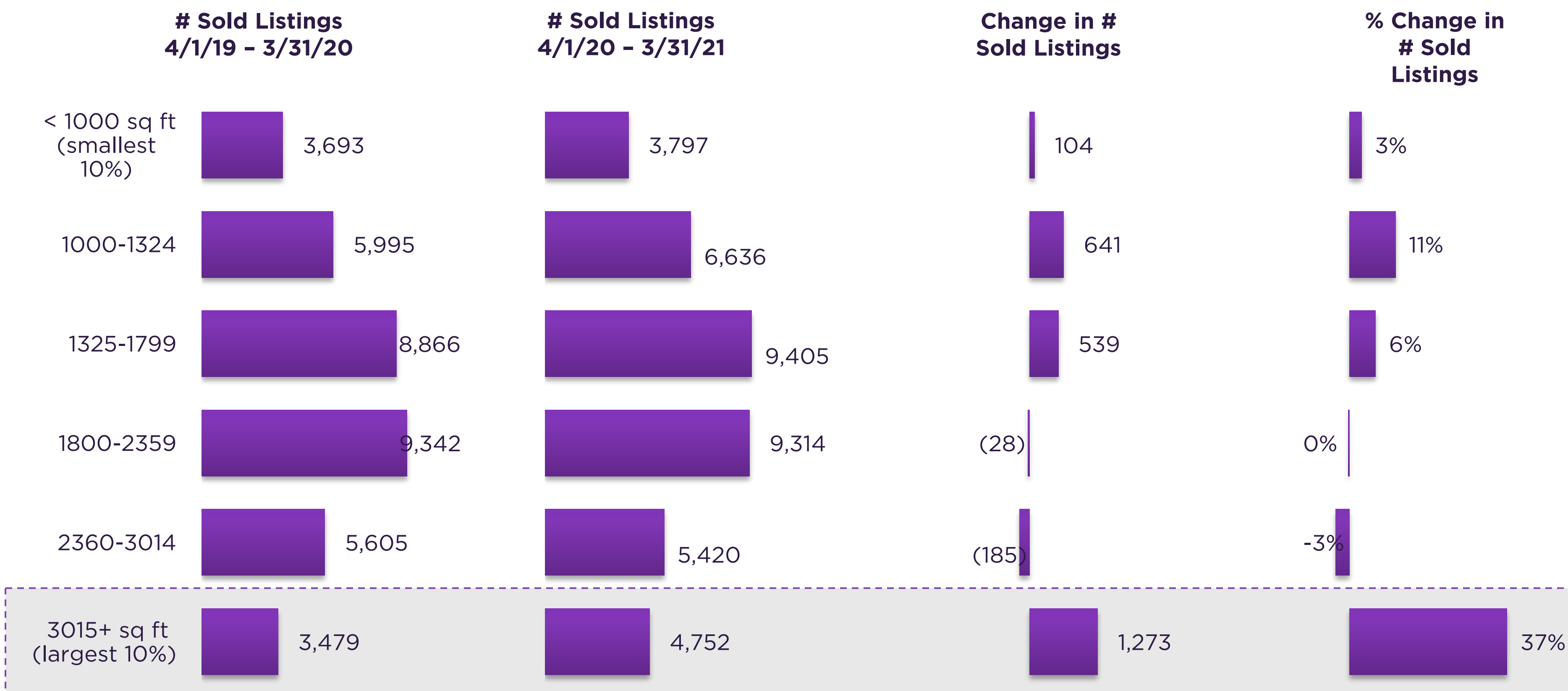
Data Source: YCRE analysis, Recolorado.com, FRED Federal Reserve Economic Database

HOW SALES MIX IMPACTS AVERAGE PRICE

The sales of large homes (over 3000 SF, above grade) has increased 37% in the past year! We think the sales increase was driven by (a) record low jumbo mortgage rates and (b) families having to work and school from home wanting more space. Rates have increased, and as COVID passes, we anticipate sales of large homes will decline to more historical levels. They may be BELOW historical levels for a while.

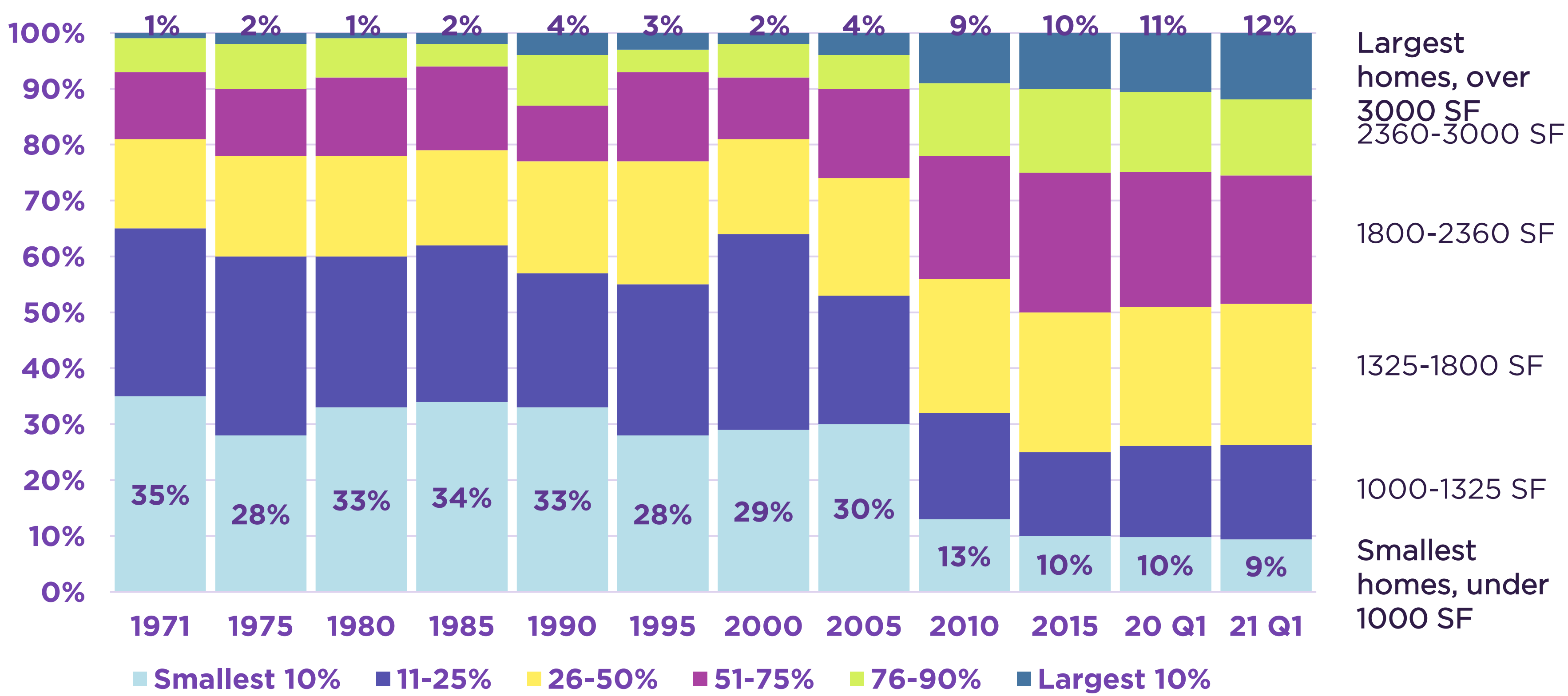
2.1% of the 10.7% price increase TTM was due to this change in mix. If large home sales drop 37% below historical trend in the next year, we'd see "average" market price appreciation of 6.6% in the next twelve months (all other things being equal).

DENVER HOMES (NO CONDOS OR TOWNHOMES) BASED ON ABOVE GRADE SF



Data Source: Recolorado.com; YCRE analysis

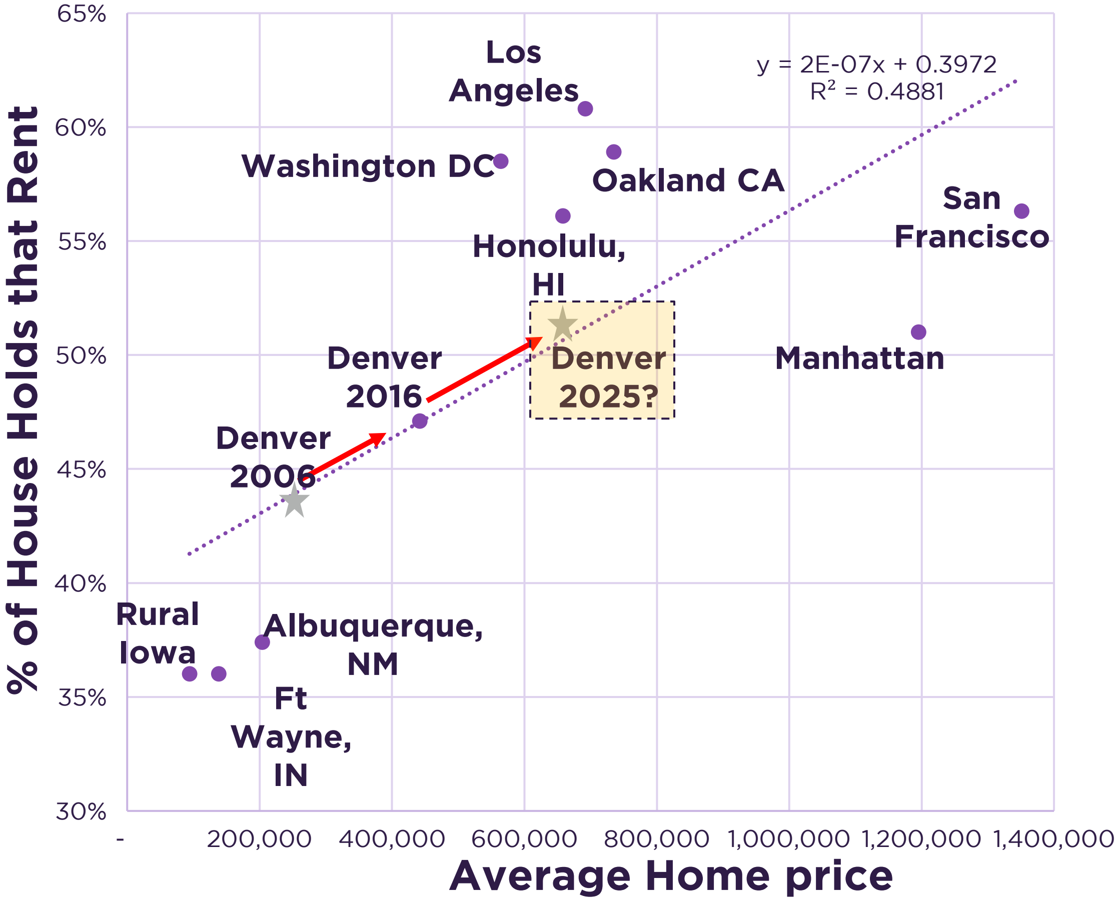
Mega-home (over 3,000 SF) share grew from 1% to 12% of the market, while small home (under 1,000 SF) fell from 35% to 19% of the market. Will the trend for increasingly larger homes continue for the next ten years, or will home sizes stabilize?



Data Sources: MacroTrends, RE Colorado, Freddie Mac

There is a strong relationship between home price (e.g., affordability) and what percentage of the population rents (vs. owns). More expensive cities have a higher percentage of renter households. As Denver's housing prices have increased in the past decade, the percentage of renters has increased, too. We anticipate the projected increase in prices from 2021-25 will mean fewer people can afford homes. Despite a growing population, the number of home sales likely will be flat. It's a great time to be buying rental property!

RELATIONSHIP BETWEEN PRICE AND NON-O/O %



Source: YCRE analysis, Census Bureau

On the left-hand chart

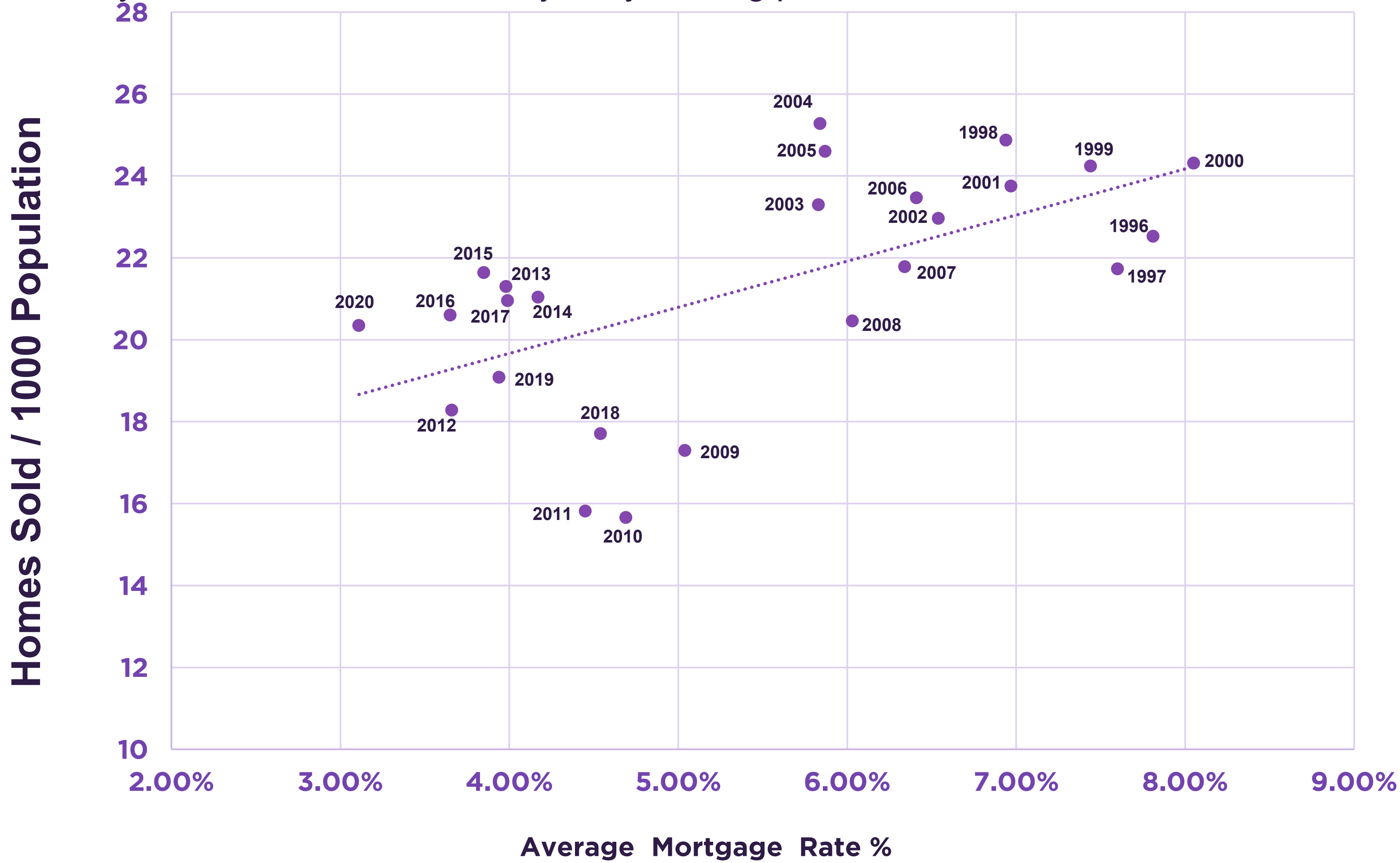
- **If home prices continue to increase faster than wage growth (or if mortgage rates go up); we'd expect to see ownership rates in Denver decrease.**

What does it mean for the client?

- **It would be wise to become a homeowner now before it's altogether unrealistic to save for a down payment.**
- **If one has the means, it's also a good time to acquire investments properties as the tenant pool grows.**
- **The number of renters could grow from 1.46 to 1.75 million. That's 290,000 more renters between 2016 and 2025.**

Renter calc: 3,116,000 population in 2016, add 0.8% or 25,800 people Per year for ten years. Estimated 2025 population = 3,375,000. 2016 Has 3,116,000 * 47% that rent. 2025 has 3,375,000 * 525 that rent.

Looking at data from 1996 – 2020, there is a modest correlation between Denver metro homes sales volume and mortgage rates. We sold more homes when rates were higher, but that is skewed by ‘03, ‘04, ’05. We had very easy lending policies, so we sold LOTS of homes.



Data Sources: MacroTrends, RE Colorado, Freddie Mac

YOUR CASTLE

REAL ESTATE